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SERIES J: CABLE NETWORKS AND TRANSMISSION  
OF TELEVISION, SOUND PROGRAMME AND OTHER  
MULTIMEDIA SIGNALS

General Recommendations

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### **Terms, definitions and acronyms for television and sound transmission and integrated broadband cable networks**

Recommendation ITU-T J.1



# Recommendation ITU-T J.1

## Terms, definitions and acronyms for television and sound transmission and integrated broadband cable networks

### Summary

Recommendation ITU-T J.1 compiles all the definitions related to television and sound transmission, and integrated broadband cable networks, and which are in force in J-series and N-series Recommendations developed under the responsibility of SG9. The Recommendation is regularly updated to reflect newly-approved terms and definitions.

### History

Edition	Recommendation	Approval	Study Group	Unique ID*
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### Keywords

Abbreviations, acronyms, definitions, J-series, N-series, terms.

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\* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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## **Introduction**

In the pursuit of its work aimed towards the standardization of the transmission of television and sound transmission and integrated broadband cable networks, ITU-T has often found it necessary to develop new terminology, or to adapt it from current technical parlance.

This continuing work has resulted in a small glossary of terms, acronyms and definitions that is specific to that area of activity, and that should desirably find wide recognition and application.

The purpose of this Recommendation is to formalize this small glossary of terms, acronyms and definitions, and to recommend its use in all the texts that address the services and technologies listed above.

It is expected that the glossary will continue to gradually grow over the years, as new terms are developed or adapted.

The ITU also maintains a terms and definitions database which is available online, see [b-ITU DB].

NOTE – This Version 2 of the J.1, approved on 29 May 2020 includes the terms and definitions related to SG9 scope of all Recommendations approved until April 2020.

# **Recommendation ITU-T J.1**

## **Terms, definitions and acronyms for television and sound transmission and integrated broadband cable networks**

### **1 Scope**

This Recommendation provides a collection of terms, definitions and acronyms compiled from in force ITU-T Recommendations related to television and sound transmission, and integrated broadband cable networks.

### **2 References**

None.

### **3 Definitions**

#### **3.1 Terms defined elsewhere**

Clause 6 contains the terms and definitions compiled by this Recommendation.

#### **3.2 Terms defined in this Recommendation**

None.

### **4 Abbreviations and acronyms**

Clause 7 contains the abbreviations and acronyms compiled by this Recommendation.

### **5 Conventions**

None.

### **6 Terms for television and sound transmission, and integrated broadband cable networks**

The following definitions are contained in in-force ITU-T Recommendations related to television transmission, sound transmission and integrated broadband cable networks.

**6.1 2-way authenticated communication channels** [b-ITU-T J.292]: These channels are used for renewable conditional access key management, remote management of SVD, downloadable firmware updates, private interactive application data, and reconfiguration of encryption algorithms between the headend and an SVD.

**6.2 2-way communication channel** [b-ITU-T J.193]: An IP-based communications link between a NG-STB and the cable network service management system, for the purpose of service management communications.

**6.3 2T pulse/bar ratio error** [b-ITU-T J.64]: The 2T sine-squared pulse/bar ratio error is defined as the difference between the amplitudes of the 2T pulse (element  $B_1$ ) and the luminance bar (element  $B_2$ ), expressed as a percentage of the luminance bar amplitude. The peak amplitude of the 2T pulse is referred to a reference point  $b_1$  (see Note) (Figs. 1 and 2 of [b-ITU-T J.64]) before the first riser of the staircase. The sign of the difference is positive if the 2T pulse amplitude is greater than the luminance bar amplitude.

NOTE – To avoid error due to line tilt, it may be preferable to use a reference point exclusively for the measurement of  $2T$  pulse/bar ratio error, which is defined to be the linear mean level of the insertion test signal during the periods: 2 to 1  $\mu$ s before, and 1 to 2  $\mu$ s after the  $2T$  pulse.

**6.4 4K UHD TV** [b-ITU-T J.297]: Supports 3,840 x 2,160 resolution and 60p frame frequency specified in [b-ITU-R BT.2020].

**6.5 A/V** [b-ITU-T J.117]: Audio and Video.

**6.6 access control** [b-ITU-T J.170]: Limiting the flow of information from the resources of a system only to authorized persons, programs, processes or other system resources on a network.

**6.6bis access control** [b-ITU-T J.223.1]: Access control is used to control the cable modems (CMs) defined in this document to access networks. It is a process for connecting cable media converters (CMCs) and controlling data communication.

**6.7 access network interface** [b-ITU-T J.294]: The logical interface between the wide area network (WAN) (i.e., access network) and the residential gateway (RG).

**6.8 access node** [b-ITU-T J.190]: As used in this Recommendation, an access node is a termination device that terminates the network end of an access network connection. The access node is technology specific; for example, in Annex A of [b-ITU-T J.112] it is called the INA while in Annexes B and C it is the CMTS.

**6.9 access unit** [b-ITU-T J.89], [b-ITU-T J.187]: A coded representation of a presentation unit. In the case of audio, an access unit is the coded representation of an audio frame. In the case of video, an access unit includes all the coded data for a picture, and any stuffing that follows it, up to, but not including, the start of the next access unit. If a picture is not preceded by a group\_start\_code or a sequence\_header\_code, the access unit begins with the picture\_start\_code. If a picture is preceded by a group\_start\_code and/or a sequence\_header\_code, the access unit begins with the first byte of the first of these start codes. If it is the last picture preceding a sequence\_end\_code in the bitstream, all bytes between the last byte of the coded picture and the sequence\_end\_code (including the sequence\_end\_code) belong to the access unit.

**6.9bis access unit** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.189]: The coded representation of a video picture or an audio frame [b-ITU-T H.222.0].

**6.10 accounting** [b-ITU-T J.363], [b-ITU-T J.460.3]: The process of collecting usage data.

**6.11 acknowledge data** [b-ITU-T J.285]: Transfer control data transmitted by a receiver as an affirmative response to the sender. The acknowledge data is included in the synchronization packet.

**6.12 active** [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.361]: A service flow is said to be "active" when it is permitted to forward data packets. A service flow must first be admitted before it is active.

**6.13 active call/active session** [b-ITU-T J.460.1]: A call state where the called party has answered the call and two-way media is being exchanged.

**6.14 active codes** [b-ITU-T J.222.1], [b-ITU-T J.222.2]: The set of spreading codes which carry information in an S-CDMA upstream. The complementary set, the unused codes, are idle and are not transmitted. Reducing the number of active codes below the maximum value of 128 may provide advantages including more robust operation in the presence of coloured noise.

**6.15 active service flow** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: An admitted service flow from the CM to the CMTS which is available for packet transmission.

**6.16 adaptive quantizer** [b-ITU-T J.88]: A quantizer in which the step size is controlled by the chosen slice type, the buffer occupancy and a model of human vision.



- 6.17 adaptive scanning** [b-ITU-T J.88]: A approach that selects the optimal pattern to scan the two-dimensional array of transform coefficient, in order to minimize the number of coefficients scanned up to the end of the block.
- 6.18 address learning** [b-ITU-T J.195.1]: A process that establishes the mapping between higher layer protocol data unit (PDU) addresses and high performance network over coax (HiNoC) node addresses.
- 6.19 Address Resolution Protocol (ARP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A protocol of the IETF for converting network addresses to 48-bit Ethernet addresses.
- 6.20 ADM interface** [b-ITU-T J.380.3]: The ADM to ADS message communication link defined by [b-ITU-T J.380.3].
- 6.21 admitted** [b-ITU-T J.178]: A service flow is said to be "admitted" when the CMTS has reserved resources (e.g., bandwidth) for it on the DOCSIS network.
- 6.22 admitted service flow** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A service flow, either provisioned or dynamically signalled, which is authorized and for which resources have been reserved but is not active.
- 6.23 Advanced Audio Coding (AAC)** (based on [b-ISO/IEC 13818-7]) [b-ITU-T J.296]: An audio coding system standardized by the International Organization for Standardization.
- 6.24 advanced digital cable transmission technology (ACTT)** [b-ITU-T J.381]: Advanced digital cable transmission technology on the physical layer, which includes modulation, channel coding, transmission schemes and frame structure to provide higher spectral efficiency.
- 6.25 advanced query** [b-ITU-T J.380.8]: The "Advanced Query" interface defined by Recommendation ITU-T J.380.8 permits the consumer of a logical service implementation derived from J.380.8 to use an advanced query language to formulate queries against a logical service's data model.
- 6.26 advanced security** [b-ITU-T J.1011]: Function of an ECI compliant CPE which provides enhanced security functions (hardware and software) for an ECI client. Note that the details are specified in [b-ETSI GS ECI 001-5].
- 6.27 Advanced Query Filter** [b-ITU-T J.380.8]: An "Advanced Query Filter" is a collection of free form data items that individually represent complete query terms for a given query language. The individual terms are additively applied (ANDed) together during a query operation against a specific service data model, which results in the identification of a collection of objects contained within the data store.
- 6.28 Advanced Query Language** [b-ITU-T J.380.8]: As used in this document, the term "Advanced Query Language" refers to any language used to formulate queries against a logical service's data model using the advanced query interface. XPath and XQuery are both examples of an advanced query language.
- 6.29 advertisement (also called "ad")** [b-ITU-T J.181]: An inducement to buy or patronize. As used in the cable industry, usually with a duration under 2 minutes (sometimes called "short-form" content).
- 6.30 aggregation and forwarding** [b-ITU-T J.223.1]: An aggregation network device, such as a passive optical network (PON) optical line terminal (OLT), a router, or a switch, receives data from CMCs and forwards the data to different uplinks for transmission based on the preset QoS priorities.
- 6.31 alarm indication signal** [b-ITU-T J.214]: Also known as the blue alarm. When no incoming signal is detected, a CSU/DSU transmits an unframed all-ones pattern to the network to maintain synchronization and announce its presence to the network.

**6.32 algorithm** [b-ITU-T J.93], [b-ITU-T J.95]: A mathematical process which can be used for the scrambling and descrambling of a data stream.

**6.33 alignment signal (AS)** [b-ITU-T J.27]: Sine-wave signal at 1 kHz (See Note) at a level of 0 dBm0s, which is used to align the international sound programme connection.

NOTE – This frequency is nominal, and 1020 Hz recommended by CCITT Recommendation O.33 may be used.

**6.34 allocate** [b-ITU-T J.117]: The process of acquiring the resources, the address and other parameters of a plug for the purpose of establishing an asynchronous connection data transfer capability.

**6.35 allocation** [b-ITU-T J.222.1], [b-ITU-T J.122]: A group of contiguous mini-slots in a MAP which constitutes a single transmit opportunity.

**6.36 All-ones level** [b-ITU-T J.101]: The all-ones level is the level resulting from a continuous stream of "one" pulses. For measuring purposes the all-ones level is defined as twice the mean value of clock run-in minus the all-zeros level.

**6.37 All-zeros level** [b-ITU-T J.101]: The all-zeros level is the level resulting from a continuous stream of "zero" pulses. For measuring purposes the all-zeros level is defined as the mean level of the back porch within the nominal duration of the colour burst.

**6.38 Amplitude error of the burst at  $n$  MHz (see Note)** [b-ITU-T J.64]: This quantity is defined as the difference in terms of magnitude and sign between the peak-to-peak amplitude of the burst at  $n$  MHz and the reference quantity  $A_0$  (defined as above), expressed as a percentage of  $A_0$ .

NOTE –  $n$  is the designation of the frequency of the burst taken into account. Note 1 of § 2.20.1 also applies here.

**6.39 analogue cue tone** [b-ITU-T J.181 Amendment 1]: In an analogue system, a signal which is usually either a sequence of DTMF tones or a contact closure that denotes to ad insertion equipment that an advertisement avail is about to begin or end.

**6.40 analogue protection system bits (APS bits)** [b-ITU-T J.197]: Bits 3 and 2 of the CCI, designating the state of analogue protection for a set top box.

**6.41 announcement server** [b-ITU-T J.178]: An announcement server plays informational announcements in the IPCablecom network. Announcements are needed for communications that do not complete and to provide enhanced information services to the user.

**6.42 announcement servers** [b-ITU-T J.175]: Also known as Audio Servers, Announcement Servers are network components that manage and play informational tones and messages in response to events that occur in the network. Most announcements are media streams that originate from servers in the network. Some simple tones and short announcements can also reside at the MTA and in the MG.

**6.43 anomalous frame repetition** [b-ITU-T J.246], [b-ITU-T J.247]: An event where the HRC outputs a single frame repeatedly in response to an unusual or out of the ordinary event. Anomalous frame repetition includes but is not limited to the following types of events: an error in the transmission channel, a change in the delay through the transmission channel, limited computer resources impacting the decoder's performance, and limited computer resources impacting the display of the video signal.

**6.44 API connection** [b-ITU-T J.280]: A TCP/IP socket connection between a server and a splicer for transferring API messages.

**6.44bis API connection** [b-ITU-T J.287]: A communications connection between an automation system and an injector for transferring API messages.

**6.45 application** [b-ITU-T J.205]: Any active DTV service content aimed at end-user interaction.

- 6.45bis application** [b-ITU-T J.200]: Information that expresses a specific set of observable behaviour.
- 6.45ter application** [b-ITU-T J.215]: An application is a functional implementation realized as software running in one or spread over several interplaying hardware entities.
- 6.46 application catalogue** [b-ITU-T J.205]: Data structure listing available applications (interactive content). This data structure is local to the IBB DTV receiver, and describes the IBB applications installed on the IBB DTV receiver.
- 6.47 application catalogue user interface** [b-ITU-T J.205]: A user interface functionality over the IBB DTV receiver, intended to allow the end user to browse the available applications in the application catalogue or to query application catalogues exposed by application repositories. Also, it lists applications that are currently available in the selected IBB DTV service or broadcast DTV service.
- 6.48 application component** [b-ITU-T J.205]: A block of data that forms part of an application. Application component types are: code, resources, meta-data, control and user settings.
- 6.49 application component delivery mechanism** [b-ITU-T J.205]: A mechanism, channel or medium used to deliver application components to an IBB DTV receiver.
- 6.50 application control data structure** [b-ITU-T J.205 Cor. 2]: Data structures transmitted within the integrated broadcast and broadband (IBB) DTV service to control IBB applications (e.g., AIT in [b-GINGA Data Transmission], [b-MHP]).
- 6.51 application descriptor file** [b-ITU-T J.206]: A file containing metadata information for an application.
- 6.52 application entity** [b-ITU-T J.200]: A unit of information that expresses some portion of an application.
- 6.53 application environment (environment)** [b-ITU-T J.200]: The context or software environment in which an application is processed.
- 6.54 application ID** [b-ITU-T J.128]: This is a 16-bit field indicating a numeric ID for an application running on the Set-top Device. The Application ID is typically assigned through a Source Name Sub-table (SNS) from [ITU-T J.94] carried in the Broadcast DSG Tunnel.
- 6.54bis application ID** [b-ITU-T J.290]: This is a field indicating a numeric ID for an application running on the set-top device.
- 6.55 application install package** [b-ITU-T J.205]: Application delivery mechanism in which several application components are bundled together in a single file.
- 6.56 application manager** [b-ITU-T J.365]: A system that interfaces to Policy Server(s) for requesting QoS based service on behalf of an end-user or network management system.
- 6.57 application program interface (API)** [b-ITU-T J.215]: An application program interface is the software interface to system services or software libraries. An API can consist of classes, function calls, subroutine calls, descriptive tags, etc.
- 6.58 application programming interface (API)** [b-ITU-T J.200]: Software libraries that provide uniform access to system services.
- 6.59 application repository** [b-ITU-T J.205]: Entity, reachable through the broadband channel, that provides access to integrated broadcast and broadband (IBB) applications contained in it. These IBB applications can be downloaded and installed on the IBB DTV receiver, manually, by the end user, or, in case of being signalled within an IBB DTV service, launched or installed automatically under the IBB DTV service's control using the IBB application control mechanism. An application

repository can be managed by IBB service providers, IBB DTV receiver manufacturers, or other third party entities.

**6.60 application resource** [b-ITU-T J.200]: A bit-stream serialization (a physical embodiment) of an application entity.

**6.61 application resource collection** [b-ITU-T J.200]: The set of application resources that embody an application entity collection.

**6.62 application usage** [b-ITU-T J.367]: Detailed information on the interaction of an application with the XCAP server.

**6.63 application-free EPG** [b-ITU-T J.90]: An EPG in which the provider can freely select the content and the layout of the presentation, in a way that is implemented by the consumer television/multimedia display.

**6.64 Aq** [b-ITU-T J.148]: Objective measurement of audio quality.

**6.65 Aq(Vq)** [b-ITU-T J.148]: Objective measurement of audio quality, accounting for the influence of video quality.

**6.66 area availability code** [b-ITU-T J.90]: A code used to denote that part of the area covered by a programme distribution service, to which a specific programme should be distributed.

**6.67 area code table (ACT)** [b-ITU-T J.1210]: The basic table in an IP video broadcast (IPVB) headend that is used to describe the regional identification of centre offices.

**6.68 assured capabilities** [b-ITU-T J.260]: Capabilities providing high confidence or certainty that critical telecommunications are available and perform reliably.

**6.69 asynchronous connection** [b-ITU-T J.117]: A point-to-point communication path established between a producer node and a consumer node, that supports robust high-bandwidth flow-controlled transfers of one or more data frames.

**6.70 asynchronous push** [b-ITU-T J.117]: A method of data delivery in which the node producing the data uses 1394 write transactions to deposit data into the address space of a consumer node.

**6.71 asynchronous time division multiple access (A-TDMA)** [b-ITU-T J.291]: A variant on the protocol for wireless communication, used in DOCSIS 2.0.

**6.72 asynchronous transfer mode (ATM)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A protocol for the transmission of a variety of digital signals using uniform 53-byte cells.

**6.73 A-TDMA** [b-ITU-T J.122]: DOCS 2.0 TDMA mode (as distinguished from DOCS 1.x TDMA).

**6.74 attach** [b-ITU-T J.117]: The process of communicating the address and other parameters of a plug to another plug for the purpose of establishing data transfer capability.

**6.75 attribute** [b-ITU-T J.164]: An Event Message Attribute is a predefined data element described by an attribute definition and attribute type.

**6.76 audience** [b-ITU-T J.380.6]: The term "audience" is used to refer to a collection of one or more subscribers. A logical service that implements the SIS interface described in this document may often provide profile information about an audience. For example, a logical service may provide information about one or more audiences within a linear advertising zone rather than information about individual subscribers.

**6.77 audience measurement** [b-ITU-T J.296]: The measurement of user viewing conditions, records of viewing, recording, playing, and manipulation, based on data collected with the permission of users for improvement of personalized services.

- 6.78 audience measurement functions** [b-ITU-T J.296]: The functions that, when given permission, measure end-user behaviour by processing events or samples from cable TV services. Such functions may request and collect end-user information. They transfer processed events, samples, and end-user information to aggregation functions.
- 6.79 Audio Interchange File Format (AIFF)** (based on [b-DAVIC 1.4.1]) [b-ITU-T J.296]: The Audio Interchange File Format is defined in [b-DAVIC 1.4.1] Specification Part 9 Annex B; it is the file format for audio encoding of pulse code modulation (PCM).
- 6.80 audio server** [b-ITU-T J.170], [b-ITU-T J.161]: An Audio Server plays informational announcements in IP-Cablecom network. Media announcements are needed for communications that do not complete and to provide enhanced information services to the user. The component parts of Audio Server services are Media Players and Media Player Controllers.
- 6.81 augmentation region** [b-ITU-T J.301]: The targeted area to augment any object or region in a TV scene. It provides the parameters of a static or animated 2D region related to natural media.
- 6.82 augmentation time** [b-ITU-T J.301]: The appointed time to augment any object or region in a TV scene. It provides the parameters of start presentation time and time duration for augmented content.
- 6.83 augmented broadcast provider** [b-ITU-T J.301]: A broadcaster who provides augmented broadcasting services, or an entity allowed to develop and provide augmented broadcasting service as a broadcast provider.
- 6.84 augmented broadcasting** [b-ITU-T J.301]: Broadcasting service or programme to realize augmented reality smart television (AR-STV).
- 6.85 augmented broadcasting metadata** [b-ITU-T J.301]: Formatted data describing augmented content.
- 6.86 augmented content** [b-ITU-T J.301]: A binary object, such as 2D images, 3D animated models or audio/video streaming files, to be augmented into a predefined augmentation region.
- 6.87 augmented content provider** [b-ITU-T J.301]: An entity allowed to develop and provide augmented content.
- 6.88 augmented reality (AR)** [b-ITU-T J.301]: A type of mixed reality where graphical elements are integrated into the real world in order to enhance user experience and enrich information.
- 6.89 augmented reality smart television (AR-STV)** [b-ITU-T J.301]: AR-based TV broadcasting service to implement the mixed content of a broadcast programme and augmented object at a targeted position and time in real time on a receiving terminal such as a TV or set-top box.
- 6.90 authentication** [b-ITU-T J.260]: The act or method used to verify a claimed identity.
- 6.90bis authentication** [b-ITU-T J.93], [b-ITU-T J.95]: The process intended to allow the system to check with certainty the identification of a party.
- 6.90ter authentication** [b-ITU-T J.361]: The act of giving access to a service or device if one has permission to have the access.
- 6.90quater authentication** [b-ITU-T J.170], [b-ITU-T J.178]: The process of verifying the claimed identity of an entity to another entity.
- 6.91 authenticity** [b-ITU-T J.170]: The ability to ensure that the given information is without modification or forgery and was in fact produced by the entity that claims to have given the \on.
- 6.92 authorization** [b-ITU-T J.170], [b-ITU-T J.178]: The act of giving access to a service or device if one has the permission to have the access.

**6.92bis authorization** [b-ITU-T J.260]: The act of determining if a particular privilege, such as access to telecommunications resources, can be granted to the presenter of a particular credential.

**6.93 authorization centre (AC)** [b-ITU-T J.1001]: An entity which issues identification information of the conditional access module (CAM) and performs the authentication process when the CAM requests renewal of the conditional access client software.

**6.93bis authorization centre (AC)** [b-ITU-T J.1002]: An entity which issues identification information of CAM and performs authentication process when CAM requests renewing of CACS.

**6.94 authorization coding** [b-ITU-T J.93], [b-ITU-T J.95]: A digital word that describes the personality or service access capability of the subscriber decoder unit.

NOTE – This code word, which is based on the service access authorized by the billing system, determines which keys are distributed to each customer, and is required at the subscriber decoder to authorize the descrambling of any specific program.

**6.95 authorization module** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: An abstract module that the CMTS can contact to authorize service flows and classifiers. The authorization module tells the CMTS whether the requesting CM is authorized for the resources it is requesting.

**6.96 authorized collector** [b-ITU-T J.204]: An Event Tracking API-compliant server that implements the receiving side of the IPDR Streaming Protocol, and which has been authorized to participate in the overall Collection System.

**6.97 authorized IBB application provider** [b-ITU-T J.205]: An entity allowed to develop and provide integrated broadcast and broadband (IBB) applications within a given implementation of an IBB digital television (DTV) system.

**6.98 authorized output domain (AOD)** [b-ITU-T J.290]: The devices in this domain are connected to the ASD using operator-approved output interfaces.

**6.99 authorized service domain (ASD)** [b-ITU-T J.290]: The devices in this domain are able to authenticate themselves and support content usage rights as defined by the network operator.

**6.100 automatic location identification (ALI)** [b-ITU-T J.460.1]: The database that maps telephone number to location in the current 9-1-1 system.

**6.101 automatic number identification (ANI)** [b-ITU-T J.460.1]: The mechanism used to determine the telephone number of the caller.

**6.102 automation system** [b-ITU-T J.287]: A control system for a program origination facility which controls operation of the production facilities and devices.

**6.103 avail** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: Time space provided to cable operators by cable programming services during a program for use by the community antenna television (CATV) operator; the time is usually sold to local advertisers or used for channel self-promotion.

**6.104 availability** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: In cable television systems, availability is the long-term ratio of the actual RF channel operation time to scheduled RF channel operation time (expressed as a percent value) and is based on a bit error rate (BER) assumption.

**6.105 available sub-carrier** [b-ITU-T J.195.2]: Sub-carriers of OFDM symbol for data bearing.

**6.106 AVC** [b-ITU-T J.181 Amendment 1]: Abbreviation for "Advanced Video Coding" and refers specifically to video compression standardized in [b-ITU-T H.264].

**6.107 backoff** [b-ITU-T J.287]: A mechanism, commonly used in data communications, to randomize the interval between retries.

**6.108 back-to-back insertion** [b-ITU-T J.280]: Insertion of two or more temporally contiguous sessions without returning to the primary channel between sessions.

**6.109 bandwidth allocation map** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.222.1]: The MAC management message that the CMTS uses to allocate transmission opportunities to cable modems.

**6.110 Bandwidth Efficiency (BWE)** [b-ITU-T J.141]: The data capacity that can be transmitted through the channel. It is expressed in terms of the amount of data transmitted through the unit of bandwidth per unit of time (bits/s/Hz).

**6.111 Bar tilt** [b-ITU-T J.64]: The luminance bar tilt is defined as the difference between the level of the luminance bar one microsecond after the half amplitude point of its leading edge, and the level one microsecond before the half amplitude point of its trailing edge expressed as a percentage of the luminance bar amplitude. The sign of the difference is positive if  $b_4$  is higher than  $b_3$ . (See more details in Figs. 1 and 2 of J.64).

NOTE – The parameter bar tilt as defined above is a unique measurement by automatic devices of a specific form of line time waveform distortion, i.e., the difference in the level of the line bar at two specific reference points. This measurement is different to the measurements of line time waveform distortion described in Recommendation 567 (§ C.3.5.1.3 and Annex III to Part C, § 2.1) where the maximum difference in level at any point between defined reference points is measured

**6.112 Base-line distortion** [b-ITU-T J.64]: The base-line distortion is defined as the difference between the levels of the signal at point  $b_7$ , which is located after the mid-amplitude point of the trailing edge of the bar (element  $B_2$ ) at a distance of 400 ns for 625-line systems and 500 ns for 525-line systems (see Figs. 1 and 2 of J.64), and at a reference point  $b_1$  located before the beginning of the staircase in line 17. (See more details in Figs. 1 and 2 of J.64).

The base-line distortion is expressed as a percentage of the luminance bar amplitude. It is to be measured after the bandwidth of the signal has been limited (see Note). The sign of the difference is positive if the signal level at point  $b_7$  is higher than the level of reference point  $b_1$ .

NOTE – Limitation may be achieved by the use of a network, the design of which is based on "Solution 3" [b-Thomson, 1952], having its first zero at 3.3 MHz, or by an equivalent technique.

**6.113 basic** [b-ITU-T J.287]: A category of request or response operation supported by this API.

**6.114 basic amplitude** [b-ITU-T J.101]: The basic amplitude is the difference between the all-ones level and the all-zeros level.

**6.115 Basic amplitude error** [b-ITU-T J.101]: This parameter is defined as the difference between the basic amplitude and the nominal teletext signal amplitude expressed as a percentage of the latter. For mathematical notation, see [b-ITU-T J.101].

**6.116 basic query** [b-ITU-T J.380.8]: To obtain information from a logical service implementation derived from Recommendation ITU-T J.380.8, a logical service consumer issues a "query" against the data. The "Basic Query" interface is based on an exchange of name/value pairs, referred to as qualifiers, and requires no specialized knowledge of advanced query languages such as XQuery.

**6.117 Basic Query Filter** [b-ITU-T J.380.8]: A "Basic Query Filter" is a collection of name and value pairs additively applied (ANDed) together during a basic query operation against a specific service data model, which results in the identification of a collection of objects contained within the data store.

**6.118 BC-TD** [b-ITU-T J.293]: A logical interface defined in 6.1.1 for content reception through a non-IP (RF-based) network.

**6.119 best effort domain (BED)** [b-ITU-T J.290]: Devices and physical layer segments not conforming to the requirements of ASD, AOD, GSD. The devices in this domain do not require content protection or guaranteed quality of service.

- 6.120 billing correlation ID (BCID)** [b-ITU-T J.363]: A Billing Correlation ID (BCID) is an IP-Cablecom-defined term created for the multimedia session, which uniquely identifies the session within the IP-Cablecom Multimedia billing domain.
- 6.121 bit rate** [b-ITU-T J.88], [b-ITU-T J.89]: The rate at which the compressed bit stream is delivered from the channel to the input of a decoder.
- 6.122 bit stream** [b-ITU-T J.189]: MPEG-2 transport stream defined in ITU-T Rec. H.222.0 | ISO/IEC 13818-1.
- 6.123 bit stream format** [b-ITU-T J.181]: An encoding of information resulting in a compliant MPEG-2 transport stream.
- 6.124 Bit-error ratio** [b-ITU-T J.67]: The bit-error ratio (BER) is defined as the ratio of the number of detected bit errors to the number of transmitted bits over a given period of time.
- 6.125 block** [b-ITU-T J.88]: A unit of 8 pixels by 8 lines size for application of the Walsh Hadamart Transform.
- 6.126 Bonded Channel Set** [b-ITU-T J.222.2]: An identified set of upstream or downstream channels among which a stream of packets is distributed.
- 6.127 Bonded Channel(s)** [b-ITU-T J.222.2]: One or more independent RF channels whose data packets are logically combined into one higher-speed data stream.
- 6.127bis bonded channels** [b-ITU-T J.212]: A logical channel comprising multiple individual channels.
- 6.128 Bonding Group** [b-ITU-T J.222.2]: A list of channels providing a means to identify the specific channels bonded together. Sometimes referred to as a "Bonded Channel Group".
- 6.129 bootloader** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: The program for initiating hardware and loading software after a receiver boots up.
- 6.130 bouquet** [b-ITU-T J.180]: A collection of services multiplexed in a single data stream.
- 6.130bis bouquet** [b-ITU-T J.94]: A collection of services marketed as a single entity.
- 6.131 box** [b-ITU-T J.123], [b-ITU-T J.124], [b-ITU-T J.94]: An object-oriented building block defined by a unique type identifier and length.
- 6.132 break** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1]: Avail or an actual insertion in progress.
- 6.133 bridge protocol data unit (BDU)** [b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.122]: Spanning tree protocol messages as defined in [b-ISO/IEC 15802-3].
- 6.134 bridge protocol data unit (BPDU)** [b-ITU-T J.112 Annex B]: Spanning tree protocol messages as defined in [b-ISO/IEC 10038].
- 6.134bis Bridge Protocol Data Unit (BPDU)** [b-ITU-T J.112 Annex C]: Spanning tree protocol messages as defined in [b-RFC 1350].
- 6.135 bridged network** [b-ITU-T J.213]: A set of IEEE 802 LANs interconnected by IEEE 802.1D MAC bridges.
- 6.136 bridging mode** [b-ITU-T J.211]: A short-term operating condition of the DTI clock where the DTI client has recently lost its controlling input and is using stored data, acquired while in normal or fast mode operation, to control its output. While in bridging, the degree of deviation of the output is deemed to be such that DTI client clock is still performing within normal or acceptable limits. If an outage period persists, the DTI client clock will transition to the holdover mode indicating that the DTI client clock output may be degraded.



- 6.137 broadband cable modem** [b-ITU-T J.193]: A cable modem built into the STB, which provides full Broadband access to the Internet, and is intended for customer use. In addition, cable services can be delivered via this broadband IP connection.
- 6.138 broadband channel** [b-ITU-T J.205]: A medium used to deliver interactive content. Usually this medium is based on the Internet and allows the delivery of non-linear and on-demand content. A broadband channel allows access to servers that may be located in the Internet.
- 6.139 broadband IP network** [b-ITU-T J.241]: Access IP telecommunications network offered by ADSL, ADSL2+, VDSL, Optical Access Network, etc.
- 6.140 broadcast** [b-ITU-T J.215]: A broadcast is a service that is delivered to all customers. Each customer may select a particular broadcast channel out of many.
- 6.141 broadcast address** [b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.122]: A predefined destination address that denotes the set of all data network service access points.
- 6.142 broadcast addresses** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C]: Predefined destination address that denotes the set of all data network service access points.
- 6.143 broadcast application** [b-ITU-T J.215]: A broadcast application is an application running on the set-top converter that is loaded through in-band information, inserted either at the head-end or by a content provider farther upstream.
- 6.144 broadcast channel** [b-ITU-T J.110]: A unidirectional, broadband, point-to-multipoint channel, which may include video, audio and data. The broadcast channel is established from the services provider to the users. It may include the forward interaction path.
- 6.144bis broadcast channel** [b-ITU-T J.205]: A medium used to deliver digital television (DTV) services. Examples: free to air, satellite and cable.
- 6.145 broadcast DTV service** [b-ITU-T J.205]: Any digital television (DTV) service, delivered through a broadcast channel.
- 6.146 broadcast markup language (BML) standard** [b-ITU-T J.200]: An XML [b-W3C XML] application language [b-ARIB STD B-24] that deals with tags and attributes for multimedia representation exclusively.
- 6.147 broadcast transport stream** [b-ITU-T J.296]: The broadcast transport stream is composed of MPEG-2 transport stream (TS) signals, which have multi-frame architecture using the same frame length as the orthogonal frequency-division multiplexing (OFDM) frame.
- 6.148 broadcaster (service provider)** [b-ITU-T J.94]: An organization which assembles a sequence of events or programmes to be delivered to the viewer based upon a schedule.
- 6.149 broadcasting organization** [b-ITU-T N.1], [b-ITU-T N.51]: A broadcasting organization is an organization which is concerned with either or both sound and television broadcasting. Most of the customers ordering facilities for sound-programme and television transmission are broadcasting organizations. For convenience, the term broadcasting organization is used to denote the activity of any user or customer and, where so used, it is equally applicable to any other customer requiring sound-programme or television transmissions.
- 6.150 broadcasting organization (receive)** [b-ITU-T N.1], [b-ITU-T J.13], [b-ITU-T N.51]: The broadcasting organization at the receiving end of the sound programme being transmitted over the international sound-programme connection.
- 6.151 broadcasting organization (send)** [b-ITU-T N.1], [b-ITU-T J.13], [b-ITU-T N.51]: The broadcasting organization at the sending end of the sound programme being transmitted over the international sound-programme connection.

**6.152 Bslbf** [b-ITU-T J.287]: Bit string, left bit first, where "left" is the order in which bit strings are written in the Recommendation. Bit strings are written as a string of 1s and 0s within single quote marks, e.g., '1000 0001'. Blanks within a bit string are for ease of reading and have no significance. (See [b-ITU-T H.222.0].)

**6.153 burst** [b-ITU-T J.122]: A single continuous RF signal from the upstream transmitter, from transmitter on to transmitter off.

**6.154 burst error second** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Any Errored Second containing at least 100 errors.

**6.155 BWA BTS modem** [b-ITU-T J.116]: Broadband Wireless Access Base Transceiver Station modem. One or more downstream demodulators and their corresponding upstream modulators.

**6.156 BWA CPE modem** [b-ITU-T J.116]: Broadband Wireless Access Customer Premises Equipment Modem.

**6.157 byte** [b-ITU-T J.117]: 8 bits of data.

**6.157bis byte** [b-ITU-T J.150]: A group of eight bits.

**6.158 C3** [b-ITU-T J.181 Amendment 1]: An audience measurement that is specified to include live viewing as well as DVR viewing up to 75 hours from the ad minute original broadcast time.

**6.159 Cable DTV Service** [b-ITU-T J.1201]: Any digital television (DTV) service, delivered through cable.

**6.160 CA\_system\_ID** [b-ITU-T J.128], [b-ITU-T J.290]: This is a 16-bit field indicating the type of CA system applicable for either the associated ECM and/or EMM streams. The CA\_system\_ID may be used as a DSG Client ID in DSG Advanced Mode.

**6.160bis CA\_system\_id** [b-ITU-T J.296]: The conditional access system identifier having a 16-bit field, which can identify the conditional access (CA) system.

**6.161 cable integrated broadcast and broadband DTV service** [b-ITU-T J.205]: An integrated broadcast and broadband digital television (DTV) service managed by cable operators.

**6.162 cable modem** [b-ITU-T J.160]: A cable modem is a layer two termination device that terminates the customer end of the DOCSIS connection.

**6.162bis cable modem** [b-ITU-T J.162], [b-ITU-T J.163], [b-ITU-T J.164], [b-ITU-T J.166], [b-ITU-T J.167]: A cable modem is a layer two termination device that terminates the customer end of the J.112 (or J.122) connection.

**6.162ter cable modem** [b-ITU-T J.171.1]: The delivery of high-speed data access to customer locations using equipment built in conformance with ITU-T Recs J.83 and J.112.

**6.162quater cable modem (CM)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.210], [b-ITU-T J.212]: A modulator-demodulator at subscriber locations intended for use in conveying data communications on a cable television system.

**6.163 Cable Modem Service Group** [b-ITU-T J.222.2]: In the HFC plant topology, the complete set of downstream and upstream channels within a single CMTS that a single Cable Modem could potentially receive or transmit on. In most HFC deployments, a CM-SG corresponds to a single Fibre Node. Usually, a CM-SG serves multiple CMs.

**6.164 cable modem termination system (CMTS)** [b-ITU-T J.161], [b-ITU-T J.365]: The device at a cable head-end which implements the DOCSIS RFI MAC protocol and connects to CMs over an HFC network.

**6.164bis cable modem termination system (CMTS)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Cable modem termination system, located at the cable

television system headend or distribution hub, which provides complementary functionality to the cable modems to enable data connectivity to a wide-area network.

**6.164<sup>ter</sup> cable modem termination system (CMTS)** [b-ITU-T J.291]: Located at the cable television system headend or distribution hub, which provides complementary functionality to the cable modems to enable data connectivity to a wide-area network.

**6.165 cable modem termination system; Network Side Interface (CMTS-NSI)** [b-ITU-T J.112 Annex B], [b-ITU-T J.122]: The interface, defined in [b-DOCSIS3], between a CMTS and the equipment on its network side.

**6.165<sup>bis</sup> cable modem termination system; Network Side Interface (CMTS-NSI)** [b-ITU-T J.112 Annex C], The interface, defined in "DataOver-Cable Service Interface Specifications, Cable Modem Termination System Network Side Interface Specification, SP-CMTS-NSI-I01-960702", between a CMTS and the equipment on its network side.

**6.165<sup>ter</sup> cable modem termination system; Network Side Interface (CMTS-NSI)** [b-ITU-T J.112]: The interface, defined in [MCNS3], between a CMTS and the equipment on its network side (see Annex B). Called INA in Annex A and MC in Annex C.

**6.166 Cable Modem to CPE Interface (CMCI)** [b-ITU-T J.112]: The interface, defined in [MCNS4], between a CM and CPE.

**6.166<sup>bis</sup> cable modem to CPE interface (CMCI)** [b-ITU-T J.122]: The interface, defined in [DOCS4], between a CM and CPE.

**6.166<sup>ter</sup> cable modem to CPE interface (CMCI)** [b-ITU-T J.112 Annex B]: The interface, defined in [DOCSIS4], between a CM and CPE.

**6.166<sup>quater</sup> cable modem to CPE interface (CMCI)** [b-ITU-T J.112 Annex C]: The interface between a CM and CPE.

**6.167 cable platform** [b-ITU-T J.295]: This refers to the entire provision infrastructure of the cable business, including the service delivery platform (SDP), cable network, hybrid cable set-top box, home network and others.

**6.168 Cable Security Portal (CSP)** [b-ITU-T J.191]: A functional element that provides security management and translation functions between the HFC and the Home.

**6.169 cable television** [b-ITU-T J.142]: Communications systems distributes broadcast and non-broadcast signals, as well as a multiplicity of satellite signals originating programming and other signals by means of coaxial cable and/or optical fibre.

**6.170 cable television operator** [b-ITU-T J.295]: A service provider and/or network provider providing television programmes and other interactive services, via a cable television network with radio frequency (RF) signals through coaxial cables or digital light pulses through fixed optical fibres.

**6.171 CableHome** [b-ITU-T J.126]: This is a Cable Television Laboratories, Inc. ("CableLabs") specification (see <http://www.cablelabs.com/projects/cablehome/>) for the interfaces necessary to extend high-quality cable-based services to network devices within the home. The CableHome project addresses issues such as device interoperability, QoS (Quality of Service), and network management. This term is also used for a system or device that is compliant with the CableHome specifications [b-ITU-T J.191] or [b-ITU-T J.192].

**6.172 CableModem base specifications** [b-ITU-T J.126]: There are currently four versions of what are in this Recommendation referred to as the CableModem Base Specifications. The original CableModem is specified in SCTE 22-1 2002: DOCSIS 1.0 Radio Frequency Interface and SCTE 22-3. SCTE 22-1 is J.112 (1998) with some corrections and minor additions. The second specification is J.112 with SCTE 23-3, the third specification is J.122 with SCTE 79-2, and the fourth specification is J.222.

- 6.173 call** [b-ITU-T J.164]: A call is an instance of user-initiated voice communication capabilities. In traditional telephony, a call is generally considered as the establishment of connectivity directly between two points: originating party and terminating party. In the IPCablecom context, as noted above, the communication between the parties is "connectionless" in the traditional sense.
- 6.174 call management server (CMS)** [b-ITU-T J.161]: Controls the audio connections. Also called a call agent in MGCP/SGCP terminology. This is one example of an application server.
- 6.174bis Call Management Server (CMS)** [b-ITU-T J.191]: [IPCablecom] Controls the audio connections. Also called a Call Agent in MGCP/SGCP terminology.
- 6.175 callback** [b-ITU-T J.460.1]: When a PSAP initiates a new call back to a caller. This is not the same as ringback. See below.
- 6.176 CAM\_ID** [b-ITU-T J.1004]: The identification value of the conditional access module (CAM) having a size of 8 bytes.
- 6.177 capacity provider** [b-ITU-T J.90]: The entity that provides the technical facilities needed to deliver a programme schedule (e.g., the common carrier).
- 6.178 capture bandwidth (CBW)** [b-ITU-T J.222.1]: The sum of the tuning bands in the TB list in MHz.
- 6.179 carrier hum modulation** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The peak-to-peak magnitude of the amplitude distortion relative to the RF carrier signal level due to the fundamental and low-order harmonics of the power-supply frequency.
- 6.180 carrier related band** [b-ITU-T J.112]: A frequency bandwidth spacing of television channels on a cable television system in exact frequency increments.
- 6.181 Carrier-to-Noise Ratio (C/N or CNR)** [b-ITU-T J.112], [b-ITU-T J.116]: The square of the ratio of the root mean square (rms) of the voltage of the digitally-modulated RF carrier to the rms of the continuous random noise voltage in the defined measurement bandwidth (if not specified explicitly, the measurement bandwidth is the symbol rate of the digital modulation).
- 6.181bis Carrier-to-Noise Ratio (C/N or CNR)** [b-ITU-T J.122 Annex B], [b-ITU-T J.112 Annex C]: The square of the ratio of the root mean square (rms) of the voltage of the digitally-modulated RF carrier to the rms of the continuous random noise voltage in the defined measurement bandwidth. (If not specified explicitly, the measurement bandwidth is the symbol rate of the digital modulation; for video it is 4 MHz.)
- 6.181ter Carrier-to-Noise Ratio (C/N or CNR)** [b-ITU-T J.122]: The ratio of signal power to noise power in the defined measurement bandwidth. For digital modulation,  $CNR = E_s/N_0$ , the energy-per-symbol to noise-density ratio; the signal power is measured in the occupied bandwidth, and the noise power is normalized to the modulation-rate bandwidth. For video, the measurement bandwidth is 4 MHz.
- 6.181quater Carrier-to-Noise Ratio (C/N or CNR)** [b-ITU-T J.210]: The ratio of signal power to noise power in a defined measurement bandwidth. For digital modulation,  $CNR = E_s/N_0$ , the energy-per-symbol to noise-density ratio; the signal power is measured in the occupied bandwidth, and the noise power is normalized to the modulation-rate bandwidth. For analog NTSC video modulation, the noise measurement bandwidth is 4 MHz.
- 6.182 cascading style sheets (CSS)** [b-ITU-T J.200]: Standard for the style sheet for a markup language document.
- 6.183 CDCS\_ISS** [b-ITU-T J.1020]: One of the roles for DM system. It has the role of personalization of CDCS installed in a user secondary device.

- 6.184 CDCS\_MSS** [b-ITU-T J.1020]: One of the roles for DM system. It has the role of establishment of secure channel between CDCS\_MSS and DM agent, and managing CDCS download.
- 6.185 CDCS\_PSS** [b-ITU-T J.1020]: One of the roles for DM system. It has the role of managing content access entitlement policy, based on access rights, which is different per entitlement levels and hardware capability of the secondary device considered.
- 6.186 C-DOCSIS CM** [b-ITU-T J.223.2]: A cable modem (CM) that complies with the CM requirements of DOCSIS 3.0.
- 6.187 C-DOCSIS CMTS** [b-ITU-T J.223.2]: A cable modem termination system (CMTS) that complies with the CMTS requirements of DOCSIS 3.0. In the context of this specification, it consists of a coax media converter (CMC) controller and a CMC or multiple CMCs operating together.
- 6.188 C-DOCSIS data tag (CDT)** [b-ITU-T J.223.2]: As defined in the C-DOCSIS system, C-DOCSIS data tags (CDTs) are used to identify a service flow to which each data packet belongs.
- 6.189 C-DOCSIS management messages (CDMM)** [b-ITU-T J.223.2]: The C-DOCSIS management messages (CDMMs) are used for exchanging configurations, status, and management information between the system control module and the radio frequency interface (RFI) module.
- 6.190 C-DOCSIS system** [b-ITU-T J.223.1]: The C-DOCSIS system consists of the CMC controller, CMC, and C-DOCSIS CM. It implements broadband data access and forwarding, service configuration, as well as management and maintenance of coaxial cable networks.
- 6.191 ceiling (ceil)** [b-ITU-T J.210]: The ceiling function rounds a number up to the nearest integer or nearest multiple of significance. Use: Ceiling (number, significance).
- 6.192 centralized distribution structure** [b-ITU-T J.195.1]: A physical structure of a passive coaxial access network and a multiple stage power distribution network realized by splitters only.
- 6.193 challenge-response** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: The process in which one-way downloadable conditional access system (DCAS) client software performs calculations using a key ladder of a terminal security chipset through a one-way DCAS manager.
- 6.194 channel** [b-ITU-T J.122]: The frequency spectrum occupied by a signal. Usually specified by centre frequency and bandwidth parameters.
- 6.194bis channel** [b-ITU-T J.280]: A channel is a synonym for a "Service" in DVB terminology, or a "Program" in MPEG terminology.
- 6.195 channel bonding** [b-ITU-T J.222.1]: A logical process that combines the data packets received on multiple independent channels into one higher-speed data stream. Channel bonding can be implemented independently on upstream channels or downstream channels.
- 6.196 channel number** [b-ITU-T J.296]: The channel number refers to the numbers specified by broadcasting stations to label them (1 to 12). These numbers should correspond to the number of one-touch buttons on a remote controller unit.
- 6.197 channel scan (scan)** [b-ITU-T J.296]: The channel scan function searches all channels to determine the presence or absence of broadcast signals. It is used by viewers when it is unknown which terrestrial broadcasting programmes can be received in the area of residence. When a broadcast signal is detected, the information on the station will be registered.
- 6.198 channel service unit** [b-ITU-T J.214]: The piece of a CSU/DSU that talks to the telco network, understands framing and line coding, and provides electrical isolation of the network from the telco network.
- 6.199 chapter** [b-ITU-T J.181]: A short section of a longer program, usually situated to permit a viewer to easily locate a scene or section of the program.

**6.200 character DATA (CDATA)** [b-ITU-T J.380.4], [b-ITU-T J.380.7], [b-ITU-T J.380.8]: XML data that is not parsed. CDATA carries markup examples that would otherwise be interpreted as XML because of the tags.

**6.201 charging** [b-ITU-T J.363], [b-ITU-T J.460.3]: The process of applying rating to usage data for a given session for the generation of a subscriber's bill.

**6.202 chip** [b-ITU-T J.122]: Each of the 128 bits comprising the S-CDMA spreading codes.

**6.203 chip duration** [b-ITU-T J.122]: The time to transmit one chip of the S-CDMA spreading code. The inverse of the chip rate.

**6.204 chip rate** [b-ITU-T J.122]: The rate at which individual chips of the S-CDMA spreading codes are transmitted (1280 to 5120 kHz).

**6.205 Chrominance-luminance delay inequality** [b-ITU-T J.64]: The chrominance-luminance delay inequality is defined as the time difference (expressed in ns) between the luminance and the chrominance component of the composite pulse (element  $F$ ). This difference is positive, if the symmetry axis of the demodulated chrominance component lags behind the symmetry axis of the luminance component.

**6.206 Chrominance-luminance gain inequality** [b-ITU-T J.64]: The chrominance-luminance gain inequality is defined as the difference between the peak-to-peak amplitude of the chrominance component of the element  $G$ ,  $G_1$ ,  $G_2$  and the amplitude of the luminance bar (element  $B_2$ ) expressed as a percentage of the luminance bar amplitude. The sign of the difference is positive if the amplitude of the chrominance component is greater than that of the luminance bar. Note that in the 525-line case the nominal amplitude of element  $G$  is 80 IRE units. This factor must be taken into account when normalizing results.

If for any reason signal elements  $G$ ,  $G_1$  or  $G_2$  are not available, the measurement can be made with the chrominance component of element  $F$ .

**6.207 Chrominance-luminance intermodulation** [b-ITU-T J.64]: The chrominance-luminance intermodulation is measured on element  $G$ ,  $G_1$  or  $G_2$ , after suppressing the incoming colour sub-carrier. It is defined as the difference between the luminance amplitude in element  $G_1$ , or in the last section of element  $G$  or  $G_2$  ( $b_5$  in Figs. 3 and 4 of ITU-T J.64) and the amplitude of the succeeding section ( $b_6$  in Figs. 3 and 4 of ITU-T J.64) in which the test signal has no sub-carrier, expressed as a percentage of the amplitude of the luminance bar (element  $B_2$ ). The sign of the difference is positive if the luminance amplitude  $b_5$  is greater than the luminance amplitude of the succeeding section  $b_6$ .

NOTE – Some administrations use element  $F$  instead of  $G$ ,  $G_1$  or  $G_2$  for measurement of this parameter. In this case measurement of the amplitude of the luminance component of the composite pulse (element  $F$ ) is made after suppressing the incoming colour sub-carrier. The result will be given by the difference between the composite pulse luminance amplitude and half the luminance bar amplitude, expressed as a percentage of the luminance bar amplitude. The sign of the difference is positive if the amplitude of the composite pulse component is greater than half the luminance bar amplitude. In some cases the result may differ from that given by the preferred method, since the signal element  $F$  is not so well suited as element  $G$  to the measurement of this distortion.

**6.208 Chrominance reference amplitude error** [b-ITU-T J.64]: This parameter relates to the variation in amplitude of the colour sub-carrier occurring in the region of blanking level. It is defined as the difference between the peak-to-peak amplitude of the colour sub-carrier on the blanking level tread of element  $D_2$  and its normalized value, (i.e., 4/10 luminance bar amplitude) (see § 2.18 of J.64, Note 1), expressed as a percentage. The sign of the difference is positive if the amplitude of the colour sub-carrier on the blanking level tread is larger than the normalized value.

**6.209 chunk** [b-ITU-T J.123], [b-ITU-T J.124]: A contiguous set of samples for one track.

**6.210 cipher** [b-ITU-T J.170]: An algorithm that transforms data between plaintext and ciphertext.

- 6.211 cipher block chaining (CBC)** [b-ITU-T J.181 Amendment 1]: This is a specific method of encryption. It is one of the methods used in DES.
- 6.212 ciphersuite** [b-ITU-T J.170]: A set, which must contain both an encryption algorithm and a message authentication algorithm (e.g., a MAC or an HMAC). In general, it may also contain a key management algorithm, which does not apply in the context of IPCablecom.
- 6.213 classifier** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A set of criteria used for packet matching according to TCP, UDP, IP, LLC, and/or 802.1P/Q packet fields. A classifier maps each packet to a service flow. A downstream classifier is used by the CMTS to assign packets to downstream service flows. An upstream classifier is used by the CM to assign packets to upstream service flows.
- 6.214 client device** [b-ITU-T J.215]: The CPE that is connected to the cable network in the consumer's home, receives the television signals at the client's premises, and presents it for display on a display device.
- 6.215 client DVR (cDVR)** [b-ITU-T J.700]: An instance of a DVR where the end-user terminal device contains the recording capability that can be solicited and operated by end users to record and store video, audio and other associated content locally for subsequent playback.
- 6.216 client type 1** [b-ITU-T J.179]: Client type 1 represents existing "legacy" endpoints (e.g., PC applications, gaming consoles) which lack specific QoS awareness or signalling capabilities. This Client knows nothing about CableModem, IPCable2Home, or IPCablecom messaging, and hence no related requirements can be placed upon it. Such clients may range from simple analog audio and video presentation devices to complex networked peripherals and consumer electronics, such as set-top boxes or gaming consoles. This Client communicates with an Application Manager to request service, and does not request QoS resources directly from the operator access network. This Recommendation supports only client type 1.
- 6.217 client type 2** [b-ITU-T J.179]: Client type 2 is similar to an IPCablecom-T telephony MTA in that it supports QoS signalling based on IPCablecom DQoS. This Client is aware of IPCablecom Multimedia QoS, and communicates with an Application Manager to request service and obtain a token for access-network resources. The client then presents this token when requesting QoS resources from the access network (pkt-mm-1, pkt-mm-6). This Recommendation's support for client type 2 remains for further study.
- 6.218 client type 3** [b-ITU-T J.179]: Client type 3 requests QoS based on RSVP without Application Manager interaction. This Client is aware of IETF standards-based RSVP and uses this protocol to request QoS resources from the access network directly from the CMTS. This Recommendation's support for client type 3 remains for further study.
- 6.219 clock recovery unit (CRU)** [b-ITU-T J.214]: A clock recovery unit exists in the IWF and is responsible for regenerating the circuits clock based on the average inter-arrival time of the packets in the adaptive clocking mode, or on the time stamp differentials received when operating in the differential clock mode. The output clock is provided to the CU.
- 6.220 clock unit (CU)** [b-ITU-T J.214]: A clock unit performs translations and distribution of TDM clocking information across (and between) physical, data and network layers.
- 6.221 closed captioning** [b-ITU-T J.193]: Text scrolling on a television display that represents the audio portion of the program, typically provided for the hearing impaired.
- 6.222 cloud terminal** [b-ITU-T J.295]: A terminal that has at least a client function, browser and Internet connectivity for cloud network connection.
- 6.223 CMC** [b-ITU-T J.223.1]: The cable media converter (CMC) converts data from a coaxial cable network to a packet digital optical network (such as PON or Ethernet). The CMC connects to a

cable modem (CM) through the coaxial cable network in the downstream direction and to the CMC controller through the packet digital optical network in the upstream direction.

**6.224 CMC controller** [b-ITU-T J.223.1]: The CMC controller forwards upstream and downstream service data and manages the configuration of the CMC.

**6.225 code-hopping matrix** [b-ITU-T J.122]: A shifted version of the reference code matrix (see below) that is used when code hopping is employed to vary the codes used by each CM. The code-hopping matrix is either 128 rows by 128 columns (when all 128 codes are active) or is 127 rows by 128 columns (when less than 128 codes are active in the S-CDMA spreader-on frame). When less than 128 codes are active, code 0 (all ones) is deleted from the matrix, but all remaining codes are still cycled through even if less than 127 codes are active in a frame.

**6.226 coding mode** [b-ITU-T J.88]: Mix A, Mix B and refresh (all intra) mode

**6.227 colour sub-carrier phase shift** [b-ITU-T J.88]: Phase shift of 3.58 MHz colour sub-carrier of the coding block from the motion compensated reference block in the previous frame

**6.228 command** [b-ITU-T J.287]: A single directive from the automation system to the compression system. A command is always carried within a multiple\_operation message. This term is also used to specify specific ITU-T J.181 commands.

**6.229 command and control messaging** [b-ITU-T J.193]: Messaging between devices which request particular actions associated with video service such as Play, Rewind, and Pause.

**6.230 common agent service** [b-ITU-T J.230]: One of the particular resident applications which is specific to the mobile-set top box (STB) cooperation. Common agent service equips the common application program interfaces (APIs) to enable each application to utilize its mobile-STB cooperation function. Therefore, many application developers can realize the mobile-STB cooperation application easily and quickly.

**6.231 CompareSwap4** [b-ITU-T J.117]: A bus transaction that stores, at the specified address, a provided data value when the contents of the specified address is equal to a provided argument value. This operation is performed indivisibly on the addressed quadlet.

**6.232 compliance rules** [b-ITU-T J.197]: The rules which apply to set top boxes for the purpose of preventing the unauthorized copying of controlled content.

**6.233 compliant CM** [b-ITU-T J.213]: A CM that implements this DOCSIS L2VPN Recommendation.

**6.234 component (ELEMENTARY Stream)** [b-ITU-T J.94]: One or more entities which together make up an event, e.g., video, audio, teletext.

**6.235 component splice mode** [b-ITU-T J.181 Amendment 1]: A mode of the Cueing Message whereby the program\_splice\_flag is set to '0' and indicates that each PID/component that is intended to be spliced will be listed separately by the syntax that follows. Components not listed in the Message are not be spliced.

**6.235bis component splice mode** [b-ITU-T J.287]: A mode of the splice\_info\_section whereby the program\_splice\_flag is set to '0' and indicates that each PID/component that is intended to be spliced will be listed separately by the syntax that follows. Components not listed in the splice\_info\_section are not to be spliced.

**6.236 composite motion compensation** [b-ITU-T J.88]: Motion Compensation (MC) is conducted on WHT domain not on pixel domain to solve colour sub-carrier phase shift.

**6.237 Composite Second Order beat (CSO)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: The peak of the average level of distortion products due to second-order non-linearities in cable system equipment.



- 6.238 Composite Triple Beat (CTB)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: The peak of the average level of distortion components due to third-order non-linearities in cable system equipment.
- 6.239 conditional access** [b-ITU-T J.193]: The conditional granting of access to cable services and content based upon what service suite has been purchased by the customer.
- 6.240 conditional access (CA) system** [b-ITU-T J.94]: A system to control subscriber access to services, programmes and events e.g., Videoguard, Eurocrypt.
- 6.240bis Conditional Access system (CA)** [b-ITU-T J.93], [b-ITU-T J.95]: The complete system for ensuring that cable services are accessible only to those who are entitled to receive them, and that the ordering of such services is not subject to modification or repudiation.
- 6.241 conditional access client software (CACS)** [b-ITU-T J.1001]: An image of conditional access client software code downloaded onto the CACS remotely renewable security system.
- 6.241bis conditional access client software (CACS)** [b-ITU-T J.1002] An image of conditional access client software code downloaded onto the CRS CAM.
- 6.242 conditional access module (CAM)** [b-ITU-T J.1001]: A cryptographic functional module which is located in a set-top box with the main functions of entitlement validation, key management, and authentication. A set-top box can have one chip of secure hardware that includes the functions of CAM and descrambler, or a physically separated CAM in the form of a secure hardware IC or smart-card. The form of CAM can be determined by the policy of the multiple system operator or the conditional access client software vendor.
- 6.242bis conditional access module (CAM)** [b-ITU-T J.1002]: A cryptographic functional module which is located in set-top boxes, whose main function is entitlement validation, key management and authentication. Set-top boxes can have one chip of secure hardware that includes the functions of CAM and descrambler, or physically separated CAM in the form of a secure hardware IC or smart-card. The form of CAM can be determined by the policy of the MSO or CAS vendor.
- 6.243 confidentiality** [b-ITU-T J.170]: A way to ensure that information is not disclosed to any one other than the intended parties. Information is encrypted to provide confidentiality. Also known as privacy.
- 6.244 configuration** [b-ITU-T J.369], [b-ITU-T J.460.4]: Configuration is the process of defining and propagating data to network elements for providing services.
- 6.245 configuration server (Config. Server)** [b-ITU-T J.460.1]: The logical network element responsible for UE provisioning, configuration and management.
- 6.246 consensus watermark** [b-ITU-T J.197]: A standard watermark that has been developed for use in DRM.
- 6.247 constant frame skipping** [b-ITU-T J.246], [b-ITU-T J.247]: An event where the HRC outputs frames with updated content at an effective frame rate that is fixed and less than the source frame rate.
- 6.248 constellation mapping** [b-ITU-T J.195.1]: The process of mapping data bits to the constellation symbol.
- 6.249 constellation scrambler** [b-ITU-T J.196.2]: The process that takes phase rotation of the constellation symbols in 4 quadrants by using binary pseudo random sequence.
- 6.250 constrained image** [b-ITU-T J.197]: The visual equivalent of not more than 520 000 pixels per frame (e.g., an image with a resolution of 540 vertical lines by 960 horizontal lines for a 16:9 aspect ratio). A constrained image can be output or displayed using video processing techniques such as line doubling or sharpening to improve the perceived quality of the image.

- 6.251 constrained image trigger (CIT)** [b-ITU-T J.197]: The field or bits used to trigger the output of a "constrained image" in the high definition analogue output of set top boxes.
- 6.252 consumer** [b-ITU-T J.117]: A device that accepts OSD data.
- 6.253 consumer port** [b-ITU-T J.117]: A port that is the sink of data frames and is flow controlled by updates of its externally visible iAPR control register.
- 6.254 consumer premises equipment provider** [b-ITU-T J.90]: The entity that supplies the television/multimedia equipment at the consumer premises (e.g., the equipment manufacturer).
- 6.255 contact address** [b-ITU-T J.360]: The URI of a user agent on the network. Contact addresses, in the context of IP-Cablecom are often, but not always, addresses used to deliver requests to a specific user agent.
- 6.256 container box** [b-ITU-T J.123], [b-ITU-T J.124]: A box whose sole purpose is to contain and group a set of related boxes.
- 6.257 content** [b-ITU-T J.181]: Generic term for television material, either advertisements or programs.
- 6.257bis content** [b-ITU-T J.200]: A general term that refers to any of the following: application, application resource collection, or application resource.
- 6.257ter content** [b-ITU-T J.295]: Information content transmitted via various media through the communication network, including the broadcasting network and IP.
- 6.257quater content** [b-ITU-T J.380.2]: The video, audio, and data streams taken together as a single identifiable unit. Content may refer to the original entertainment (programming) content, an ad spot, an interactive or enhanced application asset, or any other similar asset.
- 6.258 content distribution network (CDN)** [b-ITU-T J.292]: CDN contains a Core network and Access network where content delivery is controlled by identified packet routing and a QoS oriented mechanism.
- 6.259 content key** [b-ITU-T J.1005]: A key used to protect the cable content data stream(s).
- 6.260 content protection** [b-ITU-T J.197]: The application of technical safeguards that prevent the unauthorized replication and/or redistribution of network delivered content.
- 6.260bis content protection** [b-ITU-T J.702]: Ensuring that end-users can only use the content they have already acquired in accordance with the rights that they have been granted by the rights holder. Content protection includes protecting contents from illegal copying and distribution, interception, tampering, unauthorized use, etc.
- 6.261 content provider** [b-ITU-T J.90]: The entity that provides the creative content of a programme (e.g., the programme producer or the owner of its rights).
- 6.261bis content provider** [b-ITU-T J.702]: The entity that owns or is licensed to sell content or content assets.
- 6.262 content tracing** [b-ITU-T J.702]: A process to enable the identification of the (arbitrary) origin of content, and/or the responsible party (e.g., the end-user), to facilitate subsequent investigation in the event of unauthorized use of content, for example, content copying or redistribution.
- NOTE – Content tracing information may be attached to content either as metadata, or as a forensic watermark.
- 6.263 Continuous random noise** [b-ITU-T J.67]: The signal-to-noise ratio for continuous random noise is defined as the ratio, expressed in decibels, of the nominal amplitude of the luminance signal (1 V) to the r.m.s. amplitude of the noise measured after band limiting. A signal-to-weighted-noise ratio is defined as a ratio, expressed in decibels, of the nominal amplitude of the luminance signal, to the r.m.s. amplitude of the noise measured after band limiting and weighting with a specified network.

One possibility is that wideband random noise should be measured in a bandwidth of 8.4 MHz using a constant impedance noise-weighting network with a time constant of 90 ns. Such a network is based partly on the assumption that with the trend towards larger picture displays and with the improved picture quality available from the MAC/packet television standard, future subjective tests will more commonly employ a viewing distance of four times the picture height, rather than six times, as at present.

The second possibility uses the existing unified weighting network, scaled according to the 3:2 compression ratio, as a common weighting network for all MAC systems. This filter gives the same results as would be obtained from a signal in decompressed form with the unified weighting filter described in ITU T J.612. It also takes account of the noise carried in the more-compressed colour-difference signals. The possibly greater noise sensitivity due to the higher bandwidth HD MAC signals when these use the same networks that are designed for present day MAC signals is also considered. The definition of this network and its amplitude/frequency response are given in Figure 1 of J.67.

**6.264 control** [b-ITU-T J.287]: A category of request operation supported by this API. See clause 8.3 of J.287.

**6.265 control frame** [b-ITU-T J.195.2]: Frame of the MAC layer used for access control and channel allocation.

**6.266 control point** [b-ITU-T J.362]: Within the context of this Recommendation, control point refers to a point in the network that can be used to apply a function for a media flow that flows through that point. Functions described here are: QoS (IPCom multimedia [b-ITU-T J.179] or IPCom DQoS [b-ITU-T J.163]). Replication, encapsulation and transmission for the purposes of LI content tapping.

**6.267 control point discovery** [b-ITU-T J.362]: The act of discovering information (IP address, protocol) concerning a control point in order to allow a requestor to apply a specific controlling function.

**6.268 control word** [b-ITU-T J.287]: A multiple key value used by the encryption mechanisms specified in [ITU-T J.181].

**6.268bis control word (CW)** [b-ITU-T J.1001]: The value which is used to scramble and descramble transport streams.

NOTE – The control word should be refreshed frequently during service operation to enhance security.

**6.268ter control word (CW)** [b-ITU-T J.1002]: The value which is used to scramble and descramble transport streams; it is refreshed frequently during the service operation to enhance security.

**6.269 controlled content** [b-ITU-T J.197]: Content that has been transmitted from a video service provider's network with the encryption mode indicator (EMI) bits set to a value other than zero, zero (0,0) ("copying not restricted").

**6.270 converged interconnect network** [b-ITU-T J.212]: The network (generally gigabit Ethernet) that connects an M-CMTS Core to an EQAM.

**6.271 conversational television programme** [b-ITU-T J.146]: A television programme that contains live conversation contributions shot at different locations, linked together at a base location.

**6.272 copy control** [b-ITU-T J.296]: A control copy generation that limits copying when the programme and other copyright objects are copied by the recording equipment connected with the broadcasting receiver.

- 6.273 copy control information (CCI)** [b-ITU-T J.197]: A one-byte field that contains information that set top boxes use to control copying of content. See Annex A of [b-ITU-T J.197] for further details.
- 6.274 core services** [b-ITU-T J.193]: The set of services that **MUST**, at a minimum, be supported by the NG-STB.
- 6.275 cost** [b-ITU-T J.283]: A cost is a parameter configured by an operator in order to make a network resource utilization effective. Example definition is described in [b-IETF RFC 2328].
- 6.276 CPE controlled cable modem (CCCM)** [b-ITU-T J.122]: Refer to the DOCS cable modem to customer premises equipment interface (CMCI) specification.
- 6.276bis CPE controlled cable modem (CCCM)** [b-ITU-T J.112 Annex B]: Refer to the DOCSIS Cable Modem to Customer Premises Equipment Interface (CMCI) specification.
- 6.277 criticality** [b-ITU-T J.88]: The reference for the difficulty of the picture judged in macro block units
- 6.278 cross platform** [b-ITU-T J.295]: A coordination service between platforms.
- 6.279 cross-modulation** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A form of television signal distortion where modulation from one or more television channels is imposed on another channel or channels.
- 6.280 cryptanalysis** [b-ITU-T J.93], [b-ITU-T J.95]: The science of recovering the plaintext of a message without access to the key (to the electronic key in electronic cryptographic systems).
- 6.280bis cryptanalysis** [b-ITU-T J.170]: The process of recovering the plaintext of a message or the encryption key without access to the key.
- 6.281 cryptographic duty cycle** [b-ITU-T J.93], [b-ITU-T J.95]: The maximum secure capacity of a cryptographic process, based on the total number of bits that can be securely encrypted before it becomes advisable to change the key.
- 6.282 cueing message** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: In the context of this appendix, a message is the contents of any splice\_info\_section.
- 6.283 cursor** [b-ITU-T J.380.8]: A temporary construct containing static data. Consumers of logical services implementing the GIS interface may create and access cursor information using the standard query mechanisms described in this document.
- 6.284 customer** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C]: see definition for end user (clause 6.437).
- 6.285 customer premises equipment** [b-ITU-T J.460.2]: Usage of CPE within this Recommendation generically refers to the cable modem and E-DVA device that resides at the subscriber home, as well as any customer telephony equipment (telephones, answering machines, fax machines, etc.). Typically, CPE would refer to equipment that is beyond the service provider network interface, such as a telephone or personal computer. However, since the cable modem and E-DVA represent the service provider network interface device at the subscriber home, it is commonly referred to as CPE.
- 6.285bis Customer Premises Equipment (CPE)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.210], [b-ITU-T J.212]: Equipment at the end user's premises; it may be provided by the end user or by the service provider.
- 6.285ter customer premises equipment (CPE)** [b-ITU-T J.292]: CPE covers subscriber video devices (SVD), residential gateway (RGW), and optional in home networking devices.
- 6.286 customer-facing interface** [b-ITU-T J.218]: An eRouter interface used for connecting CPE devices.

- 6.287 customer-facing IP interface** [b-ITU-T J.218]: An IP interface connected to the eRouter which is not necessarily mapped one-to-one with the number of customer-facing ports on the eRouter.
- 6.288 customer-facing logical IP interface** [b-ITU-T J.218]: A logical interface connected to the eRouter which is not necessarily mapped one-to-one with the number of customer-facing ports on the eRouter.
- 6.289 cyclic prefix** [b-ITU-T J.195.2]: Data located at the front of an OFDM symbol, which is a copy of the data from the end of the OFDM symbol.
- 6.290 cyclic redundancy check** [b-ITU-T J.112]: A method of error detection using cyclic code.
- 6.290bis cyclic redundancy check (CRC)** [b-ITU-T J.181 Amendment 1]: A method to verify the integrity of a transmitted Message.
- 6.291 data frame (frame)** [b-ITU-T J.117]: A contiguous group of data bytes sent between producer and consumer nodes.
- 6.291bis data frame** [b-ITU-T J.195.2]: Frame of the MAC layer used to carry data of the upper layer.
- 6.292 data link layer** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Layer 2 in the Open Systems Interconnection (OSI) architecture; the layer that provides services to transfer data over the transmission link between open systems.
- 6.293 data message** [b-ITU-T J.204]: A message transmitted between an IPDR Exporter and Collector across the Streaming Protocol, containing a common Streaming Protocol header and an optional payload consisting of control and Data Records.
- 6.294 data model** [b-ITU-T J.369], [b-ITU-T J.460.4]: An abstract model that describes representation of data in a system.
- 6.294bis data model** [b-ITU-T J.380.8]: A data model is a formal view of the data items contained in an information store to which an information service implementing this standard will provide access and is specified for purposes of formulating and executing queries against the information store's data. This standard specifies one data model that may be used for querying a logical service's information store with this standard's "Basic Query" interface. More complex data models may be specified independently of this standard and may be queried with this standard's "Advanced Query" interface. In this latter case, the mechanisms by which a consumer incorporates a data model specification so that meaningful queries may be issued against it are outside the scope of this standard.
- 6.295 data rate** [b-ITU-T J.212]: Throughput, data transmitted in units of time usually in bits per second (bit/s).
- 6.296 data record** [b-ITU-T J.204]: The binary encoding of an IPDR record.
- 6.297 data segment (segment)** [b-ITU-T J.117]: A largest portion of a data frame that can be written into the segment buffer before updating the consumer's iAPR register.
- 6.298 data service unit** [b-ITU-T J.214]: The part of the CSU/DSU that interfaces with routers, switches and packets. It has a serial port to interface with compatible data equipment.
- 6.299 Data signal waveform** [b-ITU-T J.67]: The data signals have very different characteristics within the family of MAC systems. They are defined in the former CCIR special publication "Specifications of Transmission Systems for the Broadcasting-Satellite Service".
- 6.300 Data timing** [b-ITU-T J.101]: In teletext System B the data timing is defined as the time difference between the peak of the penultimate "1" run-in bit and the line time datum (see Report 624). In teletex System A the data timing is defined as the time difference between the leading edge of the data signal and the line time datum (see more details in Fig. 2 of J.101).

**6.301 Data-Over-Cable Service Interface Specification (DOCSIS)** [b-ITU-T J.296]: The cable modem standard that was established by the Multimedia Cable Network System Partners, Ltd. (MCNS) in 1997. This term is generally used as a generic term for a cable modem and is implemented in [ITU-T J.122] or [ITU-T J.112].

**6.302 dBm0** [b-ITU-T J.14]: The absolute signal power level, in decibels, referred to a point of zero relative level. [This symbol traditionally relates to telephony relative levels.]

**6.303 dBm0s** [b-ITU-T J.14]: The absolute signal power level, in decibels, referred to a point of zero relative sound-programme level.

**6.304 dBq0ps** [b-ITU-T J.16]: Weighted noise level, measured with a quasi-peak measuring instrument complying with CCIR Recommendation 468 and referred to a point of zero relative sound-programme level

**6.305 dBq0s** [b-ITU-T J.16]: Unweighted noise level, measured with a quasi-peak measuring instrument complying with CCIR Recommendation 468 and referred to a point of zero relative sound-programme level

**6.306 dBr** [b-ITU-T J.14]: The relative power level, in decibels. [These symbols traditionally relate to telephony relative levels.]

**6.307 dBrs** [b-ITU-T J.14]: The relative (power) level, in decibels, with respect to sound-programme signals. (This abbreviation is only applicable at points in a sound-programme circuit where the signals can nominally be related to the input by a simple scaling factor.)

NOTE – The use of level definitions is given in CCIR Recommendation 574.

**6.308 decibel-microvolt (dBµV)** [b-ITU-T J.210]: Unit of RF power expressed in decibels relative to 1 microvolt over 75 ohms, where  $\text{dB}\mu\text{V} = 20\log^{10}(\text{value in } \mu\text{V}/1 \mu\text{V})$ .

**6.309 decibel-millivolt (dBmV)** [b-ITU-T J.210], [b-ITU-T J.212]: Unit of RF power expressed in decibels relative to 1 millivolt, where  $\text{dBmV} = 20\log^{10}(\text{value in mV}/1 \text{mV})$ .

**6.310 decibels (dB)** [b-ITU-T J.210], [b-ITU-T J.212]: Ratio of two power levels expressed mathematically as  $\text{dB} = 10\log^{10}(\text{POUT}/\text{PIN})$ .

**6.311 declarative application** [b-ITU-T J.200]: An application which primarily makes use of declarative information to express its behaviour; an XML document instance is an example of a declarative application.

**6.312 declarative application environment** [b-ITU-T J.200]: An environment that supports the processing of declarative applications; an XML user agent (browser) is an example of a declarative application environment.

**6.312bis declarative application environment** [b-ITU-T J.296]: An application environment using HTML.

**6.313 Decoding margin** [b-ITU-T J.67]: Another method to evaluate the data signal quality by adding a Gaussian noise is to measure the level of added noise to obtain a given bit-error ratio. This is, by definition, the "decoding margin".

**6.313bis Decoding margin** [b-ITU-T J.101]: The decoding margin is defined as the difference between the highest "0" bit level and the lowest "1" bit level measured at the sampling instants for a bit error ratio of 10<sup>−3</sup>. The difference is expressed as percentage of the basic amplitude.

**6.314 decoding time-stamp** [b-ITU-T J.187], [b-ITU-T J.89]: A field that may be present in a PES packet header that indicates the time that an access unit is decoded in the system target decoder.

**6.315 decryption function** [b-ITU-T J.96]: Refers to a logical function used to decrypt the Encrypted Session Words, with the help of a key.

**6.316 default data model** [b-ITU-T J.380.8]: The data model that is used when no specific data model is provided. The default data model typically occupies the first location in a data model sequence (i.e., a list of data models).

**6.317 default endpoint** [b-ITU-T J.380.2]: The endpoint where messages are delivered in the absence of a message specific endpoint designation.

**6.318 deferred processing mode** [b-ITU-T J.287]: Processing of a multiple operation message(), when the value of time type within timestamp() is non-zero.

**6.319 delay** [b-ITU-T J.161]: The absolute time required for a signal to transit from source to receiver.

**6.320 delivery network gateway functions (DNGF)** [b-ITU-T J.702]: Set of functions that mediate between the network and service provider domains and the IPTV terminal function (ITF).

NOTE – A device implementing the DNGF is commonly referred to as the residential gateway (RG) or delivery network gateway (DNG).

**6.321 delivery system** [b-ITU-T J.94]: The physical medium by which one or more signal multiplexes are transmitted, e.g., satellite transponder, wide-band coaxial cable, fibre optics.

**6.322 demodulator module** [b-ITU-T J.222.1]: A physical entity in the CM that demodulates a block of one or more contiguous channels of a single bandwidth (6 MHz or 8 MHz) within the output from a single tuner.

**6.323 depth** [b-ITU-T J.902]: Distance from the capturing camera to a surface of an object in the scene.

**6.324 depth map** [b-ITU-T J.901]: Distance from the capturing camera to a surface of an object in the scene measured per each pixel on the captured image.

**6.325 DER Encoded** [b-ITU-T J.222.3]: Refers to a value which is encoded using the ASN.1 Distinguished Encoding Rules [b-ITU-T X.690].

**6.326 descrambling** [b-ITU-T J.91]: is defined as the restoration of the characteristics of a vision/sound/data signal in order to allow reception in a clear form. This restoration is a specified process under the control of the conditional access system (receiving end).

**6.326bis descrambling** [b-ITU-T J.93], [b-ITU-T J.95]: The process of reversing the scrambling function (see Scrambling) to yield usable pictures, sound, and data services.

**6.327 descriptor** [b-ITU-T J.94]: A data structure of the format: descriptor\_tag, descriptor\_length, and a variable amount of data. The tag and length fields are each 8 bits. The length specifies the length of data that begins immediately following the descriptor\_length field itself. A descriptor whose descriptor\_tag identifies a type not recognized by a particular decoder shall be ignored by that decoder. Descriptors can be included in certain specified places within PSIP tables, subject to certain restrictions. Descriptors may be used to extend data represented as fixed fields within the tables. They make the protocol very flexible since they can be included only as needed. New descriptor types can be standardized and included without affecting receivers that have not been designed to recognize and process the new types.

**6.328 detach** [b-ITU-T J.117]: The process of removing access to an asynchronous connection plug's address space.

**6.329 device tree source** [b-ITU-T J.1202]: The device tree source is a textual representation of a device tree in a form that can be processed and compiled into a binary device tree in the form expected by the operating system. A device tree is a tree data structure with nodes that describe the physical devices in a hardware system. The tree data structure allows a runtime operating system to run on top of the respective hardware system without hard-coding hardware information of the related devices included in the hardware system.

**6.330 DIAMETER** [b-ITU-T J.363], [b-ITU-T J.460.3]: The DIAMETER protocol provides an Authentication, Authorization and Accounting (AAA) framework for applications such as network access or IP mobility.

**6.331 Differential phase** [b-ITU-T J.64]: Differential phase is determined by evaluating the phase modulation of the colour sub-carrier superimposed on the staircase in element  $D_2$ .

Recommendation 567 defines differential phase in terms of two parameters  $+x$  and  $-y$  which represent the maximum (peak) differences in phase between the sub-carrier on the treads of the received test signal and the sub-carrier on its blanking level, expressed in degrees difference from the latter. In the case of a monotonic characteristic either  $x$  or  $y$  will be zero.

$x$  and  $y$  can be found from the expressions below:

$$x = \left| \Phi_{max} - \Phi_0 \right| \quad y = \left| \Phi_{min} - \Phi_0 \right|$$

where:

$\Phi_0$  : phase of sub-carrier on the blanking level tread of element  $D_2$ .

$\Phi_{max}$  : highest value of sub-carrier phase on any tread.

$\Phi_{min}$  : lowest value of sub-carrier phase on any tread.

Two alternative methods of expressing the results are acceptable for automatic measurement. These are:

- a) "peak differential phase", which is defined by either  $+x$  or  $-y$  depending upon which of these parameters has the larger magnitude.
- b) "peak-to-peak differential phase", which is defined as  $x + y$ .

**6.332 Differential gain** [b-ITU-T J.64]: Differential gain is determined by evaluating the amplitude modulation of the colour sub-carrier superimposed on the staircase in element  $D_2$ .

Recommendation 567 defines differential gain in terms of two parameters  $+x$  and  $-y$  which represent the maximum (peak) differences in amplitude between the sub-carrier on the treads of the received test signal and the sub-carrier on its blanking level, expressed as a percentage of the latter. In the case of a monotonic characteristic, either  $x$  or  $y$  will be zero.

$x$  and  $y$  can be found from the expressions below:

$$x = 100 \left| \frac{A_{max}}{A_0} - 1 \right| \quad y = 100 \left| \frac{A_{min}}{A_0} - 1 \right|$$

where:

$A_0$  : amplitude of the received sub-carrier on the blanking level tread of element  $D_2$ .

$A_{max}$  : highest value of sub-carrier on any tread.

$A_{min}$  : lowest value of sub-carrier on any tread.

Two alternative methods of expressing the results are acceptable for automatic measurement. These are:

- a) "peak differential gain", which is defined by either  $+x$  or  $-y$ , depending upon which of these parameters has the larger magnitude.
- b) "peak-to-peak differential gain", which is defined as  $x + y$ .

NOTE – For the measurement of peak-to-peak differential gain some administrations use  $A_{max}$  rather than  $A_0$ . The formula used then is:

$$x + y = 100 \left| \frac{A_{max} - A_{min}}{A_{max}} \right|$$



Results obtained by this method will differ only slightly from those defined above if the magnitude of the distortion is not excessive.

**6.333 digital channel** [b-ITU-T J.94]: A set of one or more digital elementary streams. See virtual channel.

**6.334 digital cue tone** [b-ITU-T J.287]: Widely used term to refer to an ITU-T J.181 splice\_info\_section().

**6.335 digital program insertion (DPI)** [b-ITU-T J.215]: Insertion of alternative content into digitally encoded content in response to messaging in the stream.

**6.336 digital rights management (DRM)** [b-ITU-T J.197], [b-ITU-T J.294]: The definition, management, and enforcement of a set of content usage rules. These usage rules will indicate things such as the right to copy, view, or distribute a particular piece of content.

**6.336bis digital rights management (DRM)** [b-ITU-T J.295]: Digital rights management is for the protection of digital content.

NOTE – In these requirements, use within a home network is assumed.

**6.337 digital signal 0 (DS0)** [b-ITU-T J.214]: Digital signal 0 (DS0) is a basic digital signalling rate of 64 kbit/s, corresponding to the capacity of one voice-frequency-equivalent channel.

**6.338 digital storage media command and control (DSM-CC)** [b-ITU-T J.200]: A control method defined in [b-ISO/IEC 13818-6], which provides access to files and streams for digital interactive services.

**6.338bis Digital storage media command and control (DSM-CC)** [b-ITU-T J.291]: DSM-CC is for developing control channels associated with MPEG-2 streams.

**6.339 Digital Television (DTV)** [b-ITU-T J.117]: A device that receives, decodes and presents audio and video material that has been transmitted in a compressed form. The device can be a single unit or it can be constructed from a number of individual components (e.g., a digital terrestrial set-top box and an analog television).

**6.340 digital transmission content protection (DTCP)** [b-ITU-T J.197]: The method of encryption, decryption, key exchange and renewability that is described in the specification entitled "5C digital transmission content protection release 1.0".

**6.341 digital video recorder (DVR)** [b-ITU-T J.700]: A recording capability that can be solicited and operated by end users to record and store video, audio and other associated content for subsequent playback.

**6.342 Distortions due to echoes** [b-ITU-T J.67]: This distortion is that caused by the superposition of the direct signal in the RF paths and an attenuated version of that signal delayed in time and shifted in phase relative to the direct signal.

**6.343 distributed DVR (dDVR)** [b-ITU-T J.700]: Multiple instances of a DVR where a combination of cDVRs and nDVRs can be used to record and store video, audio and other associated content for subsequent playback. For example, this usually occurs within a home network containing multiple cDVRs in order to distribute storage of video, audio and other content.

**6.344 distribution hub** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A location in a cable television network which performs the functions of a Headend for customers in its immediate area, and which receives some or all of its television program material from a Master Headend in the same metropolitan or regional area.

**6.345 DM\_ISS** [b-ITU-T J.1020]: One of the roles for DM system. It has the role of personalization of DM agent installed in a user secondary device.

- 6.346 DM\_MSS** [b-ITU-T J.1020]: One of roles for DM system, and has a role of managing on-line or off-line download.
- 6.347 DOCS 1.0** [b-ITU-T J.122]: Data-over-cable system defined by [b-SCTE 22-1].
- 6.348 DOCS 1.1** [b-ITU-T J.122]: Data-over cable system defined by [b-ITU-T J.112 Annex B], (also see 6.346*bis*).
- 6.349 DOCS 2.0** [b-ITU-T J.122]: Data-over-cable system as defined in this Recommendation.
- 6.350 DOCSIS** [b-ITU-T J.112 Annex B]: A generic term for a system or device compliant with any one of the Data Over Cable Service Interface Specification versions, namely DOCSIS 1.0, DOCSIS 1.1, DOCSIS 2.0.
- 6.350bis DOCSIS** [b-ITU-T J.125], [b-ITU-T J.126]: The term for a system or device compliant with any one of the Cable Television Laboratories, Inc. ("CableLabs") series of specifications located at: <http://www.cablemodem.com/specifications/>.
- 6.350ter DOCSIS** [b-ITU-T J.179]: Describes a specific CableModem technology as developed by Cable Television Laboratories, Inc. ("CableLabs") located at: <http://www.cablemodem.com/specifications/>. The international version is defined in Annex B/J.112.
- 6.350quater DOCSIS** [b-ITU-T J.368]: A set of interface specifications for transmitting data over cable television systems in a standard fashion.
- 6.351 DOCSIS 1.0** [b-ITU-T J.112 Annex B], [b-ITU-T J.125]: A system or device compliant with the following Data Over Cable Service Interface Specifications [SCTE22-1], [SCTE22-2], [SCTE22-3], [DOCSIS4].
- 6.352 DOCSIS 1.1** [b-ITU-T J.125]: A system or device compliant with the following Data Over Cable Service Interface Specifications: [ITU-T J.112-B], [SCTE23-3], [DOCSIS4] and this Recommendation.
- 6.352bis DOCSIS 1.1** [b-ITU-T J.112 Annex B]: A system or device compliant with the following Data Over Cable Service Interface Specifications [J.125], [SCTE4], [DOCSIS4], and Annex B.
- 6.353 DOCSIS 2.0** [b-ITU-T J.112 Annex B]: A system or device compliant with the following Data Over Cable Service Interface Specifications [J.122], [J.125], [SCTE5], [DOCSIS4].
- 6.353bis DOCSIS 2.0** [b-ITU-T J.125]: A system or device compliant with the following Data Over Cable Service Interface Specifications [ITU-T J.122], [SCTE79-2], [DOCSIS4] and this Recommendation.
- 6.354 DOCSIS flow** [b-ITU-T J.163]: A unidirectional or bidirectional flow of data packets that is subject to MAC layer signalling and QoS assignment compliant to [ITU-T J.112] (or ITU-T Rec. J.122).
- 6.355 DOCSIS L2PDU** [b-ITU-T J.213]: A Packet PDU of a DOCSIS MAC Frame, i.e., the L2PDU following a MAC Header with FC\_TYPE=00. This definition means that a MAC Management message with FC\_TYPE=11 is not considered to be a DOCSIS L2PDU, even though the form of a MAC Management Message Header is the same form as an L2PDU.
- 6.356 DOCSIS MAC frame** [b-ITU-T J.213]: The unit of transmission on the DOCSIS cable RF interface, consisting of a MAC Header and a (possibly null) Data PDU. The FC\_TYPE field of MAC Header identifies the Data PDU as either a Packet PDU (FC\_TYPE=00), or a MAC-specific PDU (FC\_TYPE=11).
- 6.357 DOCSIS Set-Top Gateway (DSG)** [b-ITU-T J.128]: The DOCSIS Set-top Gateway (DSG) defines functionality on a DOCSIS CMTS and DOCSIS CM to support the configuration and transport of a class of service known as "Out-Of-Band (OOB) messaging" between a Set-top

Controller (or application servers) and the customer premises equipment (CPE). The DSG is not intended for the delivery of programming content.

**6.357bis DSG** [b-ITU-T J.291]: The DOCSIS Set-top Gateway is an interface defining signalling to and from a DOCSIS modem embedded in a cable set-top device.

**6.358 DOCSIS signalling** [b-ITU-T J.291]: DOCSIS signalling as defined in ITU-T Recs J.125 and J.126. DOCSIS is the term for a system or device compliant with any one of the Cable Television Laboratories, Inc. ("CableLabs") series of specifications located at: <http://www.cablemodem.com/specifications/>.

**6.359 DOCSIS-based CPE** [b-ITU-T J.700]: A terminal device that contains an embedded DOCSIS cable modem. Hybrid CPEs and IP-only CPEs may be DOCSIS based.

**6.360 document object model (DOM)** [b-ITU-T J.200]: An API that defines the logical structure of XML [b-W3C XML] and HTML [b-W3C HTML] documents and the way a document is accessed and manipulated. It is also called DOM-API. It is an interface independent from platforms and languages.

**6.360bis document object model (DOM)** [b-ITU-T J.380.7]: A specification for a programming interface (API) from the W3C that allows programs and scripts to update the content, structure and style of HTML and XML documents.

**6.361 document object model (DOM) object** [b-ITU-T J.200]: An object generated by a HTML [b-W3C HTML] document.

**6.362 domain** [b-ITU-T J.178]: Any number of IPCablecom networks controlled by a single cable network operator.

**6.362bis domain** [b-ITU-T J.294]: The extent of home-network-compliant direct influence.

**6.362ter domain** [b-ITU-T J.1005]: A group of devices defined by a rights issuer such that the rights issuer can issue rights to objects for the group that can be processed by all devices within the group and only by those devices.

**6.363 domain name system (DNS)** (based on [IETF RFC 1034]) [b-ITU-T J.296]: A protocol used by the service that maps a host name on a network onto its IP address.

**6.364 domains** [b-ITU-T J.190]: The extent of home-network-compliant direct influence.

**6.365 downlink** [b-ITU-T J.195.2]: Link from HiNoC bridge (HB) to HiNoC modem (HM).

**6.366 downloadable conditional access system (DCAS)** [b-ITU-T J.291]: A technology for downloading conditional access into software on a set-top box; this is an effort under way at CableLabs and due for publication in 2006.

**6.366bis downloadable conditional access system (DCAS)** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: A conditional access (CA) system that supports all the features of legacy conditional access and provides a CA-neutral mechanism to securely download CA client image and switch CA terminals without changing hardware through either a broadcasting or a two-way network.

**6.367 downstream** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.170], [b-ITU-T J.184], [b-ITU-T J.361]: In cable television, the direction of transmission from the headend to the subscriber.

**6.367bis downstream (DS)** [b-ITU-T J.212]: 1) Transmissions from CMTS to CM. This includes transmission from the M-CMTS Core to the EQAM as well as the RF transmissions from the EQAM to the CM. 2) RF spectrum used to transmit signals from a cable operator's headend or hub site to subscriber locations.

- 6.367ter Downstream** [b-ITU-T J.222.3]: Flow of signals from the cable system control center through the distribution network to the customer. For communication purposes, associated with transmission (down) to the end-user.
- 6.368 Downstream Bonded Service Flow** [b-ITU-T J.222.2]: A downstream Service Flow for which DOCSIS MAC Frames are transmitted on one or more Downstream Channels.
- 6.369 Downstream Bonding Group** [b-ITU-T J.222.2]: A subcomponent object of a MAC Domain that distributes packets from an assigned set of Downstream Bonding Service Flows to an associated set of Downstream Channels of that MAC Domain.
- 6.370 Downstream Service Extended Header** [b-ITU-T J.222.2]: A DOCSIS extended header that contains a Downstream Service ID (DSID).
- 6.371 Downstream Service Group** [b-ITU-T J.222.2]: The complete set of Downstream Channels (DCs) from a single CMTS that could potentially reach a single Cable Modem. A DS-SG corresponds to a broadband forward carrier path signal from one CMTS. In an HFC deployment, a DS-SG corresponds to the downstream fibre transmission from one CMTS to one or more Fibre Nodes.
- 6.372 DPI cue message** [b-ITU-T J.287]: See splice\_info\_section. A term used in [ITU-T J.181]; a "DPI Cue Message" is a splice\_info\_section in this document.
- 6.373 DPI PID** [b-ITU-T J.287]: A single PID carrying ITU-T J.181 splice\_info\_sections.
- 6.374 DRM bridge** [b-ITU-T J.197]: The distribution and home network infrastructure and technologies put in place to enable content protection and Digital Rights Management for network delivered content being stored and distributed on a home network.
- 6.375 drop cable** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122] Coaxial cable that connects to a residence or service location from a directional coupler (tap) placed on the nearest coaxial feeder cable.
- 6.376 DSC\_ID** [b-ITU-T J.1004]: The identification value of the descrambler (DSC) having a size of 40 bytes.
- 6.377 DSG address table** [b-ITU-T J.128]: The collection of DSG Rules and DSG Classifiers contained within the DCD message. The DSG Client uses its DSG Client ID as an index into the DSG Address Table to determine what DSG Tunnel Address to receive.
- 6.378 DSG advanced mode** [b-ITU-T J.128]: Operation with the DCD message. Address assignment is dynamic. The DSG Tunnel Address is determined by the DSG Agent and learned by the DSG Client through the DSG Address Table in the DCD message.
- 6.379 DSG agent** [b-ITU-T J.128]: The DSG Agent is the implementation of the DSG protocol within the CMTS. The DSG Agent creates the DSG Tunnel, places content from the DSG Server into the DSG Tunnel, and sends the DSG Tunnel to the DSG Client.
- 6.380 DSG basic mode** [b-ITU-T J.128]: Operation without the DCD message. Address assignment is static. The DSG Tunnel Address is determined by the DSG Client and learned by the DSG Agent through configuration. This mode provides backwards compatibility with earlier versions of the DSG specification.
- 6.381 DSG channel** [b-ITU-T J.128]: Any DOCSIS downstream channel that contains one or more DSG Tunnels.
- 6.382 DSG classifier** [b-ITU-T J.128]: A description of layer 3 and layer 4 filtering applied to DSG Tunnel traffic. DSG Classifiers may be specified in the DSG Agent and sent as a component of the DSG Address Table in the DCD Message.

- 6.383 DSG client** [b-ITU-T J.128], [b-ITU-T J.290]: The DSG Client terminates the DSG Tunnel and receives content from the DSG Server. There may be more than one DSG Client within a Set-top Device.
- 6.384 DSG client controller** [b-ITU-T J.128]: The portion of the Set-top Device that handles the processing of DCD messages and makes decisions regarding the forwarding of DSG Tunnels within the Set-top Device.
- 6.385 DSG client ID** [b-ITU-T J.128]: This is an identifier that uniquely identifies a DSG Client. The DSG Client ID is unique per DSG Client, but is not unique per Set-top Device as the same DSG Client which provides the same function may exist in multiple Set-top Devices. In DSG Basic Mode, the DSG Client ID is a 6-byte MAC address. In DSG Advanced Mode, the DSG Client ID may additionally be a 2-byte Application ID, a 2-byte CA\_system\_ID, or a broadcast ID.
- 6.386 DSG eCM** [b-ITU-T J.128]: A DOCSIS Cable Modem that has been embedded into a Set-top Device and includes DSG functionality.
- 6.387 DSG rule** [b-ITU-T J.128]: A row entry within the DSG Address Table that assigns a DSG Client ID to a DSG Tunnel Address.
- 6.388 DSG server** [b-ITU-T J.128]: The DSG Server refers to any server such as an Application Server or other network attached device that provides content that is transported through the DSG Tunnel to the DSG Client.
- 6.389 DSG tunnel** [b-ITU-T J.128]: A stream of packets sent from the CMTS to the Set-top Terminal. In DSG Basic Mode, a DSG Tunnel is identified solely by its DSG Tunnel Address; all of the DSG Tunnel's packets use the same DSG Tunnel Address and different DSG Tunnels use different DSG Tunnel Addresses. In DSG Advanced Mode, a DSG Tunnel might be identified solely by its DSG Tunnel Address, or it might be identified by a combination of the DSG Tunnel Address along with other DSG Rule parameters: UCID List, Classifier IP addresses, and UDP port numbers.
- 6.390 DSG tunnel address** [b-ITU-T J.128]: This specifically refers to the destination MAC address of the DSG Tunnel. If the source MAC address, the destination IP address, or the source IP address is to be referenced, then that reference must be explicitly stated.
- 6.391 DTI minimum clock oscillator** [b-ITU-T J.211]: An oscillator that supports all the client clock performance requirements with holdover limited to the minimum bridging time. A non-ovenized oscillator can be used to support this oscillator category.
- 6.392 DTV service** [b-ITU-T J.205]: This is the unit for delivering audio-visual content to the end users. In a more extensive definition (the one adopted in this Recommendation), this unit also comprehends the delivery of interactive content. It constitutes an editorially consistent whole and it is an aggregation of different kinds of service components.
- 6.393 DTV service component** [b-ITU-T J.205]: Each one of the audio, visual or interactive elements that compose a digital television (DTV) service.
- 6.394 DTV service component delivery mechanism** [b-ITU-T J.205]: Used to refer to any mechanism, channel or medium to deliver digital television (DTV) service components to an integrated broadcast and broadband (IBB) DTV receiver.
- 6.395 DTV service content** [b-ITU-T J.205]: Audio/visual/interactive components delivered within a digital television (DTV) service as single editorially consistent whole.
- 6.396 dual-platform version of the television operating system (TVOS-C)** [b-ITU-T J.1201]: A TVOS software which supports both Java and web applications.
- 6.397 Dynamic Host Configuration Protocol (DHCP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: An Internet protocol used for assigning network-layer (IP) addresses.

**6.397bis Dynamic Host Configuration Protocol (DHCP) (based on [IETF RFC 2131])** [b-ITU-T J.296]: A protocol used to automatically configure terminals on a TCP/IP network. For example, this protocol allows IP addresses to be assigned dynamically.

**6.397ter dynamic host configuration protocol (DHCP)** [b-ITU-T J.460.1]: The protocol used to configure an endpoint on an IP network commonly used to assign it an IP address, and recently extended to configure the location of the endpoint.

**6.398 dynamic invocation interface (DII)** [b-ITU-T J.380]: A method of accessing web service resources through low level application programming interface (API) functions.

**6.399 dynamic quality of service (DQoS)** [b-ITU-T J.161]: Assigned on the fly for each communication depending on the QoS requested.

**6.399bis dynamic Quality of Service (DQoS)** [b-ITU-T J.191]:[IPCablecom] Assigned on the fly for each communication depending on the QoS requested.

**6.399ter dynamic quality of service** [b-ITU-T J.361]: A quality of service assigned on the fly for each communication depending on the QoS requested.

**6.400 dynamic range** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The ratio between the greatest signal power that can be transmitted over a multichannel analogue transmission system without exceeding distortion or other performance limits, and the least signal power that can be utilized without exceeding noise, error rate or other performance limits.

**6.401 Dynamically-joined Multicast Sessions** [b-ITU-T J.222.3]: Multicast sessions joined after cable modem registration.

**6.402 E.164** [b-ITU-T J.360]: E.164 is an ITU-T Recommendation which defines the international public telecommunication numbering plan used in the PSTN and other data networks.

**6.403 E1** [b-ITU-T J.214]: E1 is a physical layer telephony protocol carrying data at 2048 Mbit/s. It can carry up to 32 DS0s, each of which can carry a telephone conversation.

**6.404 embedded common interface (ECI)** [b-ITU-T J.1010], [b-ITU-T J.1011]: Architecture and system to be specified in the ETSI ISG "Embedded CI", which allows the development and implementation of software-based swappable ECI clients in customer premises equipment (CPE) and thus provides interoperability of CPE devices with respect to ECI.

**6.405 embedded common interface client (ECI client)** [b-ITU-T J.1010]: Implementation of a CA/DRM client which is compliant with the planned Embedded CI specifications. Note that it is the software module in a CPE which provides all means to receive, in a protected manner, a consumer's entitlements and rights concerning the content that is distributed by a content distributor or operator. It also receives the conditions under which a right or an entitlement can be used by the consumer, and the keys to decrypt the various messages and content. An Embedded CI client may have an associated smart card.

**6.405bis ECI client (embedded CI client)** [b-ITU-T J.1011]: Implementation of a CA/DRM client which is compliant with the embedded CI specifications. Note that it is the software module in a CPE which provides all means to receive, in a protected manner and to control execution of a consumer's entitlements and rights concerning the content that is distributed by a content distributor or operator. It also receives the conditions under which a right or an entitlement can be used by the consumer and the keys to decrypt the various messages and content.

**6.406 ECI client loader** [b-ITU-T J.1011]: Software module part of the ECI host which allows downloading, verification and installation of new ECI client software in an ECI container of the ECI host.

- 6.407 ECI container (embedded CI container)** [b-ITU-T J.1011]: Abstract concept which provides an isolated environment comprised of a virtual machine and a single ECI client.
- 6.408 embedded common interface (ECI) host** [b-ITU-T J.1010]: Hardware and software system of a CPE, which covers ECI related functionalities and has interfaces to an ECI Client. Note that the ECI host is one part of the CPE firmware.
- 6.408bis ECI host** [b-ITU-T J.1011]: Hardware and software system of a CPE, which covers ECI related functionalities and has interfaces to an ECI client. Note that the ECI host is one part of the CPE firmware. The ECI host is responsible for ensuring the isolation of each ECI container and provides authenticated loading of ECI clients.
- 6.409 ECI host loader** [b-ITU-T J.1011]: Software module which allows downloading, verification and installation of (new) ECI host software into a CPE. Note that in a multi-stage loading configuration this term is used to refer to all security critical loading functions involved in loading the ECI host.
- 6.410 eCM** [b-ITU-T J.126]: An eCM is an embedded Cable Modem, i.e., one that has been enhanced with the features of this Recommendation.
- 6.410bis eCM** [b-ITU-T J.369], [b-ITU-T J.370], [b-ITU-T J.460.4] The logical DOCSIS CM component of a E-UE, complies with DOCSIS, eDOCSIS and IPCablecom requirements.
- 6.411 ECMAScript** [b-ITU-T J.200]: Programming language defined by [b-ECMAScript].
- 6.412 Edge QAM** [b-ITU-T J.291]: A device that provides QAM modulation to increase capacity in existing legacy cable networks.
- 6.413 edge QAM modulator (EQAM)** [b-ITU-T J.212, [b-ITU-T J.210]: A headend or hub device that receives packets of digital video or data. It re-packetizes the video or data into an MPEG transport stream and digitally modulates the digital transport stream onto a downstream RF carrier using quadrature amplitude modulation (QAM).
- 6.414 eDOCSIS** [b-ITU-T J.218]: Embedding another functional device within a cable modem.
- 6.414bis eDOCSIS** [b-ITU-T J.126]: eDOCSIS is a CableLabs specification that defines the interface between the eCM and an eSAFE. The international version of the specification is this Recommendation.
- 6.415 eDOCSIS device** [b-ITU-T J.126]: An eDOCSIS device is one that includes an eCM entity, one or more eSAFEs and supports a single software image using a CableModem secured software download mechanism.
- 6.416 EDTV-II sampling** [b-ITU-T J.88]: 14.3 MHz with 8-bit precision
- 6.417 EDTV-II signals** [b-ITU-T J.88]: EDTV-II signals comprise NTSC-compatible components transmitted in the centre part of the picture and helper components located in the upper and lower parts of the picture.
- 6.418 effective frame rate** [b-ITU-T J.246], [b-ITU-T J.247]: The number of unique frames (i.e., total frames-repeated frames) per second.
- 6.419 effectively transmitted signals in sound-programme transmission** [b-ITU-T N.1], [b-ITU-T J.13]: For sound-programme transmission, a signal at a particular frequency is said to be effectively transmitted if the nominal overall loss at that frequency does not exceed the nominal overall loss at 800 Hz by more than 4.3 dB. This should not be confused with the analogous definition concerning telephony circuits given in [1]. *[CCITT Recommendation General performance objectives applicable to all modern international circuits and national extension circuits, Vol. III, Rec. G.151, § 1, Note 1.]*

For sound-programme circuits, the overall loss (relative to that at 800 Hz) defining effectively transmitted frequency is 1.4 dB, i.e., about one-third of the allowance.

**6.420 electronic code book (ECB)** [b-ITU-T J.181 Amendment 1]: This is a specific method of encryption. It is one of the methods used in DES.

**6.421 electronic key** [b-ITU-T J.93], [b-ITU-T J.95]: The term for data signals that are used to control the descrambling process in subscriber decoders.

NOTE – There are at least three types of electronic keys: those used for television signal streams, those used for protecting control system operations, and those used for the distribution of electronic keys on the cable system. See also "authorization coding" which is also effectively a key.

**6.422 electronic programme guide** [b-ITU-T J.90]: A structured multimedia database, intended to provide information on programmes to be broadcast or cablecast.

**6.423 element uniqueness** [b-ITU-T J.380.2]: Generally, XML elements shall be unique according to existing XML compliance where the element's distinctiveness is unambiguous and unique relative to its immediate spatial relationship to other elements.

**6.424 elementary stream (ES) (based on [ITU-T J.200])** [b-ITU-T J.296]: A basic stream that contains video data, audio data, or private data. A single elementary stream is carried in a sequence of PES packets with one and only one stream.

**6.425 embedded MTA device (e-MTA)** [b-ITU-T J.126]: An eDOCSIS device that contains both an eMTA and an eCM.

**6.426 embedded multimedia terminal adapter (eMTA)** [b-ITU-T J.126]: An embedded version of an MTA.

**6.426bis Embedded Multimedia Terminal Adapter (E-MTA)** [b-ITU-T J.191]: [IPCablecom] A single node that contains both an MTA and a cable modem.

**6.426ter E-MTA** [b-ITU-T J.173]: Term used in this Recommendation generically representing the CM and MTA combination. This could be an embedded MTA or a stand-alone MTA.

**6.427 embedded portal service element (ePS)** [b-ITU-T J.126]: An IPCable2Home-compliant eSAFE that provides management and network address translation functions between the cable data network and the home network.

**6.427bis embedded PS** [b-ITU-T J.192]: A Portal Services element that does not use a standalone interface to connect to a CM.

**6.427ter embedded PS** [b-ITU-T J.290] A portal services element that does not use a stand-alone interface to connect to a set-top box device.

**6.428 embedded security eSTB** [b-ITU-T J.126]: An eSTB with integrated security functions.

**6.429 embedded service/application functional entity (eSAFE)** [b-ITU-T J.126]: An embedded version of a specified application, such as an IPCablecom multimedia terminal adapter (MTA), that provides a service using the CableModem IP platform, or a function or set of functions, such as the IPCable2Home Portal Service logical element, that supports the delivery of one or more services over an IP platform.

**6.430 embedded set-top box (eSTB)** [b-ITU-T J.126]: An eSAFE that is compliant with [b-ITU-T J.128], providing video, audio and data services. An example OpenCable-compliant eSTB is further specified in [b- HOST2.0].

**6.430bis Embedded set-top box** [b-ITU-T J.128]: An embedded Set-top Box is an embedded Service Application Functional Entity (eSAFE) defined in [b-ITU-T J.126]. It includes the DSG Client(s), a DSG Client Controller, an embedded processor for an application environment, and either an embedded or removable module for Conditional Access.



- 6.430ter embedded STB** [b-ITU-T J.193]: A Set-Top-Box that does not use a stand-alone interface to connect to a RG.
- 6.430quater embedded set-top box** [b-ITU-T J.290]: An embedded set-top box is an embedded service application functional entity. It includes the DSG client(s), a DSG client controller, an embedded processor for an application environment, and either an embedded or removable module for conditional access.
- 6.431 embedded TDM emulator adapter (eTEA)** [b-ITU-T J.126]: An eSAFE that is compliant with [TEI], providing T1 and E1 Circuit transport over IP.
- 6.432 embedded user equipment (E-UE)** [b-ITU-T J.369], [b-ITU-T J.370], [b-ITU-T J.460.4]: A single physical device embedded with an eDOCSIS-compliant DOCSIS Cable Modem and an IPCablecom eUE.
- 6.433 emergency alert system** [b-ITU-T J.193]: A system, within which the NG-STB participates, that allows a service provider to distribute public emergency alarms and information about the public emergency to all of the customers attached to the cable network.
- 6.433bis emergency alert system (EAS)** [b-ITU-T J.294]: A system, within which the H-STB participates, that allows a service provider to distribute public emergency alarms and information about the public emergency to all of the customers attached to the cable network.
- 6.434 emergency services gateway (ESGW)** [b-ITU-T J.460.1]: A device which bridges the VoIP network to the Selective Router. In IPCablecom2 this is a function of the MGC, SG and MG.
- 6.435 emergency services query key (ESQK)** [b-ITU-T J.460.1]: A code that looks like a telephone number that is temporarily assigned to a VoIP 9-1-1 call by the VPC and is used as the key to the ALI database to retrieve location information for that call.
- 6.436 emergency services routing number (ESRN)** [b-ITU-T J.460.1]: A code that is used to route a VoIP 9-1-1 call to the correct ESGW and also to choose an appropriate trunk group on that ESGW that connects to a specific Selective Router.
- 6.437 emergency situation** [b-ITU-T J.260]: A situation, of serious nature, that develops suddenly and unexpectedly. Extensive immediate important efforts, facilitated by telecommunications, may be required to restore a state of normality to avoid further risk to people or property. If this situation escalates, it may become a crisis and/or disaster.
- 6.438 emergency warning system** [b-ITU-T J.296]: An emergency warning system is used for disaster broadcasts. Its startcontrol signal forces receiver units to receive the disaster broadcast programme.
- 6.439 enabler** [b-ITU-T J.367]: A term used by OMA to mean "a technology intended for use in the development, deployment or operation of a service". Examples of OMA Enablers are Device Management, Push to-Talk over Cellular (PoC), Presence SIMPLE, and XML Document Management (XDM).
- 6.440 encryption** [b-ITU-T J.170], [b-ITU-T J.178], [b-ITU-T J.361]: A method used to translate information in plaintext into ciphertext.
- 6.440bis encryption** [b-ITU-T J.93], [b-ITU-T J.95]: The process of scrambling signals to avoid unauthorized access.
- 6.441 encryption key** [b-ITU-T J.178]: The key used in a cryptographic algorithm to translate the plaintext to ciphertext.
- 6.442 encryption mode indicator bits (EMI Bits)** [b-ITU-T J.197]: Two bits, associated with protected content, that specify the copy operations that are permissible for the associated content.

- 6.443 end user** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A human being, organization, or telecommunications system that accesses the network in order to communicate via the services provided by the network.
- 6.444 endpoint** [b-ITU-T J.170], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.361]: A Terminal, Gateway or Multipoint Conference Unit (MCU).
- 6.444bis endpoint** [b-ITU-T J.380.1]: An address, a uniform resource identifier (URI), or a specific location where a logical service may be found and consumed.
- 6.444ter endpoint** [b-ITU-T J.380.2]: An address, a Uniform Resource Identifier (URI), or a specific location where a logical service function or functions shall be found and consumed via message exchange.
- 6.445 engineering change notice (ECN)** [b-ITU-T J.112 Annex B]: The final step in the procedure to change specifications.
- 6.446 engineering change order (ECO)** [b-ITU-T J.112 Annex B]: The second step in the procedure to change specifications. DOCSIS posts ECO to website EC table and ECO page (with indication of ECO Comment Deadline). DOCSIS issues ECO announcement to DOCSIS-announce and working group mail lists (with indication of ECO Comment Deadline).
- 6.447 engineering change request (ECR)** [b-ITU-T J.112 Annex B]: The first step in the procedure to change specifications. DOCSIS issues ECR number, posts to website EC table and ECR page. DOCSIS sends ECR to subject area working group mail list (and author).
- 6.448 engineering TS** [b-ITU-T J.296]: The engineering transport stream (TS) is a kind of TS signal that transmits downloaded software contents or watching control information on a satellite broadcast network.
- 6.449 enhanced broadcasting** [b-ITU-T J.700]: A system that is capable of delivering broadcast programmes over existing secondary distribution networks composed of HFC or FTTx with enhancements by applications and/or services transferred over IP-enabled networks.
- 6.450 entitlement control message (ECM)** [b-ITU-T J.181 Amendment 1]: These are private conditional access information messages which specify control words and possibly other, typically stream-specific, scrambling and/or control parameters.
- 6.450bis entitlement control messages (ECMs)** [b-ITU-T J.290]: An ECM is an encrypted message that contains access criteria to various service tiers and a control word (CW).
- 6.451 Entitlement Management Messages (EMM)** [b-ITU-T J.94]: Private Conditional Access information which specifies the authorization levels or the services of specific decoders; they may be addressed to individual decoder or groups of decoders.
- 6.451bis entitlement management message (EMM)** [b-ITU-T J.181 Amendment 1]: These are private conditional access information messages which specify the authorization levels or the services of specific decoders. They may be addressed to single decoders or groups of decoders.
- 6.452 entitlement management messages (EMMs)** [b-ITU-T J.290]: The EMM contains the actual authorization data and shall be sent in a secure method to each CPE device.
- 6.453 entitlements** [b-ITU-T J.702]: Refer to authorization level(s) including conditional access information that a subscriber can use to access certain IPTV services in his/her IPTV TD.
- 6.454 EPG provider** [b-ITU-T J.90]: The entity that collects, collates and assembles the elements of information that constitute the EPG database.
- 6.455 Equivalent impairment** [b-ITU-T J.67]: The data signal quality is evaluated by adding a Gaussian noise signal to the received signal and plotting the bit-error ratio versus the noise level. For

a given bit-error ratio, the difference in dB between the measured noise level and the theoretical level produces, by definition, the "equivalent impairment".

**6.456 eRouter** [b-ITU-T J.126]: DOCSIS Embedded Router. An eSAFE that is compliant with eRouter in [b-ITU-T J.218], providing version 4 and/or version 6 Internet Protocol-formatted data forwarding, address configuration, and Domain Name services to Internet Protocol host devices connected to the cable modem in a customer's premises.

**6.456bis eRouter** [b-ITU-T J.218]: An eSAFE device that is implemented in conjunction with the DOCSIS embedded cable modem.

**6.457 errored second** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Any one second interval containing at least one bit error.

**6.458 eTEA** [b-ITU-T J.214]: An eTEA is an eDOCSIS eSAFE; an embedded version of a TEA.

**6.459 eUE** [b-ITU-T J.369], [b-ITU-T J.370], [b-ITU-T J.460.4]: The logical IPCablecom UE component of a E-UE, complies with eSAFE and IPCablecom requirements.

**6.460 event** [b-ITU-T J.94]: A grouping of elementary broadcast data streams with a defined start and end time belonging to a common service, e.g., first half of a football match, News Flash, first part of an entertainment show.

**6.460bis event** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: A splice event or a viewing event.

**6.460ter event** [b-ITU-T J.380.2]: A general term indicating something has happened or occurred.

**6.461 event message** [b-ITU-T J.164]: An Event Message is a set of data, representative of an event in the IPCablecom architecture that could be indicative of usage of one or more billable IPCablecom capabilities. An Event Message by itself may not be fully indicative of a customer's billable activities, but an Event Message correlated with other Event Messages builds the basis of a billable Usage Detail Record.

**6.461bis event message** [b-ITU-T J.170], [b-ITU-T J.178]: Message capturing a single portion of a connection.

**6.462 execution engine** [b-ITU-T J.200]: A subsystem in a receiver that evaluates and executes procedural applications consisting of computer language instructions and associated data and media content. An execution engine may be implemented with an operating system, computer language compilers, interpreters and application programming interfaces (APIs), which a procedural application may use to present audiovisual content, interact with a user, or execute other tasks that are not evident to the user. A common example of an execution engine is the JavaTV software environment, using the Java programming language and byte code interpreter, JavaTV APIs, and a Java virtual machine for program execution.

**6.463 extended subplit** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.122]: A frequency division scheme that allows bidirectional traffic on a single coaxial cable; in North America, reverse path signals come to the Headend from 5 to 42 MHz, and forward path signals go from the Headend from 50 or 54 MHz to the upper frequency limit.

**6.464 extended upstream frequency range** [b-ITU-T J.222.1]: An optional upstream frequency range over which a CM may be capable of transmitting. In the technology option that uses 6 MHz downstream channelization, this is 5-85 MHz. In the technology option that uses 8 MHz downstream channelization, no extended upstream frequency range is defined.

**6.465 extensible HTML (XHTML)** [b-ITU-T J.200]: Reformulation of HTML [b-W3C HTML] as an application language of XML [b-W3C XML].

**6.466 Eye diagram** [b-ITU-T J.67]: The eye diagram is defined as the superposition of all the configurations of the data signals.

- 6.467 factor** [b-ITU-T J.262]: A factor, as used in the process of authentication, represents either something known (such as a PIN, password or passphrase), something possessed (such as a card with a magnetic stripe or a security token) or something unique (such as a finger or voice print) about the individual whose identity is to be authenticated.
- 6.468 fast mode** [b-ITU-T J.211]: An operating condition of a clock in which it is locked to an external reference and is using time constants, which are reduced to quickly bring the local oscillator's frequency into approximate agreement with the synchronization reference frequency.
- 6.469 fault reporting centre** [b-ITU-T N.51]: A centre at a receiving country dealing with enquiries and fault reports concerning transmission to TVROs not related to an ITC.
- 6.470 feeder cable** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Coaxial cables that run along streets within the served area and connect between the individual taps which serve the customer drops.
- 6.471 fetcher** [b-ITU-T J.367]: A form of Watcher that has asked the Presence Service for the Presence Information of one or more Presentities, but is not requesting a Notification from the Presence Service of (future) changes in a Presentity's Presence Information [b-OMA RD-PRS].
- 6.472 Fiber Distributed Data Interface (FDDI)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A fiber-based LAN standard.
- 6.473 fibre node** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A point of interface between a fibre trunk and the coaxial distribution.
- 6.474 Field-time waveform distortion** [b-ITU-T J.67]: If a square-wave signal with a period of the same order as one field and of nominal luminance amplitude is applied to the input of the circuit, the field-time waveform distortion is defined as the change in shape of the square wave at the output. A period at the beginning and end of the square wave, equivalent to the duration of a few lines, is excluded from the measurement.
- 6.475 file downloading** [b-ITU-T J.127]: Program transmission method whereby the program starts playing after the entire data has been downloaded.
- 6.476 final edited master** [b-ITU-T J.248]: The final edited master is the final instance of a television program as it is provided at the end of the program production chain, ready to be dispatched to the distributors and the end users.
- 6.477 fixed stuff** [b-ITU-T J.131], [b-ITU-T J.132]: Bytes that are used to fill up unused data positions.
- 6.478 flooding** [b-ITU-T J.213]: An operation of an L2 bridge in which it replicates an L2PDU addressed to a group MAC or unlearned individual MAC address to all Bridge Ports other than the L2PDU's ingress port.
- 6.479 flow** [b-ITU-T J.212]: A stream of packets in DEPI used to transport data of a certain priority from the M-CMTS Core to a particular QAM channel of the EQAM. In PSP operation, there can exist several flows per QAM channel.
- 6.480 forbidden** [b-ITU-T J.94]: The term "forbidden" when used in the clauses defining the coded bitstream, indicates that the value shall never be used.
- 6.481 formatter** [b-ITU-T J.200]: A subsystem in a receiver that evaluates and presents declarative applications consisting of content in multiple formats. A formatter also responds to formatting information associated with the content, to user inputs, and to script statements that control presentation behaviour and initiate other processes in response to user input and other events. An example of a formatter is a nested context language (NCL) [b-NCL] formatter engine.

**6.482 forward channel** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: The direction of RF signal flow away from the headend toward the end user; equivalent to Downstream.

**6.482bis forward channel** [b-ITU-T J.116]: The direction of RF signal flow away from the BTS toward the end user; synonymous to Downstream.

**6.483 forward data channel** [b-ITU-T J.184]: A data channel carried from the headend to the terminal device in a modulated channel at a rate of 1.544 to 3.088 Mbit/s. The FDC carries IP traffic only for:

- Conditional access for analogue signals.
- Entitlement management messages for digital signals.
- General messaging.
- Application download.
- PC data services.
- Variable bit rate (VBR) download.
- Broadcast data.
- Network management.

**6.484 forward error correction (FEC)** [b-ITU-T J.210]: A class of methods for controlling errors in a communication system. FEC sends parity information with the data which can be used by the receiver to check and correct the data.

**6.485 fractional** [b-ITU-T J.214]: A fractional T1 or fractional E1 carries only a portion of the total number of DS0s that a T1 or E1 carries.

**6.486 fragmented TLV packet** [b-ITU-T J.183], [b-ITU-T J.288]: A fixed-length packet that has fragmented type-length-value (TLV).

**6.487 frame** [b-ITU-T J.122]: See MAC frame, S-CDMA frame and MPEG frame.

**6.488 frame check sequence** [b-ITU-T J.195.2]: A redundant sequence that is used for verifying the correctness of the received data.

**6.489 Frame Loss Ratio (FLR)** [b-ITU-T J.141]: The ratio of errored data frames with respect to total number of frames transmitted, when the data frames are transmitted over a noisy channel.

**6.490 frame rate** [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.246], [b-ITU-T J.247]: The number of (progressive) frames displayed per second (fps).

**6.491 frame synchronizer** [b-ITU-T J.248]: A device that receives a video signal from a remote source, and synchronizes it to the local video synchronization pulses, in order that it may be seamlessly mixed with locally generated video signals.

**6.492 free-run mode** [b-ITU-T J.211]: An operating condition of a DTI clock whose output signals are internally controlled by the DTI server. The clock has never had, or has lost, external reference input and has no access to stored data that was acquired from a previously connected external reference during the time after the last power cycle. Free-run ends when the clock output is influenced by an external reference or the process to achieve lock to an external reference. Free-run may provide needed stability when external reference has been lost or not equipped.

**6.493 FTV** [b-ITU-T J.901]: Video media system that can provide audiences of freedom to choice their viewpoint.

**6.494 fukinuki hole** [b-ITU-T J.88]: Frequency regions around the colour sub-carrier of the compatible centre part of EDTV-II images, where normal NTSC signals have lower spectral density.

**6.495 full duplex DOCSIS mode** [b-ITU-T J.224]: An extension of the fourth generation of cable modem specifications that is targeted at significantly increasing upstream capacity by using the spectrum currently used for downstream transmission for simultaneous upstream and downstream communications.

**6.496 full period terminated service** [b-ITU-T J.93], [b-ITU-T J.95]: A subscription service that is always available to subscribers during the operating hours of the delivery system.

NOTE – By contrast, other services, such as a pay-per-view feature film, are only available for a specific period of time.

**6.497 function** [b-ITU-T J.190]: Capabilities that compromise logical elements.

**6.497bis function** [b-ITU-T J.200]: A process which conveys or transforms data in a predictable way. It may be effected by hardware, software or a combination of both.

**6.498 functional component interface** [b-ITU-T J.1201]: An interface for a software module in the functional component layer defined in this Recommendation.

**6.499 Gain/frequency response** [b-ITU-T J.67]: The gain/frequency characteristic of the circuit is defined as the variation in gain between the input and the output of the circuit over the frequency band extending from the field repetition frequency to the nominal cut-off frequency of the MAC signal, relative to the gain at a suitable reference frequency.

**6.500 gateway** [b-ITU-T J.170], [b-ITU-T J.178], [b-ITU-T J.361]: Devices bridging between the IP-Cablecom IP voice communication world and the PSTN. Examples are the media gateway, which provides the bearer circuit interfaces to the PSTN and transcodes the media stream, and the signalling gateway, which sends and receives circuit switched network signalling to the edge of the IP-Cablecom network.

**6.501 generic format of transport stream** [b-ITU-T J.183]: A data stream other than Motion Picture Experts Group version 2 (MPEG-2) transport stream (TS), e.g., type-length-value (TLV). For transmitting a TLV stream in an existing ITU-T J.83 system, packetization is carried out in accordance with [ITU-T J.288].

**6.502 GigE (GE)** [b-ITU-T J.212]: Gigabit Ethernet (1 Gbit/s).

**6.503 GINGA** [b-ITU-T J.200]: The middleware specification for the Brazilian digital TV system. It comprises two execution environments, for both declarative and imperative applications.

**6.504 GINGA-J** [b-ITU-T J.200]: GINGA's execution environment for imperative applications written in Java. It also comprises a set of APIs for the development of interactive digital TV applications.

**6.505 global uniqueness** [b-ITU-T J.380.2]: Global or universally unique and at no other time shall the item be compromised, reused, or otherwise taken to have more than one meaning. The enforcement of uniqueness as well as the creation of globally unique identifiers is outside the scope of this Recommendation and [b-IETF RFC 4122] is recommended.

**6.506 GPI** [b-ITU-T J.287]: A general purpose interface which is commonly used to source or sink contact closures in video facilities.

**6.507 gpssec** [b-ITU-T J.211]: The gpssec is a 32-bit timestamp counter that is incremented every second. GPS system time began on January 6, 1980. The gpssec value was set to zero at the January 6, 1980 start epoch.

**6.508 graphic interchange format (GIF)** [b-ITU-T J.296]: A bitmap image format that was introduced by CompuServe in 1987 and has since come into widespread usage on the World Wide Web due to its wide support and portability. GIF images are compressed using the Lempel-Ziv-Welch (LZW) lossless data compression technique to reduce the file size without degrading the visual quality.

- 6.509 graphical user interface** [b-ITU-T J.296]: A graphical user interface is equipped with graphical input and output on the computer monitor.
- 6.510 group delay** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The difference in transmission time between the highest and lowest of several frequencies through a device, circuit or system.
- 6.511 group MAC (GMAC) address** [b-ITU-T J.213]: An IEEE 6-byte MAC address with the first transmitted bit (the group bit) set to "1", indicating that the address refers to a group of MAC hosts. In the canonical representation of MAC addresses used for Ethernet transmission, the group bit is the least significant bit of the first byte. The all-1s broadcast MAC address is considered to be a GMAC address.
- 6.512 Group-delay distortion** [b-ITU-T J.67]: The group-delay distortion, expressed in ns, is defined by the difference between the group delay for each measured frequency and the group delay for a given reference frequency.
- 6.513 Grouping-broadcast** [b-ITU-T J.196.3]: A transmission method for a HiNoC bridge (HB) to broadcast frames to the HiNoC modems (HMs) joined in a certain group with the group ID indicated in the frame headers, while the HMs that are not part of the group cannot receive the frames.
- 6.514 guaranteed service domain (GSD)** [b-ITU-T J.290]: Devices in the GSD will be able to receive QoS sensitive content services such as VoIP, multiplayer interactive gaming, and IP video-phone.
- 6.515 guardband** [b-ITU-T J.112 Annex B]: Minimum time allocated between bursts in the upstream referenced from the symbol centre of the last symbol of a burst to the symbol centre of the first symbol of the following burst. The guardband should be at least the duration of five symbols plus the maximum system timing error.
- 6.516 guard time** [b-ITU-T J.112], [b-ITU-T J.116]: Minimum time allocated between bursts in the upstream, referenced from the symbol centre of the last symbol of a burst to the symbol centre of the first symbol of the following burst.
- 6.516bis guard time** [b-ITU-T J.112 Annex B]: The term guard time is similar to guardband, except that it is measured from the end of the last symbol of one burst to the beginning of the first symbol of the preamble of an immediately following burst. Thus, the guard time is equal to the guardband- 1.
- 6.516ter guard time** [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Minimum time allocated between bursts in the upstream referenced from the symbol centre of the last symbol of a burst to the symbol centre of the first symbol of the following burst. The guard time should be at least the duration of five symbols plus the maximum system timing error.
- 6.517 HANC** [b-ITU-T J.287]: Horizontal ancillary data space in digital video streams.
- 6.518 hardware abstraction interface** [b-ITU-T J.1201]: An interface for a software module in the hardware abstraction layer defined in this Recommendation.
- 6.519 hardware security module (HSM)** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: A security chipset capable of control word processing, access authorizing and secure storage, etc., which supports hardware security enhancement of a unidirectional receiver.
- 6.520 Harmonic Related Carrier (HRC)** [b-ITU-T J.112]: A method of spacing television channels on a cable television system in exact increments, with all carrier frequencies harmonically related to a common reference.
- 6.520bis harmonic related carrier (HRC)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A method of spacing television channels on a cable television system in exact 6-MHz increments, with all carrier frequencies harmonically related to a common reference.

- 6.520ter harmonic related carriers (HRC)** [b-ITU-T J.210]: A method of spacing channels on a cable television system with all carriers related to a common reference.
- 6.521 hash value** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: The result calculated on any value by using hashing algorithms.
- 6.522 HD-SDI** [b-ITU-T J.287]: Abbreviation for high definition serial digital interface (see [b-SMPTE ST 292-1]).
- 6.523 headend** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.360] The central location on the cable network that is responsible for injecting broadcast video and other signals in the downstream direction. See also Master Headend, Distribution Hub.
- 6.524 header** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.170], [b-ITU-T J.178], [b-ITU-T J.361]: Protocol control information located at the beginning of a protocol data unit.
- 6.525 helper signals** [b-ITU-T J.88]: Spatial-temporal video enhancement signals, e.g., Horizontal High frequency helper signal (HH), Vertical High frequency helper signal (VH) Vertical Temporal helper signal (VT).
- 6.526 HFC access network** [b-ITU-T J.363], [b-ITU-T J.460.3]: The Hybrid-Fibre Coax Network, which provides physical transport of video and high speed data services via DOCSIS.
- 6.527 HFC-based networks** [b-ITU-T J.381]: HFC-based networks include legacy cable networks such as hybrid fibre coax; recent technology deployments such as radio frequency over glass (RFoG); and cable network technologies that may be deployed in the near future.
- 6.528 high definition analogue form or output** [b-ITU-T J.197]: A format or output that is not digital, and has a resolution higher than standard definition analogue form or output.
- 6.529 High Frequency (HF)** [b-ITU-T J. 112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Used in this Recommendation to refer to the entire subsplit (5-30 MHz) and extended subsplit (5-42 MHz) band used in reverse channel communications over the cable television network.
- 6.530 high return** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A frequency division scheme that allows bidirectional traffic on a single coaxial cable; reverse channel signals propagate to the headend above the downstream passband.
- 6.531 high-bandwidth digital content protection (HDCP)** [b-ITU-T J.197]: The method of authentication, encryption, decryption, and renewability that is described in the specification entitled "High bandwidth digital content protection system, rev. 1.1".
- 6.532 HN-TD1** [b-ITU-T J.293]: A logical interface defined in 6.1.4 for content reception through an IP home network.
- 6.533 HN-TD2** [b-ITU-T J.293]: A logical interface defined in 6.1.5 for interactive communications to entities within an IP home network.
- 6.534 holdover mode** [b-ITU-T J.211]: An operating condition of a DTI clock that has lost its controlling input and is using stored data, acquired while in normal or fast mode operation, to control its output. The stored data is filtered to minimize the effects of short-term variations and to establish a predictor of oscillator behaviour during the reference outage. This permits the output deviation from normal operation to be minimized.
- 6.535 home access (HA)** [b-ITU-T J.190]: A device class that connects access network with home bridge.



**6.536 home access (HA) device** [b-ITU-T J.192]: A grouping of logical elements used to achieve HFC access for IP-Cable2Home network(s), referred to as a Residential Gateway in this Recommendation.

**6.536bis home access (HA) device** [b-ITU-T J.290]: A grouping of logical elements used to achieve HFC access for IP-Cable2Home network(s).

**6.537 home bridge (HB)** [b-ITU-T J.190]: A device class that connects home access with home client.

**6.538 home bridge (HB) device** [b-ITU-T J.290]: A group of logical elements used to bridge IP-Cable2Home networks together.

**6.539 home client (HC)** [b-ITU-T J.190]: A device class that connects home bridge with home decoder.

**6.540 home client (HC) device** [b-ITU-T J.192]: A group of logical elements used to provide functionality to client applications, referred to as an IP-Cable2Home Host in this Recommendation.

**6.540bis home client (HC) device** [b-ITU-T J.290]: A group of logical elements used to provide functionality to client applications.

**6.541 home decoder (HD)** [b-ITU-T J.190]: A device class that terminates home network.

**6.542 home network** [b-ITU-T J.295]: A network within a home compliant with Recommendation ITU-T J.190, consisting of IP-based transport including a wired LAN (Ethernet: IEEE 802.3) and wireless LAN (WiFi: IEEE 802.11a/b/g/n) and non-IP-based communication methods such as ZigBee (IEEE 802.15.4), where the hybrid cable set-top box is equipped with all of the HA, HB, HC and HD functionalities defined in Recommendation ITU-T J.190

**6.543 home network (HN) type remote control unit (RCU)** [b-ITU-T J.295]: An RCU connected to the set-top box via an IP home network. Interactive operation is supported. In addition to communicating and controlling the set-top box, the HN type RCU can also access directly services provided by cable operators or other content and/or service providers.

**6.544 home network coaxial modem** [b-ITU-T J.293]: A modem for IP communications modulated over Coaxial cable for communications within the home, e.g., MOCA, HPNA over Coax.

**6.545 home network interface** [b-ITU-T J.294]: The logical interface between the RG and the local area network (LAN) (i.e., home network).

**6.546 home network planes** [b-ITU-T J.190]: User interfaces sharing the same Layer 1/Layer 2 or internal link.

**6.547 home terminal** [b-ITU-T J.193]: The device attached to the cable network that receives and renders services for the customer. Also known as a set top box.

**6.548 host** [b-ITU-T J.93], [b-ITU-T J.95]: A device with generalized functionality where modules containing specialized functionality can be connected.

**6.549 HTTP Digest over TLS-based GBA** [b-ITU-T J.366.9]: This is a GBA that uses HTTP Digest over TLS.

**6.550 HTTP over SSL or HTTP secure (HTTPS)** [b-ITU-T J.380.7]: This is the use of Secure Socket Layer (SSL) or Transport Layer Security (TLS) as a sub-layer under regular HTTP application layering.

**6.551 hum modulation** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Undesired modulation of the television visual carrier by the fundamental or low-order harmonics of the power supply frequency, or other low-frequency disturbances.

**6.552 hybrid cable set-box top (STB)** [b-ITU-T J.296]: An STB that satisfies the requirements defined in this Recommendation. Unless specifically noted otherwise, in this Recommendation the term STB shall mean the hybrid cable STB.

**6.552bis hybrid cable set-top box (STB)** [b-ITU-T J.295]: An STB that satisfies the requirements defined in this Recommendation. Unless specifically noted, STB shall mean the hybrid cable STB in this Recommendation.

**6.553 hybrid CPE** [b-ITU-T J.700]: A terminal device that is capable of receiving content services over MPEG transport streams and IP.

**6.554 hybrid fibre coax** [b-ITU-T J.460.2]: Access network architecture consisting of fibre-optic feeders from the head end to nodes, at which point a coaxial cable is used for the final distribution to the subscribers.

**6.555 hybrid fibre/coax (HFC) system** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.161], [b-ITU-T J.210], [b-ITU-T J.212]: A broadband bidirectional shared-media transmission system using fibre trunks between the headend and the fibre nodes, and coaxial distribution from the fibre nodes to the customer locations.

**6.556 Hybrid Fibre-and-Coaxial (HFC) network** [b-ITU-T J.112]: A broadband bidirectional shared-media transmission system using fibre trunks between the headend and the fibre nodes, and coaxial distribution from the fibre nodes to the customer locations.

**6.557 hybrid full reference encrypted model** [b-ITU-T J.343]: An objective video quality model that predicts subjective quality using the reference video, the decoded video frames, and packet headers. Such models are suitable for use with encrypted video.

**6.558 hybrid full reference model** [b-ITU-T J.343]: An objective video quality model that predicts subjective quality using the reference video, the decoded video frames, packet headers, and the video payload. Such models cannot analyse encrypted video.

**6.559 hybrid no reference encrypted model** [b-ITU-T J.343]: An objective video quality model that predicts subjective quality using the decoded video frames and packet headers. Such models can be deployed in-service and are suitable for use with encrypted video.

**6.560 hybrid no reference model** [b-ITU-T J.343]: An objective video quality model that predicts subjective quality using the decoded video frames, packet headers, and video payload. Such models can be deployed in-service but cannot analyse encrypted video.

**6.561 hybrid reduced reference encrypted model** [b-ITU-T J.343]: An objective video quality model that predicts subjective quality using the decoded video frames, packet headers, and features extracted from the reference video. These models can be deployed in-service and are suitable for use with encrypted video.

**6.562 hybrid reduced reference model** [b-ITU-T J.343]: An objective video quality model that predicts subjective quality using the decoded video frames, packet headers, video payload and features extracted from the reference video. Such models can be deployed in-service but cannot analyse encrypted video.

**6.563 hybrid set-top-box (H-STB)** [b-ITU-T J.294]: A compilation of hardware and software functional entities contained within one or more physical devices, that, at a baseline level, provides the receiving functions for cable broadcast services. In addition, the hybrid set-top-box should support the interactive functions of IP-based services, additional time critical services between the access and the home network as well as extension and supplemental services.

**6.564 hybrid STB** [b-ITU-T J.298]: A hybrid set-top box (STB) is a STB that uses multiple methods of receiving transmission signals with video and audio content.

NOTE – For the purposes of this Recommendation, the dual streams will be IP based via the Internet protocols and cable, satellite and terrestrial television, based on the ITU-T J.83, DVB-S/S2, DVB-T/T2 or ISDB-T/Tb standards.

**6.565 hypertext transfer protocol (HTTP)** [b-ITU-T J.380.7]: The underlying protocol used by the World Wide Web. HTTP defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands.

**6.566 hypothetical reference circuit (in the fixed satellite service)** [b-ITU-T J.61]: A reference circuit for a system in the fixed-satellite service which may form part of an international television circuit and is defined as follows:

- it consists of one Earth station satellite-Earth station system;
- it includes one pair of modulation and demodulation equipment for translation from the baseband to the radio-frequency carrier, and from the radio-frequency carrier to the baseband, respectively;
- it does not include a standards converter or a synchronizing-pulse regenerator, or equipment for the insertion of signals in the line/field blanking interval.

**6.567 hypothetical reference circuit (terrestrial)** [b-ITU-T J.61]: A reference circuit, used as an example of an international television circuit. It may be of either radio or cable type and it has the following characteristics:

- the overall length between video terminal points is 2500 km;
- two intermediate video points divide the circuit into three sections of equal length;
- the three sections are lined up individually and then interconnected without any form of overall adjustment or correction;
- the circuit does not contain a standards converter or a synchronizing pulse regenerator, or equipment for the insertion of signals in the line/field blanking interval.

**6.568 i2** [b-ITU-T J.460.1]: The second 911 VoIP migration phase, called "i2" as defined by NENA providing a viable solution for VoIP carriers. There are two specialized "service operators" introduced in this migration phase the VPC Service Operator and the Emergency Services Gateway Operator.

**6.569 i3** [b-ITU-T J.460.1]: The third and final migration phase planned by NENA, a more long-term approach to address the needs of having IP-enabled emergency centres.

**6.570 iAPR** [b-ITU-T J.117]: A register affiliated with an asynchronous connection, that indicates how much of data has been produced. This register also has other bits that are used for demarcation of variable-length frames, and to support the connection disconnection sequence.

**6.571 IBB application** [b-ITU-T J.205]: An Application that is meant to be handled and executed within an integrated broadcast and broadband (IBB) application control framework defined by this Recommendation. Such applications can have their application contents delivered using different application component delivery mechanisms.

**6.572 IBB application control mechanism** [b-ITU-T J.205]: A mechanism used by integrated broadcast and broadband (IBB) digital television (DTV) service providers to signal and control IBB applications associated to their respective IBB DTV services. The mechanism contemplates the transmission of an IBB DTV service's application control data structure within the IBB DTV service. Such data structure can support the signalling of IBB applications that are retrievable from the broadcast channel or through the broadband channel from HTTP servers or application repositories.

**6.573 IBB application provider** [b-ITU-T J.206]: An organization that makes available an IBB application; in the most common case, it is the application developer.

**6.574 IBB DTV receiver** [b-ITU-T J.205]: A device capable of receiving and displaying DTV Services as well as integrated broadcast and broadband (IBB) DTV services.

- 6.575 IBB DTV service provider** [b-ITU-T J.205]: An entity (i.e., broadcasters) making available and delivering IBB DTV services.
- 6.576 IBB installable application** [b-ITU-T J.205]: An integrated broadcast and broadband (IBB) application that can be downloaded and saved onto the IBB DTV receiver's persistent storage for later usage.
- 6.577 IBB resident application** [b-ITU-T J.205]: An integrated broadcast and broadband (IBB) application embedded into the IBB DTV receiver by the device manufacturer.
- 6.578 immediate mode** [b-ITU-T J.287]: Processing of a `multiple_operation_message()` when the value of `time_type` within `timestamp()` is 0.
- 6.579 impulse noise** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Noise characterized by non-overlapping transient disturbances.
- 6.580 IMS delta specifications** [b-ITU-T J.360]: Suite of 3GPP IMS specifications modified to reflect cable specific deltas necessary to comply with IPCablecom.
- 6.581 in point** [b-ITU-T J.181 Amendment 1]: A point in the stream, suitable for entry.
- 6.581bis in point** [b-ITU-T J.189]: A point in the bit stream, suitable for entry, that lies on an elementary access unit boundary.
- 6.581ter in point** [b-ITU-T J.287]: A point in the stream, suitable for entry, that lies on an access unit boundary.
- 6.582 in point packet** [b-ITU-T J.189]: A transport stream packet which corresponds to the first packet following the In Point.
- 6.583 in stream device** [b-ITU-T J.181]: A device that receives the transport stream directly and is able to derive timing information directly from the transport stream.
- 6.584 Incremental Related Carriers (IRC)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A method of spacing NTSC television channels on a cable television system in which all channels except 5 and 6 correspond to the standard channel plan, used to reduce composite triple beat distortions.
- 6.584bis incremental related carriers (IRC)** [b-ITU-T J.210]: A method of spacing NTSC television channels on a cable television system in which all channels are offset up 12.5 kHz with respect to the [CEA 542 B] standard channel plan except for channels 5 and 6.
- 6.585 individual MAC address** [b-ITU-T J.213]: An IEEE 6-byte MAC address with the first transmitted bit (the group bit) set to "0", indicating that the address refers to a single MAC host. For the Ethernet MAC addresses of DOCSIS, the group bit is the least significant bit of the first byte of the MAC address.
- 6.586 information element (IE)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: The fields that make up a MAP and define individual grants, deferred grants, etc.
- 6.587 infrared rays (IR) type RCU** [b-ITU-T J.295]: An RCU operating on infrared rays. Only uni-directional operation is supported.
- 6.588 injector** [b-ITU-T J.287]: A device or combination of devices within the DCS capable of converting ITU-T J.287 message data into an ITU-T J.181 `splice_info_section()`, including a program-specific PCR splice time value, if necessary, and multiplexing the resulting section data along with the other program components into the eventual MPEG SPTS or MPTS.
- 6.589 injector instance** [b-ITU-T J.287]: A specific instance of an injector, constrained to place a single DPI PID into a single MPEG program in a single transport stream.

- 6.590 insertion channel** [b-ITU-T J.280]: The insertion multiplex channel(s) that replaces the primary channel in whole or in part of the duration for a splice event.
- 6.591 insertion gain** [b-ITU-T J.61]: The ratio, expressed in decibels, of the peak-to-peak amplitude of a specified test signal at the receiving end to the nominal amplitude of that signal at the sending end, the peak-to-peak amplitude being defined as the difference between the amplitudes measured at defined points of the signal used.
- 6.592 insertion multiplex** [b-ITU-T J.280]: This is the source of the insertion channel. A multiplex produced by a server may under some circumstances exclude program specific information (PSI), thus it is understood that this multiplex may be a non-compliant MPEG-2 transport stream.
- 6.593 instance** [b-ITU-T J.94]: See table instance. (See 6.1206).
- 6.594 integrated broadcast and broadband (IBB) DTV service** [b-ITU-T J.205]: A service that simultaneously provides an integrated experience of broadcasting and interactivity relating to media content, data and applications from multiple sources, where the interactivity is sometimes associated with broadcasting programmes.
- 6.595 integrated services digital network (ISDN)** [b-ITU-T J.460.1]: User Part (part of the SS7 signaling stack).
- 6.596 integrity** [b-ITU-T J.93], [b-ITU-T J.95]: The ability of a function to withstand being usurped for unauthorized use, or being modified to yield unauthorized results.
- 6.596bis integrity** [b-ITU-T J.170]: A way to ensure that information is not modified except by those who are authorized to do so.
- 6.597 intended frame rate** [b-ITU-T J.246], [b-ITU-T J.247]: The Number of video frames per second physically stored for some representation of a video sequence. The intended frame rate may be constant or may change with time. Two examples of constant intended frame rates are a BetacamSP tape containing 25 fps and a VQEG FR-TV Phase I compliant 625-line YUV file containing 25 fps; these both have an intended frame rate of 25 fps. One example of a variable intended frame rate is a computer file containing only new frames; in this case the intended frame rate exactly matches the effective frame rate. The content of video frames is not considered when determining intended frame rate.
- 6.598 interaction channel** [b-ITU-T J.110]: A bidirectional channel between the user and the service provider for interaction purposes. In certain implementations the interaction channel could also carry a user selected broadcast service. In general, the interaction channel is formed by:
- return interaction path (return channel): A communication channel from the user to the service provider. It is multiple point-to-point.
  - forward interaction path: An individual communications channel from the service provider to the user. It may be embedded into the broadcast channel. This channel may not be present in all implementations.
- 6.599 interactive interface module (see Annex A)** [b-ITU-T J.112]: Called CM in Annex B and MH in Annex C.
- 6.600 Interference** [b-ITU-T J.67]: The signal-to-interference ratio is defined as the ratio, expressed in decibels, of the nominal amplitude of the luminance signal (1 V) to the peak-to-peak amplitude of the interfering signal.
- 6.601 interframe coding** [b-ITU-T J.248]: Bit rate reduction video signal encoding that exploits the video signal redundancy over several pictures.
- 6.602 interleave** [b-ITU-T J.112], [b-ITU-T J.116]: An error correction method that enables the correction of burst noise induced errors.

**6.603 interleave frame allocation** [b-ITU-T J.296]: A method of 3D video data for both-eye viewing.

**6.604 Intermediate audio quality** [b-ITU-T J.145]: Audio quality lower than defined in ITU-R BS.1116, if acceptable or unavoidable. Rapid developments in the use of the Internet for distribution and broadcast of audio material, where the data rate is limited, have led to a compromise in audio quality. Other applications for such lower audio quality are digital AM, digital satellite broadcasting, commentary circuits in radio and TV, audio on demand services and audio on dial-up lines.

**6.605 international emergency situation** [b-ITU-T J.260]: An emergency situation, across international boundaries, that affects more than one country.

**6.606 international multiple destination sound-programme circuit section** [b-ITU-T N.1]: The unidirectional sound-programme transmission path from one frontier station to two or more of the frontier stations at which interconnection is made at audio frequencies.

**6.607 international multiple destination sound-programme circuit** [b-ITU-T N.1]: The unidirectional transmission path from one ISPC to two or more other ISPCs comprising sound-programme circuit sections (national or international) one of which is an international multiple destination circuit section, together with any necessary audio equipment.

**6.608 international multiple destination sound-programme connection** [b-ITU-T N.1]: The unidirectional transmission path between the broadcasting organization (send) and two or more broadcasting organizations (receive) comprising the international multiple destination sound-programme link extended at its ends over national sound-programme circuits to the broadcasting organizations.

**6.609 international multiple destination sound-programme link** [b-ITU-T N.1]: The unidirectional transmission path between the ISPCs of the terminal countries involved in an international multiple destination sound-programme transmission. The international multiple destination sound-programme link comprises international sound-programme circuits, one of which is an international multiple destination sound-programme circuit.

**6.610 international multiple destination television circuit** [b-ITU-T N.51]: The unidirectional transmission path from one ITC to two or more other ITCs comprising television circuit sections (national or international) one of which is an international multiple destination circuit section, together with any necessary video equipment.

**6.611 international multiple destination television circuit section** [b-ITU-T N.51]: The unidirectional television transmission path from one frontier station to two or more of the frontier stations at which interconnection is made at video frequencies.

The transmission path between two ITCs which comprises one or more television circuit sections (national or international) together with any necessary video equipment. The transmission path may be established via terrestrial or single destination satellite routing.

**6.612 international multiple destination television connection** [b-ITU-T N.51]: The unidirectional transmission path between the broadcasting organization (send) and two or more broadcasting organizations (receive) comprising the international multiple destination television link extended at its end over national television circuits to the broadcasting organizations.

**6.613 international multiple destination television link** [b-ITU-T N.51]: The unidirectional transmission path between the ITCs of the terminal countries involved in an international multiple destination television transmission. The international multiple destination television link comprises international television circuits, one of which is an international multiple destination television circuit.

**6.614 international satellite transmission centre (ISTC)** [b-ITU-T N.51]: A centre at a transmitting country responsible for the national extension and up-link to satellite. This term is applicable only for transmission to TVROs not related to an ITC.

**6.615 international sound-programme centre (ISPC)** [b-ITU-T N.1], [b-ITU-T J.13]: "A centre at which at least one international sound-programme circuit terminates and in which international sound-programme connections can be made by the interconnection of international and national sound-programme circuits.

The ISPC is responsible for setting up and maintaining international sound-programme links and for the supervision of the transmissions made on them."

**6.616 international sound-programme circuit** [b-ITU-T J.13]: The unidirectional transmission path between two ISPCs and comprising one or more sound-programme circuit sections (national or international), together with any necessary audio equipment (amplifiers, compandors, etc.).

**6.617 international sound-programme circuit** [b-ITU-T N.1]: The transmission path between two ISPCs which comprises one or more sound-programme circuit sections (national or international), together with any necessary audio equipment. The transmission path may be established via terrestrial or single destination satellite routing.

**6.618 international sound-programme connection** [b-ITU-T N.1], [b-ITU-T J.13]: "The unidirectional path between the broadcasting organization (send) and the broadcasting organization (receive) comprising the international sound-programme link extended at its two ends over national sound-programme circuits to the broadcasting organizations (see Figure 2/J.13).

The assembly of the "international sound-programme link" and the national circuits between the broadcasting organizations, constitutes the "international sound-programme connection". Figure 3/J.13 illustrates, by way of example, an international sound-programme connection as it might be encountered in practice."

**6.619 international sound-programme link** [b-ITU-T N.1], [b-ITU-T J.13]: The unidirectional path for sound-programme transmissions between the ISPCs of the two terminal countries involved in an international sound-programme transmission. The international sound-programme link comprises one or more international sound-programme circuits interconnected at intermediate ISPCs. It can also include national sound-programme circuits in transit countries.

**6.620 international sound-programme transmission** [b-ITU-T N.1], [b-ITU-T J.13]: The transmission of sound over the international telecommunication network for the purpose of interchanging sound-programme material between broadcasting organizations in different countries. Such a transmission includes all types of programme material normally transmitted by a sound broadcasting service, for example, speech, music, sound accompanying a television programme. etc.

**6.621 international television-sound transmission** [b-ITU-T N.1]: The transmission of television-sound signals over the international telecommunications network for the purpose of interchanging television-sound material between broadcasting organizations in different countries.

**6.622 international television centre (ITC)** [b-ITU-T N.51]: A centre at which at least one international television circuit terminates and in which international television connections can be made up by the interconnection of international and national television circuits.

**6.623 international television connection** [b-ITU-T N.51]: The unidirectional transmission path between the broadcasting organization (send) and the broadcasting organization (receive) comprising the international television link extended at its two ends over national television circuits to the broadcasting organization.

**6.624 international television link** [b-ITU-T N.51]: The unidirectional transmission path between the ITCs of the two terminal countries involved in an international television transmission. The

international television link comprises one or more international television circuits interconnected at intermediate ITCs. It can also include national television circuits in transit countries.

**6.625 international television transmission** [b-ITU-T N.51]: Transmission of video signals over the international telecommunication network for the purpose of interchanging television material between broadcasting organizations in different countries.

**6.626 Internet Control Message Protocol (ICMP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: An Internet network-layer protocol.

**6.626bis Internet control message protocol (ICMP)** [b-ITU-T J.161]: An extension to the Internet Protocol, ICMP supports packets containing error, control and information messages.

**6.627 Internet group management protocol (IGMP)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A network-layer protocol for managing multicast groups on the Internet.

**6.628 Internet key exchange** [b-ITU-T J.177]: A key-management mechanism used to negotiate and derive keys for SAs in IPsec.

**6.629 Internet Protocol (IP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.120], [b-ITU-T J.122], [b-ITU-T J.212], [b-ITU-T J.296]: An Internet network-layer protocol that defines the addressing mechanism on the Internet to allow data to be transmitted, based on [b-IETF RFC 791].

**6.629bis Internet protocol (IP)** [b-ITU-T J.380.7]: A protocol by which data is sent from one computer to another computer over a network.

**6.630 Internet Protocol Detail Record (IPDR)** [b-ITU-T J.204]: The fundamental unit of data transferred between an Exporter and a Collector. It is defined by a Template and contains Fields.

**6.631 Internet Protocol Detail Record/Streaming Protocol (IPDR/SP)** [b-ITU-T J.204]: The protocol used to transfer Data Messages and Data Records between Exporter and Collectors.

**6.632 Internet type remote control unit (RCU)** [b-ITU-T J.295]: A terminal with RCU functionalities that allow users to control the set-top box from a remote location via the Internet, e.g., remote setting of schedule recording. This type of RCU may be mobile phones (smart phones, feature phones, etc.), tablet devices, PCs, etc. In addition to communicating and controlling the set-top box, the Internet type RCU can also access directly services provided by cable operators or other content and/or service providers.

**6.633 interoperability** [b-ITU-T J.200]: The reception and presentation of applications in a vendor-, author- and broadcaster-neutral framework.

**6.634 interoperable function** [b-ITU-T J.96]: Refers to a decryption function that shall be embedded in all units.

The bits in binary numbers or sequences are numbered from the left, according to engineering notation. Bit 0 is on the right and is the least significant one; the bit on the left is the most significant one.

**6.635 interstitial** [b-ITU-T J.380.3]: A placement opportunity occurring during the play out of an entertainment asset (also commonly referred to as a mid-roll).

**6.636 interval usage code (IUC)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.222.1]: A field in MAPs and UCDs to link burst profiles to grants.

**6.637 interworking function (IWF)** [b-ITU-T J.214]: An interworking function (IWF) is a logical entity. It consists of a TSP data interface on one side, an IP packet interface on the other side, and the functionalities to encode TDM data into a pseudo wire in one direction and decode TDM data from a pseudo wire in the other direction.



- 6.638 intrusion resistance** [b-ITU-T J.93], [b-ITU-T J.95]: The ability of a hardware object to deny physical, electrical, or irradiation-based access to internal functionality by unauthorized parties.
- 6.639 IP address** [b-ITU-T J.120]: The network layer address defined by the Internet Protocol. This address is mapped onto the layer one address of the respective system.
- 6.640 IP enhanced cable modem** [b-ITU-T J.191]: A cable modem that has been enhanced by the addition of the IP features of this Recommendation.
- 6.641 IP interactive service** [b-ITU-T J.295]: A type of service provided by the cable operator or service provider where the subscriber requests and/or responds to services.
- 6.642 IP multicast** [b-ITU-T J.292]: It is used for IP broadcasting in terms of bandwidth use efficiency of headend, CDN (Content Distribution Network), and CPE segment.
- 6.643 IP stream (IPS)** [b-ITU-T J.282]: A flow of IP packets that is identified by destination/source IP address and port number.
- 6.644 IP VoD** [b-ITU-T J.1005]: A service to deliver video content following a request from a user. IP-VOD supplies each video content on an on-demand basis.
- 6.645 IP-based services** [b-ITU-T J.193]: A generic term that includes QoS-controllable both-way and one-way IP-type services rendered over a CATV network on which a high-speed packet-based IP communication system is available. Examples include IP telephony or VoIP, videoconferencing, streaming video feeds, competitive games, and other similar services.
- 6.646 IP-based switched digital video (SDV)** [b-ITU-T J.1101], [b-ITU-T J.1102]: A service mechanism which provides interfaces and functionalities to enable cable television system operators to offer QoS-guaranteed broadcasting and multicasting.
- 6.647 IPCable2Home** [b-ITU-T J.291]: The domain in MediaHomeNet that is well bounded and specified based on Internet Protocol Layer 3 interoperability, as opposed to other domains that can be independently, arbitrarily, or privately designed to an individual manufacturer's specification.
- 6.648 IPCable2Home security portal (CSP)** [b-ITU-T J.192]: A functional element that provides security management and translation functions between the HFC and Home network.
- 6.649 IPCablecom** [b-ITU-T J.160], [b-ITU-T J.162], [b-ITU-T J.163], [b-ITU-T J.164], [b-ITU-T J.166], [b-ITU-T J.167], [b-ITU-T J.171.1], [b-ITU-T J.291]: An ITU-T project that includes an architecture and a series of Recommendations that enable the delivery of real-time services over the cable television networks using cable modems.
- 6.650 IPCablecom multimedia** [b-ITU-T J.360]: An application agnostic QoS architecture for services delivered over DOCSIS networks.
- 6.651 IPCablecom transaction** [b-ITU-T J.164]: An IPCablecom transaction is a collection of events on the IPCablecom network when delivering a service to a subscriber. Event Messages for the same transaction are identified by one unique billing correlation ID (as described in Table 39). For some services, multiple transactions may be required to provide information that is necessary to collect the total usage for the service. Multiple Event Messages may be required to track resources for each individual service used. A transaction may persist over time.
- 6.652 IPCablecom2 application manager (PAM)** [b-ITU-T J.368]: A specialized Application Manager defined in IPCablecom2, primarily responsible for determining QoS resources needed for a session.
- 6.653 IPCablecom-T** [b-ITU-T J.179]: The suite of IPCablecom ITU-T Recommendations that support telephone service.

- 6.654 IPDR/SP collector functionality** [b-ITU-T J.204]: An implementation on the data-receiving side of the IPDR/SP. It enables the reception and collection of Data Records from IPDR/SP Exporters. It is typically part of an OSS/BSS, or a mediation system.
- 6.655 IPDR/SP exporter functionality** [b-ITU-T J.204]: An implementation on the data-producing side of the IPDR/SP. It enables formatting and sending of Data Records to an interested consumer system, e.g., at a cable headend using the IPDR/SP.
- 6.656 IPDR-Type** [b-ITU-T J.204]: A constraint on the value and format of an individual Field within a Data Record; e.g., `dateTime`.
- 6.657 IPNet2Home** [b-ITU-T J.190]: The domain in MediaHomeNet that is well bounded and specified based on Internet protocol layer 3 interoperability, as opposed to other domains that can be independently, arbitrarily, or privately designed to an individual manufacturer's specification.
- 6.658 IP-only CPE** [b-ITU-T J.700]: A terminal device that is capable of receiving content services over IP only.
- 6.659 IPTV TD** [b-ITU-T J.702]: A terminal device which has ITF functionality, e.g., a set-top box (STB).
- 6.660 IPTV terminal function (ITF)** [b-ITU-T J.702]: The client-side function(s) associated with a) receiving and responding to network control channel messages regarding session set-up, maintenance, and tear down, and b) receiving the content of an IP transport from the network and rendering.
- 6.661 Japan Cable Television Engineering Association (JCTEA)** [b-ITU-T J.112]: A body responsible for developing standards concerning cable television systems in Japan.
- 6.662 JavaScript** [b-ITU-T J.296]: JavaScript is a scripting language for a Web browser. JavaScript is an implementation of the ECMAScript language standard and is primarily used in the form of client-side JavaScript, implemented as part of a Web browser in order to provide enhanced-user interfaces and dynamic websites.
- 6.663 jitter** [b-ITU-T J.161], [b-ITU-T J.361], [b-ITU-T J.460.0]: Variability in the delay of a stream of incoming packets making up a flow such as a voice communication.
- 6.664 Joint Photographic Experts Group (JPEG) (based on [ISO/IEC 10918])** [b-ITU-T J.296]: JPEG is a standard format for compressing pictures. The degree of compression can be adjusted, allowing a selectable tradeoff between storage size and image quality.
- 6.665 Kerberos** [b-ITU-T J.170]: A secret-key network authentication protocol that uses a choice of cryptographic algorithms for encryption and a centralized key database for authentication.
- 6.665bis Kerberos** [b-ITU-T J.369]: Authentication protocol allowing one network entity (Client) to be mutually authenticated to another one (Application Server) using the "Kerberos ticket" retrieved by the Client from a dedicated Authentication Server (KDC).
- 6.666 key** [b-ITU-T J.170], [b-ITU-T J.178], [b-ITU-T J.361]: A mathematical value input into the selected cryptographic algorithm.
- 6.667 key exchange** [b-ITU-T J.170]: The swapping of public keys between entities to be used to encrypt communication between the entities.
- 6.668 key features** [b-ITU-T J.193]: Features that **MUST** be included in the NG-STB in order to support the Core Services identified in this Recommendation.
- 6.669 key ladder** [b-ITU-T J.1026]: A structured multi-level key mechanism that ensures the secure transport of control word.
- 6.670 key ladder (KLAD)** [b-ITU-T J.1027], [b-ITU-T J.1028]: A structured multi-level key mechanism that ensures secure transport of a control word.

- 6.671 key management** [b-ITU-T J.170]: The process of distributing shared symmetric keys needed to run a security protocol.
- 6.672 Key transition period** [b-ITU-T J.222.3]: The time period in which an Authentication Key that is near its expiration is replaced by a new Authentication Key through a negotiated update process between the CMTS and the CM.
- 6.673 KeyPairingID** [b-ITU-T J.1004]: The value of the concatenation of CAM\_ID and DSC\_ID, i.e., CAM\_ID||DSC\_ID.
- 6.674 Ki** [b-ITU-T J.1004]: The pre-shared key having a size of 128 bits. The AC uniquely assigns three Ki to each CAM. Ki should be a generated random generation function.
- 6.675 KPK** [b-ITU-T J.1004]: Key pairing key (KPK). The authorization centre (AC) generates the KPK if the KeyPairingID is valid.
- 6.676 L2 forwarder** [b-ITU-T J.213]: A network element that forwards layer-2 packets from one L2 interface to another L2 interface. A layer-2 forwarder may operate in point-to-point or multipoint forwarding mode, i.e., forwarding between only two interfaces without learning; or multipoint, forwarding unicast-destined packets only to the interface from which a MAC address was learned.
- 6.677 L2 interface** [b-ITU-T J.213]: A physical interface port or virtual circuit on which an L2PDU is transmitted. Physical L2 interface ports include an Ethernet NSI at a CMTS or the CMCI port at a CM. Virtual circuit L2 interfaces include a CMTS network system interface (NSI) pseudowire (PW) and a CMTS single-CM BPI security association. An L2 interface may or may not have an ifIndex assigned to it.
- 6.678 L2 protocol data unit (L2PDU)** [b-ITU-T J.213]: A sequence of bytes consisting of a destination MAC address (DMAC), source MAC address (SMAC), (optional) tag header(s), EtherType/Length, L2 payload, and CRC.
- 6.679 L2 virtual private network (L2VPN)** [b-ITU-T J.213]: A set of LANs and the L2 forwarders between them that enable hosts attached to the LANs to communicate with layer-2 protocol data units (L2PDUs). A single L2VPN forwards L2PDUs based only on the destination MAC (DMAC) address of the L2PDU, transparent to any IP or other layer-3 address. A cable operator administrative domain supports multiple L2VPNs, one for each subscriber enterprise to which transparent LAN service is offered.
- 6.680 L2TP access concentrator (LAC)** [b-ITU-T J.212]: If an L2TP Control Connection Endpoint (LCCE) is being used to cross connect an L2TP session directly to a data link, we refer to it as an L2TP Access Concentrator (LAC). An LCCE may act as both an L2TP Network Server (LNS) for some sessions and LAC for others, so these terms must only be used within the context of a given set of sessions unless the LCCE is in fact single purpose for a given topology.
- 6.681 L2TP attribute value pair (AVP)** [b-ITU-T J.212]: The L2TP variable-length concatenation of a unique Attribute (represented by an integer), a length field, and a Value containing the actual value identified by the attribute.
- 6.682 L2TP control connection** [b-ITU-T J.212]: An L2TP control connection is a reliable control channel that is used to establish, maintain, and release individual L2TP sessions as well as the control connection itself.
- 6.683 L2TP control connection endpoint (LCCE)** [b-ITU-T J.212]: An L2TP node that exists at either end of an L2TP control connection. May also be referred to as LAC or LNS, depending on whether tunnelled frames are processed at the data link (LAC) or network layer (LNS).
- 6.684 L2TP control connection ID** [b-ITU-T J.212]: The Control Connection ID field contains the identifier for the control connection, a 32-bit value. The Assigned Control Connection ID AVP, Attribute Type 61, contains the ID being assigned to this control connection by the sender. The Control Connection ID specified in the AVP must be included in the Control Connection ID field of

all control packets sent to the peer for the lifetime of the control connection. Because a Control Connection ID value of 0 is used in this special manner, the zero value must not be sent as an Assigned Control Connection ID value.

**6.685 L2TP control message** [b-ITU-T J.212]: An L2TP message used by the control connection.

**6.686 L2TP data message** [b-ITU-T J.212]: An L2TP message used by the data channel.

**6.687 L2TP endpoint** [b-ITU-T J.212]: A node that acts as one side of an L2TP tunnel.

**6.688 L2TP network server (LNS)** [b-ITU-T J.212]: If a given L2TP session is terminated at the L2TP node and the encapsulated network layer (L3) packet processed on a virtual interface, we refer to this L2TP node as an L2TP Network Server (LNS). A given LCCE may act as both an LNS for some sessions and LAC for others, so these terms must only be used within the context of a given set of sessions unless the LCCE is in fact single purpose for a given topology.

**6.689 L2TP pseudowire (PW)** [b-ITU-T J.212]: An emulated circuit as it traverses a packet-switched network. There is one Pseudowire per L2TP Session.

**6.690 L2TP pseudowire type** [b-ITU-T J.212]: The payload type being carried within an L2TP session. Examples include PPP, Ethernet, and Frame Relay.

**6.691 L2TP session** [b-ITU-T J.212]: An L2TP session is the entity that is created between two LCCEs in order to exchange parameters for and maintain an emulated L2 connection. Multiple sessions may be associated with a single Control Connection.

**6.692 L2TP session ID** [b-ITU-T J.212]: A 32-bit field containing a non-zero identifier for a session. L2TP sessions are named by identifiers that have local significance only. That is, the same logical session will be given different Session IDs by each end of the control connection for the life of the session. When the L2TP control connection is used for session establishment, session IDs are selected and exchanged as Local Session ID AVPs during the creation of a session. The Session ID alone provides the necessary context for all further packet processing, including the presence, size, and value of the Cookie, the type of L2-Specific Sublayer, and the type of payload being tunnelled.

**6.693 L2VPN identifier** [b-ITU-T J.213]: An octet string that uniquely identifies an L2VPN within a cable operator administrative domain, corresponding to a single subscriber enterprise.

**6.694 L3 forwarder** [b-ITU-T J.213]: A network element that forwards a layer-3 PDU from an ingress interface to one or more egress interfaces. Also called a "router".

**6.695 label** [b-ITU-T J.260]: An identifier occurring within or attached to data elements. In the context of preferential telecommunications it is an indication of priority. This identifier can be used as a mapping mechanism between different network priority levels.

**6.696 LAN IP device** [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.290]: A LAN IP device is representative of a typical IP device expected to reside on home networks, and is assumed to contain a TCP/IP stack as well as a DHCP client

**6.696bis LAN IP device** [b-ITU-T J.190]: A component using the Internet protocols on a local area network.

**6.697 latency** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.161]: The time, expressed in quantity of symbols, taken for a signal element to pass through a device.

**6.697bis latency** [b-ITU-T J.361]: The time taken for a signal to pass through a device or network.

**6.698ter latency** [b-ITU-T J.460.0]: The time taken for a signal element to pass through a device or circuit.

**6.698 Latency time** [b-ITU-T J.145]: The absolute delay of a signal between the signal source and the signal destination. The latency time can be divided into codec latency time, i.e., the latency

ascribed to the codec equipment in the connection, and network latency time dependent on the type and length of the transmission channel.

**6.699 layer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A subdivision of the Open System Interconnection (OSI) architecture, constituted by subsystems of the same rank.

**6.700 learning** [b-ITU-T J.213]: An operation of a layer-2 bridge by which it associates the source MAC (SMAC) address of an incoming L2PDU with the bridge port from which it arrived.

**6.701 leg** [b-ITU-T J.365]: A single segment of a session associated with a UE (e.g., calling UE or called UE).

**6.702 legacy application** [b-ITU-T J.296]: An application or applications to support legacy services if the cable operator wishes.

**6.703 linear TV** [b-ITU-T J.702]: A television service in which a continuous stream flows in real time from the service provider to the terminal device and where the user cannot control the temporal order in which contents are viewed.

**6.704 line-up period** [b-ITU-T N.54]: The period during which the telecommunication Administrations line up the international television link before handing it over to the broadcasting organizations.

**6.705 Line-time waveform distortion** [b-ITU-T J.67]: If a square-wave signal with a period of the same order as one line and of nominal luminance amplitude is applied to the input of the circuit, the line-time waveform distortion is defined as the change in shape of the square wave at the output. A period at the beginning and end of the square wave, equivalent to a few picture elements, is excluded from the measurement.

**6.706 link maintenance** [b-ITU-T J.195.1]: The function of estimating and exchanging parameters of links between a master node and client nodes to adapt to the variation of channel characteristics and maintain the steady working of the system.

**6.707 lip synchronization (lip-sync)** [b-ITU-T J.248]: Operation to provide the feeling that the speaking motion of the displayed person is synchronized with that person's voice, or other sounds are synchronized to their visually displayed source. Alternatively, the minimization of the relative delay between the visual display of a person speaking and the audio of the voice of the person speaking. The objective is to achieve a natural relationship between the visual image and the aural message for the viewer/listener.

**6.708 live network conditions** [b-ITU-T J.246], [b-ITU-T J.247]: Errors imposed upon the digital video bit stream as a result of live network conditions. Examples of error sources include packet loss due to heavy network traffic, increased delay due to transmission route changes, multi-path on a broadcast signal, and fingerprints on a DVD. Live network conditions tend to be unpredictable and unrepeatable.

**6.709 live transmission** [b-ITU-T J.127]: Program transmission method whereby the program starts playing after a certain amount of data has been buffered while receiving subsequent data in the background, where the program is fed in real time by the content provider.

**6.710 Load Balancing Group** [b-ITU-T J.222.2]: A full or partial subset of a MAC Domain Cable Modem Service Group (MD-CM-SG) to which a CM is administratively assigned. LBGs contain at least one upstream channel and at least one downstream channel.

**6.711 local application service delivery platform (LASDP)** [b-ITU-T J.294]: An application and service execution environment that resides within the home network for the purpose of delivering advanced applications and services developed by either a service provider or by a third party to the cable service subscribers.

- 6.712 Local Area Network (LAN)** [b-ITU-T J.112]: A data network in which serial transmission is used for direct data communication among data stations located on the user's premises.
- 6.712bis local area network (LAN)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A non-public data network in which serial transmission is used for direct data communication among data stations located on the user's premises.
- 6.713 local number portability** [b-ITU-T J.177]: Allows a customer to retain the same number when switching from one local service provider to another.
- 6.714 logical (upstream) channel** [b-ITU-T J.122]: A MAC entity identified by a unique channel ID and for which bandwidth is allocated by an associated MAP message. A physical upstream channel may support multiple logical upstream channels. The associated UCD and MAP messages completely describe the logical channel.
- 6.715 logical CPE interface** [b-ITU-T J.126]: A bidirectional, data-only 802.3/Ethernet MAC frame interface between eCM and an eSAFE.
- 6.716 logical CPE interface (LCI)** [b-ITU-T J.214]: A logical CPE interface (LCI) is a logical 802.3/Ethernet MAC frame data interface.
- 6.717 logical element** [b-ITU-T J.190]: A collection of one or more functions.
- 6.718 Logical Link Control (LLC) procedure** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: In a local area network (LAN) or a Metropolitan Area Network (MAN), that part of the protocol that governs the assembling of data link layer frames and their exchange between data stations, independent of how the transmission medium is shared.
- 6.719 logical service** [b-ITU-T J.380.1]: A well-defined, self-contained set of functions which is the endpoint of a connection. The logical service has some type of underlying computer system that supports message communication.
- 6.719bis logical service** [b-ITU-T J.380.2]: A well-defined, self-contained set of functions accessible via one or more endpoints. The logical service has some type of underlying computer system that supports message communication.
- 6.720 long form insertion** [b-ITU-T J.287]: Refers to insertions of material with a duration generally greater than 10 minutes, i.e., program length material.
- 6.721 Long-time waveform distortion** [b-ITU-T J.67]: If a test signal, simulating a sudden change of the luminance from a black level to a white level or vice versa, is applied to the input of a circuit, a long-time waveform distortion is present if the variations of the clamp level (medium grey) of the output signal do not precisely follow those of the clamp level of the input signal. This failure may be either in exponential form, or more frequently in the form of damped very low frequency oscillations.
- 6.722 loop latency** [b-ITU-T J.146]: The total transit time of signals in a transmission circuit arranged in a loop configuration.
- 6.723 loss of frame** [b-ITU-T J.214]: Also called the red alarm. When a T1 CSU/DSU is unable to synchronize framing patterns with the remote end for 2.5 seconds, LoF is declared.
- 6.724 loss of signal** [b-ITU-T J.214]: When no incoming pulses are received by a T1 CSU/DSU for a prescribed number of bit times, LoS is declared. Even if only zeros were transmitted as data, some framing bits should result in pulses on the line during that time. If LoS persists, LoF will eventually be declared because there is no incoming signal with which to synchronize.
- 6.725 Low-frequency errors** [b-ITU-T J.64]: This parameter is defined as the peak-to-peak amplitude of the fluctuations of the blanking level, measured in a frequency band from 10 Hz to 2 kHz, and expressed as a percentage of the amplitude of the luminance bar (element  $B_2$ ). Further information is given in [CCIR, 1974-78].

**6.726 Low frequency noise** [b-ITU-T J.67]: The signal-to-noise ratio for low frequency noise is defined as the ratio, expressed in decibels, of the nominal amplitude of the luminance signal (1 V) to the mean square value of the noise.

**6.727 Low frequency non-linear distortion** [b-ITU-T J.67]: For a particular value of average picture level, the low frequency non-linear distortion is defined as the departure from proportionality between the amplitude of the input signal and the output signal, when the input signal is shifted from the black level to the white level within the duration of a line period.

**6.728 LSDI application** [b-ITU-T J.600]: An instancing of the LSDI service, designed to meet a specific set of user requirements.

**6.729 LSDI presentation venue** [b-ITU-T J.600]: The venue (a theatre, an auditorium or another venue for group viewing) where LSDI programs are presented to a collective audience.

**6.730 LSDI service** [b-ITU-T J.600]: A service whereby programs are distributed in the form of digital signals, in real-time or non-real-time, for collective viewing in theatres or other group venues equipped with appropriate electronic projectors, to provide excellent presentation in terms of picture and sound quality, size of the presentation screen, and presentation environment.

**6.731 Lua** [b-ITU-T J.200]: Lightweight embeddable scripting language that combines simple procedural syntax with data description constructs, based on associative arrays and extensible semantics.

**6.732 Luminance bar amplitude** [b-ITU-T J.64]: The luminance bar amplitude is defined as the difference between the level corresponding to the mid-point of the bar (element B2) and the level corresponding to a point immediately following the composite pulse (element F). These points are shown as b2 and b1 respectively in Figs. 1 and 2. It is to be expressed as a percentage of the nominal bar amplitude (0.7 V for 625-line signals, 0.714 V for 525-line signals).

**6.733 Luminance bar amplitude error** [b-ITU-T J.64]: The luminance bar amplitude error is defined as the difference between the actual luminance bar amplitude and the nominal value expressed as a percentage of the nominal value (0.7 V for 625-line signals, 0.714 V for 525-line signals).

**6.734 Luminance non-linearity** [b-ITU-T J.64]: The luminance non-linearity is to be measured with the staircase signal in line 17 (element  $D_1$  for 625-lines,  $D_2$  for 525-lines). It is defined as the difference between the largest and the smallest step amplitudes, expressed as a percentage of the amplitude of the largest step. As the sign of the difference is not significant it is taken to be positive.

**6.735 M/N** [b-ITU-T J.210]: Relationship of integer numbers M, N that represents the ratio of the downstream symbol clock rate to the DOCSIS master clock rate.

**6.736 MAC domain** [b-ITU-T J.212]: A grouping of layer 2 devices that can communicate with each other without using bridging or routing. In DOCSIS, it is the group of CMs that are using upstream and downstream channels linked together through a MAC forwarding entity.

**6.736bis MAC domain** [b-ITU-T J.222.3]: A logical link layer network consisting of a common address scheme (such as IEEE 802.3 Ethernet) in which elements may send and receive OSI layer 2 messages between and among one another. MAC domain boundaries may be established through both physical and logical means; separate channels or subchannels utilizing differing frequency and/or encoding methods, or assigning separate bundles/bridge groups or subinterfaces to common frequency-domain channels or subchannels.

**6.737 MAC frame** [b-ITU-T J.122]: MAC header plus optional PDU.

**6.738 MAC service access point (MSAP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.116], [b-ITU-T J.122]: An attachment to a MAC-sublayer domain.

- 6.739 macro block** [b-ITU-T J.88]: A size of 16 pixels ´ 16 lines composed of four 8 ´ 8 Walsh Hadamard Transform.
- 6.740 managed IP backbone** [b-ITU-T J.160]: A Managed IP network that is used for interconnecting IPCablecom domains.
- 6.741 managed IP network** [b-ITU-T J.160]: An IP network, managed by a single entity for the purpose of transporting IPCablecom signalling and media packets.
- 6.742 management** [b-ITU-T J.460.4]: Management refers to the protocols, methodologies and interfaces that enable oversight services in a Service Provider Network.
- 6.743 management centre** [b-ITU-T J.96]: Refers to an organization controlling or managing the conditional access system.
- 6.744 management information base** [b-ITU-T J.166]: The specification of information in a manner that allows standard access through a network management protocol.
- 6.744bis management information base** [ [b-ITU-T J.296]: A virtual database used for managing the entities in a communications network. Most often associated with the Simple Network Management Protocol (SNMP), the term is also used more generically in contexts such as in the OSI/ISO network management model.
- 6.744ter management information base** [b-ITU-T J.370]: The description of the data items used by the Network Management for management and configuration of the IPCablecom compliant E-UE. Such description is done based on the formal meta-language SMI defined by the corresponding IETF standards.
- 6.744quater management information base (MIB)** [b-ITU-T J.460.4]: The description of the data items used by the Network Management for management and configuration of the IPCablecom compliant E-UE. Such description is done based on the formal meta-language SMI defined by the corresponding IETF standards.
- 6.755 management L2VPN** [b-ITU-T J.213]: An L2VPN for the post-registration SNMP traffic to eCM or eSAFE devices. May be combined with a provisioning L2VPN.
- 6.746 MAP cycle** [b-ITU-T J.195.3]: A period of time planned by a MAP frame.
- 6.747 markup language** [b-ITU-T J.200]: A formalism that describes a document's structure, appearance, or other aspects. An example of a markup language is XHTML [b-W3C HTML1].
- 6.748 master headend** [b-ITU-T J.112], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A headend which collects television program material from various sources by satellite, microwave, fibre and other means, and distributes this material to Distribution Hubs in the same metropolitan or regional area. A Master Headend may also perform the functions of a Distribution Hub for customers in its own immediate area.
- 6.748bis master headend** [b-ITU-T J.112 Annex B], [b-ITU-T J.116]: A headend which collects television program material from various sources by satellite, microwave, fibre and other means, and distributes this material to Distribution Hubs in the same metropolitan or regional area.
- 6.749 maximum downstream bonded channels (MDBC)** [b-ITU-T J.222.1]: Maximum number of downstream bonded channels supported by the cable modem. (See 6.191: channel bonding.)
- 6.750 maximum time interval error (MTIE)** [b-ITU-T J.211]: For a sequence of time delay samples  $x_i$ , MTIE at observation time (S) is:

$$MTIE(S) = \max_{j=1}^{N-n+1} \left[ \max_{i=j}^{n+j-1} (x_i) - \min_{i=j}^{n+j-1} (x_i) \right]$$



MTIE measurement:

where:

$\tau_0$  = sample period  
N = number of samples in the sequence  
 $n = \lceil S/\tau_0 \rceil + 1$   
S = observation time  
 $x_i$  = time delay sample

**6.751 maximum transmission unit (MTU)** [b-ITU-T J.212]: The layer 3 payload of a layer 2 frame.

**6.752 Mean Time to Repair (MTTR)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: In cable television systems, the MTTR is the average elapsed time from the moment a loss of RF channel operation is detected up to the moment the RF channel operation is fully restored.

**6.753 Mean value of clock run-in** [b-ITU-T J.101]: The mean value of clock run-in is defined as the mean level of the clock run-in waveform excluding the first two bits.

**6.754 Measurement signal (MS)** [b-ITU-T J.27]: Sine-wave signal at 1 kHz<sup>NOTE</sup> at a level 12 dB below the alignment signal level, which should be used for long-term measurements and measurements at all frequencies.

NOTE – This frequency is nominal, and 1020 Hz recommended by Recommendation ITU-T O.33 may be used.

**6.755 media access control (MAC)** [b-ITU-T J.210], [b-ITU-T J.212]: Used to refer to the layer 2 element of the system which would include DOCSIS framing and signalling.

**6.756 Media Access Control (MAC) address** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The "built-in" hardware address of a device connected to a shared medium.

**6.757 media access control (MAC) procedure** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: In a subnetwork, that part of the protocol that governs access to the transmission medium independent of the physical characteristics of the medium, but taking into account the topological aspects of the subnetworks, in order to enable the exchange of data between nodes. MAC procedures include framing, error protection, and acquiring the right to use the underlying transmission medium.

**6.758 Media Access Control (MAC) sublayer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The part of the data link layer that supports topology-dependent functions and uses the services of the Physical Layer to provide services to the Logical Link Control (LLC) sublayer.

**6.759 media data box** [b-ITU-T J.123], [b-ITU-T J.124]: A container box which can hold the actual media data for a presentation ('mdat').

**6.760 media gateway** [b-ITU-T J.460.0], [b-ITU-T J.460.1]: Devices bridging between the IP-Cablecom2 IP Voice Communication network and the PSTN. A Media Gateway provides the bearer circuit interfaces to the PSTN and transcodes the media stream.

**6.760bis media gateway (MG)** [b-ITU-T J.161], [b-ITU-T J.177], [b-ITU-T J.361]: Provides the bearer circuit interfaces to the PSTN and transcodes the media stream.

**6.761 media gateway control protocol (MGCP)** [b-ITU-T J.291]: A protocol used within a Voice over IP system.

**6.762 media gateway controller (MGC)** [b-ITU-T J.161]: The overall controller function of the PSTN gateway. Receives, controls and mediates call-signalling information between the IPCablecom and PSTN.

**6.763 media presentation description (MPD)** [b-ITU-T J.181 Amendment 1]: A formalized description for a DASH Media Presentation for the purpose of providing a streaming service,

**6.764 media terminal adapter (MTA)** [b-ITU-T J.166]: Contains the interface to a physical voice device, a network interface, CODECs, and all signalling and encapsulation functions required for VoIP transport, class features signalling and QoS signalling.

**6.764bis Media Terminal Adapter (MTA)** [b-ITU-T J.173]: An MTA is an IPCablecom client that can be attached to a CM (stand-alone) or integrated with a CM (embedded) that supports POTS.

**6.765 MediaHomeNet** [b-ITU-T J.190]: An ITU-T project that includes an architecture and a series of Recommendations that support the delivery of services over home networks. A network that connects multiple elements in a home environment to allow delivery of multi-purpose, multimedia services.

**6.765bis MediaHomeNet** [b-ITU-T J.294]: A network that connects multiple elements in a home environment to allow delivery of multi-purpose, multimedia services.

**6.766 message** [b-ITU-T J.94]: The more general term message is used interchangeably with section, especially to refer to non-table-oriented data structures such as, for example, the SYSTEM TIME message. Likewise, the term message is used to refer to a data structure that may deliver portions of various types of tables. The NETWORK INFORMATION message, for example, defines portions of several types of network tables.

**6.766bis message** [b-ITU-T J.287]: In the context of this document a message is a single communication between the automation system and the compression system or between the automation system and the PAMS. A message may contain one or more operations.

**6.766ter message** [b-ITU-T J.380.1], [b-ITU-T J.380.2]: The unit of communication between two logical services.

**6.767 metadata** [b-ITU-T J.98]: Metadata is descriptive data associated with a content asset package or file. It may vary in depth from merely identifying the content package title or information to populate an EPG to providing a complete index of different scenes in a movie or providing business rules detailing how the content package may be displayed, copied, or sold. Separate uses for metadata have originated from the studios, distribution networks (Cable, Satellite), down to the CPE (STBs, PVRs).

**6.767bis metadata** [b-ITU-T J.702]: Structured, encoded data that describe characteristics of information-bearing entities to aid in the identification, discovery, assessment, and management of the described entities.

NOTE – EPG metadata has many applications and may vary in depth from merely identifying the content package title or information to populate an EPG to providing a complete index of different scenes in a movie or providing business rules detailing how the content package may be displayed, copied, or sold.

**6.768 micro-reflections** [b-ITU-T J.112]: Echoes in the forward transmission path due to departures from ideal amplitude and phase characteristics of the path.

**6.768bis micro-reflections** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Echoes in the forward transmission path due to departures from ideal amplitude and phase characteristics.

**6.769 mid split** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.122]: A frequency division scheme that allows bidirectional traffic on a single coaxial cable; e.g., in North America, reverse channel signals propagate to the headend from 5 to 108 MHz, the forward path signals go from the

headend from 162 MHz to the upper frequency limit, and the duplex crossover band is located from 108 to 162 MHz.

**6.769bis mid split** [b-ITU-T J.112 Annex C]: Frequency division scheme that allows bidirectional traffic on a single coaxial cable. Reverse channel signals propagate to the headend. Forward path signals go from the headend.

**6.770 middleware** [b-ITU-T J.193]: Software within the NG-STB which provides a set of APIs that against which applications can be developed, and that provide access to the resources and services of the NG-STB.

**6.770bis middleware** [b-ITU-T J.294]: Software within the H-STB which provides a set of APIs that against which applications can be developed, and that provide access to the resources and services of the H-STB.

**6.770ter middleware** [b-ITU-T J.296]: Software within the STB that provides a set of application programming interfaces (APIs) against which applications can be developed, and that provide access to the resources and services of the STB.

**6.771 mini-slot** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.116], [b-ITU-T J.122]: A mini-slot is an integer multiple of 6.25-microsecond increments.

**6.771bis mini-slot** [b-ITU-T J.112 Annex C]: "Mini-slot" is an integer multiple of 64/9.216 microsecond increments.

**6.772 mix mode** [b-ITU-T J.88]: A mode of operation in which inter-frame and intra-frame modes are mixed in the same macro block to enhance coding efficiency.

**6.773 mobile DVR (mDVR)** [b-ITU-T J.700]: A mobile instance of a DVR where a mobile terminal device can be a cDVR (having the capability to store video, audio and other associated content locally) or contain a means of accessing an nDVR or other cDVR.

**6.774 Modular Cable Modem Termination System** [b-ITU-T J.222.2]: A CMTS composed of discrete functional blocks linked together using Gigabit Ethernet links.

**6.775 modulation error ratio (MER)** [b-ITU-T J.210], [b-ITU-T J.212]: The ratio of the average symbol power to average error power.

**6.776 modulation rate** [b-ITU-T J.122]: The signalling rate of the upstream modulator (1280 to 5120 kHz). In S-CDMA, the chip rate. In TDMA, the channel symbol rate.

**6.777 module** [b-ITU-T J.93], [b-ITU-T J.95]: A small device, not working by itself, designed to run specialized tasks in association with a host.

**6.778 monolithic firmware image** [b-ITU-T J.126]: A single firmware image containing one or more code images for the entire eDOCSIS device. For eDOCSIS devices, the Monolithic Firmware Image contains both the eCM code image as well as the applicable eSAFE code image. As an example for an eDOCSIS device containing an eSTB, the Monolithic Firmware Image contains the eCM code image as well as the eSTB code image (which may also be composed of multiple eSTB code images).

**6.779 movie box** [b-ITU-T J.123], [b-ITU-T J.124]: A container box whose sub-boxes define the metadata for a presentation ('moov').

**6.780 Moving Pictures Expert Group-1 (MPEG-1) (based on [ISO/IEC 11172])** [b-ITU-T J.296]: MPEG-1 is a data compression coding technology including video and audio, which is standardized by the International Organization for Standardization.

**6.781 Moving Pictures Expert Group-2 (MPEG-2) (based on [ITU-T H.262] and [ITU-T J.94])** [b-ITU-T J.296]: MPEG-2 is a compression and coding technology for data (such as moving images and audio data) specified by the International Organization for Standardization.

- 6.782 MPEG transport CPE** [b-ITU-T J.700]: A terminal device that is capable of receiving content services over MPEG-2 transport streams only.
- 6.783 MPEG-2** [b-ITU-T J.142]: Coding system of video and audio signals defined in ISO/IEC Standard 13818, ITU-T H.222 and H.262.
- 6.783bis MPEG-2** [b-ITU-T J.180]: Refer to ISO/IEC 13818, where System is defined in [ITU-T H.222.0], Video coding is defined in [ITU-T H.262] and Audio coding is defined in 13818-3.
- 6.784 MPEG-2 Transport Stream (TS) packet** [b-ITU-T J.131], [b-ITU-T J.132]: A data packet possessing a length of 188 bytes including 4 bytes of header information. The header contains MPEG related data.
- 6.785 MPEG-2 video** [b-ITU-T J.286]: The video coding format defined in [ITU-T H.222.0]. The transport syntax of a spliceable bit stream is recommended in [ITU-T H.222.0], so called MPEG-2 Transport Stream or MPEG-2 TS.
- 6.786 multi program transport stream (MPTS)** [b-ITU-T J.181], [b-ITU-T J.291]: A transport stream with multiple programs.
- 6.787 multicast** [b-ITU-T J.283]: A packet delivery mechanism from one source to many clients supported by IP routers.
- 6.788 multicast information table (MIT)** [b-ITU-T J.1210]: The basic table in an IP video broadcast (IPVB) headend that is used to describe the information of multicast IP addresses and UDP destination port numbers of each service in the broadcast transmission network.
- 6.789 multicast subscription database** [b-ITU-T J.218]: A simple table of entries for the IPv4 or IPv6 multicast group membership information maintained by the eRouter on respective interfaces. Implementation details for storage of records is completely vendor-defined.
- 6.790 multichannel video distribution** [b-ITU-T J.295]: A digital television distribution service over cable networks that provides a wide range of multichannel television programmes to subscribers.
- 6.791 multi-DRM** [b-ITU-T J.1005]: A system which can select suitable DRM from two or more DRMs based on a special service feature, the load of a system, a network situation, etc.
- 6.792 multimedia** [b-ITU-T J.148]: The combination of multiple forms of media such as audio, video, text, graphics, fax, and telephony in the communication of information.
- 6.793 Multimedia Cable Network System (MCNS) partners** [b-ITU-T J.112]: A consortium of several cable television operators interested in deploying high-speed data communications systems on cable television systems.
- 6.794 multimedia center equipment** [b-ITU-T J.112]: Equipment located at cable television headend, which provides complementary functionality to the Multimedia Home Equipment to enable data connectivity to a wide-area network.
- 6.795 multimedia home equipment** [b-ITU-T J.112]: A modulator-demodulator at subscriber locations intended for use in conveying data communications on a cable television system.
- 6.796 multimedia hypermedia experts group-5 (MHEG-5)** [b-ITU-T J.200]: A specification [b-ISO/IEC 13522-5] for presentation engine applications designed for decoding in interactive television receivers using modest resources. The UK profile [b-MHEG Profile], which is recognized within the ISO standard, extends the specification. It shares common text and graphics formats, and carousel mechanism with multimedia home platform (MHP), thus allowing the use of common data between MHEG-5 and MHP applications, with only a small overhead.
- 6.797 multimedia session** [b-ITU-T J.360]: A set of multimedia senders and receivers and the data streams flowing from senders to receivers. A multimedia conference is an example of a multimedia session.

**6.798 multimedia terminal adapter (MTA)** [b-ITU-T J.126]: An IP-Cablecom device that contains the interface to a physical voice device, a network interface, CODECs, and all signalling and encapsulation functions required for VoIP transport, class features signalling and QoS signalling.

**6.798bis multimedia terminal adapter (MTA)** [b-ITU-T J.161]: Contains the interface to a physical voice device, a network interface, codecs, and all signalling and encapsulation functions required for VoIP transport, class features signalling and QoS signalling.

**6.798ter multimedia terminal adapter (MTA)** [b-ITU-T J.190]: Defined by IP-Cablecom as an element that provides IP packetized multimedia services.

**6.799 Multiple Outstanding Requests** [b-ITU-T J.222.2]: The ability of the cable modem to make additional bandwidth requests for new packets for a service flow while one or more previous requests for older packets remain unfulfilled.

**6.800 multiple system operator (MSO)** [b-ITU-T J.210]: A corporate entity that owns and/or operates more than one cable system.

**6.801 multiplex** [b-ITU-T J.94], [b-ITU-T J.142]: A stream of all the digital data carrying one or more services within a single physical channel.

**6.801bis multiplex** [b-ITU-T J.280]: A multiplex is a collection of one or more channel(s) that may include the associated service information. A multiplex is an MPEG-2 transport stream with the possible exception of an insertion multiplex.

**6.802 multipoint access** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: User access in which more than one terminal equipment is supported by a single network termination.

**6.803 multipoint connection** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A connection among more than two data network terminations.

**6.804 multipoint L2 forwarding** [b-ITU-T J.213]: Operation of an L2 forwarder among multiple L2 networks that forwards individual MAC destined packets only to the interface from which a source MAC address was learned and that floods group MAC destined packets to all interfaces.

**6.805 multi-task** [b-ITU-T J.295]: A simultaneous process of live viewing or playback and one or multiple recordings of broadcasting content; the viewing of IP streaming content; and other applications such as games.

**6.806 mutual isolation** [b-ITU-T J.142]: The attenuation between specified system outlets at any frequency within the range of the system under investigation. It is always specified, for any particular installation, as the minimum value obtained within specified frequency limits.

**6.807 national circuit** [b-ITU-T J.13]: A circuit that connects the ISPC to the broadcasting authority; this applies both at the sending and at the receiving ends. A national circuit may also interconnect two ISPCs within the same country.

**6.808 national sound-programme centre (NSPC)** [b-ITU-T N.1]: A centre at which two or more national sound-programme circuits terminate and at which national sound-programme circuits may be interconnected.

**6.809 national television centre (NTC)** [b-ITU-T N.51]: A centre at which two or more national television circuits terminate and at which national television circuits may be interconnected.

**6.810 nested context language (NCL)** [b-ITU-T J.200]: The nested context language [b-NCL] is a declarative language that is used to describe the temporal behaviour of a multimedia presentation to associate hyperlinks (user interaction) with media objects, to define alternatives for presentation (adaptation), and to describe the layout of the presentation on multiple devices.

**6.811 network** [b-ITU-T J.94], [b-ITU-T J.183]: A collection of Motion Picture Experts Group version 2 (MPEG-2) transport stream (TS) multiplexes transmitted on a single delivery system, e.g., all digital channels on a specific cable system.

**6.811bis network** [b-ITU-T J.295]: A wired or wireless communication network for the provision of broadcasting and communication services. In this Recommendation, this shall include the in-house communications network, in addition to the access network operated by the cable operator.

**6.812 network address translation (based on [ITU-T Y.2111])** [b-ITU-T J.296]: The operation by which IP addresses are translated (mapped) from one address domain to another address domain.

**6.813 network DVR (nDVR)** [b-ITU-T J.700]: An instance of a DVR where a network element contains the recording capability that can be solicited and operated by end users to record and store video, audio and other associated content in the network for subsequent playback.

**6.814 network enforced preconditions** [b-ITU-T J.368]: A method of ensuring that necessary QoS resources are available before alerting the called user by withholding SIP messages within the network until the results of necessary policy interactions are known. This capability is independent from the use by the UE of the similarly named QoS Preconditions capability defined by RFCs 3312 and 3313.

**6.815 network information table** [b-ITU-T J.296]: The table that carries information to relate transmission path information, such as frequencies to channels, and that lists ID numbers for all the service channels contained in a distribution system.

**6.816 network layer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Layer 3 in the Open Systems Interconnection (OSI) architecture; the layer that provides services to establish a path between open systems.

**6.816bis network layer** [b-ITU-T J.178]: Layer 3 in the Open System Interconnection (OSI) architecture that provides network information that is independent from the lower layers.

**6.817 network management** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The functions related to the management of data link layer and physical layer resources and their stations across the data network supported by the hybrid fibre/coax system.

**6.817bis network management** [b-ITU-T J.361], [b-ITU-T J.370], [b-ITU-T J.460.4]: The functions related to the management of data across the network.

**6.818 network termination (NT)** [b-ITU-T J.282]: Generic term for equipment that terminates an access network at the user side. NT includes ONU, cable modem and xDSL modem.

**6.819 network virtual terminal (NVT)** [b-ITU-T J.126]: As defined in the Telnet Protocol. NVT was a bidirectional character device, representing characters as 7-bit ASCII codes, using an 8-bit field.

**6.820 Network\_id** [b-ITU-T J.296]: The identifier assigned to each master transmitter.

**6.821 Next Generation Set-Top-Box (NG-STB)** [b-ITU-T J.193]: A compilation of hardware and software functional entities contained within one or more physical devices, that at a baseline level provides the receiving functions for cable Broadcast services. In addition, the NG-STB MAY support the interactive functions of IP-based services, additional time-critical services between the HFC and the Home Network as well as extension and supplemental services.

**6.822 NGNA LLC** [b-ITU-T J.210]: Company formed by cable operators to define a next-generation network architecture for future cable industry market and business requirements.

**6.823 node** [b-ITU-T J.240]: Link point in the transmission chain.

**6.824 node quitting/deletion** [b-ITU-T J.195.1]: The function to support a client node quitting a high performance network over coax (HiNoC) system or a master node deleting a client node from a HiNoC system.

**6.825 Nominal signal amplitude** [b-ITU-T J.67]: The nominal amplitude of a MAC signal is 1 V. It is defined as the difference between the white level and the black level of the reference signal of line 624.

**6.826 Nominal teletext signal amplitude** [b-ITU-T J.101]: The nominal teletext signal amplitude is defined as a fixed percentage of the luminance bar amplitude and represents the ideal binary "1" amplitude in any teletext system (See more details in Fig. 1 of J.101). If no luminance bar signal is present, the nominal value of the luminance bar signal is used.

NOTE – The luminance bar amplitude is defined in Recommendation 569. The relationship of the nominal teletext signal amplitude to the luminance bar amplitude is defined in Recommendation 653.

**6.827 nominal video signal amplitude** [b-ITU-T J.61]: The peak-to-peak amplitude of the monochrome video signal that includes the synchronizing signal and luminance signal component set to peak-white.

**6.828 nonce** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: Random or repetitive data sent from a one-way downloadable conditional access system (DCAS) headend system for challenge-response.

**6.829 non-compliant CM** [b-ITU-T J.213]: A CM that does not implement this DOCSIS L2VPN Recommendation.

**6.830 non-repudiation** [b-ITU-T J.93], [b-ITU-T J.95]: A process by which the sender of a message (e.g., a request on a pay-per-view) cannot deny having sent the message.

**6.830bis non-repudiation** [b-ITU-T J.170]: The ability to prevent a sender from denying later that he or she sent a message or performed an action.

**6.831 non-STB** [b-ITU-T J.1005]: Personal computers (PCs), tablets and smartphone devices other than set-top boxes (STBs) which are capable of handling IP based interactive services.

**6.832 normal** [b-ITU-T J.287]: A category of request operation supported by this API. See clause 8.3.

**6.833 normal mode** [b-ITU-T J.211]: An operating condition of a clock in which the output signals are controlled by an external input reference. The expected mode and state permits each clock within a distribution to have the same long-term average frequency and time. Clocks in this mode are referred to as locked meaning that they are in tight relationship with the DTI root clock. A DTI server clock in a fault-free free-run mode will be considered in normal mode.

**6.834 notification** [b-ITU-T J.367]: A message sent from the Presence Service to a Subscriber when there is a change in the Presence Information of some Presentity of interest, as recorded in one or more Subscriptions [b-OMA RD-PRS].

**6.835 number of allocated codes** [b-ITU-T J.122], [b-ITU-T J.222.1]: The total number of codes which a single CM uses in a single S-CDMA frame. This number is determined by the size of the grants in mini-slots and the mapping of these mini-slots to S-CDMA frames (note that a CM may receive multiple grants which are mapped to a single S-CDMA frame). The number of allocated codes can be in the range of the number of codes per mini-slot to the number of active codes, and may vary from frame to frame, but is constant within an S-CDMA frame.

**6.836 Number of run-in bits** [b-ITU-T J.101]: This parameter counts the number of the "1" and "0" run-in bits present at the start of the teletext waveform prior to the framing code. The result will be always an even number because a "0" bit follows every "1" run-in bit. The counting starts with the first bit with amplitude exceeding the mean value of the clock run-in.

- 6.837 NW-TD1** [b-ITU-T J.293]: A logical interface defined in 6.1.2 for content reception through an IP network.
- 6.838 NW-TD2** [b-ITU-T J.293]: A logical interface defined in 6.1.3 for interactive communications to outside of a home network through an IP network.
- 6.839 oAPR** [b-ITU-T J.117]: A producer-resident register affiliated with a segment buffer that is updated by the consumer to indicate how much data has been consumed. This register also has other bits that are used for demarcation of variable-length frames, and to support the connection disconnection sequence.
- 6.840 oAPR.count** [b-ITU-T J.117]: An internal consumer-local register affiliated with a segment buffer, that indicates how much data has been consumed.
- 6.841 object** [b-ITU-T J.200]: An identifiable entity consisting of data and/or computer code.
- 6.842 objective perceptual measurement (picture)** [b-ITU-T J.144]: The measurement of the performance of a programme chain by the use of programme-like pictures and objective (instrumental) measurement methods to obtain an indication that approximates the rating that would be obtained from a subjective assessment test.
- 6.843 off hook** [b-ITU-T J.460.0], [b-ITU-T J.460.1]: The active state of a traditional telephone, while a call is in progress or being attempted, and the telephone handset is out of its cradle.
- 6.844 off-net** [b-ITU-T J.260]: Not on an IP-Cablecom network.
- 6.845 off-net call** [b-ITU-T J.161], [b-ITU-T J.178]: A communication connecting an IP-Cablecom subscriber out to a user on the PSTN.
- 6.845bis off-net call** [b-ITU-T J.361]: A communication connecting an IP-Cablecom subscriber out to a user on other networks such as PSTN or cellular.
- 6.846 on hook** [b-ITU-T J.460.0], [b-ITU-T J.460.1]: The idle state of a traditional telephone, while no call is in progress and the telephone handset is sitting in its cradle.
- 6.847 one-way** [b-ITU-T J.128], [b-ITU-T J.290]: This expression infers that the downstream path (from the network to the subscriber) is operational, and that the upstream path (from the subscriber to the network) is not operational. This may occur because the upstream path is not available, the Set-top Device is not registered, or the Set-top Device does not support a two-way mode of operation.
- 6.848 one-way DCAS** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: A downloadable conditional access system (DCAS) operated especially in a one-way network.
- 6.849 one-way DCAS App** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: One-way downloadable conditional access system (DCAS) application running on the terminal software platform. After a terminal device is deployed in field, this application can be upgraded or replaced through online pushing or other methods.
- 6.850 one-way DCAS trusted App** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: One-way downloadable conditional access system (DCAS) trusted application running in the trusted execution environment of terminal device. After a terminal device is deployed in field, this application can be upgraded or replaced through online pushing or other methods.
- 6.851 one-way DCAS client software** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: Terminal application implemented by one-way downloadable conditional access system (DCAS) App and one-way DCAS trusted App working together on the terminal software platform.
- 6.852 one-way DCAS client software data** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: Data that needs to be saved or updated when oneway downloadable conditional access system (DCAS) client software runs, which includes conditional access (CA) authorization information, CA private data, positioning information, etc.



- 6.853 one-way DCAS manager** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: Software module responsible for registering downloadable conditional access system (DCAS) client software, supporting information interaction between oneway DCAS App and one-way DCAS trusted App, as well as receiving and forwarding one-way DCAS entitlement control and management messages.
- 6.854 one-way hash** [b-ITU-T J.93], [b-ITU-T J.95]: A mathematical process or algorithm whereby a variable length message is changed into a fixed length digital word, such that it is very difficult to calculate the original message from the word, and also very difficult to find a second message with the same word.
- 6.854bis one-way hash** [b-ITU-T J.361]: A hash function that has an insignificant number of collisions upon output.
- 6.855 on-net** [b-ITU-T J.260]: On an IPCablecom network.
- 6.856 on-net call** [b-ITU-T J.161], [b-ITU-T J.178], [b-ITU-T J.361]: A communication placed by one customer to another customer entirely on the IPCablecom Network.
- 6.857 open application** [b-ITU-T J.296]: An application or applications that cable operators or subscribers can select and install, assuming downloadable applications in market.
- 6.858 Open Shortest Path First (OSPF)** [b-ITU-T J.283]: A unicast routing protocol for large-scale intra-domain networks. OSPF is a link state based routing protocol specified according to the ISO IS-IS routing protocol.
- 6.859 Open Systems Interconnection (OSI)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A framework of ISO Standards for communication between different systems made by different vendors, in which the communications process is organized into seven different categories that are placed in a layered sequence based on their relationship to the user; each layer uses the layer immediately below it and provides a service to the layer above. Layers 7 through 4 deal with end-to-end communication between the message source and destination, and layers 3 through 1 deal with network functions.
- 6.860 organizationally unique identifier (OUI)** [b-ITU-T J.112 Annex C]: 3-octet IEEE assigned identifier that can be used to generate Universal LAN MAC addresses and Protocol Identifiers per [b-IEEE 802] for use in Local and Metropolitan Area Network applications.
- 6.861 organizationally unique identifier (OUI)** [b-ITU-T J.112 Annex B]: 3-octet IEEE assigned identifier that can be used to generate Universal LAN MAC addresses and Protocol Identifiers per [b-IEEE 802Q] for use in Local and Metropolitan Area Network applications.
- 6.862 OpenCable Applications Platform (OCAP)** [b-ITU-T J.291]: The middleware standard for United States cable set-tops; J.200 Worldwide common core is a part of OCAP.
- 6.863 OpenCable host eSTB** [b-ITU-T J.126]: An eSTB device built to CableLabs OpenCable Host specifications.
- 6.864 operator** [b-ITU-T J.295]: The cable TV service operator.
- 6.865 operator-facing interface** [b-ITU-T J.218]: The eRouter interface which is connected to the embedded cable modem.
- 6.866 operator-facing IP interface** [b-ITU-T J.218]: IP interface that is connected to the embedded cable modem and is provisioning with an IP address provided by the operator.
- 6.867 optional features** [b-ITU-T J.193]: Features that can be added to the NG-STB in order to support the Optional Services identified in this Recommendation.
- 6.868 optional services** [b-ITU-T J.193]: Services, in addition to the Core Services, that can be supported by the NG STB.

**6.869 organisationally unique identifier (OUI)** [b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.122]: A three-octet IEEE assigned identifier that OUI can be used to generate Universal LAN MAC addresses and Protocol Identifiers per ANSI/IEEE Std 802 for use in Local and Metropolitan Area Network applications.

**6.870 original\_network\_id** [b-ITU-T J.94]: A unique identifier of a network.

**6.870bis original\_network\_id** [b-ITU-T J.183]: A label identifying the network\_id of the originating delivery system.

**6.871 orthogonal frequency division multiplexing (OFDM) (based on [ITU-R BT.1306-6])** [b-ITU-T J.296]: A digital multi-carrier modulation scheme, which uses a large number of closely-spaced orthogonal sub-carriers.

**6.872 OSD consumer** [b-ITU-T J.117]: A device that receives an OSD bitmap for the purpose of presenting the information on a display device or storing the information for future use.

**6.873 OSD producer** [b-ITU-T J.117]: A device that is the source of an OSD bitmap.

**6.874 out of frame** [b-ITU-T J.214]: When frame synchronization is lost, an OoF event is recorded. If OoF persists, LoF is declared. OoF is cleared when frame synchronization is regained.

**6.875 out of stream device** [b-ITU-T J.181]: A device that receives the cue message from an in stream device over a separate connection from the transport stream. An out of stream device does not receive or pass the transport stream directly.

**6.876 out point** [b-ITU-T J.181]: A point in the stream, suitable for exit, that lies on an elementary presentation unit boundary. An out point is actually between two presentation units rather than being a presentation unit itself.

**6.876bis out point** [b-ITU-T J.189]: A point in the bit stream, suitable for exit, that lies on an elementary access unit boundary.

**6.876ter out point** [b-ITU-T J.287]: A point in the stream, suitable for exit, that lies on an access unit boundary.

**6.877 out point packet** [b-ITU-T J.189]: A transport stream packet which corresponds to the last packet prior to the Out Point.

**6.878 (OOB) Out-of-band** [b-ITU-T J.184]: Outside of the programming channels band. The OOB channels provide communication channels between the network and the terminal.

**6.879 out-of-band messaging** [b-ITU-T J.128]: The control and information messages sent from the Set-top Controller (or Application Server or similar device for legacy Out-Of-Band (OOB) messaging) to one or more Set-top Devices. Specifically, OOB infers the use of a dedicated channel for signalling which is separate from the video channels. This includes the following types of messages:

- Conditional Access (CA) messages including entitlements;
- Service Information (SI) messages;
- Electronic Program Guide (EPG) messages;
- Emergency Alert System (EAS) messages;
- Other control or information messages.

**6.880 output channel** [b-ITU-T J.280]: The channel that is produced at the output of the splicer.

**6.881 output multiplex** [b-ITU-T J.280]: The MPEG-2 transport stream produced by multiplexing one or more output channels.

**6.882 package filter** [b-ITU-T J.195.1]: The process of analysing and selecting a data packet according to the established rule set.

- 6.883 packet** [b-ITU-T J.200]: A packet is a set of contiguous bytes consisting of a header followed by its payload.
- 6.884 packet identifier** [b-ITU-T J.89, [b-ITU-T J.187]: A unique integer value used to identify elementary streams of a program in a single or multi-program transport stream as described in 2.4.3 of ITU-T Rec. H.222.0| ISO/IEC 13818-1.
- 6.885 Packet Identifier (PID)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.291]: A unique integer value used to identify elementary streams of a programme in a single- or multi-programme MPEG-2 stream.
- 6.885bis packet identifier (PID)** [b-ITU-T J.181 Amendment 1]: A unique 13-bit value used to identify elementary streams of a program in a single or multi-program Transport Stream [ITU-T H.222.0].
- 6.885ter packet identifier (PID)** [b-ITU-T J.215]: MPEG-2 assigns a PID to each data packet. Packets with the same PID belong to the same logical channel.
- 6.886 PacketCable** [b-ITU-T J.126]: PacketCable is a CableLabs specification located at: <http://www.packetcable.com/specifications/>. The PacketCable specifications are interoperable interface specifications for delivering advanced, real-time multimedia services over a two-way cable plant. Built on top of the industry's highly successful cable modem infrastructure, PacketCable networks uses Internet Protocol (IP) technology to enable a wide range of multimedia services, such as IP telephony, multimedia conferencing, interactive gaming, and general multimedia applications. This term is also applicable to a system or device that is compliant to the PacketCable specifications. The international version of PacketCable is standardized in ITU-T J series Recommendations J.160 to J.179.
- 6.887 packing** [b-ITU-T J.195.1]: A procedure of combining multiple Ethernet media access control (MAC) frames with the same destination and priority to form a high performance network over coax (HiNoC) MAC frame.
- 6.888 parental control (viewer age restriction)** [b-ITU-T J.296]: A system to restrict programme viewing using a combination of an age restriction listed as a programme attribute and a parental level (minimum age for viewing) in the receiver, set by the user himself using a password.
- 6.889 partial grant** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A grant that is smaller than the corresponding bandwidth request from the CM.
- 6.890 passive** [b-ITU-T J.117]: The consumer plug is in this state when it accepts transactions directed at the plug's address space but does not respond with updates to the producer's registers.
- 6.891 passive coaxial access network** [b-ITU-T J.195.1]: An access network composed of a coaxial network and passive power distribution components such as splitters and taps.
- 6.892 pass-through** [b-ITU-T J.191]: A sub-function of the CAP, the Pass-through function bridges packets on the WAN-Data side of the CAP to the LAN-Pass side unchanged.
- 6.893 pausing with skipping** [b-ITU-T J.246], [b-ITU-T J.247]: Events where the video pauses for some period of time and then restarts with some loss of video information. In pausing with skipping, the temporal delay through the system will vary about an average system delay, sometimes increasing and sometimes decreasing. One example of pausing with skipping is a pair of IP Videophones, where heavy network traffic causes the IP Videophone display to freeze briefly; when the IP Videophone display continues, some content has been lost. Another example is a videoconferencing system that performs constant frame skipping or variable frame skipping. Constant frame skipping and variable frame skipping are subsets of pausing with skipping. A processed video sequence containing pausing with skipping will be approximately the same duration as the associated original video sequence.

**6.894 pausing without skipping** [b-ITU-T J.246], [b-ITU-T J.247]: Any event where the video pauses for some period of time and then restarts without losing any video information. Hence, the temporal delay through the system must increase. One example of pausing without skipping is a computer simultaneously downloading and playing an AVI file, where heavy network traffic causes the player to pause briefly and then continue playing. A processed video sequence containing pausing without skipping events will always be longer in duration than the associated original video sequence.

**6.895 payload** [b-ITU-T J.89], [b-ITU-T J.187]: Payload refers to the bytes which follow the header bytes in a packet. For example, the payload of some transport stream packets includes a PES\_packet\_header and its PES\_packet\_data\_bytes, or pointer\_field and PSI sections, or private data: but a PES\_packet\_payload consists of only PES\_packet\_data\_bytes. The transport stream packet header and adaptation fields are not payload.

**6.895bis payload** [b-ITU-T J.200]: The bytes following the header byte in a packet.

**6.896 payload header suppression (PHS)** [b-ITU-T J.122 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: The suppression of the header in a payload packet (e.g., the suppression of the Ethernet header in forwarded packets).

**6.897 payload unit start indicator (PUSI)** [b-ITU-T J.122 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A flag in an MPEG header. A value of 1 indicates the presence of a pointer field as the first byte of the payload.

**6.898 payload\_unit\_start\_indicator** [b-ITU-T J.181 Amendment 1]: A bit in the transport packet header that signals, among other things, that a section begins in the payload that follows [ITU-T H.222.0].

**6.899 pay-per-view** [b-ITU-T J.93], [b-ITU-T J.95]: A payment system whereby the subscriber can pay for an individual program or specified period of time.

**6.900 Pd cycle** [b-ITU-T J.195.2]: A time interval between two adjacent downlink probe frames.

**6.901 peak-to-peak amplitude** [b-ITU-T J.101]: The peak-to-peak amplitude is defined as the sum of basic amplitude zero overshoots and ones overshoots. It is expressed as a percentage of the basic amplitude (see Fig. 1 of J.101).

**6.902 Peak ripple of the multi-burst signal** [b-ITU-T J.64]: This quantity is defined on the basis of two numbers  $x$  and  $y$ , which represent the maximum (peak) differences between the amplitudes of the bursts of the test signal  $C$  (see Note 1) and a reference quantity  $A_0$ , the two numbers  $x$  and  $y$  being expressed as a percentage of  $A_0$ .

For 625-line signals,  $A_0$  is the peak-to-peak amplitude of element  $C_1$ .

For 525-line signals,  $A_0$  is equal to half the amplitude of the luminance bar, as defined in § 2.1 above (see Note 2).

$x$  and  $y$  can be found from the following expressions:

$$x = 100 \left| \frac{A_{max}}{A_0} - 1 \right| \quad y = 100 \left| \frac{A_{min}}{A_0} - 1 \right|$$

where  $A_{max}$  and  $A_{min}$  are respectively the highest and the lowest value of the peak-to-peak amplitude of the relevant bursts (see Note 3) measured at their half duration point.

The peak ripple of the multi-burst signal is defined by either  $+x$  or  $-y$  depending upon which of these parameters has the larger magnitude.

NOTE 1 – For 625-line signals, the last burst (having a frequency of 5.8 MHz), is not taken into account in this measurement.

NOTE – Further study is required to check if, as an alternative,  $A_0$  may also be derived from test element  $C_1$ .

NOTE 3 – For 625-line signals, the last burst (having a frequency of 5.8 MHz), is not taken into account in this measurement.

**6.903 Permitted maximum signal (PMS)** [b-ITU-T J.27]: Sine-wave signal at 1 kHz<sup>NOTE</sup>, 9 dB above the alignment signal level, equivalent to the permitted maximum programme-signal level.

NOTE – This frequency is nominal, and 1020 Hz recommended by CCITT Recommendation O.33 may be used.

**6.904 personal information** [b-ITU-T J.295]: Recorded information about an identifiable individual.

NOTE – This may include (1) name, address, email address, (2) race, nationality, ethnicity, origin, colour, religious or political beliefs or associations, (3) age, sex, sexual orientation, marital status, family status, (4) identifying number, code, symbol, (5) finger prints, blood type, inherited characteristics, (6) health care history including information on physical/mental disability, (7) educational, financial, criminal, employment history, (8) others' opinion about the individual, and (9) personal views except those about other individuals.

**6.905 PES packet** [b-ITU-T J.88]: The data structure used to carry elementary stream data. It is a layer in the system coding syntax described in 2.4.3.6/H.222.0.

**6.905bis PES packet** [b-ITU-T J.89], [b-ITU-T J.187]: The data structure used to carry elementary stream data. A PES packet consists of a PES packet header followed by a number of contiguous bytes from an elementary data stream. It is a layer in the system coding syntax described in 2.4.3.6 of ITU-T Rec. H.222.0 | ISO/IEC 13818-1.

**6.906 PES packet header** [b-ITU-T J.89], [b-ITU-T J.187]: The leading fields in a PES packet up to and not including the PES\_packet\_data\_byte fields, where the stream is not a padding stream. In the case of a padding stream the PES packet header is similarly defined as the leading fields in a PES packet up to and not including padding\_byte fields.

**6.907 PES Stream** [b-ITU-T J.89], [b-ITU-T J.187]: A PES stream consists of PES packets, all of whose payloads consist of data from a single elementary stream, and all of which have the same stream\_id. Specific semantic constraints apply. Refer to Intro. 4 of ITU-T Rec. H.222.0 | ISO/IEC 13818-1.

**6.908 Phase distortion** [b-ITU-T J.67]: The phase-frequency distortion is defined as the difference in degrees relative to a linear phase characteristic over a frequency band extending from, ideally, 0 Hz to a defined upper frequency.

**6.909 Physical (PHY) layer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116] Layer 1 in the Open Systems Interconnection (OSI) architecture; the layer that provides services to transmit bits or groups of bits over a transmission link between open systems, and which entails electrical, mechanical and handshaking procedures.

**6.910 physical channel** [b-ITU-T J.94]: A generic term to refer to the each of the 6-8 MHz frequency bands where television signals are embedded for transmission. Also known as the Physical Transmission Channel (PTC). One analog virtual channel fits in one PTC but multiple digital virtual channels typically coexist in one PTC.

**6.911 physical interface** [b-ITU-T J.183]: The interface on a physical layer equipment for transmission.

**6.912 physical layer (PHY)** [b-ITU-T J.122]: Layer 1 in the Open System Interconnection (OSI) architecture; the layer that provides services to transmit bits or groups of bits over a transmission link between open systems and which entails electrical, mechanical and handshaking procedures.

**6.913 Physical Media Dependent (PMD) sublayer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.210], [b-ITU-T J.212]: A sublayer of the Physical Layer which is concerned with transmitting bits or groups of bits over particular types of transmission link between open systems, and which entails electrical, mechanical and handshaking procedures.

- 6.914 picture layer** [b-ITU-T J.88]: A repeated structure composed of a I-picture followed by several P\_x005f pictures.
- 6.915 PID stream** [b-ITU-T J.189]: All the packets with the same PID within a transport stream.
- 6.915bis PID stream** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: A stream of packets with the same PID within a transport stream.
- 6.916 pilot sub-carrier** [b-ITU-T J.196.2]: Sub-carriers for transmission of specific symbols in an orthogonal frequency division multiplexing (OFDM) symbol.
- 6.917 piracy** [b-ITU-T J.93], [b-ITU-T J.95]: The act of acquiring unauthorized access to programs, usually for the purpose of reselling such access for unauthorized reception.
- 6.918 placement** [b-ITU-T J.380.1], [b-ITU-T J.380.3]: The decision resulting from a placement opportunity which may include a content binding and a set of constraints.
- 6.919 placement management** [b-ITU-T J.380.3]: The aggregated operational sequence of placement messaging and placement update messaging.
- 6.920 placement messaging** [b-ITU-T J.380.3]: The PlacementRequest/PlacementResponse message exchange sequence.
- 6.921 placement operations** [b-ITU-T J.380.3]: Placement management aggregated with placement status messaging.
- 6.922 placement opportunity** [b-ITU-T J.380.1]: A potentially constrained location relative to digital content where advertisement insertion or content alterations can occur. The alterations may include insertions, replacements, or deletions of content in whole or in part. These locations which contain the opportunity for content insertion have traditionally been referred to as Avails [b-SCTE 35] for linear video content; however, placement opportunity refers to address and time locations where content may be placed, regardless of platform (i.e., Video in VOD, Banner images on menus and ITV channels, etc).
- 6.922bis Placement opportunity** [b-ITU-T J.380.3]: A potentially constrained location relative to digital content where ad insertion or content alterations may occur. The alterations may include insertions, replacements, or deletions of content in whole or in part. These locations, which contain the opportunity for content insertion, have traditionally been referred to as avails [b-SCTE 35] for linear video content; however, placement opportunity refers to address and time locations where content may be placed, regardless of platform.
- 6.923 placement service** [b-ITU-T J.380.3]: The distinctive information (i.e., characteristic set) identifying an entertainment content flow where advanced advertising techniques may apply.
- 6.924 placement status messaging** [b-ITU-T J.380.3]: The Placement Status Notification/Placement Status Acknowledgement message exchange sequence.
- 6.925 placement update messaging** [b-ITU-T J.380.3]: The Placement Update Notification/Placement UpdateAcknowledgement message exchange sequence.
- 6.926 platform** [b-ITU-T J.296]: A business entity that manages and operates a collection service on a network of digital broadcasting.
- 6.927 plug** [b-ITU-T J.117]: A collection of externally visible components (called ports) that can be connected to a sub-unit for the purposes of sending sequences of variable-length frames. There are three types of plugs: those associated with asynchronous connections, those associated with AV/C Isochronous Channels, and those associated with IEC 61883 Isochronous Channels.
- 6.928 plug** [b-ITU-T J.140]: Test signal consisting of a peak white level patch and several dark level patches/stripes used for the setting of brightness and contrast of the display. For details, see Recommendation ITU-R BT.814.

- 6.929 plug-in** [b-ITU-T J.295]: Software for displaying, installed independently from the browser.
- 6.930 POD** [b-ITU-T J.128]: A detachable device distributed by cable providers that connects to the cable receiver and manages Conditional Access.
- 6.931 point of deployment (POD) module** [b-ITU-T J.126]: A removable conditional access module which, when inserted into certain eSTB implementations, enables delivery of digital video programming and other services. POD module functionality includes copy protection and signal demodulation. The interface between the POD module and the eSTB is specified by [b-CCIF 2.0].
- 6.932 point-to-point L2 forwarding** [b-ITU-T J.213]: Operation of an L2 forwarder between only two L2 networks with no source MAC address learning.
- 6.933 policy** [b-ITU-T J.260]: Rules (or methods) for allocating telecommunications network resources among types of traffic that may be differentiated by labels.
- 6.934 policy server** [b-ITU-T J.365], [b-ITU-T J.368]: A system that primarily acts as an intermediary between Application Manager(s) and CMTS(s). It applies network policies to Application Manager requests and proxies messages between the Application Manager and CMTS.
- 6.935 port** [b-ITU-T J.117]: A sub-component of an asynchronous connection plug that supports unidirectional asynchronous connection data transfers.
- 6.935bis Port** [b-ITU-T J.120]: The abstraction that transport protocols use to distinguish among multiple destinations within a given host computer. The transport selectors used by the OSI transport layers are equivalent to ports.
- 6.935ter port** [b-ITU-T J.287]: See "socket". Refers to a bit-field defined in a TCP header. May also refer to a specific physical connector mounted on a device.
- 6.936 portable network graphics** [b-ITU-T J.296]: A graphics file format succeeding GIF. It is pronounced "PING" and is capable of lossless compression. The file format is comprised of an 8-byte signature followed by a series of "chunks".
- 6.937 portal functions** [b-ITU-T J.193]: Functionality that resides within a Residential Gateway that provides connectivity between the cable IP network, and the home network. See ITU-T Recs J.190, J.191 and J.192 for more details.
- 6.938 Portal Service (PS)** [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.290], [b-ITU-T J.292]: A functional element that provides management and translation functions between the HFC and Home.
- 6.939 portal site** [b-ITU-T J.296]: An entrance web site of Internet, providing links, search engines, news, Web mail services, and electrical bulletin board, etc.
- 6.940 post-roll** [b-ITU-T J.380.3]: A placement opportunity following the play out of an entertainment asset.
- 6.941 Pre-3.0 DOCSIS** [b-ITU-T J.222.2]: Versions of Data-Over-Cable-Service-Interface-Specifications (DOCSIS) specifications prior to the DOCSIS 3.0 suite of specifications.
- 6.942 preferential** [b-ITU-T J.260]: A capability offering advantage over regular capabilities.
- 6.943 pre-roll** [b-ITU-T J.380.3]: A placement opportunity preceding an entertainment asset.
- NOTE – Definition differs from [b-SCTE 35].
- 6.944 preparatory period** [b-ITU-T N.54]: The period during which the broadcasting organizations carry out their own adjustments, tests, etc., before the television transmission itself commences.

The exact time at which the preparatory period begins (point H on Figure 1/N.54) is determined by the broadcasting organizations.

- 6.945 presence information** [b-ITU-T J.367]: Dynamic set of information pertaining to a Presentity that may include Presence Information Elements such as the status, reachability, willingness, and capabilities of that Presentity [b-OMA RD-PRS].
- 6.946 presence information element** [b-ITU-T J.367]: A basic unit of Presence Information [b-OMA RD-PRS].
- 6.947 presence list** [b-ITU-T J.367]: A list of presentities that can have their individual states subscribed to with a single subscription request (e.g., a subscription list).
- 6.948 presence server** [b-ITU-T J.367]: A logical entity that receives Presence Information from a multitude of Presence Sources pertaining to the Presentities it serves and makes this information available to Watchers according to the rules associated with those Presentities [b-OMA RD-PRS].
- 6.949 presence service** [b-ITU-T J.367]: The capability to support management of Presence Information between Watchers and Presentities, in order to enable applications and services to make use of Presence Information [b-OMA RD-PRS].
- 6.950 presence source** [b-ITU-T J.367]: A logical entity that provides Presence Information pertaining to exactly one or more Presentities to the Presence Server. 3GPP Presence User Agents, Presence Network Agents, and Presence External Agents are examples of Presence Sources [b-OMA RD-PRS].
- 6.951 presentation** [b-ITU-T J.123], [b-ITU-T J.124]: One or more motion sequences, possibly combined with audio.
- 6.952 presentation engine** [b-ITU-T J.200]: A subsystem in a receiver that evaluates and presents declarative applications consisting of content, such as audio, video, graphics, and text, primarily based on presentation rules defined in the presentation engine. A presentation engine also responds to formatting information, or "markup", associated with the content, to user inputs, and to script statements, which control presentation behaviour and initiate other processes in response to user input and other events. A common example of a presentation engine is an HTML browser, capable of displaying text and graphic content formatted in HTML [b-W3C HTML], with interactive behaviour programmed in ECMAScript [b-ECMAScript].
- 6.953 presentation time** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: The time that a presentation unit is presented in the system target decoder [ITU-T H.222.0].
- 6.954 presentation time-stamp (PTS)** [b-ITU-T J.89], [b-ITU-T J.187], [b-ITU-T J.189]: A field that may be present in a PES packet header that indicates the time that a presentation unit is presented in the system target decoder.
- 6.955 presentation unit (PU)** [b-ITU-T J.89], [b-ITU-T J.181], [b-ITU-T J.187], [b-ITU-T J.189]: A decoded Audio Access Unit or a decoded picture (see ITU-T Rec. H.262 | ISO/IEC 13818-2).
- 6.956 presentation-free** [b-ITU-T J.90]: A service for which the information content is specified, but not the way in which the information must be presented on reception.
- 6.957 presentation-free EPG** [b-ITU-T J.90]: An EPG for which the information content is specified, but the operation of the consumer television/multimedia display is not.
- 6.958 presentity** [b-ITU-T J.367]: A logical entity that has Presence Information associated with it. This Presence Information may be composed of a multitude of Presence Sources. A Presentity is most commonly a reference for a person, although it may represent a role such as "help desk" or a resource such as "conference room #27". Presentities are generally referenced by distinguished names, such as "john.smith@example.com" or by phone numbers like "+19724735455". In SIMPLE, presentities are generally referenced using a sip:, pres: or tel: URL [b-OMA RD-PRS].
- 6.959 pre-shared key** [b-ITU-T J.177]: A shared secret key passed to both parties in a communication flow, using an unspecified manual or out-of-band mechanism.



- 6.960 primary channel** [b-ITU-T J.280]: The primary multiplex channel that is replaced in whole or in part. A single primary channel may result in multiple output channels.
- 6.961 primary distribution** [b-ITU-T J.248]: Use of a transmission channel for transferring audio and/or video information to one or several destination points without a view to further post-processing on reception (e.g., from a continuity studio to a transmitter network).
- 6.962 Primary Downstream Channel** [b-ITU-T J.222.2]: The downstream channel from which a CM derives CMTS master clock timing for upstream transmission. All other concurrently received channels are called "secondary downstream channels".
- 6.963 primary multiplex** [b-ITU-T J.280]: This is the source of the primary channel(s).
- 6.964 primary service flow** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: All CMs have a primary upstream service flow and a primary downstream service flow. They ensure that the CM is always manageable and they provide a default path for forwarded packets that are not classified to any other service flow.
- 6.964bis Primary Service Flow** [b-ITU-T J.222.2]: The first service flow, in each direction, defined in the CM configuration file.
- 6.965 Primary-Capable Downstream Channel** [b-ITU-T J.222.2]: A Downstream Channel that can be used by a DOCSIS 3.0 CM as its Primary Downstream Channel, or by a DOCSIS 1.x/2.0 CM as its Downstream Channel.
- 6.966 priority treatment capabilities** [b-ITU-T J.260]: Capabilities that provide premium access to, and/or use of telecommunications network resources.
- 6.967 privacy** [b-ITU-T J.170], [b-ITU-T J.178], [b-ITU-T J.361]: A way to ensure that information is not disclosed to any one other than the intended parties. Information is usually encrypted to provide confidentiality. Also known as confidentiality.
- 6.968 private key** [b-ITU-T J.170]: The key used in public key cryptography that belongs to an individual entity and must be kept secret.
- 6.969 private user identity** [b-ITU-T J.360]: Used, for example, for registration, authorization, administration and accounting purposes. A private user identity is associated with one or more public user identities.
- 6.970 probe frame** [b-ITU-T J.195.2]: Frame of the physical layer used for carrying signalling frames of the MAC layer.
- 6.971 procedural application** [b-ITU-T J.200]: An application which primarily makes use of procedural information to express its behaviour. A Java program is an example of a procedural application.
- 6.972 procedural application environment** [b-ITU-T J.296]: An environment for necessary libraries for Java standard applications and broadcast co-ordinated Java applications.
- 6.973 procedural information** [b-ITU-T J.200]: Information expressed in the form of procedures, e.g., do *F* or *F*( ).
- 6.974 product** [b-ITU-T J.197]: A device and/or technology that receives and possibly distributes content with redistribution control and/or copy control.
- 6.975 profile** [b-ITU-T J.388]: A specified subset of the functionalities of the terminal defined in this Recommendation, or a specified subset of the bitstream syntax of video codecs.
- 6.976 programme** [b-ITU-T J.94], [b-ITU-T J.183]: A concatenation of one or more events under the control of a broadcaster, e.g., news show, entertainment show.

**6.976bis program** [b-ITU-T J.117]: In MPEG-2 terminology, a collection of related elementary stream components making up a television service.

**6.976ter program** [b-ITU-T J.181 Amendment 1]: A collection of video, audio, and data PID streams which share a common program number within an MPTS [ITU-T H.222.0].

**6.976quater program** [b-ITU-T J.287]: A collection of video, audio and data PID streams which share a common program number within a SPTS or MPTS.

**6.976quintic program** [b-ITU-T J.380.2]: A time-bounded collection of video, audio, and data streams.

**6.977 program clock reference** [b-ITU-T J.89], [b-ITU-T J.187]: A time-stamp in the transport stream from which decoder timing is derived.

**6.978 program element** [b-ITU-T J.94]: A generic term for one of the elementary streams or other data streams that may be included in a program. For example: audio, video, data, etc.

**6.979 program in point** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.189]: A group of PID stream in points that correspond in presentation time.

**6.980 program map table (PMT)** [b-ITU-T J.215]: This is a MPEG-2 entity that contains all of the PIDs that make up a program.

**6.981 program out point** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.189]: A group of PID stream out points that correspond in presentation time.

**6.982 programme originator** [b-ITU-T N.51]: A customer at a transmitting country needing up-linking of a transmission to television receive-only stations (TVROs) not related to an ITC.

**6.983 program specific information** [b-ITU-T J.89]: PSI consists of normative data which is necessary for the demultiplexing of transport streams and the successful regeneration of programs and is described in 2.4.4 of ITU-T Rec. H.222.0 | ISO/IEC 13818-1. An example of privately defined PSI data is the non-mandatory network information table.

**6.983bis program specific information (PSI)** [b-ITU-T J.116]: In MPEG-2, normative data necessary for the demultiplexing of Transport Streams and the successful regeneration of programs.

**6.983ter programme-specific information (PSI)** [b-ITU-T J.112 Annex B]: In MPEG-2, normative data necessary for the demultiplexing of Transport Streams and the successful regeneration of programmes.

**6.983quater Program-Specific Information (PSI)** [b-ITU-T J.112 Annex C]: In MPEG-2, normative data necessary for the demultiplexing of Transport Streams and the successful regeneration of programs.

**6.984 program splice mode** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1]: A mode of the cueing message whereby the program\_splice\_flag is set to '1' and indicates that the message refers to a Program Splice Point and that all PIDs/components of the program are to be spliced.

**6.985 program splice point** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.189]: A program in point or a program out point.

**6.986 programme stream** [b-ITU-T J.112 Annex B], [b-ITU-T J.122]: In MPEG-2, a multiplex of variable-length digital video and audio packets from one or more program sources having a common time-base.

**6.986bis program stream** [b-ITU-T J.112], [b-ITU-T J.112 Annex C], [b-ITU-T J.116]: In MPEG-2, a multiplex of variable-length digital video and audio packets from one or more program sources having a common time-base.

**6.987 Programme Specific Information (PSI)** [b-ITU-T J.112], [b-ITU-T J.122]: In MPEG-2, normative data necessary for the demultiplexing of Transport Streams and the successful regeneration of programmes.

**6.988 progressive download** [b-ITU-T J.124]: Streaming by download-based protocol over TCP/IP without any session control protocols. Client can start playing the media before the full file is downloaded.

**6.989 proponent** [b-ITU-T J.144]: An organization or company that proposes a video quality model for validation testing and possible inclusion in an ITU Recommendation.

**6.990 protected content** [b-ITU-T J.1010]: All kinds of protected media, in particular A/V and associated metadata, delivered to the customer application either via linear or non-linear delivery means.

**6.991 protocol** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A set of rules and formats that determines the communication behaviour of layer entities in the performance of the layer functions.

**6.992 Protocol Independent Multicast-Sparse Mode (PIM-SM)** [b-ITU-T J.283]: A multicast routing protocol based on an explicit join model for multicast groups that may span a wide area.

**6.993 provisioned service flow** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A service flow that has been provisioned as part of the registration process, but has not yet been activated or admitted. It may still require an authorization exchange with a policy module or external policy server prior to admission.

**6.994 provisioning** [b-ITU-T J.295]: Automated initial setting activity.

**6.994bis provisioning** [b-ITU-T J.369], [b-ITU-T J.460.4]: Provisioning refers to the processes involved in the initialization of user attributes and resources to provide services to a User. This involves protocols, methodologies, and interfaces to network elements such as: Order Entry and Workflow Systems that carry out business processes, Operational Support Elements that handle network resources, Application Servers that offer services and User Equipment that offer services, among others.

**6.995 provisioning L2VPN** [b-ITU-T J.213]: An L2VPN for the pre-registration traffic of DHCP, TOD, and TFTP that provisions eCMs and eSAFE hosts. May be combined with a management L2VPN.

**6.996 proxy** [b-ITU-T J.170], [b-ITU-T J.178], [b-ITU-T J.361]: A facility that indirectly provides some service or acts as a representative in delivering information, thereby eliminating the need for a host to support the service.

**6.997 proxy server** [b-ITU-T J.460.1]: An intermediary entity that acts as both a server and a client for the purpose of making requests on behalf of other clients.

**6.998 pseudo wire** [b-ITU-T J.214]: A pseudo wire (PW) is a logical entity capable of the emulation of a native service (i.e., T1) over a packet switched network (like DOCSIS IP).

**6.999 public key** [b-ITU-T J.170], [b-ITU-T J.178]: The key used in public key cryptography that belongs to an individual entity and is distributed publicly. Other entities use this key to encrypt data to be sent to the owner of the key.

**6.1000 public key certificate** [b-ITU-T J.170]: A binding between an entity's public key and one or more attributes relating to its identity, also known as a digital certificate.

**6.1001 public key cryptography** [b-ITU-T J.170], [b-ITU-T J.178]: A procedure that uses a pair of keys, a public key and a private key for encryption and decryption, also known as asymmetric algorithm. A user's public key is publicly available for others to use to send a message to the owner

of the key. A user's private key is kept secret and is the only key which can decrypt messages sent encrypted by the user's public key.

**6.1001bis public key cryptography** [b-ITU-T J.93], [b-ITU-T J.95]: A cryptographic technique based upon a two-key algorithm, private and public, wherein a message is encrypted with the public key but can only be decrypted with the private key. Also known as a Private-Public Key (PPK) system.

NOTE – Knowing the public key does not reveal the private key.

**6.1002 public user identity** [b-ITU-T J.360]: Used by any user for requesting communications to other users.

**6.1003 pulse code modulation (PCM)** [b-ITU-T J.161]: A commonly employed algorithm to digitize an analog signal (such as a human voice) into a digital bit stream using simple analog to digital conversion techniques.

**6.1003bis pulse code modulation** [b-ITU-T J.361]: A common method of digitizing an analogue signal (such as a human voice) into a bit stream using simple analogue to digital conversion techniques. [ITU T G.711] defines its use in the PSTN with two encoding laws,  $\mu$ -law, used in North America, and A-law, used elsewhere.

**6.1004 QAM channel (QAM ch)** [b-ITU-T J.210], [b-ITU-T J.212]: Analog RF channel that uses quadrature amplitude modulation (QAM) to convey information.

**6.1005 QoS parameter set** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.128], [b-ITU-T J.290]: The set of service flow encodings that describe the quality of service attributes of a service flow or a service class.

**6.1006 QPSK/differential coding** [b-ITU-T J.184]: A special QPSK system that uses differential encoding scheme to resolve the 90° ambiguity in the detection of the QPSK signal at the demodulator.

**6.1007 quadlet** [b-ITU-T J.117]: Four bytes of data.

**6.1008 Quadrature Amplitude Modulation (QAM)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A method of modulating digital signals onto a radio frequency carrier signal involving both amplitude and phase coding.

**6.1008bis quadrature amplitude modulation (QAM)** [b-ITU-T J.210], [b-ITU-T J.212]: A modulation technique in which an analog signal's amplitude and phase vary to convey information, such as digital data.

**6.1009 Quadrature Phase Shift Keying (QPSK)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A method of modulating digital signals onto a radio-frequency carrier signal using four phase states to code two digital bits.

**6.1010 qualifier** [b-ITU-T J.380.8]: A "Qualifier" is a name/value pair used to describe one characteristic of an object in a logical service's basic query data model. For instance, <Qualifier name="Age" value="30to40"/> is an example of a qualifier where "Age" is the characteristic's name and "30to40" is the characteristic's value.

**6.1011 QualifierSet** [b-ITU-T J.380.8]: A "QualifierSet" is a complete set of Qualifier elements that describe an object in a logical service's basic query data model.

**6.1012 quality of service** [b-ITU-T J.361]: Guarantees network bandwidth and availability for applications.

**6.1012bis quality of service** [b-ITU-T J.365]: Method used to reserve network resources and guarantee availability for applications.

**6.1012ter Quality of Service (QoS)** [b-ITU-T J.145]: The collective effect of service performances which determine the degree of satisfaction of a user of the service.

NOTE – The Quality of Service is characterized by the combined aspects of service support performance, service operability performance, service integrity and other factors specific to each service.

**6.1012<sup>quater</sup> quality of service (QoS)** [b-ITU-T J.161], [b-ITU-T J.166]: Guarantees network bandwidth and availability for applications.

**6.1013 Queue-Depth Based Request** [b-ITU-T J.222.2]: Request in multiples of bytes based on the CM's queue depth and QoS parameters for a specific service flow. This request does not include any estimation of physical layer overhead.

**6.1014 Radio Frequency (RF)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.212]: In cable television systems, this refers to electromagnetic signals typically in the range 5 to 1000 MHz.

**6.1014<sup>bis</sup> radio frequency (RF)** [b-ITU-T J.116]: Refers to electromagnetic signals typically in the range 5 to 40 000 MHz.

**6.1014<sup>ter</sup> radio frequency (RF)** [b-ITU-T J.210]: A portion of the electromagnetic spectrum from a few kilohertz to just below the frequency of infrared light.

**6.1015 radio frequency (RF) type remote control unit (RCU)** [b-ITU-T J.295]: An RCU using wireless technology such as RF4CE.

**6.1016 radio frequency interface (RFI)** [b-ITU-T J.210], [b-ITU-T J.212]: Term encompassing the downstream and the upstream radio frequency interfaces.

**6.1017 RAND** [b-ITU-T J.1004]: A random number with 320 bits.

**6.1018 RCU** [b-ITU-T J.297]: The equipment used by users when they operate STB remotely.

**6.1019 real time transport protocol (RTP)** [b-ITU-T J.291]: A transport protocol for real-time applications defined in ITU-T Rec. H.225.0. It is designed for real-time transmission of audio and video data.

**6.1020 realm** [b-ITU-T J.178]: A single instance of an IP/Cablecom network.

**6.1021 Real-time Streaming Protocol (RTSP)** [b-ITU-T J.120]: RTSP is a protocol defined in 6.3 and 6.4. RTSP specifies session control method between server and receiver. Its syntax is based on HTTP.

**6.1022 real-time text conversation** [b-ITU-T J.361]: Text conversation sessions as specified in [ITU-T T.140] and [IETF RFC 4103].

**6.1023 real-time transport protocol** [b-ITU-T J.361]: A protocol for encapsulating encoded voice and video streams. Refer to [b-IETF RFC 3550].

**6.1024 Real-time Transport Protocol (RTP)** [b-ITU-T J.120], [b-ITU-T J.121]: A transport protocol for real-time applications defined in ITU-T H.225.0. It is designed for real-time transmission of audio and video data.

**6.1024<sup>bis</sup> real-time transport protocol (RTP)** [b-ITU-T J.161]: A protocol for encapsulating encoded voice and video streams.

**6.1025 Receive Channel Configuration** [b-ITU-T J.222.2]: The CMTS sends the RCC encoding in the REG-RSP message. The RCC contains TLVs to initially configure CM's Receive Channels (RCs) and Receive Modules (RMs).

**6.1026 Receive Channel Profile** [b-ITU-T J.222.2]: The RCP describes a logical representation of the CM's downstream physical layer in terms of Receive Channels (RCs) and Receive Modules (RMs). A Cable Modem reports its ability to receive multiple channels with one or more RCP Encodings in a REG-REQ message.

**6.1027 Receive Channel Set** [b-ITU-T J.222.2]: The set of downstream channels assigned to an individual CM is called its Receive Channel Set, and is explicitly configured by the CMTS using the RCC encodings.

**6.1028 Receive Module** [b-ITU-T J.222.2]: A component in the CM physical layer implementation shared by multiple Receive Channels.

**6.1029 receiver platform (platform)** [b-ITU-T J.200]: The receiver's hardware, operating system and native software libraries of the manufacturer's choice.

**6.1030 receiving device** [b-ITU-T J.181]: A device that receives or interprets sections conforming to this Recommendation. Examples of these devices include splicers, ad servers, segmenters and satellite receivers.

**6.1031 Recovery time** [b-ITU-T J.145]: Delay from the end of an interruption (or after an impairment or disturbance) until the start of the normal operation, i.e., up to the time when the audio quality comes back to the normative quality.

**6.1032 Reed Solomon code** [b-ITU-T J.112], [b-ITU-T J.116]: A forward error correction code located before interleaving that enables correction of errors induced by burst noise.

**6.1033 reference code matrix** [b-ITU-T J.122]: A 128-by-128 element matrix formed by stacking successive spreading codes on top of each other, i.e., the bottom row of the reference code matrix is code 0 (all ones) and the top row is code 127. The code elements are placed in the matrix from right to left, i.e., the right-most column of the code matrix is the first element of each code, and the left-most column is the last element of each code.

**6.1034 reference image** [b-ITU-T J.302]: A resource to be referenced in the tracking process of acquiring coordinates generated by a particular region's movement in the video scene.

**6.1035 refresh rate** [b-ITU-T J.246], [b-ITU-T J.247]: The rate at which the computer monitor is updated.

**6.1036 registered Jack-11 (RJ-11)** [b-ITU-T J.161]: A standard 4-pin modular connector commonly used for connecting a phone unit into a wall jack.

**6.1037 registration descriptor** [b-ITU-T J.181 Amendment 1]: Carried in the PMT of a program to indicate that, when signalling Splice Events, splice\_info\_sections is carried in a PID stream within this program. The presence of the Registration Descriptor signifies a program's compliance with ITU-T J.181.

**6.1037bis registration descriptor** [b-ITU-T J.287]: An MPEG-2 ([ITU-T H.222.0]) construct to uniquely and unambiguously identify formats of private data. As used in this context, it is carried in the PMT of a program to indicate the program's compliance with [ITU-T J.181]. (See clause 2.6.8 of [ITU-T H.222.0].)

**6.1038 registration, admissions and status** [b-ITU-T J.177]: RAS Channel is an unreliable channel used to convey the RAS messages and bandwidth changes between two H.323 entities.

**6.1039 registration-established service channel** [b-ITU-T J.380.2]: A service channel duration commencing with a successful registration and continuing until termination through deregistration.

**6.1039bis registration-established service channel** [b-ITU-T J.380.3]: A service channel duration commencing with a successful placement service registration and continuing until either participating logical service completes terminating an active service channel.

**6.1040 remote alarm indication** [b-ITU-T J.214]: Also known as yellow alarm. When a CSU/DSU enters the red alarm state, an RAI is transmitted in the outgoing direction. The RAI signals to the remote end that the local end is unable to synchronize framing patterns.

**6.1041 remote application catalogue** [b-ITU-T J.205]: Application catalogue exported from an application repository. This differs from the normal application catalogue in that, if the remote application catalogue is very large, there must be a mechanism for querying it and retrieving it in small parts that can be handled in an efficient way by the integrated broadcast and broadband (IBB) DTV receiver.

**6.1042 remote PHY device** [b-ITU-T J.216]: Equipment in the network that implements the second-generation modular headend architecture (MHAv2) specifications technology to provide conversion from digital Ethernet transport to analogue radio frequency (RF) transport.

**6.1043 remote procedure call (RPC)** [b-ITU-T J.380.7]: A protocol that one program can use to request a service from a program located in another computer in a network without having to understand network details.

**6.1044 remote terminal** [b-ITU-T J.284]: Video terminal at a remote site.

**6.1045 remux** [b-ITU-T J.296]: A method of transmission of TS created by the cable operator to cable a subscriber's STB over a cable TV network.

**6.1046 request** [b-ITU-T J.287]: A single directive, from either the automation system, the injector or the PAMS, to another portion of the overall system. "Request" and "Command" are used interchangeably. A request is always carried within a message. A request is normally answered by a response message.

**6.1047 Request For Comments (RFC)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B]: Technical policy document of the IETF; these documents can be accessed on the World Wide Web at <http://www.rfc-editor.org/rfc-index.html>.

**6.1047bis Request For Comments (RFC)** [b-ITU-T J.122], [b-ITU-T J.212]: A technical policy document of the IETF; these documents can be accessed on the worldwide web at <http://www.rfc-editor.org/>.

**6.1047ter Request For Comments (RFC)** [b-ITU-T J.112 Annex C]: Technical policy document of the IETF; these documents can be accessed on the World Wide Web at <http://ds.internic.net/ds/rfcindex.html>.

**6.1047quater request for comments** [b-ITU-T J.365]: Technical policy documents approved by the IETF which are available at <http://www.ietf.org/rfc.html>.

**6.1048 requestor** [b-ITU-T J.362]: The requestor in this context is the controller that wishes to control the control point and hence needs to discover the necessary information to do so.

**6.1049 Resequencing Channel List** [b-ITU-T J.222.2]: This is a list of channels on which the CM receives packets labelled with that DSID.

**6.1050 Resequencing Context** [b-ITU-T J.222.2]: A CM Resequencing Context, identified by a Resequencing DSID, is the set of Downstream Resequencing Channel List, Sequence Change Count, and DSID Resequencing Wait time. Downstream packets containing a Resequencing DSID and a sequence number are delivered, resequenced and forwarded according to the attributes of the Resequencing Context.

**6.1051 Resequencing Downstream Service Identifier** [b-ITU-T J.222.2]: A downstream service identifier for which the CMTS signals packet resequencing attributes.

**6.1052 reserved** [b-ITU-T J.89], [b-ITU-T J.187]: The term "reserved", when used in the clauses defining the coded bit stream, indicates that the value may be used in the future for ISO-defined extensions. Unless otherwise specified within ITU-T Rec. H.222.0 | ISO/IEC 13818-1, all reserved bits shall be set to "1".

**6.1052bis reserved** [b-ITU-T J.94], [b-ITU-T J.287]: The term "reserved" when used in the clause defining the coded bitstream, indicates that the value may be used in the future for ISO defined

extensions. Unless otherwise specified within this Recommendation, all "reserved" bits shall be set to "1".

**6.1052ter reserved** [b-ITU-T J.181 Amendment 1]: The term "reserved", when used in the clauses defining the coded bit stream, indicates that the value may be used in the future for extensions to the standard. Unless otherwise specified in the core part of ITU-T J.181, all reserved bits are set to '1'.

**6.1053 reserved\_future\_use** [b-ITU-T J.94]: The term "reserved\_future\_use", when used in the clause defining the coded bitstream, indicates that the value may be used in the future for ETSI defined extensions. Unless otherwise specified within this Recommendation all "reserved\_future\_use" bits shall be set to "1".

**6.1054 resident application** [b-ITU-T J.230]: Application that is stored in the storage area of a terminal device, and is not tied to any broadcast programme. For example, a pre-installed application is classified as a resident application.

**6.1055 residential gateway** [b-ITU-T J.190], [b-ITU-T J.290], [b-ITU-T J.292]: A logical element that provides in-premise and aggregated security, management, provisioning, and addressing services for logical elements within a compliant IPNet2Home network. In this Recommendation, it is also referred to as portal services (PS).

**6.1055bis residential gateway** [b-ITU-T J.294]: A grouping of logical elements used to achieve access for home network(s).

**6.1055ter Residential Gateway (RG)** [b-ITU-T J.193]: A grouping of logical elements used to achieve HFC access for Home Network(s).

**6.1056 resource (system)** [b-ITU-T J.200]: A well-defined capability or asset of a receiver, which can be used by the application environment. Examples: MPEG decoder, graphics system.

**6.1057 resource abstraction/middleware interface** [b-ITU-T J.701]: An interface between the resource abstraction layer and the middleware service that encapsulates OS operations and the resources layer, and provides an abstract view of the resource layer.

**6.1058 resources** [b-ITU-T J.701]: The native hardware and software entities that provide certain functionality to the middleware services component through the resource abstraction layer. The middleware service functions are provided to the application layer through the API of the middleware services.

**6.1059 response** [b-ITU-T J.287]: A reply message to a request directive from the other portion of the system. Responses are made by the automation system, the compression system, and the PAMS in reply to requests. A response is always carried within a single\_operation message.

**6.1060 Response time** [b-ITU-T J.145]: Delay in applications of interactive services between the start of a user command and the reaction of the whole system reaching the user. It is combined from both the latency time of the interaction channel, the latency time of the server and the combined network and codec latency time of the forward channel.

**6.1061 return channel** [b-ITU-T J.200]: The communication mechanism which provides connection between the receiver and a remote server.

**6.1062 return loss** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The parameter describing the attenuation of a guided wave signal (e.g., via a coaxial cable) returned to a source by a device or medium resulting from reflections of the signal generated by the source.

**6.1063 reverse channel** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: The direction of signal flow towards the headend, away from the subscriber; equivalent to Upstream.



**6.1063bis reverse channel** [b-ITU-T J.116]: The direction of signal flow towards the BTS, away from the subscriber; equivalent to Upstream.

**6.1064 reverse data channel** [b-ITU-T J.184]: A data channel transmitted from the terminal device to the headend in a modulated channel at a rate of 0.256 to 3.088 Mbit/s. The RDC carries IP traffic only for:

- Messaging.
- Personal computer data services.
- Network management.

**6.1065 rich execution environment (REE)** [b-ITU-T J.1201], [b-ITU-T J.1202]: A hugely extensible and versatile operating environment which brings flexibility and capability.

**6.1066 rights** [b-ITU-T J.702]: Refer to the ability to perform a pre-defined set of utilization functions on a content item. These utilization functions include the permissions (e.g., to view/hear, copy, modify, record, excerpt, sample, keep for a certain period, distribute), constraints (e.g., play/view/hear multiple times, play/view/hear certain number of hours) and obligations (e.g., payment, content tracing) that apply to the content and provide liberty of use granted to the end-user.

**6.1067 ringback** [b-ITU-T J.460.1]: A function applied by a PSAP that causes an offhook phone to get ROH tone and an on hook phone to ring. This is not a new call. Ringback is not the same as Callback. See above.

**6.1068 robustness rules** [b-ITU-T J.197]: The rules described in clause 6, which apply to set top boxes, and are for the purpose of resisting attempts to modify set top boxes to defeat the functions of the compliance rules.

**6.1069 roll off** [b-ITU-T J.112], [b-ITU-T J.116]: A coefficient of the cosine roll-off function that determines the frequency characteristics of the filter.

**6.1070 root DTI server** [b-ITU-T J.211]: The DTI server that is the source of traceable time and frequency for all subtending DTI servers and clients in a building.

**6.1071 root key** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: The key used for the first level of a key ladder.

**6.1072 root mean square (RMS)** [b-ITU-T J.210]: Square root of the mean value squared a function.

**6.1073 root private key** [b-ITU-T J.170]: The private signing key of the highest-level Certification Authority. It is normally used to sign public key certificates for lower-level Certification Authorities or other entities.

**6.1074 Routing Information Protocol (RIP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A protocol of the IETF for exchanging routing information about IP networks and subnets.

**6.1075 Routing CMTS** [b-ITU-T J.222.2]: A CMTS that makes traffic forwarding decisions between its Network System Interfaces and MAC Domain Interfaces based upon the Layer 3 (network) address of a packet.

**6.1076 RP** [b-ITU-T J.283]: A Rendez-vous Point among multicast sources and group members. Packets transmitted from multicast sources are distributed via an RP router at the beginning of multicast transmission.

**6.1077 RS-coded MPEG-2 Transport Stream (TS) packet** [b-ITU-T J.131], [b-ITU-T J.132]: A data packet possessing a length of 204 bytes. Bytes 1 to 188 contain an MPEG-2 transport stream packet. Bytes 189 to 204 contain the parity-check bytes for the error correction of the preceding bytes

of this packet. These parity-check bytes are generated using a shortened Reed Solomon Code RS (204, 188), as specified in Annex A/J.83.

**6.1078 RTP control protocol (RTCP)** [b-ITU-T J.121]: A control protocol for RTP packets defined in ITU T Rec. H.225.0.

**6.1079 sample** [b-ITU-T J.123], [b-ITU-T J.124]: An individual frame of video, or a time-contiguous compressed section of audio.

**6.1080 sample description** [b-ITU-T J.123], [b-ITU-T J.124]: A structure which defines and describes the format of some number of samples in a track.

**6.1081 sample table** [b-ITU-T J.123], [b-ITU-T J.124]: A packed directory for the timing and physical layout of the samples in a track.

**6.1082 Sampling instants for decoding margin** [b-ITU-T J.101]: The sampling instants for decoding margin are half way between the timing instants defined in § 2.6.

**6.1083 satellite master antenna television (SMATV) network** [b-ITU-T J.84]: A broadband network intended for the distribution of television, sound and data signals received directly from one or more satellites, possibly in frequency division multiplex with similar terrestrial UHF or VHF signals, to households located in one or more adjacent buildings. Where intended also for the distribution of new digital multi-programme television, sound and data services, such networks are known as "Digital SMATV networks", and the digital configuration made for this purpose is known as a "Digital multi-programme SMATV system".

**6.1084 S-CDMA Frame** [b-ITU-T J.122], [b-ITU-T J.222.1], [b-ITU-T J.222.2]: A two dimensional representation of mini-slots, where the dimensions are codes and time. An S-CDMA frame is composed of  $p$  active codes in the code dimension and  $K$  spreading intervals in the time dimension. Within the S-CDMA frame, the number of mini-slots is determined by the number of codes per mini-slot ( $c$ ) and  $p$ , the number of active codes in the S-CDMA frame. Each S-CDMA frame thus contains  $s$  mini-slots, where  $s = p/c$ , and each mini-slot contains  $c \cdot K$  information (QAM) symbols.

**6.1085 S-CDMA subframe** [b-ITU-T J.122], [b-ITU-T J.222.1]: A subframe is a vertically-smaller subset of an S-CDMA frame over which interleaving is performed, where the vertical dimension is  $R'$  codes, where  $R' \leq p$  (the number of active codes). A subframe is generally used to constrain the interleaving region to be of a similar size to the Reed-Solomon codeword in order to provide protection from impulse noise.

**6.1086 schedule provider** [b-ITU-T J.90]: The entity that decides the schedule in which programmes are sequenced on a delivery channel (e.g., the broadcaster).

**6.1087 scope of uniqueness** [b-ITU-T J.380.2]: Uniqueness is context relative and for this specification's purpose shall be defined by one of the following: global, service channel or element.

**6.1088 scrambler** [b-ITU-T J.96]: relates to the overall mechanisms required to meet the DVB-CSA specification.

**6.1088bis scrambler** [b-ITU-T J.195.2]: Process that randomizes data using a pseudo-random binary sequence.

**6.1089 scrambling** [b-ITU-T J.91]: Is defined as the alteration of the characteristics of a vision/sound/data signal in order to prevent unauthorized reception in a clear form. This alteration is a specified process under the control of the conditional access system (sending end)

**6.1089bis scrambling** [b-ITU-T J.93], [b-ITU-T J.95]: The process of using an encryption function to render television and data signals unusable to unauthorized parties.

**6.1090 scripting language** [b-ITU-T J.200]: A language to describe the program process, which is embedded in markup documents.

**6.1091 second screen** [b-ITU-T J.295]: This refers to a display screen of mobile phones or other network-enabled devices that show services associated with the television screen.

**6.1092 secondary distribution** [b-ITU-T J.248]: Use of a transmission channel for distribution of programs to viewers at large.

**6.1093 secure OS** [b-ITU-T J.1202]: An operating system running in a trusted execution environment (TEE) which is used to trigger secure execution of applications within the TEE.

**6.1094 section** [b-ITU-T J.94]: A section is a syntactic structure that shall be used for mapping each [ITU T H.222.0] defined PSI table or private data table into transport stream packets. Private data tables include service information (SI) except for PSI.

**6.1094bis section** [b-ITU-T J.200]: A syntactic structure specified in [b-ITU-T H.222.0] for the embedding of data in the transport stream. A data structure comprising a portion of a [b-ITU-T H.222.0] (or a [b-ISO/IEC 13818-6]) defined table, such as the program association table (PAT), conditional access table (CAT), program map table (PMT) or DSM-CC section.

**6.1094ter section** [b-ITU-T J.287]: A private\_section structure as defined by [ITU-T H.222.0] and (in this case) [ITU-T J.181]. As used here, the term is usually "splice\_info\_section". See clause 6.2 of [ITU-T J.181] and clause 2.4.4.10 of [ITU-T H.222.0].

**6.1095 secure data management platform (SDMP)** [b-ITU-T J.1027]: A secure data management platform generates and manages some basic and root information, such as keys and IDs used in a DCAS, including information to the DCAS headend, to the terminal security chipset and to the HSM.

**6.1096 secure microprocessor** [b-ITU-T J.126]: The security element in a device that supports downloadable conditional access.

**6.1097 secure signature** [b-ITU-T J.93], [b-ITU-T J.95]: A mathematical process by which the origin and integrity of a transmitted message can be ascertained.

NOTE – If a secure signature system is used, the originator cannot deny having sent the message, and the receiver can determine if the message has been modified.

**6.1098 secure socket layer (SSL) (based on [ITU-R BT.1699])** [b-ITU-T J.296]: A security protocol that works at a socket level. This layer exists between the TCP layer and the application layer to encrypt/decode data and authenticate concerned entities.

**6.1099 security association (SA)** [b-ITU-T J.213]: An association between the CMTS and a set of CMs in a MAC domain that enables encrypted communication between the CMTS and the CM set. A single CM SA is one with a single CM, and enables a private point-to-point L2 Network connection between the CMTS and the CPE LAN of that CM. A security association descriptor (SA-Descriptor) is a multiple-part message element defined in the DOCSIS baseline privacy [ITU-T J.125] that includes a security association ID (SAID).

**6.1100 security association identifier (SAID)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A baseline privacy security identifier between a CMTS and a CM.

**6.1100bis security association ID (SAID)** [b-ITU-T J.213]: A 14-bit identifier that appears in a BPI extended header (BPI-EH) of a DOCSIS PDU packet to identify the key used to encrypt the packet.

**6.1101 security chipset key de-obfuscation** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: Algorithm used to de-obfuscate encrypted security chipset key.

**6.1102 segment** [b-ITU-T J.181]: Either a Program, a Chapter, a Provider Advertisement, a Distributor Advertisement, or an Unscheduled Event as listed in Table 10-8, `segmentation_type_id`.

**6.1103 segment buffer** [b-ITU-T J.117]: An externally visible address space on a consumer into which data is written by the connected producer.

- 6.1104 Segment Header OFF** [b-ITU-T J.222.2]: Mode of Upstream DOCSIS3.0 Operation where segment headers are not used for any segment. This mode is provisioned per upstream service flow and prohibits fragmenting a packet across segment boundaries.
- 6.1105 Segment Header ON** [b-ITU-T J.222.2]: Mode of Upstream DOCSIS3.0 Operation where segment headers are used for each segment. This mode is provisioned per upstream service flow.
- 6.1106 Selectable Active Codes** [b-ITU-T J.222.2]: A methodology to determine the set of active codes and its complement, the set of unused codes. In SAC mode 1, a consecutive set of codes starting with code 0 are unused. In SAC mode 2, the active codes are selectable via a 128-bit string.
- 6.1107 selectable active codes (SAC)** [b-ITU-T J.222.1]: A methodology to determine the set of active codes and its complement, the set of unused codes. In SAC mode 1, a consecutive set of codes starting with code 0 are unused. In SAC mode 2, the active codes are selectable via a 128-bit string.
- 6.1108 self-aggregation** [b-ITU-T J.210]: Method used to compute the headend noise floor by summing measured noise from a single device over a specified output frequency range.
- 6.1109 send reference station** [b-ITU-T N.1], [b-ITU-T N.51]: The transmit sub-control station of an international multiple destination sound-programme circuit section, circuit or link.
- 6.1110 sequence layer** [b-ITU-T J.88]: Uppermost layer of a coding bit stream which coordinates coding and decoding parameters.
- 6.1111 server** [b-ITU-T J.280]: The device that originates the insertion channel(s) to be spliced into the primary channel(s). This device communicates with the splicer about when and what to splice.
- 6.1111bis server** [b-ITU-T J.360]: A network element that receives requests in order to service them and sends back responses to those requests. Examples of servers are proxies, user agent servers, redirect servers, and registrars.
- 6.1112 service** [b-ITU-T J.94]: A sequence of programmes under the control of a broadcaster which can be broadcast as part of a schedule.
- 6.1112bis service** [b-ITU-T J.164]: A service is an individual or package of communications features a subscriber may select. A service is identified by a set of one or more "calls" or transactions that deliver the desired functionality to the subscriber. Examples of a service include: a voice communication between two local IP-Cablecom subscribers, a 3-way call, pay-per-view movie, and a web surfing session. A service may be instantaneous or persist over time.
- 6.1112ter service** [b-ITU-T J.197]: The video, audio, or data signals, whether in analogue or digital format, transmitted over the video service provider network to (or from) the set top box, for the purposes of effectuating the reception or transmission of information, entertainment, or communications content.
- 6.1112quater service** [b-ITU-T J.200]: Content and applications provided by network operators and broadcasters.
- 6.1112quintic service** [b-ITU-T J.296], [b-ITU-T J.702]: A set of functionalities, enabled by a provider for end users that provides, for example, a television programme delivery service, a content-on-demand service, IP connectivity, next generation services where the hybrid cable STB is associated with mobile devices, etc.
- 6.1113 service access point (SAP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The point at which services are provided by one layer, or sublayer, to the layer immediately above it.
- 6.1114 service and content protection** [b-ITU-T J.702]: A combination of service protection and content protection, or a system or implementation thereof.

**6.1115 service associated IBB application** [b-ITU-T J.205 Cor. 2]: An application that is part of the integrated broadcast and broadband (IBB) DTV service tuned to by the user at a given time.

**6.1116 service bound application** [b-ITU-T J.200]: An application delivered as part of a broadcast stream.

**6.1117 service channel** [b-ITU-T J.380.1], [b-ITU-T J.380.2]: A message communication path between two logical service endpoints.

**6.1118 service channel uniqueness** [b-ITU-T J.380.2]: Uniqueness scoped by the @identity attribute and the service channel and at no other time shall the item be compromised, reused, or otherwise taken to have more than one meaning. XML messages shall be service channel unique and a message shall not be compromised or reused for the duration of the service channel. Service channel uniqueness is relative only to the endpoints where the message exchange is occurring and within the identity domain of the two endpoints involved in the exchange. Enforcement of uniqueness as well as the creation of identity unique identifiers is outside the scope of this Recommendation and [b-IETF RFC 4122] is recommended.

**6.1119 service class** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.128], [b-ITU-T J.290] A set of queueing and scheduling attributes that is named and that is configured at the CMTS. A service class is identified by a service class name. A service class has an associated QoS parameter set.

**6.1120 service class name** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: An ASCII string by which a service class may be referenced in modem configuration files and protocol exchanges.

**6.1121 service components** [b-ITU-T J.701]: The components that offer functionalities to any upper layers, regardless of the type of software and hardware in the resource layer.

**6.1122 service data unit (SDU)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Information that is delivered as a unit between peer service access points.

**6.1123 service exclusive IBB application** [b-ITU-T J.205 Cor. 2]: An application that is listed as a component of an integrated broadcast and broadband (IBB) DTV service; its life cycle is strictly tied to the exhibition of such an IBB DTV service.

**6.1124 service flow** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A MAC-layer transport service which: provides unidirectional transport of packets from the upper layer service entity to the RF; shapes, polices and prioritizes traffic according to QoS traffic parameters defined for the flow.

**6.1125 service flow identifier (SFID)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: An identifier assigned to a service flow by the CMTS (32 bits).

**6.1126 service flow reference** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: A message parameter in configuration files and dynamic service MAC messages used to associate classifiers and other objects in the message with the service flow encodings of a requested service flow.

**6.1127 service flow tagging** [b-ITU-T J.223.1]: The service flow tagging is a method of using tags to indicate the service flow to which a packet has been classified.

**6.1128 service group** [b-ITU-T J.222.2]: A SG is formally defined as the complete set of upstream and downstream channels that can provide service to a single subscriber device. This includes channels from different DOCSIS MAC Domains and even different CMTSs as well as video EQAMs.

**6.1129 Service Identifier (SID)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.222.2]: A Service Flow Identifier assigned by the CMTS (in addition to a Service Flow Identifier) to an Active or Admitted Upstream Service Flow. (14 bits).

**6.1129bis service identifier (SID)** [b-ITU-T J.122]: An identifier assigned by the CMTS (in addition to a service flow identifier) to an active or admitted upstream service flow (14 bits).

**6.1130 service information (SI)** [b-ITU-T J.94], [b-ITU-T J.142]: Digital data describing the delivery system, content and scheduling/timing to broadcast data streams etc. It includes MPEG-2 Program Specific Information (PSI) together with independently defined extensions.

**6.1130bis service information (SI)** [b-ITU-T J.200]: Data that describes programs and services.

**6.1131 service name list table (SNLT)** [b-ITU-T J.1210]: The basic table in an IP video broadcast (IPVB) headend that is used to describe the name information and other information (such as programme provider information, etc.) of each video programme.

**6.1132 service priority mapping** [b-ITU-T J.195.1]: A function whereby the media access control (MAC) layer maps the service stream matching the message features into the assignment priority queue of the quality of service (QoS) level and simultaneously re-labels the priority level of the service stream.

**6.1133 service protection** [b-ITU-T J.702]: Ensuring that an end-user can only acquire a service, and, by extension, the content contained therein, that they are entitled to receive. Service protection includes protecting service from unauthorized access as IPTV contents traverse through the IPTV service connections.

**6.1134 service provider interface (SPI)** [b-ITU-T J.294]: A service provider interface residing in the network side for the purpose of delivering advanced applications and services to the user. Applications and services can be developed either by the service provider or by a third party developer.

**6.1135 service shared IBB application** [b-ITU-T J.205 Cor. 2]: An application that is listed as a component of several different integrated broadcast and broadband (IBB) DTV services; its life cycle is for as long as any of those IBB DTV services are being exhibited.

**6.1136 service\_id** [b-ITU-T J.94]: A unique identifier of a service within a TS.

**6.1137 services** [b-ITU-T J.294]: The set of services that are required and to be supported by the RG.

**6.1138 session** [b-ITU-T J.212]: An L2TP data plane connection from the M-CMTS Core to the QAM channel. There must be one session per QAM Channel. There is one DEPI pseudowire type per session. There may be one MPT flow or one or more PSP flows per session. Multiple sessions may be bound to a single control connection.

**6.1138bis session** [b-ITU-T J.280]: A session is the insertion of content (such as spot advertisements of various lengths, program substitution, public service announcements, or program material created by splicing portions of the program from a server). Each session is identified by a unique SessionID.

**6.1139 session client** [b-ITU-T J.284]: One end that sets up a connection.

**6.1140 session initiation protocol (SIP)** [b-ITU-T J.291], [b-ITU-T J.361]: An application-layer control (signalling) protocol for creating, modifying, and terminating sessions with one or more participants. These sessions include Internet telephone calls, multimedia distribution, and multimedia conferences.

**6.1141 session initiation protocol plus** [b-ITU-T J.361]: An extension to SIP.

**6.1142 session server** [b-ITU-T J.284]: One end that accepts a connection request.

- 6.1143 session word** [b-ITU-T J.96]: relates to the word assigned during a transmission by the Management Centre.
- 6.1144 set top box (STB)** [b-ITU-T J.197]: Any device that receives content directly from a video service provider, this includes both devices that are separate from the display device, and display devices that have the proper embedded functionality. The STB functions as the service gateway for the home network and includes the conditional access (CA) system and a Digital Rights Management (DRM) system.
- 6.1144bis set-top box** [b-ITU-T J.183]: A hardware box that contains a digital signal demodulator, de-multiplexer, Motion Picture Experts Group version 2 (MPEG-2) decoder, other functionalities and interfaces related to digital signal reception and presentation of the distributed programme at the subscriber's site.
- 6.1144ter set-top box** [b-ITU-T J.296]: A hardware box that contains a digital signal demodulator, de-multiplexer, decoder, and other functionalities and interfaces related to digital signal reception and presentation of the distributed programme at the subscriber's site. The set-top box that satisfies the requirements defined in this Recommendation is called a hybrid cable set-top box.
- 6.1145 set-top controller** [b-ITU-T J.128], [b-ITU-T J.290]: This is the computer system responsible for managing the Set-top Devices within a cable system. It manages Set-top Devices through control and information messages sent via the Out-Of-Band channel.
- 6.1146 set-top device** [b-ITU-T J.126]: An eDOCSIS device that contains an eSTB.
- 6.1146bis set-top device** [b-ITU-T J.128]: A cable receiver that contains an embedded Cable Modem for DOCSIS connectivity and an embedded Set-top Box.
- 6.1146ter set-top device** [b-ITU-T J.290]: A receiver that contains an embedded PS function for home network connectivity and an embedded set-top box.
- 6.1147 short form insertion** [b-ITU-T J.287]: Refers to insertions of material with a duration of generally less than 10 minutes, i.e., advertising or promotional material. At the time of writing, it is the primary use of DPI technology.
- 6.1148 short-time waveform distortion** [b-ITU-T J.67]: If a short pulse (or a rapid step-function) of nominal luminance amplitude and defined shape is applied to the input of the circuit, the short-time waveform distortion is defined as the departure of the output pulse (or step) from its original shape.
- 6.1149 SID cluster** [b-ITU-T J.222.2]: A group of SIDs containing one and only one SID for each upstream channel within an upstream bonding group and treated the same from a request/grant perspective.
- 6.1150 SID cluster group** [b-ITU-T J.222.2]: The set of all SID Clusters associated with a specific service flow.
- 6.1151 single-platform version of the television operating system (TVOS-H)** [b-ITU-T J.1201]: A TVOS software which supports only web applications.
- 6.1152 signal-to-chrominance periodic noise ratio** [b-ITU-T J.64]: This parameter is to be measured on the part of the signal used in § 2.15 above. It is defined as the ratio of the amplitude of the luminance bar (element  $B_2$ ) to the peak-to-peak amplitude of spurious signals in a total 3 dB bandwidth of 0.2 MHz centred on the appropriate colour sub-carrier frequency as in § 2.15 above. The result of the measurement is to be given in dB.
- 6.1153 signal-to-quasi peak-to-peak noise ratio** [b-ITU-T J.64]: The signal-to-quasi peak-to-peak noise ratio is defined as the ratio of the amplitude of the luminance bar (element  $B_2$ ) to the value exceeded by the noise voltage deviation for a specified measurement time percentage (see Notes 1 and 2). It may be measured both under weighted or unweighted conditions. The comparison between

these parameters and that defined in § 2.15.1 and 2.15.2 is intended to confirm the Gaussian nature of the noise. They are to be given in dB.

NOTE 1 – The upper limit of the noise bandwidth is selected so as to eliminate noise which occurs outside of the wanted band of the video signal. The high pass filter and the notch filter are used to minimize the effects of periodic noise at low frequencies and at the sub-carrier frequency, respectively. The high pass filter has also been specified to minimize the measurement errors caused by residual wave-form distortion in the measurement period.

Attention is directed to the fact that the high pass filter and the notch filter modify the spectral composition of the random noise and therefore alter its r.m.s. or quasi peak-to-peak value. The conversion factors in dB established for noise with a spectrum ideally limited to 5 MHz are given in Table I (see also [CCIR, 1978-82b]).

NOTE 2 – Further study is required to specify this percentage.

**6.1154 signal-to-unweighted random noise ratio** [b-ITU-T J.64]: The signal-to-unweighted random noise ratio is defined as the ratio of the amplitude of the luminance bar (element  $B_2$ ) to the r.m.s. value of the noise measured on a specified line, or part of this line, (line 22, or optionally both lines 22 and 335, in the case of 625-line signals). It is to be given in dB. The noise bandwidth is assumed to be limited by the low pass filter defined in Recommendation 567 Annex II to Part C. Lower frequency limiting shall be done by a 200 kHz high pass filter with a slope of 20 dB per decade (see Note).

To suppress any periodic noise at sub-carrier frequency, a notch filter should be used (see Note). For 625-line signals, the amplitude/frequency response of the filter should be as in Fig. 8 and a possible implementation of the filter as a constant impedance network is given in [CCIR, 1978-82a].

NOTE – The upper limit of the noise bandwidth is selected so as to eliminate noise which occurs outside of the wanted band of the video signal. The high pass filter and the notch filter are used to minimize the effects of periodic noise at low frequencies and at the sub-carrier frequency, respectively. The high pass filter has also been specified to minimize the measurement errors caused by residual wave-form distortion in the measurement period.

Attention is directed to the fact that the high pass filter and the notch filter modify the spectral composition of the random noise and therefore alter its r.m.s. or quasi peak-to-peak value. The conversion factors in dB established for noise with a spectrum ideally limited to 5 MHz are given in Table I (see also [CCIR, 1978-82b]).

**6.1155 Signal-to-weighted random noise ratio** [b-ITU-T J.64]: The signal-to-weighted random noise ratio is defined as in § 2.15.1 above, save for the addition of the unified weighting network specified by the CCIR in Recommendation 567.

**6.1156 signal measurement (picture)** [b-ITU-T J.144]: The measurement of the performance of a programme chain by the use of test signals and objective (instrumental) measurement methods.

**6.1157 signalling frame** [b-ITU-T J.195.2]: Frame of the MAC layer used for node admission, node quitting/deletion and link maintenance.

**6.1158 Simple Network Management Protocol (SNMP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A network management protocol of the IETF.

**6.1158bis Simple Network Management Protocol (SNMP)** [b-ITU-T J.296]: An Internet-standard protocol for managing devices on IP networks. Essentially, SNMP agents expose management data on the managed systems as variables. The Protocol also permits active management tasks, such as modifying and applying a new configuration through remote modification of these variables. The variables that are accessible via SNMP are organized in hierarchies. These hierarchies, and other metadata (such as type and description of the variable), are described by management information bases (MIBs).

**6.1159 simple object access protocol (SOAP)** [b-ITU-T J.291]: A lightweight, XML-based protocol for exchange of information in a decentralized, distributed environment.



**6.1159bis simple object access protocol/service oriented architecture protocol (SOAP)** [b-ITU-T J.380.7]: A way for a program executing in one kind of operating system to communicate with a program executing in the same or another kind of operating system by using the World Wide Web's Hypertext Transfer Protocol (HTTP) and its Extensible Markup Language (XML) as the mechanisms for information exchange.

**6.1160 simple profile** [b-ITU-T J.287]: A defined subset of the automation to injector messages in this API which supports all basic splicing functionality while excluding schedules, encryption and component mode. An implementer may choose to support only the "Simple Profile" or features beyond it. The implementer can then describe their implementation in common terms (for example "Simple Profile plus encryption").

**6.1161 simulated transmission errors** [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342]: Errors imposed upon the digital video bit stream in a highly controlled environment. Examples include simulated packet loss rates and simulated bit errors. Parameters used to control simulated transmission errors are well defined.

**6.1162 single program transport stream** [b-ITU-T J.181]: A transport stream containing a single MPEG program.

**6.1162bis single program transport stream (SPTS)** [b-ITU-T J.291]: A transport stream in which there is a single program.

**6.1163 single-frequency network (SFN)** (based on [ITU-R BT.1306-6]) [b-ITU-T J.296]: A broadcast network where several transmitters simultaneously send the same signal over the same frequency channel.

**6.1164 SIP Client** [b-ITU-T J.460.0], [b-ITU-T J.460.1]: The functional element subscribers use to attach to the IPCom2 network.

**6.1165 slice layer** [b-ITU-T J.88]: Composed of 768 pixels 16 lines active pixels, and comprises a horizontal arrangement of macro blocks. The slice is categorized into four types of ID and control signal area, boundary area, block area and active image area

**6.1166 SMATV grouping terminal or interactive head-end** [b-ITU-T J.118]: The Grouping Terminal at the SMATV performs the collection and the distribution of information coming from and going to the user terminals. It is composed by the Grouping Terminal Interactive Network Adapter (INA), the MAC functions and the interfaces with the other networks in order to collect/distribute the information in the SMATV coax network related to each user terminal (Interactive Interface Module IIM).

**6.1167 SMATV network** [b-ITU-T J.84]: A Satellite Master Antenna TV network intended for the broadband distribution of television, sound and data signals received directly from one or more satellites, possibly in frequency-division multiplex with similar terrestrial VHF/UHF signals, to households located in one or more adjacent buildings. Where intended also for the distribution of new digital multiprogramme television, sound and data services, such networks are known as "Digital SMATV networks" and the digital configuration for this purpose is known as "Digital multiprogramme SMATV System".

**6.1168 SMATV system A (SMATV-DTM)** [b-ITU-T J.118]: "This system approach consists of the transmodulation from satellite Quaternary Phase Keying (QPSK) signals as defined in ITU-R BO.1516 to a Quadrature Amplitude Modulation (QAM) scheme as defined in ITU-T J.83. The process of transmodulation without baseband interfacing is also known as Transparent Transmodulation and the head-end unit performing this function is known as Transparent Digital Transmodulator (TDT)."

**6.1169 SMATV system B** [b-ITU-T J.118]: "This system is based on the use of QPSK modulation. The SMATV system B concept allows a direct reception of digital satellite signals using frequency conversion of the received satellite signal to a frequency band appropriate to the characteristics of the

SMATV distribution network. The functional elements of this system are given in the baseline satellite specification provided in ITU-R BO.1516. Two configurations of SMATV system B are considered as follows:

**SMATV-IF:** which uses the Intermediate Frequency (IF) as delivered by the Low Noise Block (LNB) (e.g., 950-2150 MHz)

**SMATV-S:** which uses a conversion to the extended S band (e.g., 230-470 MHz).

**6.1170 SMATV-D system** [b-ITU-T J.84]: A SMATV system equipped to receive QPSK-modulated digital television satellite signals and to distribute them, still in digital form, using QAM or QPSK modulation (the term "D" refers, in a generic way, to the ability to process digital television signals).

**6.1171 SMATV-DTM system** [b-ITU-T J.84]: A SMATV-D system based on digital transmodulation performed at headend from a QPSK-modulated satellite signal to a QAM-modulated cable signal, which is then distributed to users in the VHF/UHF bands (The approach is called "transparent", since the satellite carrier content is transferred to the cable carrier without demultiplexing or other baseband processing.)

**6.1172 SMATV-IF** [b-ITU-T J.84]: A SMATV-D system based on the direct distribution of the QPSK\_x005f modulated television satellite signal, taken from the LNB and distributed in the extended IF band (e.g., 950-2050 MHz in Europe) without further processing apart from a possible frequency conversion within the IF band.

**6.1173 SMATV-S** [b-ITU-T J.84]: A SMATV-D system based on the direct distribution of the QPSK\_x005f modulated television satellite signal, taken from the LNB and distributed in the "Extended Superband" (e.g., 230-470 MHz in Europe) without any further processing apart from frequency conversion.

**6.1174 social television** [b-ITU-T J.295]: This is a general term for technology that supports communication and social interaction in either the context of watching television, or related to TV content. It includes the study of television-related social behaviour, devices and networks. Social television systems can for example integrate voice communication, text chat, presence and context awareness, TV recommendations, ratings, or video-conferencing with the TV content, either directly on the screen or by using ancillary devices

**6.1175 socket** [b-ITU-T J.287]: A TCP/IP mechanism used for connection-oriented communications. Sometimes it is also called "port" in an interchangeable manner.

**6.1176 software container** [b-ITU-T J.1010]: Set of software interfaces to the host and to the client, which strictly separates the CA/DRM client from the host. The provisioning of the interfaces enables the exchangeability of the CA/DRM clients.

**6.1177 sound-programme circuit-section** [b-ITU-T J.13]: "Part of an international sound-programme circuit between two stations at which the programme is transmitted at audio frequencies.

The normal method of providing a sound-programme circuit section in the international network will be by the use of carrier sound-programme equipment. Exceptionally sound-programme circuit sections will be provided by other means, for example, by using amplified unloaded or lightly loaded screened-pair cables or by using the phantoms of symmetric-pair carrier cables."

**6.1178 sound-programme circuit section** [b-ITU-T N.1]: The unidirectional national or international sound-programme transmission path between two stations at which the programme is accessible at audio frequencies. The transmission path may be established via terrestrial or single destination satellite routing.

**6.1179 Source** [b-ITU-T J.117]: A device that produces or passes on OSD data.

**6.1180 source coding (bit-rate reduction)** [b-ITU-T J.248]: The encoding of the original digital signal (video, audio or data) in bit-rate reduction (BRR) representation before protection is applied against bit errors in the channel.

**6.1181 source frame rate (SFR)** [b-ITU-T J.246], [b-ITU-T J.247]: The intended frame rate of the original source video sequences. The source frame rate is constant. For the VQEG MM Phase I test the SFR was either 25 fps or 30 fps.

**6.1182 source identification** [b-ITU-T J.27], [b-ITU-T N.13]: An announcement used to identify the originating point of the test signals. It should be as short as possible, and it should contain at least the following information:

- name of originating organization;
- location;
- country.

The sound-programme signal should be controlled by the sending broadcaster so that the amplitudes of the peaks only rarely exceed the peak amplitude of the permitted maximum (sine-wave test) signal.

**6.1183 Spectrum Management System (SMS)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C]: A system, defined in [b-SMS], for managing the RF cable spectrum.

**6.1184bis spectrum management system (SMS)** [b-ITU-T J.122]: A system, defined in [b-SMS], for managing the RF cable spectrum.

**6.1184 splice event** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: An opportunity to splice one or more PID streams.

**6.1185 splice immediate mode** [b-ITU-T J.181 Amendment 1], [b-ITU-T J.287]: A mode of the Cueing Message whereby the splicing device chooses the nearest opportunity in the stream, relative to the splice\_info\_table, to splice. When not in this mode, the Message gives a "pts\_time", which is a Presentation Time, for the intended splicing moment.

**6.1186 splice point** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.189], [b-ITU-T J.287]: A point in a PID stream that is either an out point or an in point.

**6.1187 splice time** [b-ITU-T J.189]: A presentation time of the intended splice point, which is equivalent to the presentation time of the access unit following the intended splice point.

**6.1188 splice\_info\_section** [b-ITU-T J.287]: Basic ITU-T J.181 structure for carrying DPI commands in a TS to downstream equipment.

**6.1189 spliceable stream** [b-ITU-T J.189]: A PID stream whose discontinuity in a time-stamp or a time base can be processed seamlessly by the MPEG-2 bit stream splicing device. The basic syntax is defined in ITU-T Rec. H.222.0 | ISO/IEC 13818-1.

**6.1190 splice-in** [b-ITU-T J.280]: The splice at the start of the insertion. This happens at the time specified in the Splice\_Request message.

**6.1191 splice-out** [b-ITU-T J.280]: The splice at the end of the insertion. The expected insertion end time is calculated by adding the start time and the duration specified in the Splice\_Request message; however, this may occur earlier due to error conditions.

**6.1192 splicer** [b-ITU-T J.280]: The device that splices the insertion channel(s) into the primary channel(s). It may receive ANSI/SCTE 35 cue messages. This device also communicates with the server about when and what to splice.

**6.1193 spot** [b-ITU-T J.287]: Term for the content of an advertisement, and sometimes also used to refer to an avail.

**6.1194 spread symbol** [b-ITU-T J.222.1]: At the output of the spreader, a group of 128 chips which comprises a single S-CDMA spreading code, and is the result of spreading a single information (QAM constellation) symbol, which is referred to as a "spread symbol".

**6.1195 spread symbol or spreading interval** [b-ITU-T J.122]: At the output of the spreader, a group of 128 chips which comprise a single S-CDMA spreading code, and are the result of spreading a single information (QAM) symbol. One spread symbol = one spreading interval = 128 chips = one information (QAM) symbol.

**6.1196 spreader-off S-CDMA burst** [b-ITU-T J.122], [b-ITU-T J.222.1]: A transmission from a single CM in a spreader-off frame on an S-CDMA channel defined by the time in which the cable modem's transmitter turns on to the time it turns off. There will generally be several spreader off bursts in a spreader-off frame.

**6.1197 spreader-off S-CDMA frame** [b-ITU-T J.122], [b-ITU-T J.222.1]: TDMA mini-slots on an S-CDMA channel in which the spreader is turned off. These are differentiated from TDMA bursts on a TDMA channel in that, for example, the number of mini-slots per spreader-off S-CDMA burst frame is constrained to be the same as the number of mini-slots in a spreader-on S-CDMA frame(s). This number of mini-slots will be less than the number of TDMA mini-slots in a TDMA channel over the same time interval if the number of active codes is significantly less than 128.

**6.1198 spreading codes** [b-ITU-T J.222.1]: A family of orthogonal digital codewords used in S-CDMA direct-sequence spread-spectrum modulation.

**6.1198bis Spreading Codes** [b-ITU-T J.222.2]: The set of 128 binary sequences of 128 bits each which may be used to carry information in the S-CDMA upstream. The spreading codes are orthogonal, meaning their cross-correlation is zero. Each code carries a single QAM symbol of information when the code's amplitude and phase are modulated.

**6.1199 spreading interval** [b-ITU-T J.222.1]: The period of a spread symbol (128 chips) is called a "spreading interval".

**6.1199bis spreading interval** [b-ITU-T J.122], [b-ITU-T J.222.2]: Time to transmit a single complete S-CDMA spreading code, equal to the time to transmit 128 chips. Also, time to transmit a single information (QAM) symbol on an S-CDMA channel. See also spread symbol.

**6.1200 stand-alone IBB application** [b-ITU-T J.205 Cor. 2]: Resident or downloaded integrated broadcast and broadband (IBB) application that is not part of an IBB DTV service. Such an application can be created by an authorized IBB application provider, and typically delivered through the application repository.

**6.1201 Stand-alone Multimedia Terminal Adapter (S-MTA)** [b-ITU-T J.191]: A single node that contains an MTA and a non-DOCSIS MAC (e.g., Ethernet).

**6.1202 standalone PS** [b-ITU-T J.192]: A Portal Services element that connects to the CM using only a standalone interface.

**6.1203 standalone RG** [b-ITU-T J.193]: A RG Services element that connects to the CM using only a standalone interface.

**6.1204 standard application** [b-ITU-T J.296]: An application which a cable operator uses for service delivery, to be installed before or after shipment on decision by the cable operator.

**6.1205 standard channel plan (STD)** [b-ITU-T J.210]: Method of spacing NTSC television channels on a cable television system defined in [CEA-542-B].

**6.1206 standard definition analogue form or output** [b-ITU-T J.197]: A format or output that is not digital (e.g., PAL RF, NTSC RF, Composite, S-Video, YUV, Y, R-Y, B-Y or RGB) and has no more than 483 interlace or progressive active scan lines.

**6.1207 standard upstream frequency range** [b-ITU-T J.222.1]: The required upstream frequency range over which a CM is to be capable of transmitting. In the technology option that uses 6 MHz downstream channelization, this is 5-42 MHz. In the technology option that uses 8 MHz downstream channelization, this is 5-65 MHz.

**6.1208 start-up time** [b-ITU-T J.1201]: The interval between power-on and appearance of video and sound for an IBB-capable cable STB and TV.

**6.1209 Static Multicast Sessions** [b-ITU-T J.222.3]: Multicast sessions joined during cable modem registration.

**6.1210 StopCCN** [b-ITU-T J.212]: L2TPv3 Stop-Control-Connection-Notification message.

**6.1211 stream** [b-ITU-T J.94]: An ordered series of bytes. The usual context for the term stream is the series of bytes extracted from Transport Stream packet payloads which have a common unique PID value (e.g., video PES packets or Program Map Table sections).

**6.1212 stream classification** [b-ITU-T J.195.1]: The process of distinguishing higher layer protocol data units (PDUs) in order to apply appropriate traffic and congestion control mechanisms.

**6.1213 stream\_id** [b-ITU-T J.183]: A unique identifier of a transport stream (TS) or other generic stream within an original network.

**6.1214 sub\_table** [b-ITU-T J.94]: A sub\_table is collection of sections with the same value of table\_id and:

- for a NIT: the same table\_id\_extension (network\_id) and version\_number;
- for a BAT: the same table\_id\_extension (bouquet\_id) and version\_number;
- for a SDT: the same table\_id\_extension (transport\_stream\_id), the same original\_network\_id and version\_number;
- for a EIT: the same table\_id\_extension (service\_id), the same transport\_stream\_id, the same original\_network\_id and version\_number.

The table\_id\_extension field is equivalent to the fourth and fifth byte of a section when the section\_syntax\_indicator is set to a value of "1".

**6.1215 sub-channel** [b-ITU-T J.122]: A logical channel sharing the same upstream spectrum (RF centre frequency and RF channel) with other logical channels.

**6.1216 subjective assessment (picture)** [b-ITU-T J.144]: The determination of the quality or impairment of programme-like pictures presented to a panel of human assessors in viewing sessions.

**6.1217 sublayer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A subdivision of a layer in the Open Systems Interconnection (OSI) reference model.

**6.1218 subnetwork** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Sub-networks are physically formed by connecting adjacent nodes with transmission links.

**6.1219 Subnetwork Access Protocol (SNAP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: An extension of the LLC header to accommodate the use of IEEE 802 type networks as IP networks.

**6.1220 subscriber** [b-ITU-T J.295]: The registered subscriber (representative) to the cable TV service; shall include all persons in the household.

**6.1220bis subscriber** [b-ITU-T J.360]: An entity (comprising one or more users) that is engaged in a subscription with a service provider.

**6.1220ter subscriber** [b-ITU-T J.367]: A form of watcher that has asked the Presence service to notify it immediately of changes in the Presence Information of one or more presentities [b-OMA RD-PRS].

**6.1220quater subscriber** [b-ITU-T J.380.6]: The term subscriber is used to refer to one or more members of a viewing audience to whom advertising messages may be addressed. Depending on the transmission method and receiver technology employed, it may be possible to address an individual viewer, an entire household, or all households in a broadcast area such as a cable head-end, metropolitan market or some other aggregation.

**6.1220 quintic subscriber** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C]: See definition for end user (clause 6.437).

**6.1221 subscription** [b-ITU-T J.360]: A contract for service(s) between a user and a service provider.

**6.1221bis subscription** [b-ITU-T J.367]: The information kept by the presence service about a subscriber's request to be notified of changes in the Presence Information of one or more presentities [b-OMA RD-PRS].

**6.1222 subsplit** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.122]: A frequency-division scheme that allows bidirectional traffic on a single cable; in North America, reverse path signals come to the headend from 5 to 30 (up to 42 on Extended Subsplit systems) MHz, and forward path signals go from the headend from 50 or 54 MHz to the upper frequency limit of the cable network.

**6.1223 subsystem** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: An element in a hierarchical division of an open system that interacts directly with elements in the next higher division or the next lower division of that open system.

**6.1224 subtitle** [b-ITU-T J.296]: A service of superimposing related text on a TV video broadcast.

**6.1225 sub-unit** [b-ITU-T J.117]: A uniquely identifiable and addressable entity contained within a unit.

**6.1226 superimpose** [b-ITU-T J.296]: A subtitle provided asynchronously to the main video, audio, and data. It is used for up-to-the-minute news, changes in air times, and time signals.

**6.1227 supplemental** [b-ITU-T J.287]: A category of request operation supported by this API. See clause 8.3.

**6.1228 switch engine** [b-ITU-T J.215]: This term refers to the functionality that executes switching in the host device. This switching can either be seamless, or non-seamless. Because this functionality needs to be implemented in a real-time way, with predictable timing behaviour, the switching engine is implemented as part of an OpenCable Applications Platform (OCAP) implementation ("below the line"). It exposes an API to OCAP applications (targeting engines) to select which commercials are switched to/from. A switching engine can be implemented in hardware, software, or a combination of both.

**6.1229 Sync. amplitude error** [b-ITU-T J.64]: Sync. amplitude error is defined as the difference between sync. amplitude and its normalized value (i.e., 3/7 luminance bar amplitude for 625-lines, 4/10 luminance bar amplitude for 525-lines) (see Note 1) expressed as a percentage of the normalized value. The sign of the difference is positive if sync. pulses are larger than the normalized value.

To provide a measurement result in the presence of sound-in-syncs signals, sync. amplitude must be measured at the mid-point of the last broad pulse of each field (point  $b_8$  in Fig. 6) (see Note 2).

NOTE 1 – The luminance bar amplitude is defined in § 2.1 of [b-ITU-T J.64].

NOTE 2 – To avoid error due to field tilt it may be preferable to use a reference point exclusively for the measurement of sync. amplitude error which is placed at point  $b_9$  in Fig. 6 of each field.

**6.1230 synchronization packet** [b-ITU-T J.285]: A TCP packet that controls a sender's transfer rate in the application layer. The packet is transmitted from a receiver to a sender.

NOTE – The packet is not the TCP SYN segment.

**6.1231 Synchronous Code Division Multiple Access (S-CDMA)** [b-ITU-T J.291]: A variant of the protocol used for wireless communication, used in DOCSIS 2.0.

**6.1231bis synchronous-code division multiple access (S-CDMA)** [b-ITU-T J.222.1]: A multiple access physical layer technology in which different transmitters can share a channel simultaneously. The individual transmissions are kept distinct by assigning each transmission an orthogonal "code". Orthogonality is maintained by all transmitters being precisely synchronized with one another.

**6.1232 synthesized timeline** [b-ITU-T J.203]: A timeline for a piece of content which was synthesized by the GEM recording terminal (as opposed to being included as part of the piece of content when it was transmitted).

**6.1233 system and service information** [b-ITU-T J.193]: Information about the video service, for example channel maps that map the programs within an MPEG transport stream, electronic programming guide data, and conditional access information.

**6.1234 system clock period** [b-ITU-T J.122]: The period of the 10.24 MHz system clock, nominally 97.65625 ns.

**6.1235 systems management** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: Functions in the application layer related to the management of various Open Systems Interconnection (OSI) resources and their status across all layers of the OSI architecture.

**6.1236 T1** [b-ITU-T J.214]: T1 is a physical layer telephony protocol carrying data at 1544 Mbit/s. It can carry up to 24 DS0s, each of which can carry a telephone conversation. It is used mainly in North America.

**6.1237 table** [b-ITU-T J.94]: A table is comprised of a number of sub\_tables with the same value of table\_id.

**6.1238 table instance** [b-ITU-T J.94]: Tables are identified by the table\_id field. However, in cases such as the RRT and EIT, several instances of a table are defined simultaneously. All instances have the same PID and table\_id but different table\_id\_extension.

**6.1239 taboo channel** [b-ITU-T J.87]: A channel which coincides with the frequency of the local oscillator in the single super heterodyne receiver which is tuned to an analogue channel.

**6.1240 tag header** [b-ITU-T J.213]: A 16-bit tag protocol ID (0x8100) followed by a 16-bit tag control field. The tag control field consists of a 3-bit User Priority field, a 1-bit Canonical Format Indicator, and a 12-bit VLAN ID [b-IEEE 802.1Q].

**6.1241 target advertising** [b-ITU-T J.295]: An advertising service from the operator that targets an individual, a viewer segment, specific markets, specific areas, or facilities, etc.

**6.1242 TDM emulation adapter (TEA)** [b-ITU-T J.214]: A logical entity containing various functions to provide a TDM-E circuit emulation service.

**6.1243 TDM emulation cable modem (TE-CM)** [b-ITU-T J.214]: A special purpose cable modem that integrates a DOCSIS eCM with an eTEA.

**6.1244 TDM interface** [b-ITU-T J.214]: A physical time domain multiplex (TDM) telephony interface such as T1 or E1. Time division multiplexing (TDM) is the means by which multiple digital signals (DS0s) can be carried on a single transmission path by interleaving portions of each signal in time.

**6.1245 TDM service processor (TSP)** [b-ITU-T J.214]: Consists of a TSP data interface on one side, a TDM interface on the other side, and the functionalities to encapsulate TSP data into TDM interface signals in one direction and extract TSP data from TDM interface signals in the other direction.

**6.1246 TD-OD** [b-ITU-T J.293]: A logical interface defined in 6.1.7 between an output device and the STB.

**6.1247 TD-PD** [b-ITU-T J.293]: A logical interface defined in 6.1.6 for connection between a peripheral device and the STB.

**6.1248 TE-CMTS** [b-ITU-T J.214]: A TE-CMTS is a CMTS or M-CMTS that can support a TE-CM and can meet the minimum clocking and performance goals to support TDM-E traffic. A TE-CMTS may or may not support integrated TEAs.

**6.1249 telemetry service** [b-ITU-T J.291]: Remote monitoring of data for purposes such as energy management or security in the home.

**6.1250 television circuit section** [b-ITU-T N.51]: The unidirectional national or international television transmission path between two stations at which the programme is accessible at video frequencies. The transmission path may be established via terrestrial or single satellite routing.

**6.1251 television operating system (TVOS)** [b-ITU-T J.1201]: A system software running on the IBB capable cable STB and TV which is capable of managing hardware, software and data resources of the IBB capable cable STB and TV, supporting and controlling the application software execution.

**6.1252 television receive-only station (TVRO)** [b-ITU-T N.51]: An earth station which is used only for reception. In this respect the term is used to denote any TVRO whose owner is authorized to receive the programme material.

**6.1253 terminal** [b-ITU-T J.295]: Equipment consisting of hardware and software with communication means, and equipped with a user interface to enable the user to connect to the network.

**6.1254 terminal adapter** [b-ITU-T J.361]: A device that converts an analogue tip and ring interface into a digital signal; it includes a hybrid to convert the interface from 2-wire to 4-wire.

**6.1255 terminal device (TD)** [b-ITU-T J.702]: An end-user device which typically presents and/or processes content, such as a personal computer, a computer peripheral, a mobile device, a TV set, a monitor, a VoIP terminal or an audiovisual media player.

**6.1256 terminal security chipset** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: A stream processing chipset with security functions such as secure key deriving and key ladder processing, etc.

**6.1257 terminal software platform** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: A software platform running on a receiver, integrated with various hardware drivers, having various terminal application APIs, capable of downloading and running terminal applications according to specified security requirements and providing a secure execution environment for terminal application.

**6.1258 terrestrial digital TV broadcast** [b-ITU-T J.296]: A mode of digital television broadcasting which does not involve satellite transmission.

**6.1259 tick** [b-ITU-T J.112], [b-ITU-T J.116]: Time intervals that are the reference for upstream mini-slot definition and upstream transmission times.

**6.1259bis tick** [b-ITU-T J.112 Annex B], [b-ITU-T J.122], [b-ITU-T J.222.1]: 6.25-microsecond time intervals that are the reference for upstream mini-slot definition and upstream transmission times.



**6.1259<sup>ter</sup> tick** [b-ITU-T J.112 Annex C]: 6.9444.... microsecond time intervals that are the reference for upstream mini-slot definition and upstream transmission times.

**6.1260 tilt** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Maximum difference in transmission gain of a cable television system over a given bandwidth (typically over the entire forward operating frequency range).

**6.1261 time division multiplexing (TDM)** [b-ITU-T J.126]: The means by which multiple digital signals can be carried on a single transmission path by interleaving portions of each signal in time.

**6.1262 Timebase Tick** [b-ITU-T J.222.2]: 6.25-microsecond or 6.94-microsecond time intervals that are the reference for upstream mini-slot definition and upstream transmission times for TDMA channels.

**6.1263 time-stamp** [b-ITU-T J.89, b-ITU-T J.187]: A term that indicates the time of a specific action such as the arrival of a byte or the presentation of a presentation unit.

**6.1264 Timing reference** [b-ITU-T J.101]: The timing reference for each line is a uniform sequence of timing instants whose timing is derived only from the clock run-in of that line excluding the first two bits.

The timing of these instants is such that they coincide with the average timing of the points where the clock run-in crosses the mean value defined in § 2.5.

**6.1265 track** [b-ITU-T J.123], [b-ITU-T J.124]: A collection of related samples, which corresponds to a sequence of images or sampled audio.

**6.1266 transaction initiator** [b-ITU-T J.284]: One end that initiates a video transmission transaction operated by a human.

**6.1267 transaction recipient** [b-ITU-T J.284]: One end that accepts a video transmission transaction automatically.

**6.1268 transcoder** [b-ITU-T J.295]: An image conversion process to convert images to match the display capability of the terminal.

**6.1269 transit delay** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The time difference between the instant at which the first bit of a PDU crosses one designated boundary, and the instant at which the last bit of the same PDU crosses a second designated boundary.

**6.1270 transit delays** [b-ITU-T J.161]: The time difference between the instant at which the first bit of a PDU crosses one designated boundary, and the instant at which the last bit of the same PDU crosses a second designated boundary.

**6.1271 Transmission Control Protocol (TCP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C]: A transport-layer Internet protocol which ensures successful end-to-end delivery of data packets without error, as defined by the IETF.

**6.1272 transmission control protocol (TCP)** [b-ITU-T J.380.7]: A set of rules used along with IP to send data in the form of message units between computers over the Internet.

**6.1272<sup>bis</sup> transmission control protocol (TCP)** [b-ITU-T J.116], [b-ITU-T J.122]: A transport-layer Internet protocol which ensures successful end-to-end delivery of data packets without error, as defined by the IETF.

**6.1272<sup>ter</sup> Transmission Control Protocol (TCP) (based on [IETF RFC 793])** [b-ITU-T J.296]: A transport layer protocol that provides highly reliable end-to-end, connection-oriented data delivery using an error detection and correction mechanism.

**6.1273 transmission convergence sublayer** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: A sublayer of the Physical Layer that provides an interface between the Data Link Layer and the PMD Sublayer.

**6.1274 transmission errors** [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342]: Any error imposed on the video transmission. Example types of errors include simulated transmission errors and live network conditions.

**6.1275 transmission link** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The physical unit of a subnetwork that provides the transmission connection between adjacent nodes.

**6.1276 transmission medium** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The material on which information signals may be carried; e.g., optical fibre, coaxial cable, and twisted wire pairs.

**6.1277 transmission system** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: The interface and transmission medium through which peer physical layer entities transfer bits.

**6.1278 transmit on/off ratio** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: In multiple-access systems, the ratio between the signal powers sent to line when transmitting and when not transmitting.

**6.1279 trans-modulation** [b-ITU-T J.296]: A transmission method of a transport stream (TS). It is created and operated by other media and broadcasted to cable subscribers without changing parameters in the TS.

**6.1280 Transparent Digital Transmodulator (TDT)** [b-ITU-T J.84]: A headend device for SMATV\_x005f DTM systems that transparently processes the QPSK-modulated television satellite signal, just adapting its modulation and coding so that it can be fed through the SMATV system using QAM modulation.

**6.1281 transparent LAN service (TLS)** [b-ITU-T J.213]: A service offering of a cable operator that implements a private L2VPN among the CPE networks of the CMs of a single subscriber enterprise.

**6.1282 transport stream (TS) (based on [ITU-T H.262])** [b-ITU-T J.93], [b-ITU-T J.95], [b-ITU-T J.200], [b-ITU-T J.296]: The transport stream defined by the MPEG-2 system standard (in digital terrestrial television broadcasting, one TS is assigned to a master transmitter).

**6.1282bis transport stream** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: In MPEG-2, a packet-based method of multiplexing one or more digital video and audio streams having one or more independent time bases into a single stream.

**6.1282ter Transport Stream (TS)** [b-ITU-T J.120]: A data packet possessing a length of 188 bytes including 4 bytes of header information. The header contains MPEG related data.

**6.1282quater transport stream (TS)** [b-ITU-T J.281], [b-ITU-T J.282]: A data structure defined in ITU-T Rec. H.222.0 | ISO/IEC 13818-1.

**6.1282quintic transport stream (TS)** [b-ITU-T J.292]: The transport stream described in this Recommendation is delivered using a certain multicast flow, which is identified by multicast group address, UDP port number, etc.

**6.1283 transport stream filtering** [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]: A filtering mechanism that is used to extract data matching filter rules from a transport stream.

**6.1284 transport stream packet header** [b-ITU-T J.89], [b-ITU-T J.187]: The leading fields in a transport stream packet, up to and including the continuity\_counter field.

**6.1285 transport\_stream\_id** [b-ITU-T J.94]: A unique identifier of a TS within an original network.

**6.1286 tree distribution structure** [b-ITU-T J.195.1]: A physical structure of a passive coaxial access network and a multiple stage power distribution network realized by splitters and taps or by taps only.

**6.1287 trick mode functionality** [b-ITU-T J.702]: The ability to pause, rewind or forward stored content.

**6.1288 trigger** [b-ITU-T J.200]: An event that may cause a change in the behaviour of the application that registers interest in such events. Triggers may come from many sources, e.g., the broadcast stream, or may be generated from other data (such as the system clock). It also can carry some semantically significant payload in order to affect changes in an application based on information not available at the time the application was written.

**6.1289 Trivial File Transfer Protocol (TFTP) or Trivial File-Transfer Protocol (TFTP)** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]: An Internet protocol for transferring files without the requirement for user names and passwords that is typically used for automatic downloads of data and software.

**6.1290 trunk** [b-ITU-T J.161], [b-ITU-T J.178], [b-ITU-T J.460.0], [b-ITU-T J.460.1]: An analog or digital connection from a circuit switch that carries user media content and may carry voice signaling (MF, R2, etc.).

**6.1291 trunk cable** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]: Cables that carry the signal from the headend to groups of subscribers. The cables can be either coaxial or fibre depending on the design of the system.

**6.1292 trust authority (TA)** [b-ITU-T J.1011]: Organization governing all rules and regulations that apply to implementations of ECI. Note that the trust authority has to be a legal entity to be able to achieve legal claims. The trust authority needs to be impartial to all players in the downloadable CA/DRM ecosystem.

**6.1293 trusted execution environment (TEE)** [b-ITU-T J.1201], [b-ITU-T J.1202]: A secure area of the main processor in an IBB-capable cable STB and TV to ensure that sensitive data is stored, processed and protected in an isolated and trusted environment. It offers isolated safe execution of authorized security software providing end-to-end security by enforcement of protected execution of authenticated code, confidentiality, authenticity, privacy, system integrity and data access rights.

**6.1294 trusted third party (TTP)** [b-ITU-T J.1011]: Technical service provider which issues certificates and keys to compliant manufacturers of the relevant components of an ECI-system under control of the trust authority (TA).

**6.1295 type/length/value (TLV)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C]: Encoding of three fields, in which the first field indicates the type of element, the second the length of the element, and the third value.

**6.1296 types of sound-programme circuit** [b-ITU-T N.1]: The various types of international sound-programme circuit or sections of such circuits should be referred to by quoting the top nominal frequency, in kHz, effectively transmitted.

Example: 10-kHz sound-programme circuit.

**6.1297 TVE** [b-ITU-T J.181 Amendment 1]: Acronym for "TV Everywhere", after being authenticated as a subscriber to an operator, it is the ability to view TV content on the internet in addition to on one's television.

**6.1298 TVOS application framework**[b-ITU-T J.1202]: The software module of a smart television operating system (TVOS) which consists of application programming interface units for constructing application programming interfaces with the computer programming language used by the respective

applications and works along with the corresponding execution environment for the execution of respective applications.

**6.1299 TVOS execution environment (runtime)** [b-ITU-T J.1202]: A software module in a smart television operating system (TVOS) that evaluates and executes applications consisting of computer language instructions, associated data and media content. An execution environment is implemented right above the component layer in TVOS, and may be implemented along with computer language interpreters and/or language compilers, which an application may use to present audiovisual content, interact with a user, or execute other tasks that are not evident to the user. A common example of an execution environment is the Java software environment, using the Java programming language byte code interpreter, and a Java virtual machine for program execution.

**6.1300 Two-dimensional VLC** [b-ITU-T J.88]: Huffman variable-length code having the combination of zero-run length and quantization output level as a symbol.

**6.1301 Two-level chrominance amplitude non-linearity** [b-ITU-T J.64]: This parameter is to be measured with element  $G$  or  $G_2$ . Its value, expressed in per cent, and with a sign, is defined by:

$$\frac{(V_3 - 5V_1)}{V_3} \times 100 \text{ for 625-line signals}$$
$$\frac{(V_3 - 4V_1)}{V_3} \times 100 \text{ for 525-line signals}$$

where  $V_1$  and  $V_3$  are respectively the peak-to-peak amplitudes of the first and last sections of element  $G$  or  $G_2$ .

**6.1302 Two-level chrominance phase non-linearity** [b-ITU-T J.64]: This parameter is to be measured with element  $G$  or  $G_2$ . Its value, expressed in degrees, and with a sign, is defined by:

$$\Phi_3 - \Phi_1$$

where  $\Phi_3$  and  $\Phi_1$  are respectively the phases of the last and first sections of element  $G$  or  $G_2$ .

**6.1303 two-way** [b-ITU-T J.128], [b-ITU-T J.290]: This expression infers that the downstream path and the upstream path are operational.

**6.1304 type/length/value (TLV)** [b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.122]: An encoding of three fields in which the first field indicates the type of element, the second the length of the element, and the third field the value.

**6.1305 unavailable sub-carrier** [b-ITU-T J.195.2]: Sub-carriers of OFDM symbol for adjacent channel protection and zero frequency sub-carrier.

**6.1306 unicast advertising** [b-ITU-T J.215]: Advertising content directed at a single target or small group of targets.

**6.1307 uninterruptible power supply** [b-ITU-T J.460.2]: A power supply including a battery for backup power when AC input power fails.

**6.1308 UniqueQualifier** [b-ITU-T J.380.8]: A "Unique Qualifier" is a set of one or more Qualifier elements that – taken together – uniquely identify an object in a logical service's basic query data model. To "uniquely identify" an object means that no other object in the data store has the same UniqueQualifier. However, an object may have more than one UniqueQualifier.

**6.1309 UniqueQualifierDeclaration** [b-ITU-T J.380.8]: The "Unique Qualifier Declaration" defines the set of Qualifier element characteristic name identifiers comprising a unique qualifier. When each specified Qualifier element's named characteristic identifier is paired with a value (i.e., a name/value pair which is a Qualifier element), the result is a service data model UniqueQualifier.

**6.1310 unit** [b-ITU-T J.117]: The instantiation of an AV/C device. A unit is addressable in a specific way using AV/C commands. A unit may contain zero or more sub-units.

- 6.1310bis unit** [b-ITU-T J.96]: relates to a device for which this Recommendation might apply.
- 6.1311 universal plug and play (UPnP)** [b-ITU-T J.291]: Set of standards for device and content discovery on home networks, promulgated by the UPnP Forum.
- 6.1312 unpacking** [b-ITU-T J.195.1]: A procedure of dividing a high performance network over coax (HiNoC) media access control (MAC) frame into individual Ethernet MAC frames; the opposite of packing.
- 6.1313 upconverter** [b-ITU-T J.212]: A device used to change the frequency range of an analog signal, usually converting from a local oscillator frequency to an RF transmission frequency.
- 6.1314 uplink** [b-ITU-T J.195.2]: Link from HiNoC modem (HM) to HiNoC bridge (HB).
- 6.1315 upstream** [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.361]: The direction from the subscriber location toward the headend.
- 6.1315bis upstream** [b-ITU-T J.116]: The direction from the subscriber location toward the BTS.
- 6.1315ter upstream** [b-ITU-T J.184]: Transmission from terminal device to Headend.
- 6.1315quater upstream (US)** [b-ITU-T J.212]: 1) Transmissions from CM to CMTS. This includes transmission from the EQAM to M-CMTS Core as well as the RF transmissions from the CM to the EQAM. 2) RF spectrum used to transmit signals from a subscriber location to a cable operator's headend or hub site.
- 6.1315quintic Upstream** [b-ITU-T J.222.3]: The term used to describe traffic and paths that go from the subscriber to the headend.
- 6.1316 Upstream Bonded Channel** [b-ITU-T J.222.2]: One of a group of independent upstream RF channels whose data packets are logically combined into one higher-speed data stream.
- 6.1317 Upstream Bonded Service Flow** [b-ITU-T J.222.2]: An upstream Service Flow for which Upstream MAC Frames or Segments are transmitted on one or more Upstream Channels.
- 6.1318 Upstream Bonding Group** [b-ITU-T J.222.2]: A subcomponent object of a MAC Domain that collects and resequences/reassembles Upstream Segments from a UBSF from an administered set of UCs.
- 6.1319 upstream channel descriptor (UCD)** [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.210], [b-ITU-T J.212], [b-ITU-T J.222.1]: The MAC management message used to communicate the characteristics of the upstream physical layer to the cable modems.
- 6.1320 Upstream Service Group** [b-ITU-T J.222.2]: The complete set of Upstream Channels (UCs) within a single CMTS potentially reachable by the transmission of a single Cable Modem. In an HFC deployment, a US SG corresponds to the physical combining of the upstream reverse carrier path signal from one or more Fibre Nodes reaching a single CMTS. *[Changes to definitions made per ECN MULPIv3.0-N-06.0371-4 by kn on 1/26/07.]*
- 6.1321 usage data** [b-ITU-T J.363], [b-ITU-T J.460.3]: A collection of data representing the usage of network resources for a given session.
- 6.1322 user** [b-ITU-T J.295]: The user of a device connected to a set-top box and a home network. This refers not only to human beings, but may also include logical elements for the communication and usage of applications between devices.
- 6.1322bis user** [b-ITU-T J.360]: A person who, in the context of this Recommendation, uses a defined service or invokes a feature on a UE.
- 6.1323 user agent** [b-ITU-T J.200]: An embodiment of a declarative application environment.
- 6.1323bis user agent (UA)** [b-ITU-T J.360]: A SIP user agent as defined by [b-IETF RFC 3261].

**6.1324 user datagram protocol** [b-ITU-T J.161], [b-ITU-T J.361]: A connectionless protocol built upon Internet Protocol (IP).

NOTE – Delay and latency are similar concepts and frequently used interchangeably. However, delay focuses on the time to transit from transmitter (such as a speaker's mouth) to a receiver (such as a listener's ear), while latency focuses on the time to transit from a receiver to a transmitter, as would be the case for a signal going through a piece of equipment.

**6.1324bis User Datagram Protocol (UDP) (based on [b-IETF RFC 768])** [b-ITU-T J.296]: A transport layer protocol between two hosts without a confirmation function but which minimizes protocol overhead and is a connectionless type of communication suitable for services with high transmission efficiency.

**6.1325 user equipment** [b-ITU-T J.261]: Any device used directly by an end user to communicate.

**6.1326 user interface (UI)** [b-ITU-T J.295]: The basic UI is provided by the operating system and defines the display format of information to the user and the data input and operation methods by the user. These requirements assume the use of both character based UIs (CUI) and graphics based UIs (GUI).

**6.1327 variable frame skipping** [b-ITU-T J.246], [b-ITU-T J.247]: An event where the HRC outputs frames with updated content at an effective frame rate that changes with time. The temporal delay through the system will increase and decrease with time, varying about an average system delay. A processed video sequence containing variable frame skipping will be approximately the same duration as the associated original video sequence.

**6.1328 video content protection system (VCPS)** [b-ITU-T J.197]: For recording encrypted content on DVD+RW and DVD+R optical digital media protected by VCPS technology.

**6.1329 video distribution** [b-ITU-T J.283]: Digital video services for an unspecified number of clients.

**6.1330 video on demand (VoD)** [b-ITU-T J.702]: A service in which the subscriber can view and/or select a stored video content whenever desired.

**6.1331 video-on-demand (VoD) system** [b-ITU-T J.210], [b-ITU-T J.212]: System that enables individuals to select and watch video content over a network through an interactive television system.

**6.1332 video server** [b-ITU-T J.284]: Video server at a broadcaster's station.

**6.1333 video service provider (VSP)** [b-ITU-T J.197]: A service provider offering a "service" as defined in this Recommendation.

**6.1334 view log** [b-ITU-T J.296]: Information history of pay-per-view content viewing.

**6.1335 view range** [b-ITU-T J.902]: The position and direction of a viewpoint in a three-dimensional (3D) scene, where a virtual view can be generated.

**6.1336 viewer** [b-ITU-T J.295]: A subscriber who is receiving video, audio and/or other information services.

**6.1337 viewing event** [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1]: A television program or a span of compressed material within a service; as opposed to a splice event, which is a point in time.

**6.1338 virtual channel** [b-ITU-T J.94]: A virtual channel is the designation, usually a number, that is recognized by the user as the single entity that will provide access to an analog TV program or a set of one or more digital elementary streams. It is called "virtual" because its identification (name and number) may be defined independently from its physical location. Examples of virtual channels are: digital radio (audio only), a typical analog TV channel, a typical digital TV channel (composed of one audio and one video stream), multi-visual digital channels (composed of several video streams and one or more audio tracks), or a data broadcast channel (composed of one or more data streams). In the case of an analog TV channel, the virtual channel designation will link to a specific physical

transmission channel. In the case of a digital TV channel, the virtual channel designation will link both to the physical transmission channel and to the particular video and audio streams within that physical transmission channel.

**6.1339 virtual LAN (VLAN)** [b-ITU-T J.213]: A subset of the LANs of an IEEE 802.1 bridged network to which a VLAN identifier (VLAN ID) is assigned. An L2VPN may consist of several VLANs, each with different VLAN IDs, and even of VLANs on different IEEE 802.1 bridged networks with the same VLAN ID.

**6.1340 virtual LAN identifier (VLAN ID)** [b-ITU-T J.213]: An IEEE 802.1Q VLAN ID is a 12-bit number that identifies a VLAN within an IEEE 802.1 bridged network. An IEEE 802.1ah stacked VLAN ID consists of an outer service 12-bit VLAN ID and an inner customer 12-bit VLAN ID.

**6.1341 virtual machine (based on [ITU-T Q.1741.1])** [b-ITU-T J.296]: A software program that simulates a hypothetical computer central processing unit. The programs executed by a virtual machine are represented as byte codes, which are primitive operations for this hypothetical computer.

**6.1342 VoD transmission** [b-ITU-T J.127]: Program transmission method whereby the program starts playing after a certain amount of data has been buffered while receiving subsequent data in the background, where the program is completely created by the content provider.

**6.1343 VoIP Positioning Centre** [b-ITU-T J.460.1]: A specialized service operator who determines which PSAP should get a VoIP 9-1-1 call given the reported location of the caller and supplies that location to the PSAP when the PSAP consults the ALI.

**6.1344 Vq** [b-ITU-T J.148]: Objective measurement of video quality

**6.1345 Vq(Aq)** [b-ITU-T J.148]: Objective measurement of video quality, accounting for the influence of audio quality.

**6.1346 watcher** [b-ITU-T J.367]: Any uniquely identifiable entity that requests Presence Information about a presentity, or watcher information about a watcher, from the Presence service. Special types of watchers are fetchers and subscribers [b-OMA RD-PRS].

**6.1347 watcher Information** [b-ITU-T J.367]: Information about watchers that have received or may receive Presence Information about a particular presentity within a particular recent span of time [b-OMA RD-PRS].

**6.1348 Waveforms and line allocations** [b-ITU-T J.67]: The MAC analogue waveform is directly derived from the standard 4:2:2 sampling ratio used for digital television (ITU-R BT.601). MAC coding produces a sequential transmission of a chrominance signal, compressed in a 3:1 ratio, and the luminance signal, compressed in a 3:2 ratio.

Given the sampling frequencies defined for the digital television standard (13.5 MHz for luminance and 6.75 MHz for chrominance), the consequent MAC sampling frequency is 20.25 MHz. The resulting nominal bandwidth required for the coded MAC signal is 8.4 MHz. After decompression the luminance bandwidth is 5.6 MHz.

It is important to note that, even though the MAC signal is derived through a sampling process, the resulting signal has an analogue form for transmission. A remarkable feature of the MAC coding system is that there is no absolute limit for the bandwidth. This characteristic can be used to broadcast the MAC signal in a narrow-band channel.

**6.1349 Web services description language (WSDL)** [b-ITU-T J.380.7]: An XML based general purpose language for describing interfaces, protocol bindings, and deployment details of network services.

**6.1350 Webcasting** [b-ITU-T J.120]: Distribution of sound and television programs over the Internet.

**6.1351 well-known MAC address** [b-ITU-T J.290]: This refers to the MAC address of the client within the set-top device. This MAC address has been assigned by the manufacturer of the conditional access system within the set-top device.

**6.1351bis well-known MAC address (in the context of DOCSIS Set-top Gateway)** [b-ITU-T J.128]: This refers to the MAC address of the DSG Client within the Set-top Device. This MAC address has been assigned by the manufacturer of the POD and/or Conditional Access system within the Set-top Device, and has been made known to the operator for use in configuring the DSG Agent.

**6.1352 X.509 certificate** [b-ITU-T J.170]: A public key certificate specification developed as part of the ITU-T Rec. X.500 standards directory.

**6.1353 zapping control** [b-ITU-T J.292]: The control mechanism for multicast group join and leave considering the IGMP/MLD protocol sequence is required in NG-STB compliant CPE devices.

**6.1354 (ENUM) Telephone Number Mapping** [b-ITU-T J.460.1]: In [b-IETF-RFC 3761], the E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discover System (DDDS) Application (ENUM).

## **7 Abbreviations and acronyms for television and sound transmission, and integrated broadband cable networks**

The following abbreviations are contained in in-force ITU-T Recommendations related to television transmission, sound transmission and integrated broadband cable networks.

1024-QAM	1024-ary Quadrature Amplitude Modulation	[b-ITU-T J.382]
16-QAM	16-ary Quadrature Amplitude Modulation	[b-ITU-T J.382]
256-QAM	256-ary Quadrature Amplitude Modulation	[b-ITU-T J.382]
2D	Two Dimension	[b-ITU-T J.900]
3D	Three-Dimensional	[b-ITU-T J.900], [b-ITU-T J.902]
3DES	Triple DES – a block cipher formed from the Data Encryption Standard (DES) cipher	[b-ITU-T J.366.8]
3DES	Triple encryption with the Data Encryption Standard	[b-ITU-T J.222.3]
3DTV	Three Dimensional Television	[b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.381], [b-ITU-T J.900]
3G	third Generation	[b-ITU-T J.195.1]
3WC	Three Way Calling	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
4096-QAM	4096-ary Quadrature Amplitude Modulation	[b-ITU-T J.382]
4G	fourth Generation	[b-ITU-T J.195.1]
64-QAM	64-ary Quadrature Amplitude Modulation	[b-ITU-T J.382]
8-VSB	Eight Vestigial SideBand	[b-ITU-T J.142]
A/D	Analog to Digital converter	[b-ITU-T J.173], [b-ITU-T J.460.2]
A/D	Analogue to Digital Conversion	[b-ITU-T J.95]



A/V	Audio/Video	[b-ITU-T J.114], [b-ITU-T J.117], [b-ITU-T J.151], [b-ITU-T J.192], [b-ITU-T J.700]
AAA	Authentication, Authorization and Accounting	[b-ITU-T J.177]
AAC	Advanced Audio Coding	[b-ITU-T J.89], [b-ITU-T J.388], [b-ITU-T J.296], [b-ITU-T J.700]
AAC-LC	Advanced Audio Coding – Low Complexity	[b-ITU-T J.700]
AAL	ATM Adaptation Layer	[b-ITU-T J.82], [b-ITU-T J.111], [b-ITU-T J.131], [b-ITU-T J.132]
AAL5	ATM Adaptation Layer 5	[b-ITU-T J.116]
ABM	Augmented Broadcasting Metadata	[b-ITU-T J.302]
ABR	Adaptive Bit Rate	[b-ITU-T J.1005]
AC	Authorization Centre	[b-ITU-T J.1001], [b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004]
AC	Alternating Current	[b-ITU-T J.185]
AC	Automatic Callback	[b-ITU-T J.460.3]
AC	Auto Callback or Alternating Current	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
AC-3	Arc Consistency algorithm #3 (Dolby)	[b-ITU-T J.700]
ACA	Accounting-Answer	[b-ITU-T J.460.3]
ACAP-X	ACAP declarative (XHTML)	[b-ITU-T J.201]
ACD	Application Control Data	[b-ITU-T J.111]
ACD	Application Communication Data	[b-ITU-T J.111]
ACF	Application Control Framework	[b-ITU-T J.206], [b-ITU-T J.205]
ACK	L2TPv3 Explicit Acknowledgement message	[b-ITU-T J.212]
ACM	Adaptive Coding and Modulation	[b-ITU-T J.382], [b-ITU-T J.381]
ACR	Absolute Category Rating	[b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343]
ACR	Adaptive Clock Recovery	[b-ITU-T J.214]
ACR	Anonymous Call Rejection	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
ACR	Automatic Content Recognition	[b-ITU-T J.230]
ACR	Accounting-Request	[b-ITU-T J.460.3]
ACR-HR	Absolute Category Rating with Hidden Reference	[b-ITU-T J.246], [b-ITU-T J.249], [b-ITU-T J.341]
ACR-HR	Absolute Category Rating with Hidden Reference (see [b-ITU-T P.910])	[b-ITU-T J.247], [b-ITU-T J.342]

ACS	Auto Configuration Server	[b-ITU-T J.296], [b-ITU-T J.705]
ACS	Access Control System	[b-ITU-T J.91]
ACTT	Advanced digital Cable Transmission Technology	[b-ITU-T J.381]
Ad	Advertisement	[b-ITU-T J.706], [b-ITU-T J.707]
ad	advertisement	[b-ITU-T J.181], [b-ITU-T J.380.1]
ADC	Analogue-to-Digital Converter	[b-ITU-T J.382]
ADI	Asset Distribution Interface	[b-ITU-T J.98], [b-ITU-T J.181]
Ad-ID	Advertisement Identifier	[b-ITU-T J.181]
ADM	Ad Management Service	[b-ITU-T J.380.2], [b-ITU-T J.380.1], [b-ITU-T J.706]
ADS	Ad Decision Service	[b-ITU-T J.380.1], [b-ITU-T J.380.2], [b-ITU-T J.706]
ADSL	Asymmetric Digital Subscriber Line	[b-ITU-T J.110]
AES	Advanced Encryption Standard	[b-ITU-T J.170], [b-ITU-T J.197], [b-ITU-T J.222.3], [b-ITU-T J.290], [b-ITU-T J.1002], [b-ITU-T J.1006], [b-ITU-T J.1010] , [b-ITU-T J.298]
AF	Application Function	[b-ITU-T J.368]
AGC	Automatic Gain Controller	[b-ITU-T J.186]
AH	Authentication Header is an IPsec security protocol that provides message integrity for complete IP packets, including the IP header.	[b-ITU-T J.170]
AI	Artificial Intelligence	[b-ITU-T J.1600]
AIFF	Audio Interchange File Format	[b-ITU-T J.296]
AIP	Application Install Package	[b-ITU-T J.205], [b-ITU-T J.206]
AIS	Alarm Indication Signal	[b-ITU-T J.132], [b-ITU-T J.214]
AIT	Application Information Table	[b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.700]
AK	Authorization Key	[b-ITU-T J.222.3]
AKA	Authentication and Key Agreement	[b-ITU-T J.261], [b-ITU-T J.360 Amendment 1]
ALC	Automatic Level Controller	[b-ITU-T J.186]
AL-FEC	Application Level FEC	[b-ITU-T J.702]
ALG	Application Level Gateway	[b-ITU-T J.218]

ALG	Application Layer Gateway	[b-ITU-T J.192], [b-ITU-T J.360]
AM	Application Manager	[b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.365]
AM	Application Manager (a system that interfaces to Policy Server(s) for requesting QoS-based service on behalf of an end-user or network management system)	[b-ITU-T J.179]
AMA	Automated Message Accounting	[b-ITU-T J.164]
AMF	Action Message Format	[b-ITU-T J.181 Amendment 1]
AMF	Audience Measurement Function	[b-ITU-T J.296]
AMID	Application Manager Identifier	[b-ITU-T J.368]
AMP/BRC-U	Amplifier and Branch Unit	[b-ITU-T J.185], [b-ITU-T J.186]
AMR	Adaptive Multi-Rate	[b-ITU-T J.388], [b-ITU-T J.296]
AMT	Address Map Table	[b-ITU-T J.383]
AM-SCM	Amplitude Modulation Sub-Carrier Multiplexing	[b-ITU-T J.185]
AM-VSB	Amplitude Modulation Vestigial Sideband	[b-ITU-T J.185], [b-ITU-T J.186]
AN	Access Node	[b-ITU-T J.173], [b-ITU-T J.190]
ANC	Ancillary	[b-ITU-T J.89]
ANC	Announcement Controller	[b-ITU-T J.160]
ANOVA	ANalysis Of Variance	[b-ITU-T J.144]
ANP	Announcement Player	[b-ITU-T J.160]
ANS	Announcement Server	[b-ITU-T J.160]
AOD	Approved Output Domain	[b-ITU-T J.293], [b-ITU-T J.294]
AP	Access Point	[b-ITU-T J.195.1], [b-ITU-T J.296]
AP	Aggregation Proxy	[b-ITU-T J.367]
APD	Avalanche Photo Diode	[b-ITU-T J.185]
API	Application Programming/Program Interface	[b-ITU-T J.111], [b-ITU-T J.117], [b-ITU-T J.120], [b-ITU-T J.162], [b-ITU-T J.200], [b-ITU-T J.201], [b-ITU-T J.206], [b-ITU-T J.207], [b-ITU-T J.215], [b-ITU-T J.230], [b-ITU-T J.280], [b-ITU-T J.287], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.704], [b-ITU-T J.1011], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1201], [b-ITU-T J.1202], [b-ITU-T J.1600]
APL	Average picture level	[b-ITU-T N.62]

APM	Alternate Provisioning Mode	[b-ITU-T J.222.2]
APP	Application	[b-ITU-T J.192]
App	Application Amendment 1], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1202]	[b-ITU-T J.302]
AppCatUI	Application Catalogue User Interface	[b-ITU-T J.206]
APS	Analogue Protection System	[b-ITU-T J.95], [b-ITU-T J.197]
AR	Augmented Reality	[b-ITU-T J.301], [b-ITU-T J.302]
AR	Auto Recall	[b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3]
A-RA	Receiver Amplifier for Analogue video transmission	[b-ITU-T J.186]
ARP	Address Resolution Protocol [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.222.3]	[b-ITU-T J.111], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
ARQ	Automatic Repeat Request	[b-ITU-T J.196.1], [b-ITU-T J.196.3], [b-ITU-T J.292], [b-ITU-T J.702]
AR-STV	Augmented Reality Smart Television	[b-ITU-T J.301], [b-ITU-T J.302]
AS	Application Server [b-ITU-T J.360], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3]	[b-ITU-T J.262], [b-ITU-T J.360], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3]
AS	Automation System	[b-ITU-T J.287]
ASCII	American Standard Code for Information Interchange	[b-ITU-T J.126], [b-ITU-T J.181], [b-ITU-T J.222.2], [b-ITU-T J.171.2]
ASD	Application-Specific Data. An application-specific field in the IPsec header that along with the destination IP address provides a unique number for each SA.	[b-ITU-T J.170]
ASD	Authorized Service Domain	[b-ITU-T J.290], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.700]
ASI	Asynchronous Serial Interface	[b-ITU-T J.131], [b-ITU-T J.132]
ASM	Any Source Multicast	[b-ITU-T J.222.2]
ASN	Abstract Syntax Notation	[b-ITU-T J.1003], [b-ITU-T J.1004]
ASN.1	Abstract Syntax Notation 1	[b-ITU-T J.111], [b-ITU-T J.218], [b-ITU-T J.222.3], [b-ITU-T J.222.2]

ASO	Arbitrary Slice Ordering	[b-ITU-T J.361]
ASP	Application Specific Proxy	[b-ITU-T J.191], [b-ITU-T J.192]
ASP	Audio Server Protocol	[b-ITU-T J.175]
A-TA	Transmitter Amplifier for Analogue video transmission	[b-ITU-T J.186]
A-TDMA	Advanced Time Division Multiple Access	[b-ITU-T J.214], [b-ITU-T J.222.2]
ATI	Absolute Temporal Information	[b-ITU-T J.249]
ATIS	Alliance for Telecommunications Industry Solutions	[b-ITU-T J.298]
ATM	Asynchronous Transfer Mode	[b-ITU-T J.81], [b-ITU-T J.82], [b-ITU-T J.83], [b-ITU-T J.111], [b-ITU-T J.112 Annex A], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.222.2]
ATM	Automatic Teller Machine	[b-ITU-T J.261]
AU	Administrative Unit	[b-ITU-T J.132]
AUG	Administrative Unit Group	[b-ITU-T J.132]
AUID	Application Unique ID	[b-ITU-T J.367]
AV	Audio-Visual	[b-ITU-T J.190]
AV	Audio/Video	[b-ITU-T J.388], [b-ITU-T J.1201], [b-ITU-T J.1202]
AV/C	Audio/Video Control	[b-ITU-T J.117]
AVC	Advanced Video Coding Amendment 1], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.361], [b-ITU-T J.388], [b-ITU-T J.604], [b-ITU-T J.1006]	[b-ITU-T J.181 [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.361], [b-ITU-T J.388], [b-ITU-T J.604], [b-ITU-T J.1006]
AVC	Advanced Video Codec	[b-ITU-T J.700]
AVI	Audio Video Interleave	[b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342]
AVP	Audio Visual Profile	[b-ITU-T J.171.2]
AVP	L2TPv3 Attribute Value Pair	[b-ITU-T J.212]
AVP	Attribute Value Pair	[b-ITU-T J.261], [b-ITU-T J.460.3]
AVP	Attribute-Value Pair	[b-ITU-T J.367], [b-ITU-T J.360 Amendment 1]
AVP	Attribute-Value Pairs	[b-ITU-T J.800.0]
AVT	Audio/Video Transport	[b-ITU-T J.700]
AWGN	Additive White Gaussian Noise	[b-ITU-T J.195.1], [b-ITU-T J.222.1], [b-ITU-T J.382]
B2BUA	Back-to-Back User Agent	[b-ITU-T J.460.3]

BAQ	Basic Audio Quality	[b-ITU-T J.145]
BAT	Bouquet Association Table	[b-ITU-T J.94], [b-ITU-T J.298]
BB	BaseBand	[b-ITU-T J.83], [b-ITU-T J.150], [b-ITU-T J.382]
BBF	Broadband Forum	[b-ITU-T J.296]
BC	Broadcast Channel [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.112], [b-ITU-T J.112], [b-ITU-T J.112], [b-ITU-T J.112]
BC	BroadCast network	[b-ITU-T J.702]
BCAST	Broadcast	[b-ITU-T J.702]
BCD	Binary Coded Decimal	[b-ITU-T J.94]
BCH	Bose-Chaudhuri-Hocquenghem	[b-ITU-T J.195.2]
BCH	Bose-Chaudhuri-Hocquenghem (code)	[b-ITU-T J.196.2]
BCH	Bose-Chaudhuri-Hocquenghem multiple error correction binary block code [b-ITU-T J.382]	
BCID	Billing Correlation ID	[b-ITU-T J.178], [b-ITU-T J.363], [b-ITU-T J.368]
BCID	Billing Correlation ID (defined in the IPCablecom Event Messaging Recommendation)	[b-ITU-T J.179]
BCP	Best Current Practice	[b-ITU-T J.222.3]
BCT	Blind Call Transfer	[b-ITU-T J.460.0]
BE	Best Effort	[b-ITU-T J.292]
BED	Best Effort Domain	[b-ITU-T J.290], [b-ITU-T J.293], [b-ITU-T J.294]
BER	Bit Error Rate or Bit Error Ratio [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.142], [b-ITU-T J.145], [b-ITU-T J.185], [b-ITU-T J.195.1], [b-ITU-T J.222.1], [b-ITU-T J.241], [b-ITU-T J.287], [b-ITU-T J.296]	[b-ITU-T J.83], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.142], [b-ITU-T J.145], [b-ITU-T J.185], [b-ITU-T J.195.1], [b-ITU-T J.222.1], [b-ITU-T J.241], [b-ITU-T J.287], [b-ITU-T J.296]
BER	Basic Encoding Rules	[b-ITU-T J.111], [b-ITU-T J.1003], [b-ITU-T J.1004]
BGA	Ball Grid Array	[b-ITU-T J.298]
BGCF	Breakout Gateway Control Function	[b-ITU-T J.360]
BGP	Border Gateway Protocol	[b-ITU-T J.292]
BIM	Broadcast Interface Module A], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.112 Annex A], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118]
BISS	Basic Interoperable Scrambling System	[b-ITU-T J.96]
B-ISDN	Broadband Integrated Services Digital Network	[b-ITU-T J.82]

bit/s	Bits per second	[b-ITU-T J.91]
BLT	Bit-block Transfer	[b-ITU-T J.700]
BLV	Busy Line Verification [b-ITU-T J.460.0], [b-ITU-T J.460.1]	[b-ITU-T J.178],
BML	Broadcast Markup Language [b-ITU-T J.200], [b-ITU-T J.201]	[b-ITU-T J.296],
Bp	Maximum Buffer Capacity	[b-ITU-T J.88]
BP	Boundary Point	[b-ITU-T J.190], [b-ITU-T J.192]
BP	(IPCable2Home) Boundary Point	[b-ITU-T J.290]
BP	Baseline Profile	[b-ITU-T J.388]
BPDU	Bridge Protocol Data Unit [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]	[b-ITU-T J.112],
BPI	Baseline Privacy Interface	[b-ITU-T J.213], [b-ITU-T J.222.2]
BPI+	Baseline Privacy Interface Plus	[b-ITU-T J.125], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
BPI+	Baseline Privacy Interface Plus is the security portion of ITU-T Rec. J.112 that runs on the MAC layer.	[b-ITU-T J.170]
BPKM	Baseline Privacy Key Management C], [b-ITU-T J.125], [b-ITU-T J.222.2], [b-ITU-T J.222.3]	[b-ITU-T J.112 Annex
BPL	Broadcast over Power Line	[b-ITU-T J.700]
B-PON	Broadband Passive Optical Network	[b-ITU-T J.185]
BPP	Basic POTS Provisioning	[b-ITU-T J.177]
bps	Bits per second	[b-ITU-T J.83]
BPSC	Bulk Portal Services Configuration	[b-ITU-T J.192]
BPSK	Binary Phase Shift Keying	[b-ITU-T J.142]
BRA	Basic Rate Access [b-ITU-T J.112 Annex A], [b-ITU-T J.116]	[b-ITU-T J.112],
BS	Broadcasting Satellite	[b-ITU-T J.296]
BS	Broadcast Satellite television	[b-ITU-T J.297], [b-ITU-T J.1005]
BSC	Base Station Controller	[b-ITU-T J.115]
BSF	Bootstrapping Server Function Amendment 1], [b-ITU-T J.367]	[b-ITU-T J.360]
bslbf	bit string, left bit first	[b-ITU-T J.96], [b-ITU-T J.183]
bslbf	Bit string, left bit first, where left is the order in which bit strings are written. [b-ITU-T J.181]	

BSoD	Business Services over DOCSIS [b-ITU-T J.213], [b-ITU-T J.800.2]	[b-ITU-T J.126],
BSS	Business Support System(s) [b-ITU-T J.700], [b-ITU-T J.705]	[b-ITU-T J.363],
BTS	Base Transceiver Station	[b-ITU-T J.115]
BTS	Base Transceiver Station. A BTS could contain multiple BTS modems	[b-ITU-T J.116]
BUFP	Buffer Pointer	[b-ITU-T J.88]
BW	BandWidth	[b-ITU-T J.84], [b-ITU-T J.116], [b-ITU-T J.142]
BWA	Broadband Wireless Access	[b-ITU-T J.116]
BWE	Bandwidth Efficiency	[b-ITU-T J.141]
BWMF	Bandwidth Management Function	[b-ITU-T J.190]
C/N or CNR	Carrier-to-Noise Ratio ITU-T J.112 Annex B], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.141], [b-ITU-T J.142], [b-ITU-T J.150], [b-ITU-T J.222.1]	[b-ITU-T J.83], [b-ITU-T J.141], [b-ITU-T J.142], [b-ITU-T J.150], [b-ITU-T J.222.1]
CA	Conditional Access	[b-ITU-T J.96], [b-ITU-T J.98], [b-ITU-T J.128], [b-ITU-T J.181], [b-ITU-T J.287], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.296], [b-ITU-T J.700], [b-ITU-T J.705], [b-ITU-T J.1001], [b-ITU-T J.1010], [b-ITU-T J.1011], [b-ITU-T J.1020], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CA	Customer Address (for conditional access)	[b-ITU-T J.91]
CA	Call Agent	[b-ITU-T J.178]
CA	Call Agent. The part of the CMS that maintains the communication state, and controls the line side of the communication.	[b-ITU-T J.170]
CA	Certification/Certificate Authority	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.3], [b-ITU-T J.366.8], [b-ITU-T J.800.2]
CA	Certification Authority. A trusted organization that accepts certificate applications from entities, authenticates applications, issues certificates and maintains status information about certificates.	[b-ITU-T J.170]
CA/DRM	Conditional Access/Digital Rights Management	[b-ITU-T J.1010]
CABAC	Context-based Adaptive Binary Arithmetic Coding	[b-ITU-T J.361]
CACS	Conditional Access Client Software [b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004]	[b-ITU-T J.1001], [b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004]
CAD	Conditional Access Device	[b-ITU-T J.91]
CAJS	Conditional Access Javascript [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CAM	Conditional Access Module [b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004]	[b-ITU-T J.1001], [b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004]
CAP	IPNet2Home Address Portal	[b-ITU-T J.190]
CAP	Cable Address Portal	[b-ITU-T J.191]



CAP	IPCable2Home Address Portal	[b-ITU-T J.192]
CAS	Conditional Access System	[b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.1001], [b-ITU-T J.1005], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CAS	Central Authentication Service	[b-ITU-T J.705]
CAS/DRM	Conditional Access Solution/Digital Rights Management	[b-ITU-T J.703]
CASS	CAM Authentication Sub-System	[b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004]
CAT	Conditional Access Table	[b-ITU-T J.94], [b-ITU-T J.96], [b-ITU-T J.200], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CAT	IPNet2Home Address Translation	[b-ITU-T J.190]
CAT	Cable Address Translation	[b-ITU-T J.191]
CAT	IPCable2Home Address Translation	[b-ITU-T J.192]
CATA	Conditional Access Trusted Application	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CATV	Community Antenna Television	[b-ITU-T J.111], [b-ITU-T J.181], [b-ITU-T J.296]
CATV	Community Antenna TeleVision (System)	[b-ITU-T J.83], [b-ITU-T J.116]
CATV	Community Access Television, Cable Television	[b-ITU-T J.126]
CATV	Cable Television	[b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.142], [b-ITU-T J.150], [b-ITU-T J.185], [b-ITU-T J.230], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.1210]
CATV	Cable TV distribution system	[b-ITU-T J.118]
CAVLC	Context-Based Adaptive Variable Length Coding	[b-ITU-T J.361]
CBC	Cipher Block Chaining	[b-ITU-T J.112 Annex A], [b-ITU-T J.125], [b-ITU-T J.181], [b-ITU-T J.222.3], [b-ITU-T J.290], [b-ITU-T J.366.8], [b-ITU-T J.1006]
CBC	Cipher-block Chaining mode is an option in block ciphers that combine (XOR) the previous block of ciphertext with the current block of plaintext before encrypting that block of the message.	[b-ITU-T J.170]
CBI	Common Billing Interface	[b-ITU-T J.703]
CBR	Constant Bit Rate	[b-ITU-T J.82], [b-ITU-T J.98], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.214], [b-ITU-T J.222.2]
CBW	Capture Bandwidth	[b-ITU-T J.222.1]
CCCIK	Common CAM Client Image Encryption Key	[b-ITU-T J.1003]
CCCM	Customer premises equipment-Controlled Cable Modem	[b-ITU-T J.122], [b-ITU-T J.222.2]
CCF	Continuous Concatenation and Fragmentation	[b-ITU-T J.222.2]

CCF	Charging Collection Function	[b-ITU-T J.363]
CCI	Copy Control Information	[b-ITU-T J.95], [b-ITU-T J.197]
CCI	Control and Classifier Interface	[b-ITU-T J.223.2]
CCI	CAM Client Image	[b-ITU-T J.1003]
CCM	Constant Coding and Modulation	[b-ITU-T J.382]
CCM	CPE Controlled Cable Modem	[b-ITU-T J.112 Annex B]
CCP	Channel Charge Protocol	[b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103]
CCS	One Hundred Call Seconds	[b-ITU-T J.460.2]
CCT	Consultative Call Transfer	[b-ITU-T J.460.0]
CD	Controller Device (for conditional access)	[b-ITU-T J.91]
CD	Characteristics Data	[b-ITU-T J.1600]
Cd	Control down	[b-ITU-T J.196.2]
Cd	downlink Control	[b-ITU-T J.196.3]
CDA	CD Analyser	[b-ITU-T J.1600]
CDATA	Character Data	[b-ITU-T J.380.7], [b-ITU-T J.380.8]
CDC	Cable DHCP Client	[b-ITU-T J.191]
CDC	IPcable2Home DHCP Client	[b-ITU-T J.192]
CDC	CD Collector	[b-ITU-T J.1600]
CDCS	CA/DRM Client Software	[b-ITU-T J.1020]
Cddb	CD Database	[b-ITU-T J.1600]
CDF	Charging Data Function [b-ITU-T J.363], [b-ITU-T J.360], [b-ITU-T J.460.3]	[b-ITU-T J.367],
CDM	Code Division Multiplex	[b-ITU-T J.118]
CDMM	C-DOCSIS Management Message	[b-ITU-T J.223.2]
CDN	Content Delivery Network Amendment 1], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.296] [b-ITU-T J.297], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1005], [b-ITU-T J.1006]	[b-ITU-T J.181
CDN	L2TPv3 Call-Disconnect-Notify message	[b-ITU-T J.212]
C-DOCSIS	Cabinet DOCSIS	[b-ITU-T J.223.2], [b-ITU-T J.223.1]
CDP	IPNet2Home DHCP Portal	[b-ITU-T J.190]
CDP	Cable DHCP Portal	[b-ITU-T J.191]
CDP	IPcable2Home DHCP Portal	[b-ITU-T J.192]

CDR	Call Detail Record	[b-ITU-T J.164], [b-ITU-T J.363], [b-ITU-T J.360]
CDRP	Call Data Rating Point	[b-ITU-T J.703]
CDS	IPcable2Home DHCP Server	[b-ITU-T J.192]
CDT	Carrier Definition Table	[b-ITU-T J.94]
CDT	C-DOCSIS Data Tag	[b-ITU-T J.223.2]
CDV	Cell Delay Variation	[b-ITU-T J.82]
cDVR	client Digital Video Recorder	[b-ITU-T J.700]
CE	Consumer Electronics	[b-ITU-T J.290], [b-ITU-T J.1010]
CEA	Consumer Electronics Association	[b-ITU-T J.151]
CEC	Consumer Electronics Control	[b-ITU-T J.230], [b-ITU-T J.296]
CENC	Common Encryption	[b-ITU-T J.297], [b-ITU-T J.1011]
CENC	Common Encryption scheme	[b-ITU-T J.1005]
CENC	Common Encryption in ISO Base Media File Format	[b-ITU-T J.1006]
CF	Colour Frame	[b-ITU-T J.88]
CF	Call Forwarding	[b-ITU-T J.460.1], [b-ITU-T J.460.3]
CFB	Cipher Feedback	[b-ITU-T J.222.3]
CFBL	Call Forwarding Busy Line	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
CFDA	Call Forwarding Don't Answer	[b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3]
CFNA	Call Forwarding No Answer	[b-ITU-T J.178]
CFP	Call for Proposal	[b-ITU-T J.95]
CFP	Call Feature Provisioning	[b-ITU-T J.177]
CFV	Call Forwarding Variable	[b-ITU-T J.460.3], [b-ITU-T J.460.1], [b-ITU-T J.460.0]
CGF	Charging Gateway Function	[b-ITU-T J.367], [b-ITU-T J.363]
CGMS	Copy Generation Management System	[b-ITU-T J.298]
CGMS-A	Copy Generation Management System Analogue	[b-ITU-T J.197], [b-ITU-T J.296]
CH	IPcable2Home Host	[b-ITU-T J.192]
CHAP	Challenge Handshake Authentication Protocol	[b-ITU-T J.111]

ChipID	Chipset Identification	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CHK	Common Hash Key	[b-ITU-T J.1003]
CI	Command Identifier (for conditional access)	[b-ITU-T J.91]
CI	Common Interface	[b-ITU-T J.114], [b-ITU-T J.1011]
CID	Circuit ID	[b-ITU-T J.177]
CID	Caller Identity Delivery	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
CID	Caller Identity Display	[b-ITU-T J.700]
CIDB	Caller Identity Delivery Blocking	[b-ITU-T J.460.1], [b-ITU-T J.460.0]
CIDS	Caller Identity Delivery (and) Suppression	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
CIF	Common Intermediate Format	[b-ITU-T J.161], [b-ITU-T J.361]
CIF	Common Intermediate Format (352 x 288 pixels)	[b-ITU-T J.246], [b-ITU-T J.247]
CIN	Composite Intermodulation Noise	[b-ITU-T J.87]
CIN	Converged Interconnect Network	[b-ITU-T J.212], [b-ITU-T J.222.2]
CIP	Common Isochronous Packet	[b-ITU-T J.117]
CIS	Content Information Service	[b-ITU-T J.380.1], [b-ITU-T J.380.2], [b-ITU-T J.706]
CIT	Constrained Image Trigger	[b-ITU-T J.197]
CIW	Container identification word	[b-ITU-T J.81]
CL	CableLabs	[b-ITU-T J.222.1]
CLASS	Custom Local Area Signalling Services	[b-ITU-T J.178]
CLI	Command Line Interface	[b-ITU-T J.212], [b-ITU-T J.223.2]
CLP	Cell Loss Priority	[b-ITU-T J.82]
CLUT	Colour Look-Up Table	[b-ITU-T J.117], [b-ITU-T J.151]
CM	Copy Mark	[b-ITU-T J.95]
CM	Cable Modem	[b-ITU-T J.112 Annex A], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.125], [b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.160], [b-ITU-T J.163], [b- ITU-T J.164], [b-ITU-T J.166], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.173], [b-ITU-T J.179], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2],

[b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.260], [b-ITU-T J.261], [b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.296], [b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.704], [b-ITU-T J.800.2], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1105], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109], [b-ITU-T J.1600]

CM	Cable Modem, IIM, MH	[b-ITU-T J.112], [b-ITU-T J.116]
CM	DOCSIS Cable Modem – a DOCSIS-compliant device which provides data transport connectivity from RFI to IP networks	[b-ITU-T J.161], [b-ITU-T J.177], [b-ITU-T J.368], [b-ITU-T J.370], [b-ITU-T J.460.4]
CMC	Cable Media Converter	[b-ITU-T J.223.1], [b-ITU-T J.216]
CMC	Coax Media Converter	[b-ITU-T J.223.2]
CMCI	Cable Modem to Customer Premises Equipment(CPE) Interface	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.126], [b-ITU-T J.210], [b-ITU-T J.212], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
CMIM	Cable Modem (CM) Interface Mask	[b-ITU-T J.213], [b-ITU-T J.222.2]
CMP	Connection Management Procedures	[b-ITU-T J.117]
CMP	IPNet2Home Management Portal	[b-ITU-T J.190]
CMP	Cable Management Portal	[b-ITU-T J.191]
CMP	IPCable2Home Management Portal	[b-ITU-T J.192]
CMS	Call Management Server	[b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.164], [b-ITU-T J.167], [b-ITU-T J.172], [b-ITU-T J.173], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.179], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.260], [b-ITU-T J.261], [b-ITU-T J.360], [b-ITU-T J.362], [b-ITU-T J.363], [b-ITU-T J.460.2], [b-ITU-T J.800.2]
CMS	Call Management Server. Controls the audio connections. Also called a Call Agent in MGCP/SGCP terminology. This is one example of an Application Server.	[b-ITU-T J.170]
CMS	Cryptographic Message Syntax	[b-ITU-T J.170], [b-ITU-T J.177]
CM-SG	Cable Modem Service Group	[b-ITU-T J.222.2]
CMTS	Cable Modem Termination System	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.125], [b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.161], [b-ITU-T J.163], [b-ITU-T J.170], [b-ITU-T J.172], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.210], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.261], [b-ITU-T J.263], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.360], [b-ITU-T J.362], [b-ITU-T J.363], [b-ITU-T J.365], [b-ITU-T J.368], [b-ITU-T J.381], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.704], [b-ITU-T J.800.0], [b-ITU-T J.800.2], [b-ITU-T

	J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1105], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109], [b-ITU-T J.1600]	
CMTS-NSI	Cable Modem Termination System-Network Side Interface	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.222.3]
C-n	Container-n	[b-ITU-T J.132]
CNAM	Calling NAME	[b-ITU-T J.178], [b-ITU-T J.360 Amendment 1], [b-ITU-T J.460.0], [b-ITU-T J.460.1]
CNAME	Canonical Name	[b-ITU-T J.170]
C-NAPT	Cable Network Address and Portal Translation	[b-ITU-T J.191]
C-NAPT	IPcable2Home Network Address and Port Translation	[b-ITU-T J.192]
C-NAT	Cable Network Address Translation	[b-ITU-T J.191]
C-NAT	IPcable2Home Network Address Translation	[b-ITU-T J.192]
CND	Calling Number Delivery	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
CNG	Comfort Noise Generation	[b-ITU-T J.361]
CNP	IPNet2Home Naming Portal	[b-ITU-T J.190]
CNP	Cable Naming Portal	[b-ITU-T J.191]
CNP	IPcable2Home Name Portal	[b-ITU-T J.192]
CNR	Carrier-to-Noise Ratio	[b-ITU-T J.112], [b-ITU-T J.382], [b-ITU-T J.186], [b-ITU-T J.185]
Codec	Coder-DECoder or Coder/Decoder	[b-ITU-T J.161], [b-ITU-T J.177], [b-ITU-T J.290], [b-ITU-T J.361],
CODEC	Coder-DECoder	[b-ITU-T J.244], [b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6], [b-ITU-T J.700], [b-ITU-T J.702]
CODEC	CODing-DECoding algorithms used to compress/decompress the data representing the Voice (or Video) media traffic	[b-ITU-T J.369]
COFDM	Coded Orthogonal Frequency Division Multiplex	[b-ITU-T J.142]
Connection Id	Connection Identifier	[b-ITU-T J.112 Annex A]
COPS	Common Open Policy Service	[b-ITU-T J.163], [b-ITU-T J.170], [b-ITU-T J.362]
COPS	Common Open Policy Service (b-IETF RFC 2748)	[b-ITU-T J.179], [b-ITU-T J.263]
CORBA	Common Object Request Broker Architecture	[b-ITU-T J.703]
CoS	Class of Service	[b-ITU-T J.223.2], [b-ITU-T J.292]
COT	Customer Originated Trace	[b-ITU-T J.460.0], [b-ITU-T J.460.1]

CP	Cyclic Prefix	[b-ITU-T J.196.3], [b-ITU-T J.195.2], [b-ITU-T J.196.2]
CP	Content Provider	[b-ITU-T J.297], [b-ITU-T J.1005]
CP	Content Protection	[b-ITU-T J.702], [b-ITU-T J.1006]
CPAC	Copy Protection Advisory Committee	[b-ITU-T J.95]
CPB	Coded Picture Buffer	[b-ITU-T J.286]
CPCM	Content Protection and Copy Management	[b-ITU-T J.1005]
CPD	Control Point Discovery	[b-ITU-T J.362]
CPE	Customer Premise/Premises Equipment	[b-ITU-T J.97], [b-ITU-T J.98], [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.128], [b-ITU-T J.160], [b-ITU-T J.162], [b-ITU-T J.163], [b-ITU-T J.164], [b-ITU-T J.167], [b-ITU-T J.173], [b-ITU-T J.204], [b-ITU-T J.212], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.241], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.705], [b-ITU-T J.800.2], [b-ITU-T J.1003], [b-ITU-T J.1004], [b-ITU-T J.1010], [b-ITU-T J.1011], [b-ITU-T J.1020], [b-ITU-T J.1027], [b-ITU-T J.1600]
CPS	Common Part Sublayer	[b-ITU-T J.195.1], [b-ITU-T J.195.3], [b-ITU-T J.196.1], [b-ITU-T J.196.3]
CPT	IPNet2Home Address Passthrough	[b-ITU-T J.190]
CPTWG	Copy Protection Technical Working Group	[b-ITU-T J.117]
CPU	Central Processing Unit	[b-ITU-T J.111], [b-ITU-T J.117], [b-ITU-T J.296], [b-ITU-T J.603], [b-ITU-T J.151], [b-ITU-T J.192], [b-ITU-T J.295], [b-ITU-T J.298], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CQoS	IPNet2Home Quality of Service	[b-ITU-T J.190]
CQoS	Cable Quality of Service	[b-ITU-T J.191]
CQoS	IPcable2Home Quality of Service	[b-ITU-T J.192]
CQP	IPNet2Home QoS Portal	[b-ITU-T J.190]
CQP	Cable QoS Portal	[b-ITU-T J.191]
CQP	IPcable2Home QoS Portal	[b-ITU-T J.192]
CR	Control Relationship	[b-ITU-T J.362]
CRC	Cyclic Redundancy Check	[b-ITU-T J.82], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.181], [b-ITU-T J.183], [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.3], [b-ITU-T J.200], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.213],

[b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.287],  
[b-ITU-T J.382], [b-ITU-T J.1102], [b-ITU-T J.1103],

CRC-16	CRC of length 16	[b-ITU-T J.212]
CREEK	Crypto-toolkit Re-encryption Key [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
CRG	IPCable2Home Residential Gateway	[b-ITU-T J.192]
CRL	Certificate Revocation List [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.3], [b-ITU-T J.366.8]	[b-ITU-T J.170],
CRS	CACS remote by Renewable Security System	[b-ITU-T J.1001]
CRT	Chinese Remainder Theorem	[b-ITU-T J.222.3]
CS	Convergence Sublayer [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.196.3], [b-ITU-T J.195.1], [b-ITU-T J.195.3], [b-ITU-T J.196.1]	[b-ITU-T J.82],
CS	Communications Satellite	[b-ITU-T J.296]
CSA	(DVB) Common Scrambling Algorithm [b-ITU-T J.290], [b-ITU-T J.298], [b-ITU-T J.1010], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.96],
CSCF	Call Session Control Function [b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.368], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.2], [b-ITU-T J.460.3], [b-ITU-T J.700]	[b-ITU-T J.263],
CSI	Convergence Sublayer Indication	[b-ITU-T J.82]
CSMA	Carrier Sense Multiple Access	[b-ITU-T J.212]
CSO	Composite Second Order beat [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.142], [b-ITU-T J.222.1]	[b-ITU-T J.112],
CSO	Composite Second Order distortion	[b-ITU-T J.185], [b-ITU-T J.186]
CSP	Configurable Security Processor	[b-ITU-T J.290], [b-ITU-T J.293]
CSP	IPNet2Home Security Portal	[b-ITU-T J.190]
CSP	Cable Security Portal	[b-ITU-T J.191]
CSP	IPCable2Home Security Portal	[b-ITU-T J.192]
CSR	Control Status Register	[b-ITU-T J.117]
CSR	Customer Service Record	[b-ITU-T J.170]
CSR	Customer Service Representative	[b-ITU-T J.177]
CSRC	Contributing Source	[b-ITU-T J.361]
CSS	Contents Scramble System	[b-ITU-T J.95]
CSS	Cascading Style Sheet	[b-ITU-T J.201], [b-ITU-T J.296], [b-ITU-T J.1201]



CSU	Channel Service Unit	[b-ITU-T J.214]
CT	Call Transfer	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
CTA	Cordless Terminal Adapter	[b-ITU-T J.114]
CTB	Composite Triple Beat	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.142], [b-ITU-T J.222.1]
CTB	Composite Triple Beat distortion	[b-ITU-T J.185], [b-ITU-T J.186]
CTL	Certification Testing Laboratory	[b-ITU-T J.192]
CTP	IPNet2Home Testing Portal	[b-ITU-T J.190]
CTP	Cable Testing Portal	[b-ITU-T J.191]
CTP	IPCable2Home Test Portal	[b-ITU-T J.192]
CTR	Counter: the counter mode of a block cipher	[b-ITU-T J.222.3]
CTR	Counter	[b-ITU-T J.1006]
CTS	Clear To Send	[b-ITU-T J.118]
CVC	Code Verification Certificate	[b-ITU-T J.126], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.800.2]
CVCT	Cable Virtual Channel Table	[b-ITU-T J.117], [b-ITU-T J.151]
CVS	Code Verification Signature	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.3]
CVT	Code Version Table	[b-ITU-T J.128], [b-ITU-T J.705]
CW	Control Word	[b-ITU-T J.81], [b-ITU-T J.287], [b-ITU-T J.290], [b-ITU-T J.1001], [b-ITU-T J.1002], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
CW	Control Word (for conditional access)	[b-ITU-T J.91]
CW	Continuous Wave	[b-ITU-T J.96], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.210], [b-ITU-T J.142]
CWEK	Control Words Encryption Key	[b-ITU-T J.1002], [b-ITU-T J.1003]
CWMP	CPE WAN Management Protocol	[b-ITU-T J.296], [b-ITU-T J.298]
CWT	Call Waiting	[b-ITU-T J.460.1]
CxP	Cable PS Sub-function	[b-ITU-T J.191]
CxP	IPCable2Home Portal Services Sub-function	[b-ITU-T J.192]
D/A	Digital to Analogue Conversion	[b-ITU-T J.95]
D/A	Digital-to-Analogue	[b-ITU-T J.151]

D/A	Digital to Analog converter	[b-ITU-T J.460.2]
D/U	Desired-to-Undesired signal ratio	[b-ITU-T J.185]
D/U	Desired-to-Undesired distortion ratio	[b-ITU-T J.186]
DA	Destination Address [b-ITU-T J.116], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.112], [b-ITU-T J.1102], [b-ITU-T J.1103]
DAC	Distributed Authorization Centre	[b-ITU-T J.1004]
DAD	Duplicate Address Detection	[b-ITU-T J.218], [b-ITU-T J.222.2]
DAE	Declarative Application Environment	[b-ITU-T J.296]
DAM	DECT Authentication Module	[b-ITU-T J.114]
DASH	Dynamic Adaptive Streaming over HTTP Amendment 1], [b-ITU-T J.1005], [b-ITU-T J.1006]	[b-ITU-T J.181]
DAV	Distributed Authoring and Versioning	[b-ITU-T J.205], [b-ITU-T J.206]
DAVIC	Digital Audio Video Council	[b-ITU-T J.1201]
dB	decibel	[b-ITU-T J.142], [b-ITU-T J.287], [b-ITU-T J.382]
DB	Database	[b-ITU-T J.292]
DBA	Dynamic Bandwidth Allocation	[b-ITU-T J.195.1], [b-ITU-T J.196.1]
dBc	Decibels relative to carrier power	[b-ITU-T J.210], [b-ITU-T J.222.1]
dBc	Decibels below a Carrier used as reference	[b-ITU-T J.142]
DBC	Dynamic Bonding Change	[b-ITU-T J.222.2]
DBC-REQ	Dynamic Bonding Change Request MAC Message	[b-ITU-T J.222.1]
DBG	Downstream Bonding Group	[b-ITU-T J.222.2]
dBm	Decibels referred to a 1 mW power	[b-ITU-T J.142]
dBmV	Decibels referred to a 1 milliVolt rms signal level	[b-ITU-T J.142]
dBµV	Decibels referred to a 1 microVolt rms signal level	[b-ITU-T J.142]
DBS	Direct Broadcast Satellite	[b-ITU-T J.117]
DC	Direct Current	[b-ITU-T J.185], [b-ITU-T J.298], [b-ITU-T J.460.0]
DC <i>bis</i>	Downstream Channel	[b-ITU-T J.222.2], [b-ITU-T J.1102], [b-ITU-T J.1103]
DCAS	Downloadable Conditional Access System [b-ITU-T J.702], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1202]	[b-ITU-T J.293], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1202]

DCC	Dynamic Channel Change [b-ITU-T J.128], [b-ITU-T J.222.2]	[b-ITU-T J.122],
DCD	Downstream Channel Descriptor	[b-ITU-T J.128]
DCE	Data Communication Equipment [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.112],
DCE	Data Circuit-terminating Equipment	[b-ITU-T J.115]
DCF	Dispersion Compensation Fibre	[b-ITU-T J.186]
DCI	Device Class Identifier	[b-ITU-T J.222.2]
DCID	Downstream Channel Identifier [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.222.2],
DCS	Distributed Call Signalling	[b-ITU-T J.163], [b-ITU-T J.178]
DCS	Downstream Channel Set	[b-ITU-T J.222.2]
DCS	Digital Compression System	[b-ITU-T J.287]
DCT	Discrete Cosine Transform	[b-ITU-T J.92], [b-ITU-T J.603]
Dd	downlink Data [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]	[b-ITU-T J.195.2],
dDVR	distributed Digital Video Recorder	[b-ITU-T J.700]
DDC	Data Download Control	[b-ITU-T J.111]
DDR	Double Data Rate	[b-ITU-T J.298]
DEC	Decoder	[b-ITU-T J.147], [b-ITU-T J.240]
DECE	Digital Entertainment Content Ecosystem	[b-ITU-T J.1005], [b-ITU-T J.1010]
DECT	Digital Enhanced Cordless Telecommunications	[b-ITU-T J.114]
DEG	DEGraded	[b-ITU-T J.132]
DEMUX	De-Multiplexer	[b-ITU-T J.382]
DEMUX	Demultiplex	[b-ITU-T J.702]
DEPI	Downstream External (-) PHY Interface [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.2], [b-ITU-T J.800.2], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.210],
DEPI	DOCSIS External PHY Interface	[b-ITU-T J.214], [b-ITU-T J.700]
DER	Distinguished Encoding Rules [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.800.2]	[b-ITU-T J.191],
DES	Data Encryption Standard [b-ITU-T J.112 Annex A], [b-ITU-T J.170], [b-ITU-T J.181], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.287], [b-ITU-T J.290]	[b-ITU-T J.96],
DES	US Data Encryption Standard	[b-ITU-T J.125]

DF	Delivery Function	[b-ITU-T J.170], [b-ITU-T J.362]
D-H	Diffie-Hellman	[b-ITU-T J.112 Annex A]
DH	Diffie-Hellman	[b-ITU-T J.170], [b-ITU-T J.366.8]
DHCP	Dynamic Host Configuration Protocol [b-IETF RFC 2131]	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.126], [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.224], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.360], [b-ITU-T J.369], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.705], [b-ITU-T J.800.0], [b-ITU-T J.800.1]
DHCPv4	IPv4 version of the Dynamic Host Configuration Protocol	[b-ITU-T J.222.2]
DHCPv6	Version of DHCP for IPv6	[b-ITU-T J.222.3]
DHCPv6	IPv6 version of the Dynamic Host Configuration Protocol	[b-ITU-T J.222.2]
DHSG	Data Hiding Sub Group	[b-ITU-T J.95]
DI	Discrete Interference	[b-ITU-T J.185], [b-ITU-T J.186]
DiffServ	Differentiated Services Architecture for Network Traffic	[b-ITU-T J.290], [b-ITU-T J.292]
DII	Dynamic Invocation Interface	[b-ITU-T J.380.7]
DIME	Downstream IP Multicast Encryption	[b-ITU-T J.213]
DiSEqC	Digital Satellite Equipment Control	[b-ITU-T J.298]
DIX	Digital Intel Xerox	[b-ITU-T J.126], [b-ITU-T J.222.2]
DL	Data Link	[b-ITU-T J.112 Annex A], [b-ITU-T J.116]
DLNA	Digital Living Network Alliance [b-ITU-T J.294], [b-ITU-T J.296], [b-ITU-T J.700]	[b-ITU-T J.290],
DM	Device Management	[b-ITU-T J.367], [b-ITU-T J.700], [b-ITU-T J.705]
DM	Downloadable Mobile multi-CA/DRM	[b-ITU-T J.1020]
DMA	Direct Memory Access	[b-ITU-T J.298]
DMAC	Destination MAC	[b-ITU-T J.213]
DMAC	Destination Media Access Control address	[b-ITU-T J.222.2]
DMC	Digital Media Controller	[b-ITU-T J.296]
DMC	Device Management Client	[b-ITU-T J.367]

DMIPS	Dhrystone Million Instructions Per Second	[b-ITU-T J.296], [b-ITU-T J.298]
DMOS	Difference Mean Opinion Score	[b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
DMP	Digital Media Player	[b-ITU-T J.296], [b-ITU-T J.700]
DMPI	DOCSIS MAC-PHY Interface	[b-ITU-T J.222.2], [b-ITU-T J.1102], [b-ITU-T J.1103]
DMR	Digital Media Renderer	[b-ITU-T J.296], [b-ITU-T J.700]
DMS	Digital Media Server	[b-ITU-T J.296]
DMS	Device Management Server	[b-ITU-T J.367]
DN	Directory Number	[b-ITU-T J.460.0]
DND	Do Not Disturb	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
DNG	Delivery Network Gateway	[b-ITU-T J.702]
DNS	Domain Name Server	[b-ITU-T J.126], [b-ITU-T J.170], [b-ITU-T J.192]
DNS	Domain Name System	[b-IETF RFC 1034] [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.175], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.200], [b-ITU-T J.218], [b-ITU-T J.296], [b-ITU-T J.360], [b-ITU-T J.369], [b-ITU-T J.700], [b-ITU-T J.703]
DNS	Domain Name Service	[b-ITU-T J.362]
DNS SRV	A DNS RR for specifying the location of services	[b-ITU-T J.170]
DOBSS	Data over BWA Security System	[b-ITU-T J.116]
DOC	Data over Cable	[b-ITU-T J.112], [b-ITU-T J.116]
DOCS	Data-Over-Cable System	[b-ITU-T J.122]
DOCS 1.x	DOCS 1.0 or 1.1	[b-ITU-T J.122]
DOCSIS	Data Over Cable Service Interface Specifications	[b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.161], [b-ITU-T J.170], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.197], [b-ITU-T J.199], [b-ITU-T J.210], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.216], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.224], [b-ITU-T J.292], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.360], [b-ITU-T J.368], [b-ITU-T J.370], [b-ITU-T J.381], [b-ITU-T J.460.4], [b-ITU-T J.604], [b-ITU-T J.700], [b-ITU-T J.703], [b-ITU-T J.704], [b-ITU-T J.800.0], [b-ITU-T J.800.2], [b-ITU-T J.1003], [b-ITU-T J.1004], [b-ITU-T J.1005], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1105], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108]

DOCSIS	Data Over Cable System Interface Specification [b-ITU-T J.295], [b-ITU-T J.460.2]	[b-ITU-T J.294],
DOCSIS 1.x	Data-Over-Cable Service Interface Specification version 1.0 or 1.1	[b-ITU-T J.222.1]
DOCSIS-MPT(D-MPT)	DOCSIS MPT Mode	[b-ITU-T J.212]
DOM	Document Object Model [b-ITU-T J.201], [b-ITU-T J.380.7], [b-ITU-T J.1201]	[b-ITU-T J.200],
DoS	Denial of Service [b-ITU-T J.222.3], [b-ITU-T J.296]	[b-ITU-T J.192],
DPI	Digital Program(me) Insertion [b-ITU-T J.287], [b-ITU-T J.294], [b-ITU-T J.700]	[b-ITU-T J.215],
DPV	DOCSIS Path Verify	[b-ITU-T J.222.2]
DQoS	Dynamic Quality of Service [b-ITU-T J.170], [b-ITU-T J.177], [b-ITU-T J.179], [b-ITU-T J.361], [b-ITU-T J.190], [b-ITU-T J.261], [b-ITU-T J.362]	[b-ITU-T J.161],
DQoS	Dynamic Quality of Service (IPCablecom)	[b-ITU-T J.191]
DQoS	Dynamic Quality-of-Service (PacketCable)	[b-ITU-T J.192]
DQPSK	Differential Quadrature Phase-Shift Keying	[b-ITU-T J.195.2], [b-ITU-T J.196.2]
D-RA	Receiver Amplifier for Digital video transmission	[b-ITU-T J.186]
DRFI	Downstream Radio Frequency Interface [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.210],
DRM	Digital Right/Rights Management [b-ITU-T J.190], [b-ITU-T J.197], [b-ITU-T J.206], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.294], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.705], [b-ITU-T J.1005], [b-ITU-T J.1006], [b-ITU-T J.1010], [b-ITU-T J.1011], [b-ITU-T J.1020], [b-ITU-T J.1202]	[b-ITU-T J.124],
DRRP	Dynamic Resource Registration Protocol	[b-ITU-T J.700]
DRW	Dynamic Range Window	[b-ITU-T J.222.1]
DS	Down Stream [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.296], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109]	[b-ITU-T J.128],
DS	Data Slice	[b-ITU-T J.382]
DSA	Dynamic Service Addition	[b-ITU-T J.112 Annex C], [b-ITU-T J.163]
DSA	Dynamic Service Add	[b-ITU-T J.263]
DSC	Dynamic Service Change	[b-ITU-T J.112 Annex C], [b-ITU-T J.163]
DSC	Descrambler	[b-ITU-T J.1002], [b-ITU-T J.1004]

DSD	Dynamic Service Deletion	[b-ITU-T J.112 Annex C]
DSCP	Differentiated Services Code Point [b-ITU-T J.222.2], [b-ITU-T J.263], [b-ITU-T J.368]	[b-ITU-T J.212],
DSCP	DiffServ Code Point	[b-ITU-T J.290], [b-ITU-T J.292]
DSCP	DiffServ Code Point. A field in every IP packet that identifies the DiffServ Per-Hop Behavior. In IP version 4, the TOS byte is redefined to be the DSCP. In IP version 6, the Traffic Class octet is used as the DSCP. See IETF RFC 4556.	[b-ITU-T J.170]
DSCQS	Double Stimulus Continuous Quality Scale	[b-ITU-T J.144]
DS-EH/DS EHDR	Downstream Service Extended Header	[b-ITU-T J.222.2]
DSG	DOCSIS Set Top Gateway [b-ITU-T J.128], [b-ITU-T J.222.2], [b-ITU-T J.291], [b-ITU-T J.294]	[b-ITU-T J.126],
DSG	DOCSIS Set-top box Gateway	[b-ITU-T J.700]
DSID	Downstream Service Identifier [b-ITU-T J.222.3], [b-ITU-T J.800.2], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.222.2],
DSL	Digital Subscriber Line	[b-ITU-T J.290], [b-ITU-T J.700]
DSLAM	Digital Subscriber Line Access Multiplexer	[b-ITU-T J.292]
DSM-CC	Digital Storage Media – Command and Control	[b-ITU-T J.111], [b-ITU-T J.200]
DSMCC	Digital Storage Media Command and Control	[b-ITU-T J.230]
DSM-CC	Digital Storage Media Command and Control [b-ITU-T J.705], [b-ITU-T J.700], [b-ITU-T J.703]	[b-ITU-T J.291],
DSM-CC-U-N	DSM-CC User-to-Network	[b-ITU-T J.111]
DSM-CC-U-U	DSM-CC User-to-User	[b-ITU-T J.111]
DSMCC DC	Digital Storage Media Command and Control – Data Carousel	[b-ITU-T J.205], [b-ITU-T J.206]
DSMCC OC	Digital Storage Media Command and Control – Object Carousel	[b-ITU-T J.205], [b-ITU-T J.206]
DSNG	Digital Satellite News Gathering	[b-ITU-T J.96]
DSP	Digital Signal Processor	[b-ITU-T J.95], [b-ITU-T J.603]
DSP	Data Services Profile	[b-ITU-T J.114]
DS-SG	Downstream Service Group	[b-ITU-T J.222.2]
DSU	Data Service Unit	[b-ITU-T J.214]
DSx (Messaging)	J.112 Annex B QoS signalling mechanism providing Change and Delete semantics	Dynamic Service Add, [b-ITU-T J.179]
D-TA	Transmitter Amplifier for Digital video transmission	[b-ITU-T J.186]

DTCP	Digital Transmission Content Protection	[b-ITU-T J.197], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.1005]
DTCP-IP	Digital Transmission Content Protection over Internet Protocol	[b-ITU-T J.296]
DTD	Document Type Definition	[b-ITU-T J.200], [b-ITU-T J.800.0]
DTE	Data Terminal Equipment	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118]
DTH	Direct To Home	[b-ITU-T J.1028]
DTI	DOCSIS Timing Interface	[b-ITU-T J.210], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.800.2]
DTMF	Dual Tone Multi Frequency	[b-ITU-T J.160], [b-ITU-T J.162], [b-ITU-T J.175], [b-ITU-T J.181], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2]
DTMF	Dual Tone Multi Frequency (tones)	[b-ITU-T J.161], [b-ITU-T J.170], [b-ITU-T J.361]
DTMF	Dual Tone Multifrequency (dialling mode)	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.116]
DTS	DOCSIS Time Stamp, 32 bits	[b-ITU-T J.212]
DTS	32-bit DOCSIS Time Stamp	[b-ITU-T J.211]
DTS	Decoding Time Stamp	[b-ITU-T J.89], [b-ITU-T J.181], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
DTS	Device Tree Source	[b-ITU-T J.1202]
DTV	Digital Television	[b-ITU-T J.117], [b-ITU-T J.201], [b-ITU-T J.206], [b-ITU-T J.207], [b-ITU-T J.223.1], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.205], [b-ITU-T J.230], [b-ITU-T J.1201], [b-ITU-T J.1202]
DTV	Digital Television: ATSC compliant receiving device	[b-ITU-T J.151]
DTVC	Digital Television by Cable	[b-ITU-T J.83]
DTX	Discontinuous Transmission	[b-ITU-T J.361]
Du	uplink Data	[b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
DUID	DHCP Unique Identifier	[b-ITU-T J.218], [b-ITU-T J.222.2]
DUT	Downstream Unencrypted Traffic	[b-ITU-T J.213], [b-ITU-T J.222.2]
DVA	Digital Voice Adaptor or Adapter	[b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2]



DVB	Digital Video Broadcasting [b-ITU-T J.111], [b-ITU-T J.112 Annex A], [b-ITU-T J.115], [b-ITU-T J.117], [b-ITU-T J.118], [b-ITU-T J.131], [b-ITU-T J.142], [b-ITU-T J.200], [b-ITU-T J.700], [b-ITU-T J.705], [b-ITU-T J.1010], [b-ITU-T J.1011], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.96],
DVB	Digital Video Broadcast	[b-ITU-T J.181], [b-ITU-T J.290]
DVB-ASI	Digital Video Broadcast – Asynchronous Serial Interface	[b-ITU-T J.280]
DVB-C	DVB system for cable transmission	[b-ITU-T J.382]
DVB-C2	DVB system for second generation cable transmission	[b-ITU-T J.382] [b-ITU-T J.383]
DVB-MS	DVB-Microwave Satellite	[b-ITU-T J.116]
DVB-SI	Digital Video Broadcasting – Service Information	[b-ITU-T J.142]
DVCR	Digital Video Cassette Recorder	[b-ITU-T J.151]
DVD	Digital Versatile Disk/Disc [b-ITU-T J.190], [b-ITU-T J.296], [b-ITU-T J.700]	[b-ITU-T J.117],
DVD	Digital Video Disk	[b-ITU-T J.151]
DVD+R	Digital Versatile Disk + Recordable	[b-ITU-T J.197]
DVD-ROM	Digital Versatile Disc-Read Only Memory	[b-ITU-T J.95]
DVD-RW	Digital Versatile Disk – Re-Writable	[b-ITU-T J.197]
DVI	Digital Visual Interface	[b-ITU-T J.197]
DVI	Digital Video Interface	[b-ITU-T J.290]
DVNR	Digital Video Noise Reduction	[b-ITU-T J.95]
DVR	Digital Video Recording	[b-ITU-T J.290]
DVR	Digital Video Recorder [b-ITU-T J.296], [b-ITU-T J.700], [b-ITU-T J.703], [b-ITU-T J.704]	[b-ITU-T J.293],
DVS	Digital Video Service	[b-ITU-T J.700]
E.164	Telephone number standard of ITU	[b-ITU-T J.178]
E/O	Electrical to Optical converter	[b-ITU-T J.185]
E/O	Electrical to Optical	[b-ITU-T J.186]
E/O	Electrical to Optic	[b-ITU-T J.1107], [b-ITU-T J.1108]
EAC	Emergency Alert Controller	[b-ITU-T J.703]
EAE	Early Authentication and Encryption [b-ITU-T J.222.2], [b-ITU-T J.222.3]	[b-ITU-T J.218],
EAM	Emergency Alert Message	[b-ITU-T J.703]
EAS	Emergency Alert System [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.705]	[b-ITU-T J.294],
Eb	Energy per bit	[b-ITU-T J.142]
EB	Errored Block	[b-ITU-T J.142]

EBC	Error Block Count	[b-ITU-T J.132]
EC	Errors Corrected	[b-ITU-T J.222.1]
ECB	Electronic Code Book [b-ITU-T J.181], [b-ITU-T J.222.3], [b-ITU-T J.290]	[b-ITU-T J.96],
ECB	Electric Code Block	[b-ITU-T J.1002]
ECG	Electronic Content Guide [b-ITU-T J.296], [b-ITU-T J.702]	[b-ITU-T J.294],
ECI	Embedded Common Interface	[b-ITU-T J.1010], [b-ITU-T J.1011]
ECL	Entitlement Control License	[b-ITU-T J.1006]
ECM	Entitlement Control Message	[b-ITU-T J.81], [b-ITU-T J.91], [b-ITU-T J.96], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.293], [b-ITU-T J.297], [b-ITU-T J.700], [b-ITU-T J.703], [b-ITU-T J.1001], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1202]
eCM	embedded Cable Modem	[b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.213], [b-ITU-T J.222.2], [b-ITU-T J.293], [b-ITU-T J.460.2], [b-ITU-T J.800.1]
eCM	embedded cable modem entity (e.g., STB, router, MTA, etc.)	[b-ITU-T J.700]
ECN	Engineering Change Notice	[b-ITU-T J.112 Annex B]
ECO	Engineering Change Order	[b-ITU-T J.112 Annex B]
ECR	Engineering Change Request	[b-ITU-T J.112 Annex B]
ECW	Even control word	[b-ITU-T J.81]
ECW	Encrypted Control Word [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
E-CSCF	Emergency-Call Session Control Function	[b-ITU-T J.460.1]
EDE	Encrypt-Decrypt-Encrypt	[b-ITU-T J.181], [b-ITU-T J.222.3]
EDE	A 3DES mode where the data is encrypted, decrypted and encrypted	[b-ITU-T J.366.8]
EDH	Error Detection and Handling	[b-ITU-T J.89]
EDID	Extended Display Identification Data	[b-ITU-T J.296]
EDL	Edit Decision List	[b-ITU-T J.285]
eDOCSIS	Embedded DOCSIS [b-ITU-T J.199], [b-ITU-T J.460.2], [b-ITU-T J.800.2]	[b-ITU-T J.126],
E-DVA	Embedded Digital Voice Adapter or Adaptor [b-ITU-T J.460.0], [b-ITU-T J.460.2], [b-ITU-T J.460.4]	[b-ITU-T J.261],
EEPROM	Electrically Erasable Programmable Read-Only Memory	[b-ITU-T J.91], [b-ITU-T J.197]
EH	Extended Header [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.222.2],

EHDR or EH	Extended Header	[b-ITU-T J.112], [b-ITU-T J.116]
EHDR	Extended MAC Header [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.222.2], [b-ITU-T J.1102], [b-ITU-T J.1103]
EI	Emergency Interrupt	[b-ITU-T J.178], [b-ITU-T J.460.0]
EIDR	Entertainment Identifier Registry association	[b-ITU-T J.181]
EISF	Extended Information Subframe	[b-ITU-T J.196.3]
EIT	Event Information Table [b-ITU-T J.151], [b-ITU-T J.298], [b-ITU-T J.302]	[b-ITU-T J.94], [b-ITU-T J.151], [b-ITU-T J.298], [b-ITU-T J.302]
EKE	Explicit Key Exchange	[b-ITU-T J.112 Annex A]
EM	Event Messages	[b-ITU-T J.363]
EMAC	Ethernet MAC	[b-ITU-T J.195.3], [b-ITU-T J.196.3]
EMC	Electromagnetic Compatibility [b-ITU-T J.195.1], [b-ITU-T J.196.2], [b-ITU-T J.222.1]	[b-ITU-T J.114], [b-ITU-T J.195.1], [b-ITU-T J.196.2], [b-ITU-T J.222.1]
EMF	Equipment Management Function	[b-ITU-T J.131], [b-ITU-T J.132]
EMI	Encryption Mode Indicator	[b-ITU-T J.197]
EML	Entitlement Management License	[b-ITU-T J.1006]
EMM	Entitlement Management Message [b-ITU-T J.91], [b-ITU-T J.96], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.297], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.700], [b-ITU-T J.1001], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1202]	[b-ITU-T J.81], [b-ITU-T J.91], [b-ITU-T J.96], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.297], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.700], [b-ITU-T J.1001], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1202]
EMMG	Entitlement Management Message Generator	[b-ITU-T J.1027]
EMS	Element Management System	[b-ITU-T J.360]
eMTA	embedded Media Terminal Adapter	[b-ITU-T J.213]
eMTA	embedded Multimedia Terminal Adapter	[b-ITU-T J.126], [b-ITU-T J.700]
eMTA	Embedded Media Transport Agent	[b-ITU-T J.222.2]
E-MTA	Embedded Media Terminal Adapter	[b-ITU-T J.261]
E-MTA	Embedded Multimedia Terminal Adapter [b-ITU-T J.192], [b-ITU-T J.363], [b-ITU-T J.360], [b-ITU-T J.460.0]	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.363], [b-ITU-T J.360], [b-ITU-T J.460.0]
E-MTA	Embedded MTA	[b-ITU-T J.173], [b-ITU-T J.175]
EMTA	Embedded Multimedia Terminal Adaptor	[b-ITU-T J.704]
EN	European Norm	[b-ITU-T J.115]
ENC	Encoder	[b-ITU-T J.147], [b-ITU-T J.240]
ENG	Electronic News Gathering	[b-ITU-T J.388]

ENUM	E.164 Number Mapping	[b-ITU-T J.360]
ENUM	Telephone Number Mapping	[b-ITU-T J.460.1]
EP	Endpoint	[b-ITU-T J.190]
EPG	Electronic Program(me) Guide	[b-ITU-T J.90], [b-ITU-T J.97], [b-ITU-T J.98], [b-ITU-T J.117], [b-ITU-T J.128], [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.230], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.704], [b-ITU-T J.707], [b-ITU-T J.900], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1201], [b-ITU-T J.1202]
EPON	Ethernet Passive Optical Network	[b-ITU-T J.185], [b-ITU-T J.223.2]
ePS	embedded Portal Services Element	[b-ITU-T J.126]
ePS	embedded Portal Services	[b-ITU-T J.192], [b-ITU-T J.213], [b-ITU-T J.222.2]
EPSNR	Edge Peak Signal-to-Noise Ratio	[b-ITU-T J.249], [b-ITU-T J.343.4]
EQAM	Edge QAM (A network element which receives MPEG-TS frames over a network interface such as Ethernet, and modulates them onto QAM carriers for use on a HFC plant)	[b-ITU-T J.211]
EQAM	Edge QAM	[b-ITU-T J.212], [b-ITU-T J.222.2]
ERM	Edge Resource Manager	[b-ITU-T J.212], [b-ITU-T J.700]
ERMI	Edge Resource Manager Interface	[b-ITU-T J.210], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.2]
eRouter	Embedded Router	[b-ITU-T J.222.2]
ES	Errored Second	[b-ITU-T J.132], [b-ITU-T J.142]
ES	Elementary Stream	[b-ITU-T J.296], [b-ITU-T J.700], [b-ITU-T J.900]
ES	Elementary bitStream	[b-ITU-T J.343], [b-ITU-T J.343.4]
eSAFE	embedded Service/Application Functional Entity	[b-ITU-T J.126], [b-ITU-T J.213], [b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.800.1], [b-ITU-T J.800.2]
ESCK	Encrypted Security Chipset Key	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
ESG	Electronic Service Guide	[b-ITU-T J.294], [b-ITU-T J.702]
ESP	IPsec Encapsulating Security	[b-ITU-T J.170]
ESP	IPSec Encapsulating Security Payload	[b-ITU-T J.177]

ESP	Encapsulating Security Payload	[b-ITU-T J.360]
ESSID	Extended Service Set Identifier	[b-ITU-T J.296]
eSTB	embedded Set-Top Box	[b-ITU-T J.126], [b-ITU-T J.128]
ESW	Encrypted Session Word	[b-ITU-T J.96]
eTEA	embedded T1/E1 TDM Emulation Adapter (TEA)	[b-ITU-T J.126]
ETS	European Telecommunications Standard	[b-ITU-T J.84], [b-ITU-T J.115], [b-ITU-T J.118]
ETV	Enhanced TV	[b-ITU-T J.181 Amendment 1]
EU	Errors Uncorrectable	[b-ITU-T J.222.1]
EUI	Extended Unique Identifier	[b-ITU-T J.117], [b-ITU-T J.218]
EUI-64	64-bit Extended Unique Identifier	[b-ITU-T J.222.2]
EVM	Error Vector Magnitude	[b-ITU-T J.151]
EWS	Emergency Warning System	[b-ITU-T J.383]
exLSDI	expanded hierarchy of Large Screen Digital Imagery	[b-ITU-T J.603]
FAS	Frame Alignment Signal Annex A], [b-ITU-T J.116], [b-ITU-T J.131], [b-ITU-T J.132]	[b-ITU-T J.112]
FAT	File Allocation Table	[b-ITU-T J.296]
FAX	Facsimile (ITU-T Rec. T.30)	[b-ITU-T J.190]
FC	Frame Control	[b-ITU-T J.116], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]
FC	Frame Compatible	[b-ITU-T J.900]
FCAPS	Fault, Configuration, Accounting, Performance and Security	[b-ITU-T J.700]
FCC	Fast Channel Change	[b-ITU-T J.298]
FCRC	Fragment Cyclic Redundancy Check	[b-ITU-T J.222.2], [b-ITU-T J.222.3]
FCS	Frame Check Sequence	[b-ITU-T J.126], [b-ITU-T J.195.2]
FDD	Frequency Division Duplex	[b-ITU-T J.1109]
FDDI	Fibre Distributed Data Interface [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]	[b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.122]
FDM	Frequency Division Multiplexing [b-ITU-T J.116], [b-ITU-T J.185], [b-ITU-T J.186]	[b-ITU-T J.87], [b-ITU-T J.116], [b-ITU-T J.185], [b-ITU-T J.186]
FDMA	Frequency Division Multiple Access [b-ITU-T J.116], [b-ITU-T J.222.1]	[b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.222.1]
FDR	False Detection Rate	[b-ITU-T J.147]

FEC	Forward Error Correction	[b-ITU-T J.81], [b-ITU-T J.82], [b-ITU-T J.83], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.141], [b-ITU-T J.116], [b-ITU-T J.142], [b-ITU-T J.150], [b-ITU-T J.161], [b-ITU-T J.185], [b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.196.3], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.241], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.295], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.381], [b-ITU-T J.382], [b-ITU-T J.702], [b-ITU-T J.704], [b-ITU-T J.1102], [b-ITU-T J.1103]
FFT	Fast Fourier Transform	[b-ITU-T J.382]
FG IPTV	ITU-T IPTV Focus Group	[b-ITU-T J.700]
FHCS	Fragment Header Checksum	[b-ITU-T J.222.2]
FHD	Full High Definition	[b-ITU-T J.298]
FID	Flow Identifier	[b-ITU-T J.164]
FIFO	First In, First Out	[b-ITU-T J.112 Annex A]
FIFO	First in First out	[b-ITU-T J.116]
FIFO	First in First out (shift register)	[b-ITU-T J.83]
FIP	Forward Interaction Path	[b-ITU-T J.116]
FIPS	Federal Information Processing Standard	[b-ITU-T J.181], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.290]
FITL	Fibre In The Loop. A PSTN architecture consisting of a fibre-optic access network	[b-ITU-T J.460.2]
FLR	Frame Loss Ratio	[b-ITU-T J.141]
FLUTE	File Delivery over Unidirectional Transport	[b-ITU-T J.296]
FM	Frequency Modulation	[b-ITU-T J.185], [b-ITU-T J.222.1]
FMO	Flexible Macroblock Ordering	[b-ITU-T J.361]
FN	Fibre Node	[b-ITU-T J.222.2]
Fn	The nth Fermat number	[b-ITU-T J.222.3]
FoV	Field of View	[b-ITU-T J.302]
FP	Fixed Part	[b-ITU-T J.114]
FPGA	Field Programmable Gate Array	[b-ITU-T J.95], [b-ITU-T J.603]
FQDN	Fully Qualified Domain Name (Refer to IETF RFC 821 for details)	[b-ITU-T J.126], [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.172], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.179], [b-ITU-T J.212], [b-ITU-T J.360]
FR	Full Reference	[b-ITU-T J.244], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.340], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
FRTV/FR-TV	Full Reference TeleVision	[b-ITU-T J.144], [b-ITU-T J.149], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342]

FS	File Server	[b-ITU-T J.285]
FSK	Frequency Shift Key	[b-ITU-T J.460.0]
FSM	Finite State Machine	[b-ITU-T J.222.3]
FSR	Linear Feedback Shift Register	[b-ITU-T J.116]
FSW	Frame Synchronization Word	[b-ITU-T J.81], [b-ITU-T J.88]
FT	Fixed Termination	[b-ITU-T J.114]
FTP	File Transfer Protocol	[b-ITU-T J.120], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.703], [b-ITU-T J.1102], [b-ITU-T J.1103]
FTTB	Fibre To The Building	[b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.281], [b-ITU-T J.282],
FTTH	Fibre To The Home	[b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.1005], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108]
FTTx	Fibre To The "x", where "x" indicates the final location on the user side of any one of a variety of optical fibre architectures, e.g., fibre to the building (FTTB), fibre to the curb (FTTC), fibre to the premises (FTTP)	[b-ITU-T J.223.2], [b-ITU-T J.700]
FTV	Free Viewpoint Television	[b-ITU-T J.902]
FUMO	Firmware Update Management Object	[b-ITU-T J.705]
FW	FireWall	[b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.294], [b-ITU-T J.360], [b-ITU-T J.700]
FWA	Fixed Wireless Access	[b-ITU-T J.116]
GA	Grand Alliance	[b-ITU-T J.94]
GAA	Generic Authentication Architecture	[b-ITU-T J.367]
GAP	Generic Access Profile	[b-ITU-T J.114]
GARP	Generic Attribute Registration Protocol	[b-ITU-T J.222.2]
GB	Gigabyte	[b-ITU-T J.296]
GBA	Generic Bootstrapping Architecture Amendment 1], [b-ITU-T J.367]	[b-ITU-T J.360]
GBA_H	GBA with HTTP Digest over TLS enhancements	[b-ITU-T J.366.9]
GBE	Giga Bit Ethernet	[b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
GC	Gate Controller	[b-ITU-T J.160], [b-ITU-T J.178]
GCR	Group Classifier Rule	[b-ITU-T J.222.2]
GDPR	General Data Protection Regulation	[b-ITU-T J.1600]
GE	Grant Element	[b-ITU-T J.195.3]

GE	Gigabit Ethernet	[b-ITU-T J.223.2]
GE	Gigabit Ethernet (1 Gbit/s)	[b-ITU-T J.211]
GE	Gigabit Ethernet (GigE) [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292]	[b-ITU-T J.212],
GEM	Globally Executable Multimedia home platform (MHP) [b-ITU-T J.200], [b-ITU-T J.700]	[b-ITU-T J.294],
GE-PON	Gigabit Ethernet – Passive Optical Network	[b-ITU-T J.700]
GF	Galois Field	[b-ITU-T J.222.1]
GFC	Generic Flow Control	[b-ITU-T J.132]
GHz	Giga Hertz (10 <sup>9</sup> Hertz)	[b-ITU-T J.142]
GI	Guard Interval	[b-ITU-T J.382]
GIF	Graphic(s) Interchange Format	[b-ITU-T J.296], [b-ITU-T J.700]
GIS	Generalized Information Service	[b-ITU-T J.380.6]
GMAC	Group MAC address	[b-ITU-T J.213]
GMAC	Group Media Access Control	[b-ITU-T J.222.2]
GMSK	Gaussian Minimum Shift Keying	[b-ITU-T J.115]
GMT	Greenwich Mean Time	[b-ITU-T J.94], [b-ITU-T J.191], [b-ITU-T J.192]
GOB	Group of Blocks	[b-ITU-T J.120]
GOP	Group of Pictures [b-ITU-T J.181 Amendment 1], [b-ITU-T J.244]	[b-ITU-T J.88],
GP	Global Platform [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
GPI	General Purpose Interface	[b-ITU-T J.287]
G-PON	Gigabit Passive Optical Network	[b-ITU-T J.185], [b-ITU-T J.703]
GPON	Gigabit-capable Passive Optical Network	[b-ITU-T J.223.2], [b-ITU-T J.700]
GPRS	General Packet Radio Service	[b-ITU-T J.363]
GPS	Global Positioning System	[b-ITU-T J.94], [b-ITU-T J.211]
GPU	Graphics Processing Unit [b-ITU-T J.296], [b-ITU-T J.298]	[b-ITU-T J.293],
GQC	Group QoS Configuration	[b-ITU-T J.222.2]
GRUU	Globally Routable User (-) Agent URI [b-ITU-T J.366.2], [b-ITU-T J.460.1]	[b-ITU-T J.360],
GSD	Guaranteed Service Domain [b-ITU-T J.293], [b-ITU-T J.294]	[b-ITU-T J.290],



GSE	Generic Stream Encapsulation	[b-ITU-T J.382], [b-ITU-T J.383]
GSF	Group Service Flow	[b-ITU-T J.222.2]
GSM	Global System for Mobile communications	[b-ITU-T J.111], [b-ITU-T J.115], [b-ITU-T J.195.1], [b-ITU-T J.196.2], [b-ITU-T J.366.0]
GSTN	General Switched Telephone Network	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.116]
GT	Global Time	[b-ITU-T J.112], [b-ITU-T J.116]
GUI	Graphic(al) User Interface	[b-ITU-T J.117], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702]
GUSS	GBA User Security Setting	[b-ITU-T J.360 Amendment 1]
GW	Gateway	[b-ITU-T J.170], [b-ITU-T J.700]
H.248	An ITU-T/IETF protocol for media gateway control. Also known as MEGACO. See <a href="http://www.itu.int">www.itu.int</a> .	[b-ITU-T J.175]
H/E	cable television Head-End	[b-ITU-T J.297]
HA	Home Access	[b-ITU-T J.190], [b-ITU-T J.192]
HA	High Availability	[b-ITU-T J.380.2]
HAL	Hardware Abstraction Layer	[b-ITU-T J.1201], [b-ITU-T J.1202]
HAN	Home Area Network	[b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.230]
HANC	Horizontal Ancillary data space in digital video streams	[b-ITU-T J.287]
HAVi	Home Audio Video Interoperability	[b-ITU-T J.117]
HAVi UI	Home Audio Video Interoperability, User Interface specification	[b-ITU-T J.200]
HB	Home Bridge	[b-ITU-T J.190]
HB	HiNoC Bridge	[b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
HC	Home Client	[b-ITU-T J.190]
HCI	Human-Computer Interaction	[b-ITU-T J.1201], [b-ITU-T J.1202]
HCS	Header Check Sequence	[b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]
HD	High Definition	[b-ITU-T J.181 Amendment 1], [b-ITU-T J.183], [b-ITU-T J.196.1], [b-ITU-T J.291], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.381], [b-ITU-T J.341], [b-ITU-T J.361], [b-ITU-T J.604], [b-ITU-T J.700], [b-ITU-T J.703], [b-ITU-T J.900], [b-ITU-T J.1005], [b-ITU-T J.1006], [b-ITU-T J.1011]

HD	Home Decoder	[b-ITU-T J.190]
HDCP	High-bandwidth Digital Content Protection system	[b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298]
HDCP	High-bandwidth Digital Content Protection	[b-ITU-T J.197], [b-ITU-T J.290], [b-ITU-T J.700]
HDD	Hard Disk Drive	[b-ITU-T J.230], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700]
HDLC	High-level Data Link Control	[b-ITU-T J.111]
HDMI	High-Definition Multimedia Interface	[b-ITU-T J.197], [b-ITU-T J.290], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702]
HDND	Home Digital Network Device	[b-ITU-T J.117]
HDNI	Home Digital Network Interface	[b-ITU-T J.700]
HDR	High Dynamic Range	[b-ITU-T J.297]
HDS	HTTP Dynamic Streaming	[b-ITU-T J.1005]
HD-SDI	High Definition – Serial Digital Interface	[b-ITU-T J.287]
HDTV	High Definition Television	[b-ITU-T J.151], [b-ITU-T J.183], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.341], [b-ITU-T J.604], [b-ITU-T J.900], [b-ITU-T J.381], [b-ITU-T J.388], [b-ITU-T J.700]
HE	Head End	[b-ITU-T J.186], [b-ITU-T J.190], [b-ITU-T J.192], [b-ITU-T J.292], [b-ITU-T J.296]
HE-AAC	High-Efficiency Advanced Audio Coding	[b-ITU-T J.296]
HEC	Header Error Control	[b-ITU-T J.83], [b-ITU-T J.112 Annex A], [b-ITU-T J.132]
HELLO	L2TPv3 Hello message	[b-ITU-T J.212]
HEVC	High Efficiency Video Coding	[b-ITU-T J.297], [b-ITU-T J.381], [b-ITU-T J.604], [b-ITU-T J.1006]
HEX	Hexadecimal	[b-ITU-T J.83], [b-ITU-T J.191], [b-ITU-T J.192]
HF	High Frequency	[b-ITU-T J.116], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]
HFC	Hybrid Fibre/Coax	[b-ITU-T J.160], [b-ITU-T J.361], [b-ITU-T J.700], [b-ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.212], [b-ITU-T J.222.3], [b-ITU-T J.295], [b-ITU-T J.298], [b-ITU-T J.381]
HFC	Hybrid Fibre Coax	[b-ITU-T J.164], [b-ITU-T J.173], [b-ITU-T J.186], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.214], [b-ITU-T J.382], [b-ITU-T J.460.2], [b-ITU-T J.1210], [b-ITU-T J.1600]
HFC	Hybrid Fibre Coaxial	[b-ITU-T J.128], [b-ITU-T J.290], [b-ITU-T J.1105], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109]
HFC	Hybrid Fibre-Coaxial	[b-ITU-T J.222.2], [b-ITU-T J.296]

HFC	Hybrid Fibre/Coax System	[b-ITU-T J.116], [b-ITU-T J.222.1]
HFC	Hybrid Fibre/Coax (HFC) System	[b-ITU-T J.122]
HFC	Hybrid-Fibre/Coax B], [b-ITU-T J.112 Annex C], [b-ITU-T J.170], [b-ITU-T J.193], [b-ITU-T J.294]	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.170], [b-ITU-T J.193], [b-ITU-T J.294]
HFC	Hybrid Fibre/Coaxial [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1005]	[b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1005]
HFC	Hybrid Fibre/Coaxial cable	[b-ITU-T J.161]
HFC	Hybrid Fibre and Coaxial [b-ITU-T J.223.2], [b-ITU-T J.900]	[b-ITU-T J.293], [b-ITU-T J.223.2], [b-ITU-T J.900]
HFC	Hybrid Fibre and Coaxial network	[b-ITU-T J.110]
HFC	Hybrid of Fibre-Coaxial	[b-ITU-T J.297]
HGW	Home Gateway	[b-ITU-T J.292]
HH	Horizontal High frequency component	[b-ITU-T J.88]
HiMAC	HiNoC MAC	[b-ITU-T J.195.3]
HiMAC	HiNoC 2.0 MAC	[b-ITU-T J.196.3]
HiNoC	High performance Network over Coax [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.196.3]	[b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
HL	High Level	[b-ITU-T J.388]
HLS	HTTP Live Streaming Amendment 1], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.1005]	[b-ITU-T J.181 Amendment 1], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.1005]
HM	HiNoC Modem [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]	[b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
HMAC	Keyed-Hashing for Message Authentication	[b-ITU-T J.125]
HMAC	Keyed-Hash Message Authentication Code [b-ITU-T J.222.3]	[b-ITU-T J.222.2], [b-ITU-T J.222.3]
HMAC	Hashed Message Authentication Code	[b-ITU-T J.1002]
HMAC	Hash-based Message Authentication Code Annex A], [b-ITU-T J.1003], [b-ITU-T J.1004]	[b-ITU-T J.112 Annex A], [b-ITU-T J.1003], [b-ITU-T J.1004]
HMAC	Hashed Message Authentication Code. A message authentication algorithm, based on either SHA-1 or MD5 hash and defined in IETF RFC 2104. [b-ITU-T J.170]	[b-ITU-T J.170]
HN	Home Network [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.702]	[b-ITU-T J.193], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.702]
HOVC	Higher Order Virtual Container	[b-ITU-T J.132]
HP	High Profile	[b-ITU-T J.296], [b-ITU-T J.388]
HPNA	Home Phoneline Networking Alliance	[b-ITU-T J.293], [b-ITU-T J.294]

HRC	Harmonic Related Carriers	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.222.1], [b-ITU-T J.700]
HRC	Hypothetical Reference Circuit	[b-ITU-T J.149], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6], [b-ITU-T J.244], [b-ITU-T J.342]
HRC	Hypothetical Reference Circuit or connection	[b-ITU-T J.21]
HSD	High Speed Data	[b-ITU-T J.700]
HSM	Hardware Security Module	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
HSMID	Hardware Security Module Identification	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
HSP	Home Security Portal	[b-ITU-T J.294]
HSS	Home Subscriber Server	[b-ITU-T J.262], [b-ITU-T J.360], [b-ITU-T J.460.1], [b-ITU-T J.700]
H-STB	Hybrid Set-Top-Box	[b-ITU-T J.294], [b-ITU-T J.295]
HT	Home Terminal	[b-ITU-T J.193]
HTML	Hyper Text Mark-up Language	[b-ITU-T J.117], [b-ITU-T J.200], [b-ITU-T J.201], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.701], [b-ITU-T J.702]
HTTP	Hyper Text Transport Protocol	[b-ITU-T J.120], [b-ITU-T J.124], [b-ITU-T J.190], [b-ITU-T J.298], [b-ITU-T J.380.1]
HTTP	Hyper Text Transfer Protocol	[b-ITU-T J.127], [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.177], [b-ITU-T J.200], [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.296], [b-ITU-T J.360], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.369], [b-ITU-T J.380.7], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.705], [b-ITU-T J.707], [b-ITU-T J.1006], [b-ITU-T J.1011]
HTTPS	Secure Hyper Text Transfer Protocol	[b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.700], [b-ITU-T J.707]
HTTPS	Hyper Text Transfer Protocol over Secure Socket Layer	[b-ITU-T J.296]
HTTPS	HTTP over SSL or HTTP Secure	[b-ITU-T J.380.7]
HTTPS	Hyper Text Transfer Protocol Security	[b-ITU-T J.702]
HV	Horizontal and Vertical	[b-ITU-T J.249]
HVS	Human Visual System	[b-ITU-T J.343.5], [b-ITU-T J.343.6]
HW	Hardware	[b-ITU-T J.296], [b-ITU-T J.701]
Hybrid-FR	Hybrid Full Reference	[b-ITU-T J.343], [b-ITU-T J.343.5], [b-ITU-T J.343.6]

Hybrid-FRe	Hybrid Full Reference encrypted	[b-ITU-T J.343], [b-ITU-T J.343.5]
Hybrid-NR	Hybrid No Reference [b-ITU-T J.343.1], [b-ITU-T J.343.2]	[b-ITU-T J.343],
Hybrid-NRe	Hybrid No Reference encrypted	[b-ITU-T J.343], [b-ITU-T J.343.1]
Hybrid-RR	Hybrid Reduced Reference	[b-ITU-T J.343], [b-ITU-T J.343.3]
Hybrid-RR	Hybrid Reduced Reference model	[b-ITU-T J.343.4]
Hybrid-RRe	Hybrid Reduced Reference encrypted	[b-ITU-T J.343], [b-ITU-T J.343.3]
Hz	Hertz (1 cycle per second)	[b-ITU-T J.142]
I	In-phase modulation component	[b-ITU-T J.222.1]
I, Q	In-phase, Quadrature phase components of the modulated signal	[b-ITU-T J.150]
I/F	Interface	[b-ITU-T J.296]
I/Q	In-Phase/Quadrature-Phase	[b-ITU-T J.142]
IAC	Intelligent Analyser and Controller	[b-ITU-T J.1600]
iAPR	A register affiliated with an asynchronous connection, that indicates how much of data has been produced	[b-ITU-T J.117]
IB	In-Band [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118]
IBB	Integrated Broadcast-Broadband [b-ITU-T J.207], [b-ITU-T J.302]	[b-ITU-T J.201], [b-ITU-T J.207], [b-ITU-T J.302]
IBB	Integrated Broadcast and Broadband [b-ITU-T J.206], [b-ITU-T J.1201], [b-ITU-T J.1202]	[b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.1201], [b-ITU-T J.1202]
IC	Interaction Channel [b-ITU-T J.114], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.112], [b-ITU-T J.114], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118]
IC	Interactive Channel	[b-ITU-T J.115]
IC	Inter-exchange Carrier	[b-ITU-T J.177]
IC	Integrated Circuit	[b-ITU-T J.296]
ICCIEK	Individual CAM Client Image Encryption Key	[b-ITU-T J.1003]
ICCN	L2TPv3 Incoming-Call-Connected message	[b-ITU-T J.212]
ICE	Interactive Connectivity Establishment [b-ITU-T J.362], [b-ITU-T J.460.1], [b-ITU-T J.700]	[b-ITU-T J.360], [b-ITU-T J.362], [b-ITU-T J.460.1], [b-ITU-T J.700]
ICID	IMS Charging Identity (ID)	[b-ITU-T J.363], [b-ITU-T J.460.3]
ICMP	Internet Control Message Protocol [b-IETF RFC 792] [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.161], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.298]	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.161], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.298]
ICMPv4	IPv4 version of the Internet Control Message Protocol	[b-ITU-T J.222.2]

ICMPv6	IPv6 version of the Internet Control Message Protocol	[b-ITU-T J.222.2]
I-CMTS	Integrated Cable Modem Termination System	[b-ITU-T J.222.2]
ICPAC	Interim CPAC	[b-ITU-T J.95]
ICRP	L2TPv3 Incoming-Call-Reply message	[b-ITU-T J.212]
ICRQ	L2TPv3 Incoming-Call-Request message	[b-ITU-T J.212]
I-CSCF	Interrogating-Call Session Control Function (CSCF) [b-ITU-T J.388], [b-ITU-T J.700]	[b-ITU-T J.360], [b-ITU-T J.388], [b-ITU-T J.700]
ICT	Information and Communication Technologies	[b-ITU-T J.296]
ID	IDentifier or Identifier [b-ITU-T J.280], [b-ITU-T J.290]	[b-ITU-T J.116], [b-ITU-T J.280], [b-ITU-T J.290]
Id	Identifier	[b-ITU-T J.181], [b-ITU-T J.218]
IDR	Instantaneous Decoding Refresh Amendment 1], [b-ITU-T J.286]	[b-ITU-T J.181]
IDS	Insertion Data Signal	[b-ITU-T J.92]
iDTV	integrated Digital TV	[b-ITU-T J.1011]
IDU	Interface Data Unit	[b-ITU-T J.82]
IE	Information Element [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.222.1], [b-ITU-T J.222.2]	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.222.1], [b-ITU-T J.222.2]
IE	Information Element (An element of a MAP message)	[b-ITU-T J.211]
IEV	International Electrotechnical Vocabulary	[b-ITU-T J.61]
IF	Intermediate Frequency [b-ITU-T J.116], [b-ITU-T J.151], [b-ITU-T J.185]	[b-ITU-T J.83], [b-ITU-T J.116], [b-ITU-T J.151], [b-ITU-T J.185]
IFDX	In-band Full Duplex	[b-ITU-T J.1109]
IFFT	Inverse Fast Fourier Transform [b-ITU-T J.196.2], [b-ITU-T J.382]	[b-ITU-T J.195.2], [b-ITU-T J.196.2], [b-ITU-T J.382]
IFG	Inter-Frame Gap	[b-ITU-T J.195.3], [b-ITU-T J.196.3]
IGD	Internet Gateway Device	[b-ITU-T J.296]
IGMP	Internet Group Management Protocol [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103]
IGMPv3	Internet Group Management Protocol, version 3	[b-ITU-T J.703]
IHK	Individual Hash Key	[b-ITU-T J.1003]
IIM	Interactive Interface Module [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118]
IOP	Internet Inter-ORB Protocol	[b-ITU-T J.111]

IJ	Injector	[b-ITU-T J.287]
IKE	A notation defined to refer to the use of IKE with pre-shared keys for authentication.	[b-ITU-T J.170]
IKE	Internet Key Exchange	[b-ITU-T J.177]
IKE	Internet Key Exchange is a key management mechanism used to negotiate and derive keys for SAs in IPsec.	[b-ITU-T J.170]
IM	Intensity Modulated	[b-ITU-T J.185]
IM	Intensity Modulation	[b-ITU-T J.186]
IM	Instant Messaging	[b-ITU-T J.700]
IM CN	IP Multimedia Core Network	[b-ITU-T J.360 Amendment 1]
IMDB	Intelligent Modelling Database	[b-ITU-T J.1600]
IMDTC	International multiple destination television connection	[b-ITU-T N.62]
IMPI	IM Private Identity	[b-ITU-T J.360 Amendment 1]
IMPU	IM Public Identity	[b-ITU-T J.360 Amendment 1]
IMPU	IMS Public Identity	[b-ITU-T J.460.3]
IMS	IP Multimedia Subsystem	[b-ITU-T J.360], [b-ITU-T J.366.0], [b-ITU-T J.363], [b-ITU-T J.367], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.704]
IN	Interactive Network	[b-ITU-T J.114]
INA	Interactive Network Adapter	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.163], [b-ITU-T J.170]
InfoSet	Information Set	[b-ITU-T J.181]
IOI	Inter-Operator Identifier	[b-ITU-T J.363], [b-ITU-T J.460.3]
IOR	Interoperable Object Reference	[b-ITU-T J.111]
IP	Internet Protocol	[b-ITU-T J.111], [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.120], [b-ITU-T J.121], [b-ITU-T J.122], [b-ITU-T J.124], [b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.162], [b-ITU-T J.163], [b-ITU-T J.164], [b-ITU-T J.167], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.195.1], [b-ITU-T J.197], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.216], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.2], [b-ITU-T J.224], [b-ITU-T J.230], [b-ITU-T J.241], [b-ITU-T J.245], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.288], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.362], [b-ITU-T J.363], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T

J.380.7], [b-ITU-T J.382], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1010], [b-ITU-T J.1011], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1106], [b-ITU-T J.1210]

IP	Internet Protocol. A network layer protocol	[b-ITU-T J.460.2]
IPAM	IPCablecom Application Manager (sometimes abbreviated as PAM)	[b-ITU-T J.365]
IPC	Inter Process Communications	[b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
IPC	Inter-Process Communication	[b-ITU-T J.1202]
IP-CAN	IP Connectivity Access Network	[b-ITU-T J.363], [b-ITU-T J.368]
IPCDN	IP over Cable Data Network – a working group of the IETF	[b-ITU-T J.192]
IPCMM	IPCablecom Multimedia	[b-ITU-T J.291]
IPCP	Internet Protocol Control Protocol	[b-ITU-T J.111]
IPDR	Internet Protocol Detail Record	[b-ITU-T J.204], [b-ITU-T J.222.1], [b-ITU-T J.222.2]
IPDR/SP	Internet Protocol Detail Record Streaming Protocol	[b-ITU-T J.204]
IPDV	IP Packet Delay Variation	[b-ITU-T J.294]
IPER	IP Packet Error Ratio	[b-ITU-T J.241], [b-ITU-T J.294]
IPF	Inbound Packet Filter	[b-ITU-T J.192]
IPG	Interactive Program Guide	[b-ITU-T J.294], [b-ITU-T J.702]
IPLR	IP Packet Loss Ratio	[b-ITU-T J.241], [b-ITU-T J.294]
IPPV	Impulse Pay Per View	[b-ITU-T J.94], [b-ITU-T J.700]
IPR	Intellectual Property Rights	[b-ITU-T J.222.3]
IPS	Internet Protocol Stream	[b-ITU-T J.282]
IPSec	Internet Protocol Security	[b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.177], [b-ITU-T J.192], [b-ITU-T J.261], [b-ITU-T J.360]
IPT	IP Telephone	[b-ITU-T J.703]
IPTD	IP Packet Transfer Delay	[b-ITU-T J.294]
IPTV	Internet Protocol Television	[b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.1011]
IPTV	IP Packet Television	[b-ITU-T J.381]
IPTV	TV using the Internet Protocol	[b-ITU-T J.1010]



IPv4	Internet Protocol version 4 [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.296], [b-ITU-T J.298]	[b-ITU-T J.120], [b-ITU-T J.120], [b-ITU-T J.120], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.296], [b-ITU-T J.298]
IPv4	Version 4 of the Internet Protocol	[b-ITU-T J.222.3]
IPv6	Internet Protocol version 6 [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700]	[b-ITU-T J.120], [b-ITU-T J.120], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700]
IPv6	Version 6 of the Internet Protocol	[b-ITU-T J.222.3]
IPVB	IP Video Broadcast	[b-ITU-T J.1210]
IQ	In-phase and Quadrature Components	[b-ITU-T J.112 Annex A], [b-ITU-T J.116]
IR	Infrared	[b-ITU-T J.296]
IRC	Incrementally-Related Carriers	[b-ITU-T J.116], [b-ITU-T J.700]
IRC	Incremental Related Carriers B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.222.1]	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.222.1]
IRC	Interface Reference Clock	[b-ITU-T J.151]
IRD	Integrated Receiver Decoder [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.83], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.116], [b-ITU-T J.118]
IRT	Initial Retransmission Time	[b-ITU-T J.218], [b-ITU-T J.222.2]
IRT	Integrated Receiver Transcoder	[b-ITU-T J.700]
ISA	Instruction Set Architecture	[b-ITU-T J.703]
ISAKMP	Internet Security Association and Key Management Protocol	[b-ITU-T J.170]
ISAN	International Standard Audiovisual Number	[b-ITU-T J.181]
ISCI	Industry Standard Commercial Identifier	[b-ITU-T J.181]
ISCM	Interactive Services Commercial Module (DVB)	[b-ITU-T J.118]
ISDB-S3	Integrated Services Digital Broadcasting for Satellite, 3 <sup>rd</sup> generation	[b-ITU-T J.383]
ISDB-T	Integrated Services Digital Broadcasting–Terrestrial	[b-ITU-T J.185], [b-ITU-T J.186]
ISDN	Integrated Services Digital Network [b-ITU-T J.111], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.161], [b-ITU-T J.700]	[b-ITU-T J.110], [b-ITU-T J.111], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.161], [b-ITU-T J.700]
ISDN	Integrated Switched Digital Network	[ITU-T J.115], [b-ITU-T J.116]
ISF	Individual Service Flow	[b-ITU-T J.222.2]
ISIM	IMS Subscriber Identity Module	[b-ITU-T J.360 Amendment 1]
ISMS	Information Security Management System	[b-ITU-T J.700]

ISP	Internet Service Provider	[b-ITU-T J.161], [b-ITU-T J.296]
ISS	Initialization Personalization Sub-System	[b-ITU-T J.1020]
ISTP	Internet Signalling Transport Protocol [b-ITU-T J.170], [b-ITU-T J.262]	[b-ITU-T J.160],
ISUP	Integrated Services Digital Network (ISDN) User Part [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.460.1]	[b-ITU-T J.160],
ITC	International Television Centre	[b-ITU-T N.62]
ITS	Insertion Test Signal	[b-ITU-T J.92]
ITV	Interactive Television	[b-ITU-T J.700]
iTV	interactive TV	[b-ITU-T J.703]
IUC	Interval Usage Code Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.222.1], [b-ITU-T J.222.2]	[b-ITU-T J.112
IV	Initialization Vector Annex A], [b-ITU-T J.222.3], [b-ITU-T J.1003]	[b-ITU-T J.112
IVR	Interactive Voice Response System	[b-ITU-T J.161]
IVR	Interactive Voice Response	[b-ITU-T J.170], [b-ITU-T J.175]
IVR	Interactive Voice Responder	[b-ITU-T J.460.1], [b-ITU-T J.460.3]
IW	Initialization word	[b-ITU-T J.81]
IWU	Inter-Working Unit	[b-ITU-T J.114]
JAR	Java Archive	[b-ITU-T J.700]
JCE	Java Cryptography Extension	[b-ITU-T J.700]
JMF	Java Media Framework	[b-ITU-T J.200]
JNI	Java Native Interface	[b-ITU-T J.1201]
JPG	JPEG image format	[b-ITU-T J.200]
JS	JavaScript	[b-ITU-T J.1201]
KDC	Key Distribution Centre ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.261], [b-ITU-T J.800.2]	[b-ITU-T J.170], [b- ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.261], [b-ITU-T J.800.2]
KDC	Key Distribution Center: the Authentication Server which implements the Kerberos PKINIT Authentication Protocol	[b-ITU-T J.369]
KDF	Key Derivation Function [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
KEK	Key Encryption Key	[b-ITU-T J.222.3]
kHz	kilo Hertz (1000 Hz)	[b-ITU-T J.142]
KID	Key Identification	[b-ITU-T J.1006]

KLAD	Key Ladder	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
KLv	Key-Length-Value coding	[b-ITU-T J.285]
KPI	Key Performance Indicator	[b-ITU-T J.1600]
KPK	Key Pairing Key [b-ITU-T J.1003], [b-ITU-T J.1004]	[b-ITU-T J.1002],
L	Level	[b-ITU-T J.296]
L*	Level* (e.g., L0 means Level Zero)	[b-ITU-T J.388]
L2	Layer 2 [b-ITU-T J.222.2], [b-ITU-T J.282]	[b-ITU-T J.213],
L2PDU	Layer 2 Protocol Data Unit	[b-ITU-T J.222.2]
L2TP	Layer 2 Transport Protocol	[b-ITU-T J.212]
L2TPv3	Layer 2 Transport Protocol – Version 3	[b-ITU-T J.212]
L2VPN	Layer 2 Virtual Private Network [b-ITU-T J.222.2], [b-ITU-T J.800.2]	[b-ITU-T J.213],
L3	Layer 3	[b-ITU-T J.212]
LA	License Agreement	[b-ITU-T J.1011]
LAC	L2TP Access Concentrator	[b-ITU-T J.212]
LAN	Local Access Network	[b-ITU-T J.296]
LAN	Local Area Network [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.117], [b-ITU-T J.122], [b-ITU-T J.190], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.1102], [b-ITU-T J.1210]	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.117], [b-ITU-T J.122], [b-ITU-T J.190], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.1102], [b-ITU-T J.1210]
LAN-Pass	LAN Passthrough Address Realm	[b-ITU-T J.190]
LAN-Pass	Pass-through LAN address	[b-ITU-T J.191]
LAN-Pass	Pass-through Local Area Network address	[b-ITU-T J.192]
LAN-Trans	LAN Translated Address Realm	[b-ITU-T J.190]
LAN-Trans	Translated LAN address	[b-ITU-T J.191]
LAN-Trans	Translated Local Area Network address	[b-ITU-T J.192]
LAP	Link Access Protocol	[b-ITU-T J.114]
LASDP	Local Application Service Delivery Platform	[b-ITU-T J.294]
Layer 3	Network layer 3 in OSI stack	[b-ITU-T J.292]
Layer 3	Network layer in OSI stack; Layer in firewall in which routing is based on IP address	[b-ITU-T J.290]
LBG	Load Balancing Group	[b-ITU-T J.222.2]
LC	Layer-1/2 Converter	[b-ITU-T J.190]
LCCE	L2TP Control Connection Endpoint	[b-ITU-T J.212]
LCD	Loss of Cell Delineation	[b-ITU-T J.132]

LCD	Liquid Crystal Display [b-ITU-T J.247], [b-ITU-T J.460.0]	[b-ITU-T J.246],
LCI	Logical CPE Interface	[b-ITU-T J.126]
LCN	Logical Channel Number	[b-ITU-T J.298]
LCP	Link Control Protocol	[b-ITU-T J.111]
LDPC	Low Density Parity Check	[b-ITU-T J.196.1], [b-ITU-T J.292]
LDPC	Low Density Parity Check (codes)	[b-ITU-T J.196.2], [b-ITU-T J.382]
LE	Line Extender	[b-ITU-T J.186]
LEC	Local Exchange Carrier	[b-ITU-T J.460.2]
LED	Light Emitting Diode	[b-ITU-T J.199], [b-ITU-T J.296], [b-ITU-T J.298]
LEN	Length	[b-ITU-T J.112]
LEN	Length (in bytes unless otherwise stated)	[b-ITU-T J.116]
LFSR	Linear Feedback Shift Register Annex A], [b-ITU-T J.116], [b-ITU-T J.222.1]	[b-ITU-T J.112]
LI	Lawful Intercept	[b-ITU-T J.362]
LIDB	Line Identification Database	[b-ITU-T J.460.3]
LLC	Link Layer Control	[b-ITU-T J.111]
LLC	Logical Link Control [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.126] [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.223.2], [b-ITU-T J.700] , [b-ITU-T J.383]	[b-ITU-T J.112], [b-ITU-T J.122]
LLC	Logical Link Control (LLC) procedure	[b-ITU-T J.116], [b-ITU-T J.122]
LLME	Lower Layer Management Entity	[b-ITU-T J.114]
LMC	Lost and Misinserted Cells	[b-ITU-T J.132]
LMCS	Local Multipoint Communication System	[b-ITU-T J.116]
LMDS	Local Multipoint Distribution System	[b-ITU-T J.110], [b-ITU-T J.116]
LNB	Low Noise Block	[b-ITU-T J.84], [b-ITU-T J.298]
LNP	Local Number Portability	[b-ITU-T J.177], [b-ITU-T J.178]
LNS	L2TP Network Server	[b-ITU-T J.212]
LoF	Loss of Frame [b-ITU-T J.132], [b-ITU-T J.214]	[b-ITU-T J.131],
LOM	Loss of Multiframe	[b-ITU-T J.132]
LOP	Loss of Pointer	[b-ITU-T J.132]

LoS	Loss of Signal [b-ITU-T J.132], [b-ITU-T J.214]	[b-ITU-T J.131],
LOVC	Lower Order Virtual Container	[b-ITU-T J.132]
LPCM	Linear Pulse Code Modulation	[b-ITU-T J.700]
LPF	Low Pass Filter	[b-ITU-T J.249]
LRN	Local Routing Number	[b-ITU-T J.178]
LSB	Least Significant Byte	[b-ITU-T J.96]
LSB	Least Significant Bit [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.117], [b-ITU-T J.195.3], [b-ITU-T J.197], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3]	[b-ITU-T J.83],
lsb	Least Significant Bit	[b-ITU-T J.96]
LSDI	Large Screen Digital Imagery	[b-ITU-T J.601], [b-ITU-T J.603]
LSSGR	LATA Switching System Generic Requirements	[b-ITU-T J.161]
LT	Local Time	[b-ITU-T J.112], [b-ITU-T J.116]
LTC	Longitudinal Time Code	[b-ITU-T J.89]
LTE	Long Term Evolution	[b-ITU-T J.1005]
LTI	Loss of Timing Inputs	[b-ITU-T J.132]
LUT	Look-Up Table [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6]	[b-ITU-T J.343.1],
LWUIT	Light Weight User Interface Toolkit	[b-ITU-T J.200]
M/N	Relationship of integer numbers M,N that represents the ratio of the downstream symbol clock rate to the DOCSIS master clock rate [b-ITU-T J.222.1], [b-ITU-T J.222.2]	[b-ITU-T J.212],
MAA	MPEG ATM Adaptation	[b-ITU-T J.131], [b-ITU-T J.132]
MAA	Multimedia-Auth-Answer	[b-ITU-T J.360 Amendment 1]
MAC	Multiplexed Analogue Component [b-ITU-T J.80], [b-ITU-T J.81]	[b-ITU-T N.62],
MAC	Message Authentication Code. A fixed-length data item that is sent together with a message to ensure integrity; also known as a MIC	[b-ITU-T J.170]
MAC	Medium Access Control [b-ITU-T J.114], [b-ITU-T J.388]	[b-ITU-T J.111],
MAC	Media Access Control Annex A], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.128], [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.172], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.196.3], [b-ITU-T J.212], [b-ITU-T J.213], [b-ITU-T J.214], [b-ITU-T J.218], [b-ITU-T	[b-ITU-T J.112]

J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.296], [b-ITU-T J.365], [b-ITU-T J.700], [b-ITU-T J.703], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1105]

MAC	Media Access Control layer	[b-ITU-T J.224]
MAC	Media Access Control. It is a sublayer of the Data Link Layer. It normally runs directly over the physical layer	[b-ITU-T J.170]
MAC	Media Access Control (Used to refer to the layer-2 element of the system, which would include DOCSIS framing and signalling)	[b-ITU-T J.126], [b-ITU-T J.211]
MAC	Media Access Control (MAC) procedure	[b-ITU-T J.122]
MAD	Mean Absolute Difference	[b-ITU-T J.249]
MAN	Metropolitan Area Network	[b-ITU-T J.223.2]
MAP	Bandwidth Allocation Map Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]	[b-ITU-T J.112]
MAP	Media Access Plan [b-ITU-T J.196.2], [b-ITU-T J.196.3]	[b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
MAR	Multimedia-Auth-Request	[b-ITU-T J.360 Amendment 1]
MATV	Master Antenna Television [b-ITU-T J.114], [b-ITU-T J.118], [b-ITU-T J.142], [b-ITU-T J.382]	[b-ITU-T J.111], [b-ITU-T J.114], [b-ITU-T J.118], [b-ITU-T J.142], [b-ITU-T J.382]
MB	Macro-Block	[b-ITU-T J.249]
MB	Megabyte	[b-ITU-T J.296]
mbps	Megabits per second	[b-ITU-T J.117]
Mbit	$2^{20} = 1,048,576$ bits	[b-ITU-T J.382]
Mbit/s	Mbit per second	[b-ITU-T J.382]
MBP	Management Boundary Point	[b-ITU-T J.192]
MC	Management Centre	[b-ITU-T J.96]
MC	Multimedia Centre equipment	[b-ITU-T J.112], [b-ITU-T J.116]
MC	Multipoint Controller	[b-ITU-T J.177]
MC	Motion Compensation	[b-ITU-T J.603]
MCE	Management and Control Entity	[b-ITU-T J.1600]
MCF	Management Client Function	[b-ITU-T J.190], [b-ITU-T J.192]
M-CMTS	Modular Cable Modem Termination System [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.700], [b-ITU-T J.800.2], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.210], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.700], [b-ITU-T J.800.2], [b-ITU-T J.1102], [b-ITU-T J.1103]
MCNS	Multimedia Cable Network System	[b-ITU-T J.112], [b-ITU-T J.116]

MCPT	Multiple Carriers per Transponder	[b-ITU-T J.94]
MD	Media Access Control Domain	[b-ITU-T J.222.2]
MD5	Message Digest 5	[b-ITU-T J.170]
MDBC	Maximum Downstream Bonded Channels	[b-ITU-T J.222.1]
MD-CM-SG	Media Access Control Domain Cable Modem Service Group	[b-ITU-T J.222.2]
MDD	MAC Domain Descriptor	[b-ITU-T J.222.3], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103]
MD-DS-SG	Media Access Control Domain Downstream Service Group	[b-ITU-T J.222.2]
MD-DS-SG-ID	Media Access Control Domain Downstream Service Group Identifier	[b-ITU-T J.222.2]
MDF	Multicast DSID Forwarding	[b-ITU-T J.222.2]
mDNS	multicast Domain Name System	[b-ITU-T J.230]
MDU	Multi-Dwelling Unit	[b-ITU-T J.700]
MD-US-SG	Media Access Control Domain Upstream Service Group	[b-ITU-T J.222.2]
MD-US-SG-ID	Media Access Control Domain Upstream Service Group Identifier	[b-ITU-T J.222.2]
mDVR	mobile Digital Video Recorder	[b-ITU-T J.700]
ME	Motion Estimation	[b-ITU-T J.603]
MEGACO	An IETF/ITU-T protocol for media gateway control. Also known as ITU-T Rec. H.248. See <a href="http://www.ietf.org">www.ietf.org</a> for details.	[b-ITU-T J.175]
MEK	Message Encryption Key	[b-ITU-T J.1003]
MER	Modulation Error Ratio	[b-ITU-T J.142], [b-ITU-T J.212], [b-ITU-T J.222.1]
MER	Modulation Error Rate	[b-ITU-T J.185]
MF	Multi-Frequency	[b-ITU-T J.160], [b-ITU-T J.178]
MG	Media Gateway	[b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.170], [b-ITU-T J.171.2], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.179], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.460.1]
MGC	Media Gateway Controller	[b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.164], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.172], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.179], [b-ITU-T J.261], [b-ITU-T J.360], [b-ITU-T J.460.0], [b-ITU-T J.460.1]
MGCI	Media Gateway Controller Interface	[b-ITU-T J.162]
MGCP	Media Gateway Control Protocol (refer to [b-IETF RFC 3435])	[b-ITU-T J.162], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.361]
MGF	Mask Generation Function	[b-ITU-T J.222.3]
MH	Multimedia Home equipment	[b-ITU-T J.112], [b-ITU-T J.116]

MHAv2	Second-generation Modular Headend Architecture	[b-ITU-T J.216]
MHP	Multimedia Home Platform [b-ITU-T J.200], [b-ITU-T J.700]	[b-ITU-T J.117],
MHz	Mega Hertz or 10 <sup>6</sup> Hertz	[b-ITU-T J.142], [b-ITU-T J.382]
MIB	Management Information Base [b-ITU-T J.160], [b-ITU-T J.162], [b-ITU-T J.166], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.172], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.199], [b-ITU-T J.212], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.290], [b-ITU-T J.295], [b-ITU-T J.362], [b-ITU-T J.369], [b-ITU-T J.370], [b-ITU-T J.460.4], [b-ITU-T J.702], [b-ITU-T J.800.2], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.111],
MIC	Message Integrity Check [b-ITU-T J.222.2], [b-ITU-T J.222.3]	[b-ITU-T J.126],
MID	Multiple UPID	[b-ITU-T J.181]
MIME	Multipurpose Internet Mail Extensions [b-ITU-T J.200], [b-ITU-T J.367]	[b-ITU-T J.127],
MIPS	Million Instructions Per Second	[b-ITU-T J.296]
MJD	Modified Julian Date	[b-ITU-T J.94]
MK	Master Key	[b-ITU-T J.1003]
MKE	Main Key Exchange	[b-ITU-T J.112 Annex A]
ML	Main Level	[b-ITU-T J.388]
MLD	Multicast Listener Discovery [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.280], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.700], [b-ITU-T J.702]	[b-ITU-T J.218],
MM	Multimedia	[b-ITU-T J.246], [b-ITU-T J.247]
MM 5b	MultiMedia video class 5b	[b-ITU-T J.249]
MMD	Multimedia Domain	[b-ITU-T J.361], [b-ITU-T J.367]
MMDS	Multichannel Multipoint Distribution System [b-ITU-T J.110], [b-ITU-T J.116], [b-ITU-T J.142], [b-ITU-T J.150]	[b-ITU-T J.83],
MMDS	Multi-channel Multi-point Distribution Systems	[b-ITU-T J.112 Annex A]
MMDS	Microwave Multipoint Distribution System	[b-ITU-T J.111], [b-ITU-T J.118]
MMH	Multilinear Modular Hash [b-ITU-T J.170], [b-ITU-T J.222.3]	[b-ITU-T J.160],
MMT	Modulation Mode Table	[b-ITU-T J.94]
MMT	MPEG Media Transport	[b-ITU-T J.297]
MO	Management Object	[b-ITU-T J.367]
MOCA	Multimedia Over Coax Alliance	[b-ITU-T J.294]
MON	Monitoring	[b-ITU-T J.131]



MOS	Mean Opinion Score	[b-ITU-T J.244], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
MOSp	Mean Opinion Score, predicted	[b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342]
MOV	Model Output Variable	[b-ITU-T J.145]
MP	Multilink Point-to-Point Protocol (PPP)	[b-ITU-T J.111]
MP	Management Point	[b-ITU-T J.132]
MP	Media Player	[b-ITU-T J.175]
MP	Main Profile	[b-ITU-T J.296], [b-ITU-T J.388]
MP3	MPEG-1 audio layer 3	[b-ITU-T J.700]
MP4	MPEG-4 File Format	[b-ITU-T J.124]
MPAC	Media Access Control layer	[b-ITU-T J.190]
MPC	Media Player Controller	[b-ITU-T J.175]
MPD	Media Presentation Description Amendment 1], [b-ITU-T J.1006]	[b-ITU-T J.181]
MPEG	Moving Picture Experts Group	[b-ITU-T J.302]
MPEG-2	Motion Picture Experts Group version 2 [b-ITU-T J.288], [b-ITU-T J.383], [b-ITU-T J.900]	[b-ITU-T J.183],
MPEG-2 TS	MPEG-2 Transport Stream	[b-ITU-T J.131]
MPEG-ES	Moving Picture Experts Group Elementary Stream	[b-ITU-T J.700]
MPEG-TS	MPEG Transport Stream	[b-ITU-T J.111], [b-ITU-T J.700]
MPEG-TS	Motion Picture Experts Group Transport Stream	[b-ITU-T J.211]
MPEG-TS	Moving Picture Experts Group Transport Stream	[b-ITU-T J.212]
MPF	Management Portal Function	[b-ITU-T J.190]
MPI	MPEG Physical Interface	[b-ITU-T J.131], [b-ITU-T J.132]
MPI	Main Path Interface	[b-ITU-T J.223.2]
MPLS	Multiprotocol Label Switching	[b-ITU-T J.192]
MPT	MPEG-TS mode of DEPI	[b-ITU-T J.212]
MPTS	Multiple Program(me) Transport Stream [b-ITU-T J.291], [b-ITU-T J.700]	[b-ITU-T J.290],
MPTS	Multi (-) Program Transport Stream [b-ITU-T J.212], [b-ITU-T J.280], [b-ITU-T J.287]	[b-ITU-T J.181],
MPU	Managed Private UPID	[b-ITU-T J.181]
MRC	Maximum Retransmission Count	[b-ITU-T J.218], [b-ITU-T J.222.2]

MRD	Maximum Retransmission Duration	[b-ITU-T J.218], [b-ITU-T J.222.2]
MRT	Maximum Retransmission Time [b-ITU-T J.222.2]	[b-ITU-T J.218],
MS	Mobile Station	[b-ITU-T J.115]
MS	Microwave Satellite	[b-ITU-T J.116]
MSA	Multiplex Section Adaptation	[b-ITU-T J.132]
MSAP	Media Access Control Service Access Point [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.222.2]	[b-ITU-T J.112],
MSB	Most significant Byte	[b-ITU-T J.96]
MSB	Most Significant Bit [b-ITU-T J.1122 Annex A], [b-ITU-T J.116], [b-ITU-T J.117], [b-ITU-T J.170], [b-ITU-T J.195.3], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.287], [b-ITU-T J.1004], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.83],
msb	Most Significant Bit	[b-ITU-T J.96]
MSC	Mobile Switching Centre	[b-ITU-T J.115]
MSC	Maximum Scheduled Codes	[b-ITU-T J.222.1], [b-ITU-T J.222.2]
MSE	Mean Squared Error	[b-ITU-T J.340]
MSE	Mean Square Error	[b-ITU-T J.343.5], [b-ITU-T J.343.6]
MSF	Management Server Function	[b-ITU-T J.190], [b-ITU-T J.192]
MSO	Multiple System Operator [b-ITU-T J.700], [b-ITU-T J.1001]	[b-ITU-T J.380.6],
MSO	Multiple Service Operator, a Cable Network Operator	[b-ITU-T J.97]
MSO	Multiple System Operator (A network operator)	[b-ITU-T J.369]
MSO	Multiple System Operators	[b-ITU-T J.381]
MSO	Multiple Systems Operator [b-ITU-T J.196.2], [b-ITU-T J.222.2], [b-ITU-T J.1002]	[b-ITU-T J.195.1],
MSOH	Multiplex Section Overhead	[b-ITU-T J.132]
MSS	Microsoft Smooth Streaming	[b-ITU-T J.1005]
MSS	Management Sub-System	[b-ITU-T J.1020]
MST	Multiplex Section Termination	[b-ITU-T J.132]
MST	Minimum Spanning Tree	[b-ITU-T J.703]
MT	Mobile Termination	[b-ITU-T J.115]
MTA	Multimedia Terminal Adapter [b-ITU-T J.128], [b-ITU-T J.161], [b-ITU-T J.163], [b-ITU-T J.171.2], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.179], [b-ITU-T J.190],	[b-ITU-T J.126],

	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.290], [b-ITU-T J.460.0], [b-ITU-T J.700]	
MTA	Media Terminal Adapter	[b-ITU-T J.160], [b-ITU-T J.162], [b-ITU-T J.164], [b-ITU-T J.166], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.172], [b-ITU-T J.173], [b-ITU-T J.175], [b-ITU-T J.260], [b-ITU-T J.261], [b-ITU-T J.262], [b-ITU-T J.263]
MTC	Multiple Transmit Channel	[b-ITU-T J.128], [b-ITU-T J.222.1]
MTIE	Maximum Time Interval Error	[b-ITU-T J.211]
MTP	Message Transfer Part	[b-ITU-T J.160]
MTTR	Mean Time to Repair	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122]
MTU	Multipoint Transceiver Unit	[b-ITU-T J.111]
MTU	Maximum Transfer Unit	[b-ITU-T J.118]
MTU	Maximum Transmission Unit	[b-ITU-T J.112 Annex A], [b-ITU-T J.128], [b-ITU-T J.212]
MULPI	MAC and Upper Layer Protocols Interface	[b-ITU-T J.222.1], [b-ITU-T J.222.2]
MUX	Multiplex	[b-ITU-T J.83], [b-ITU-T J.150], [b-ITU-T J.302 Amendment 1], [b-ITU-T J.702]
MVC	Multiview Video Coding	[b-ITU-T J.296]
MVDS	Multichannel Video Distribution System	[b-ITU-T J.142]
MVPD	Multichannel Video Programming	[b-ITU-T J.181 Amendment 1]
MVPD	Multichannel Video Programming Distributor	[b-ITU-T J.295], [b-ITU-T J.1020]
MW	Middleware	[b-ITU-T J.294]
mW	Milliwatt	[b-ITU-T J.142]
MWD	Maximum Waiting Delay	[b-ITU-T J.162], [b-ITU-T J.171.1], [b-ITU-T J.171.2]
MXF	Material Exchange Format	[b-ITU-T J.285]
MXF-GC	Material Exchange Format Generic Container	[b-ITU-T J.285]
NA	Not Applicable	[b-ITU-T J.382]
Na	Number of active codes	[b-ITU-T J.222.1]
NA(P)T	Network Address and Port Translation; used interchangeably with NAT	[b-ITU-T J.360]
NACF	Network Attachment Control Function(s)	[b-ITU-T J.700], [b-ITU-T J.702]
NACO	Network Access Control Object	[b-ITU-T J.222.1], [b-ITU-T J.222.2]
NAL	Network Adaptation Layer	[b-ITU-T J.286]

NAL	Network Abstraction Layer	[b-ITU-T J.1006]
NAPT	Network Address Port Translation	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.294], [b-ITU-T J.296]
NAS	Network Attached Storage	[b-ITU-T J.296]
NAT	Network Address Translator	[b-ITU-T J.160]
NAT	Network Address Translation	[b-ITU-T J.179], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.360], [b-ITU-T J.362], [b-ITU-T J.368], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.703], [b-ITU-T J.705]
NAT	Network Address Translation	[b-IETF RFC 1631], [b-IETF RFC 2663] and [b-IETF RFC 3022], [b-ITU-T J.190]
NAT	(IP) Network Address Translation	[b-ITU-T J.361]
NB	Narrow-Band	[b-ITU-T J.388]
NCL	Nested Context Language	[b-ITU-T J.200], [b-ITU-T J.201]
NCO	Network Controlled Oscillator	[b-ITU-T J.211]
NCS	Network Call Signalling	[b-ITU-T J.161], [b-ITU-T J.162], [b-ITU-T J.166], [b-ITU-T J.170], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.361], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2]
NCS	Network-based Call Signalling	[b-ITU-T J.160], [b-ITU-T J.163], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.175], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.360]
NCS	Network Call Signalling (the IP-Cablecom MGCP profile used for controlling calls)	[b-ITU-T J.173]
ND	Neighbour Discovery	[b-ITU-T J.218], [b-ITU-T J.222.2]
nDVR	network Digital Video Recorder	[b-ITU-T J.700]
NE	Network Element	[b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.290], [b-ITU-T J.362]
NFD	Normalized Frame Difference	[b-ITU-T J.249]
NFS	Network File System	[b-ITU-T J.205], [b-ITU-T J.206]
NGHE	Next Generation Headend	[b-ITU-T J.291]
NGN	Next Generation Network	[b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703]
NGNA	Next Generation Network Architecture, see NGNA LLC	[b-ITU-T J.210]
NG-STB	Next Generation Set-Top Box	[b-ITU-T J.292]
NG-STB-A	Next Generation STB Architecture	[b-ITU-T J.290]
NG-STB-MI-A	Next Generation Set-Top Box Media-Independent Architecture	[b-ITU-T J.292]

NHFE	Normalized High Frequency Energy	[b-ITU-T J.249]
NHM	New HiNoC Modem	[b-ITU-T J.195.3], [b-ITU-T J.196.3]
NIT	Network Information Table	[b-ITU-T J.94], [b-ITU-T J.183], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.296], [b-ITU-T J.383], [b-ITU-T J.700]
NIU	Network Interface Unit	[b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.290]
NLS	Network Layer Signalling	[b-ITU-T J.362]
NLS-TL	Network Layer Signalling Transport Layer	[b-ITU-T J.362]
NM	Noise Margin	[b-ITU-T J.142]
NMC	Network Management Centre (for conditional access)	[b-ITU-T J.91]
NMS	Network Management System	[b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.1], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.360], [b-ITU-T J.703]
No	Noise power normalized to 1 Hz	[b-ITU-T J.142]
NPD	Null Packet Deletion	[b-ITU-T J.383]
NPT	Normal Play Time	[b-ITU-T J.120], [b-ITU-T J.700]
NR	No (or zero) Reference	[b-ITU-T J.244], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2]
NS	Authoritative Name Server	[b-ITU-T J.192]
NSAP	Network Service Access Point	[b-ITU-T J.111], [b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.116]
NSI	Network Service Interface	[b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
NSI	Network Side Interface	[b-ITU-T J.222.2], [b-ITU-T J.223.2]
NT	Network Termination	[b-ITU-T J.282]
NTP	Network Time Protocol	[b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.280], [b-ITU-T J.287], [b-ITU-T J.702]
NTSC RF	National Television System Committee Radio Frequency	[b-ITU-T J.197]
NTU	Network Termination Unit	[b-ITU-T J.114]
NVM	Non-Volatile Memory	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
NVOD	Near Video on Demand	[b-ITU-T J.700]
NVRAM	Non Volatile Random Access Memory	[b-ITU-T J.170], [b-ITU-T J.296]
NW	Network	[b-ITU-T J.702]

NWK	Network	[b-ITU-T J.114]
°	Degrees Celsius	[b-ITU-T J.142]
O/E	Optical to Electrical	[b-ITU-T J.186]
OAM	Operation, Administration and Maintenance	[b-ITU-T J.196.1], [b-ITU-T J.223.2]
OATC	Open Authentication Technology Committee	[b-ITU-T J.181 Amendment 1]
OCAP	Open Cable Applications Platform	[b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.200], [b-ITU-T J.215], [b-ITU-T J.222.1], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.294], [b-ITU-T J.700]
OCB	Outbound Call Blocking	[b-ITU-T J.460.1], [b-ITU-T J.460.3]
OCSP	Online Certificate Status Protocol	[b-ITU-T J.222.3]
OCW	Odd control word	[b-ITU-T J.81]
OD	Output Device	[b-ITU-T J.702]
ODG	Objective Difference Grade	[b-ITU-T J.145]
OEM	Original Equipment Manufacturer	[b-ITU-T J.290]
OFDM	Orthogonal Frequency Division Modulation	[b-ITU-T J.224]
OFDM	Orthogonal Frequency Division Multiplex	[b-ITU-T J.142], [b-ITU-T J.382]
OFDM	Orthogonal Frequency Division Multiplexing	[b-ITU-T J.185], [b-ITU-T J.195.1], [b-ITU-T J.195.2], [b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.293], [b-ITU-T J.296]
OFDMA	Orthogonal Frequency Division Multiple Access	[b-ITU-T J.196.1], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
OH	OverHead	[b-ITU-T J.112 Annex A], [b-ITU-T J.116]
OID	Object Identification	[b-ITU-T J.170]
OID	Object Identifier	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.800.2]
OID	Object ID	[b-ITU-T J.218]
OID	Object Identifier. The sequence of integer positive numbers uniquely identifying the position of each MIB Object in the MIB Hierarchy	[b-ITU-T J.370]
OIPF	Open IPTV Forum	[b-ITU-T J.296]
OLT	Optical Line Terminal	[b-ITU-T J.195.1], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.281], [b-ITU-T J.292], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108]
OMA	Open Mobile Alliance	[b-ITU-T J.367], [b-ITU-T J.700]
OMA	Open Mobile Access	[b-ITU-T J.1010]

OMI	Optical Modulation Index	[b-ITU-T J.185]
OMI	Operation and Management Interface	[b-ITU-T J.223.2]
OMUX	Optical Multiplexer [b-ITU-T J.1107], [b-ITU-T J.1108]	[b-ITU-T J.1106],
ONT	Optical Network Terminal	[b-ITU-T J.186]
ONT	Optical Network Termination	[b-ITU-T J.190]
ONU	Optical Network Unit [b-ITU-T J.223.2], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.294], [b-ITU-T J.700]	[b-ITU-T J.195.1],
OOB	Out of Band [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.128], [b-ITU-T J.197]	[b-ITU-T J.112],
OOB	Out-of-Band	[b-ITU-T J.112 Annex A], [b-ITU-T J.700]
OoF	Out of Frame	[b-ITU-T J.214]
OpenGL	Open Graphics Library	[b-ITU-T J.296]
OpenGL ES	Open Graphics Library for Embedded Systems	[b-ITU-T J.296]
OPF	Outbound Packet Filter	[b-ITU-T J.192]
OR	Outlier Ratio	[b-ITU-T J.249]
ORO	Option Request Option	[b-ITU-T J.222.2]
OS	Operating System [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.701], [b-ITU-T J.1011], [b-ITU-T J.1027], [b-ITU-T J.1201], [b-ITU-T J.1202]	[b-ITU-T J.200],
OS	Operational System	[b-ITU-T J.230]
OSD	On-Screen Display [b-ITU-T J.151], [b-ITU-T J.206], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1011]	[b-ITU-T J.117],
OSD	On Screen Display	[b-ITU-T J.298]
OSGi	Open Services Gateway Initiative	[b-ITU-T J.294]
OSI	Open Systems Interconnection [b-ITU-T J.112], [b-ITU-T J.112 Annex A], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.122], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.287]	[b-ITU-T J.111],
OSPF	Open Shortest Path First	[b-ITU-T J.292]
OSPS	Operator Services Positioning System	[b-ITU-T J.178]
OSS	Operation Support System [b-ITU-T J.160], [b-ITU-T J.164], [b-ITU-T J.172], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.222.3], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.700], [b-ITU-T J.704], [b-ITU-T J.705], [b-ITU-T J.1600]	[b-ITU-T J.160], [b-ITU-T J.164], [b-ITU-T J.172], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.222.3], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.700], [b-ITU-T J.704], [b-ITU-T J.705], [b-ITU-T J.1600]
OSS	Operations Support Systems. The back-office software used for configuration, performance, fault, accounting, and security management. [b-ITU-T J.170]	[b-ITU-T J.170]

OSSI	Operations Support System Interface [b-ITU-T J.212], [b-ITU-T J.460.2], [b-ITU-T J.800.2]	[b-ITU-T J.210],
OSSI	Operations System Support Interface	[b-ITU-T J.222.2]
OT	Orthogonal Transform	[b-ITU-T J.240]
OTA	Over the Air	[b-ITU-T J.298]
OTP	One Time Programmable [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
OTT	Over-The-Top	[b-ITU-T J.1011]
OTT	Over The Top (over the open Internet) [b-ITU-T J.1010], [b-ITU-T J.1210]	[b-ITU-T J.298],
OUI	Organizationally Unique Identifier [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.296], [b-ITU-T J.800.1]	[b-ITU-T J.112],
OUI	Organization Unique Identifier [b-ITU-T J.117], [b-ITU-T J.122], [b-ITU-T J.218]	[b-ITU-T J.116],
P0	Profile Zero	[b-ITU-T J.388]
PAC	Provisioning, Activation and Configuration element (PAC element)	[b-ITU-T J.360]
PACM	Provisioning, Activation, Configuration, and Maintenance	[b-ITU-T J.293]
PACM	Provisioning, Activation, Configuration, and Management	[b-ITU-T J.360], [b-ITU-T J.705]
PairK	Pairing Key [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
PAL	Phase Alternating Line	[b-ITU-T J.185], [b-ITU-T J.222.1]
PAL	Phase Alternating Line standard (50 Hz TV)	[b-ITU-T J.244]
PAL	Phase Alternate Line [b-ITU-T J.197], [b-ITU-T J.702]	[b-ITU-T J.81],
PAL	Phase Alternate Line. (The European colour television format that evolved from the American NTSC standard.)	[b-ITU-T J.161]
PAM	IPCablecom Application Manager	[b-ITU-T J.360]
PAM	IPCablecom2 Application Manager	[b-ITU-T J.368]
PAMS	Provisioning and Alarm Management System	[b-ITU-T J.287]
PAP	Password Authentication Protocol	[b-ITU-T J.111]
PAPR	Peak to Average Power Ratio	[b-ITU-T J.382]
PAR	Peak to Average Ratio	[b-ITU-T J.222.1]
PAT	Program Association Table [b-ITU-T J.151], [b-ITU-T J.200], [b-ITU-T J.280],	[b-ITU-T J.94],
PAT	Programme Association Table	[b-ITU-T J.117], [b-ITU-T J.700]
PBP	Personal Basic Profile	[b-ITU-T J.700]



PC	Phase Compensation	[b-ITU-T J.88]
PC	Personal Computer [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.296]	[b-ITU-T J.190],
PCC	Policy and Charging Control	[b-ITU-T J.368]
PCEF	Policy and Charging Enforcement Function	[b-ITU-T J.368]
PCI	Peripheral Component Interface	[b-ITU-T J.197]
PCM	Pulse Code Modulation [b-ITU-T J.161], [b-ITU-T J.177], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.361], [b-ITU-T J.700]	[b-ITU-T J.21],
PCMM	PacketCable Multimedia	[b-ITU-T J.700]
PCNP	Premium Cable Network Platform	[b-ITU-T J.1600]
PCR	Programme Clock Reference	[b-ITU-T J.82]
PCR	Program Clock Reference [b-ITU-T J.133], [b-ITU-T J.181], [b-ITU-T J.200], [b-ITU-T J.211], [b-ITU-T J.280], [b-ITU-T J.292]	[b-ITU-T J.133], [b-ITU-T J.181], [b-ITU-T J.200], [b-ITU-T J.211], [b-ITU-T J.280], [b-ITU-T J.292]
PCR	Program Clock Reference. A time stamp in the Video Transport Stream from which decoder timing is derived.	[b-ITU-T J.212]
PCR	Plug Control Register	[b-ITU-T J.117]
PCRF	Policy Control and Charging Rules Function	[b-ITU-T J.263]
PCRF	Policy and Charging Rules Function	[b-ITU-T J.368]
P-CSCF	Proxy- Call Session Control Function (CSCF) [b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.368], [b-ITU-T J.388], [b-ITU-T J.460.1], [b-ITU-T J.460.3], [b-ITU-T J.700]	[b-ITU-T J.261], [b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.368], [b-ITU-T J.388], [b-ITU-T J.460.1], [b-ITU-T J.460.3], [b-ITU-T J.700]
PCSP	IPcablecom CMS Subscriber Provisioning	[b-ITU-T J.177]
PD	Photo Detector	[b-ITU-T J.186]
Pd	downlink Probe [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]	[b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
PD	Peripheral Device	[b-ITU-T J.702]
PDA	Personal Digital Assistant	[b-ITU-T J.246], [b-ITU-T J.247]
PDCR	Prime Differential Clock Recovery	[b-ITU-T J.214]
PDH	Plesiochronous Digital Hierarchy [b-ITU-T J.83], [b-ITU-T J.131]	[b-ITU-T J.81], [b-ITU-T J.83], [b-ITU-T J.131]
PDP	Policy Decision Point (defined in RFC 2753)	[b-ITU-T J.179]
PDS	Profile Delivery Server	[b-ITU-T J.360]
PDU	Protocol Data Unit [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.195.1], [b-ITU-T J.195.3], [b-ITU-T J.196.3], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]	[b-ITU-T J.82], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.195.1], [b-ITU-T J.195.3], [b-ITU-T J.196.3], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]
PDU	Packet Data Unit	[b-ITU-T J.700]
PE	Parameter Element	[b-ITU-T J.196.3]

PEAQ	Perceived Audio Quality	[b-ITU-T J.145]
PEG	Public, Education and Government access	[b-ITU-T J.700]
PEP	Policy Enforcement Point (defined in RFC 2753)	[b-ITU-T J.179]
PER	Packet Error Rate	[b-ITU-T J.222.2]
PES	Packetized Elementary bitStream	[b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
PES	Packetized Elementary Stream	[b-ITU-T J.94], [b-ITU-T J.181], [b-ITU-T J.200], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.286], [b-ITU-T J.293], [b-ITU-T J.603], [b-ITU-T J.700]
PES	Program Elementary Stream	[b-ITU-T J.151]
PEVQ-S	Perceptual Evaluation of Video Quality for Streaming	[b-ITU-T J.343.5], [b-ITU-T J.343.6]
PF	Platform	[b-ITU-T J.1005], [b-ITU-T J.1006]
PF	Packet Filter	[b-ITU-T J.192]
PHL	Physical	[b-ITU-T J.114]
PHS	Payload Header Suppression	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.163], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
PHSF	Payload Header Suppression Field	[b-ITU-T J.222.2]
PHSI	Payload Header Suppression Index	[b-ITU-T J.222.2]
PHSM	Payload Header Suppression Mask	[b-ITU-T J.222.2]
PHSR	Payload Header Suppression Rule	[b-ITU-T J.222.2]
PHSS	Payload Header Suppression Size	[b-ITU-T J.222.2]
PHSV	Payload Header Suppression Verify	[b-ITU-T J.222.2]
PHY	Physical	[b-ITU-T J.196.1]
PHY	Physical layer	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.190], [b-ITU-T J.195.1], [b-ITU-T J.210], [b-ITU-T J.216], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.224], [b-ITU-T J.281], [b-ITU-T J.290], [b-ITU-T J.381], [b-ITU-T J.382], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
PHY	Physical Layer (Used to refer to the downstream QAM transmitters and the upstream burst demodulators (receiver)	[b-ITU-T J.211]
PID	Packet Identification number	[b-ITU-T J.96]
PID	Packet Identifier	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.181], [b-ITU-T J.183], [b-ITU-T J.200], [b-ITU-T J.222.2], [b-ITU-T J.280], [b-ITU-T J.286], [b-ITU-T J.287], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.298], [b-ITU-T J.702], [b-ITU-T J.1102], [b-ITU-T J.1103]

PID	Packet Identifier, defined by ISO/IEC 13818 (MPEG-2) [b-ITU-T J.112 Annex A]	
PID	Packet Identifier used in MPEG-TS	[b-ITU-T J.211]
PID	Packet Identifier; PID (system): A unique integer value used to identify elementary streams of a program in a single or multi-program Transport Stream as described in 2.4.3 of [H.222.0   ISO 13818-1]	[b-ITU-T J.212]
PID	Packet Identifier Field	[b-ITU-T J.343.6]
PID	Packet Identification	[b-ITU-T J.1026], [b-ITU-T J.1027]
PID	Program Identifier	[b-ITU-T J.117], [b-ITU-T J.151]
PID	Programme Identification	[b-ITU-T J.302 Amendment 1]
PIDF	Presence Information Data Format	[b-ITU-T J.367]
PIDF-LO	Presence Information Data Format Location Object	[b-ITU-T J.460.1]
PIM	Protocol Independent Multicast	[b-ITU-T J.222.2]
PIMSM	Protocol Independent Multicast Sparse Mode	[b-ITU-T J.292]
PIN	Personal Identification Number [b-ITU-T J.261], [b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.702], [b-ITU-T J.1011]	[b-ITU-T J.260], [b-ITU-T J.261], [b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.702], [b-ITU-T J.1011]
PING	Packet Inter-Network Grouper	[b-ITU-T J.191], [b-ITU-T J.192]
PIN-PD	p-i-n Photo Diode	[b-ITU-T J.185]
PIP	Picture-In-Picture	[b-ITU-T J.117], [b-ITU-T J.700]
PIP	Picture in Picture	[b-ITU-T J.298]
PKCROSS	Utilizes PKINIT for establishing the inter-realm keys and associated inter-realm policies to be applied in issuing cross-realm service tickets between realms and domains in support of Intradomain and Interdomain CMS-to-CMS signalling (CMSS).	[b-ITU-T J.170]
PKCS	Public Key Cryptography Standards	[b-ITU-T J.170]
PKI	Public Key Infrastructure [b-ITU-T J.192], [b-ITU-T J.222.3], [b-ITU-T J.261]	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.3], [b-ITU-T J.261]
PKI	Public Key Infrastructure. A process for issuing public key certificates, which includes standards, Certification Authorities, communication between authorities and protocols for managing certification processes.	[b-ITU-T J.170]
PKINIT	Public Key Cryptography for Initial Authentication [b-ITU-T J.192], [b-ITU-T J.261]	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.261]
PL	Path Layer	[b-ITU-T J.131]
PLC	Power Line Communication	[b-ITU-T J.294]
PLC	Packet Loss Concealment	[b-ITU-T J.361]
PLL	Phase Locked Loop [b-ITU-T J.211], [b-ITU-T J.222.1]	[b-ITU-T J.81], [b-ITU-T J.211], [b-ITU-T J.222.1]

PLM	Payload Label Mismatch	[b-ITU-T J.132]
PLP	Physical Layer Pipe	[b-ITU-T J.382]
PLR	Packet Loss Ratio	[b-ITU-T J.241]
PM	Primary Mark	[b-ITU-T J.95]
PM	Pulse Modulation [b-ITU-T J.112 Annex A], [b-ITU-T J.116]	[b-ITU-T J.112], [b-ITU-T J.116]
PM	Phase Modulation	[b-ITU-T J.116]
PM	Programme Material	[b-ITU-T J.285]
PMD	Physical Media Dependent sublayer [b-ITU-T J.116], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2]	[b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2]
PMD	Physical Media Dependent B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]
PMT	Program Map Table [b-ITU-T J.117], [b-ITU-T J.151], [b-ITU-T J.200], [b-ITU-T J.215], [b-ITU-T J.280], [b-ITU-T J.287], [b-ITU-T J.302]	[b-ITU-T J.94], [b-ITU-T J.117], [b-ITU-T J.151], [b-ITU-T J.200], [b-ITU-T J.215], [b-ITU-T J.280], [b-ITU-T J.287], [b-ITU-T J.302]
PMT	Program Map Table (see [ITU-T H.222.0])	[b-ITU-T J.181]
PMT	Programme Map Table	[b-ITU-T J.96], [b-ITU-T J.700]
PN	Pseudo random Noise	[b-ITU-T J.83]
PNG	Portable Network Graphics	[b-ITU-T J.200], [b-ITU-T J.700]
PoC	Push-to-Talk over Cellular	[b-ITU-T J.367]
PODM	Placement Opportunity Data Model	[b-ITU-T J.380.3]
POH	Path Overhead	[b-ITU-T J.132]
POIS	Opportunity Information Service [b-ITU-T J.380.2], [b-ITU-T J.380.5], [b-ITU-T J.706]	[b-ITU-T J.380.1], [b-ITU-T J.380.2], [b-ITU-T J.380.5], [b-ITU-T J.706]
PON	Passive Optical Network [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.297], [b-ITU-T J.700], [b-ITU-T J.1107], [b-ITU-T J.1108],	[b-ITU-T J.185], [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.297], [b-ITU-T J.700], [b-ITU-T J.1107], [b-ITU-T J.1108],
POTS	Plain Old Telephone Service	[b-ITU-T J.173], [b-ITU-T J.460.2]
PP	Portable Part	[b-ITU-T J.114]
PPD	Pay Per Day	[b-ITU-T J.296]
PPI	Phase parity identifier	[b-ITU-T J.81]
PPI	PDH Physical Interface	[b-ITU-T J.131]
ppm	Parts per million	[b-ITU-T J.83], [b-ITU-T J.210]
PPP	Point-to-Point Protocol [b-ITU-T J.114], [b-ITU-T J.200], [b-ITU-T J.212], [b-ITU-T J.287]	[b-ITU-T J.111], [b-ITU-T J.114], [b-ITU-T J.200], [b-ITU-T J.212], [b-ITU-T J.287]
PPS	Picture Parameter Set	[b-ITU-T J.286]
PPT	PDH Path Termination	[b-ITU-T J.131]

PPV	Pay Per View	[b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.704], [b-ITU-T J.705]
PPV	Pay-Per-View	[b-ITU-T J.1201]
PRACK	Provisional Response ACKnowledgement	[b-ITU-T J.263]
PRACK	Provisional Acknowledgement	[b-ITU-T J.460.1]
PRBS	Pseudo Random Binary Sequence	[b-ITU-T J.83], [b-ITU-T J.142]
PRF	Pseudo Random number generation Function	[b-ITU-T J.1003], [b-ITU-T J.1004]
PRG	Pseudo-random (sequence) generator	[b-ITU-T J.81]
PRG	Pseudo-Random (digital sequence) Generator	[b-ITU-T J.91]
PRNG	Pseudo Random Number Generator	[b-ITU-T J.1003], [b-ITU-T J.1004]
PRNG	Pseudo-Random Number Generator	[b-ITU-T J.112 Annex A]
Prop Trans	Proprietary Translated Address Realm	[b-ITU-T J.190]
PRS	Primary Reference Source	[b-ITU-T J.222.1]
PS	Portal Service	[b-ITU-T J.126], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.290], [b-ITU-T J.800.2]
PS	Program(me) Segment	[b-ITU-T J.140], [b-ITU-T J.245]
PS	Provisioning Server	[b-ITU-T J.177]
PS	Policy Server	[b-ITU-T J.179], [b-ITU-T J.362], [b-ITU-T J.363], [b-ITU-T J.365], [b-ITU-T J.368]
PS	Program Stream	[b-ITU-T J.296]
PS WAN-Data	Portal Service element WAN data interface	[b-ITU-T J.191]
PS WAN-Data	IPCable2Home Portal Services element WAN data interface	[b-ITU-T J.192]
PS WAN-Man	Portal Service element WAN management interface	[b-ITU-T J.191]
PS WAN-Man	IPCable2Home Portal Services element WAN management interface	[b-ITU-T J.192]
PSAP	Public Safety Answering Point – the entity that answers 9-1-1 calls	[b-ITU-T J.460.1]
PSD	Power Spectral Density	[b-ITU-T J.195.2], [b-ITU-T J.196.2]
PSI	Program/program-/programme Specific Information	[b-ITU-T J.94], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.142], [b-ITU-T J.212], [b-ITU-T J.280], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.293], [b-ITU-T J.297], [b-ITU-T J.302], [b-ITU-T J.700], [b-ITU-T J.900]
PSI	Public Service Identity	[b-ITU-T J.360]

PSI	Pairing Status Information	[b-ITU-T J.1002]
PSIP	Program and System Information Protocol [b-ITU-T J.151], [b-ITU-T J.200], [b-ITU-T J.302]	[b-ITU-T J.117], [b-ITU-T J.142], [b-ITU-T J.185]
PSK	Phase Shift Keying	[b-ITU-T J.116], [b-ITU-T J.142], [b-ITU-T J.185]
PSL	Physical Section Layer	[b-ITU-T J.131]
PSNR	Peak Signal-to-Noise Ratio	[b-ITU-T J.147], [b-ITU-T J.240], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.340], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343]
PSNR <sub>const</sub>	Peak Signal to Noise Ratio with Compensation for Constant Spatial Shifts, Constant Temporal Shift, and Constant Luminance Gain and Offset	[b-ITU-T J.340]
PSP	Packet Streaming Protocol	[b-ITU-T J.212]
PSPN	Public Switched Packet Network	[b-ITU-T J.91]
PSS	Policy Sub-System	[b-ITU-T J.1020]
PSTN	Public Switched Telephone Network	[b-ITU-T J.111], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.162], [b-ITU-T J.163], [b-ITU-T J.164], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.171.2], [b-ITU-T J.173], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.179], [b-ITU-T J.260], [b-ITU-T J.261], [b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.700]
PSU	Power Supply Unit	[b-ITU-T J.298]
PT	Payload Type	[b-ITU-T J.132]
PTC	Physical Transmission Channel	[b-ITU-T J.200]
PTS	Presentation Time Stamp (see [ITU-T H.222.0])	[b-ITU-T J.94], [b-ITU-T J.181], [b-ITU-T J.200], [b-ITU-T J.287], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
Pu	uplink Probe	[b-ITU-T J.195.2], [b-ITU-T J.195.3], [b-ITU-T J.196.2], [b-ITU-T J.196.3]
PUSI	Payload Unit Start Indicator	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.211], [b-ITU-T J.222.2], [b-ITU-T J.1103]
PVD	Preferred Viewing Distance	[b-ITU-T J.140]
PVR	Personal Video Recorder	[b-ITU-T J.181 Amendment 1], [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.1010], [b-ITU-T J.1011]
PVR	Personal Video Recording	[b-ITU-T J.193]
PVS	Processed Video Sequence	[b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
PW	Pseudowire	[b-ITU-T J.212]

PW	Pseudo Wire	[b-ITU-T J.214], [b-ITU-T J.800.2]
Q	Quadrature modulation component	[b-ITU-T J.210], [b-ITU-T J.222.1]
QAM	Quadrature Amplitude Modulation	[b-ITU-T J.83], [b-ITU-T J.112 Annex A], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.122], [b-ITU-T J.142], [b-ITU-T J.150], [b-ITU-T J.183], [b-ITU-T J.185], [b-ITU-T J.186], [b-ITU-T J.195.2], [b-ITU-T J.196.2], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.224], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.381], [b-ITU-T J.382], [b-ITU-T J.604], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104], [b-ITU-T J.1105], [b-ITU-T J.1201]
QBP	Quality of Service Boundary Point	[b-ITU-T J.192]
QCC	Quality of Service Characteristics Client	[b-ITU-T J.192]
QCF	QoS Client Function	[b-ITU-T J.190]
QCIF	Quarter Common Intermediate Format [b-ITU-T J.177], [b-ITU-T J.361]	[b-ITU-T J.161], [b-ITU-T J.177], [b-ITU-T J.361]
QCIF	Quarter Common Intermediate Format (176 x 144 pixels)	[b-ITU-T J.246], [b-ITU-T J.247]
QCS	Quality of Service Characteristics Server	[b-ITU-T J.192]
QEF	Quasi Error Free	[b-ITU-T J.142], [b-ITU-T J.83]
QFM	Quality of Service Forwarding & Media Access	[b-ITU-T J.192]
QKE	Quick Key Exchange	[b-ITU-T J.112 Annex A]
QoE	Quality of Experience	[b-ITU-T J.702]
QoS	Quality of Service	[b-ITU-T J.82], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.125], [b-ITU-T J.145], [b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.163], [b-ITU-T J.166], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.197], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.241], [b-ITU-T J.261], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.298], [b-ITU-T J.340], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.362], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.382], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.704], [b-ITU-T J.705], [b-ITU-T J.800.2], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
QP	Quality Parameter [b-ITU-T J.245] Quantization Parameter [b-ITU-T J.343.2], [b-ITU-T J.343.4]	[b-ITU-T J.140], [b-ITU-T J.245] Quantization Parameter [b-ITU-T J.343.2], [b-ITU-T J.343.4]
QPF	QoS Portal Function	[b-ITU-T J.190]
QPSK	Quadrature Phase-Shift Keying	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.185], [b-ITU-T

	J.186], [b-ITU-T J.195.2], [b-ITU-T J.196.2], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.290], [b-ITU-T J.700]	
QPSK	Quaternary Phase Shift Keying	[b-ITU-T J.84], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.142], [b-ITU-T J.150],
QR	Quick Response	[b-ITU-T J.230]
QSF	QoS Server Function	[b-ITU-T J.190]
RA	Radio Adaptation	[b-ITU-T J.11]
RA	Repeater Amplifier	[b-ITU-T J.185]
RA	Receiver Amplifier	[b-ITU-T J.186]
RA	Router Advertisement	[b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.282]
RACF	Remote Activation of Call Forwarding	[b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3]
RACF	Resource Admission Control Functions	[b-ITU-T J.700], [b-ITU-T J.702]
RADIUS	Remote Authentication Dial-In User Service	[b-ITU-T J.170], [b-ITU-T J.363]
RADIUS	Remote Authentication Dial-In User Service (defined in RFC 2138 and RFC 2139)	[b-ITU-T J.179]
RAI	Remote Alarm Indication	[b-ITU-T J.214]
RAL	Resource Abstraction Layer	[b-ITU-T J.701], [b-ITU-T J.702]
RAM	Random Access Memory	[b-ITU-T J.192], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.1201]
RAN	Regional Area Network	[b-ITU-T J.290]
RAP	Radio in the local loop Access Profile	[b-ITU-T J.114]
RAP	Resource Allocation Protocol	[b-ITU-T J.163]
RAP	Resource Allocation Protocol (Working Group in the IETF – responsible for the definition and maintenance of the COPS protocol)	[b-ITU-T J.179]
RAS	Registration, Admissions and Status	[b-ITU-T J.177]
RBSP	Raw Byte Sequence Payload	[b-ITU-T J.286]
RC	Reason Code	[b-ITU-T J.296]
RC4	A variable key length stream cipher offered in the ciphersuite, used to encrypt the media traffic in IPCablecom.	[b-ITU-T J.170]
RCA	Radio Corporation of America	[b-ITU-T J.296]
RCAS	Renewable Conditional Access System	[b-ITU-T J.1002], [b-ITU-T J.1003], [b-ITU-T J.1004], [b-ITU-T J.1020]
RCC	Receive Channel Configuration(s)	[b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.800.0]



RCD	Resource Control Domain	[b-ITU-T J.179]
RCID	Receive Channel Identifier	[b-ITU-T J.222.2]
RCP	Receive Channel Profile [b-ITU-T J.222.2], [b-ITU-T J.800.0]	[b-ITU-T J.222.1],
RCP-ID	Receive Channel Profile Identifier	[b-ITU-T J.222.2]
RCS	Receive Channel Set	[b-ITU-T J.222.2]
RCU	Remote Control Unit	[b-ITU-T J.230], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298]
RD	Router Discovery	[b-ITU-T J.218]
RDA	Rate-Determination Algorithm	[b-ITU-T J.361]
RDI	Remote Defect Indication	[b-ITU-T J.131], [b-ITU-T J.132]
RDN	Relative Distinguished Name	[b-ITU-T J.192]
RE	Reservation Element	[b-ITU-T J.195.3]
REE	Rich Execution Environment	[b-ITU-T J.1201], [b-ITU-T J.1202]
REG-REQ	Registration Request MAC Message	[b-ITU-T J.222.1]
REI	Remote Error Indication	[b-ITU-T J.132]
REQ	Request indicator used in Annex B	[b-ITU-T J.112], [b-ITU-T J.116]
Reservation Id	Reservation Identifier	[b-ITU-T J.112 Annex A]
RF	Radio Frequency	[b-ITU-T J.83], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.114], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.126], [b-ITU-T J.142], [b-ITU-T J.150], [b-ITU-T J.151], [b-ITU-T J.185], [b-ITU-T J.195.2], [b-ITU-T J.196.2], [b-ITU-T J.197], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.216], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.381], [b-ITU-T J.604], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109]
RF4CE	Radio Frequency for Consumer Electronics	[b-ITU-T J.296]
RFC	Request for Comments	[b-ITU-T J.111], [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.212], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.294], [b-ITU-T J.296], [b-ITU-T J.361], [b-ITU-T J.365]
RFC	Request for Comments (IETF standard)	[b-ITU-T J.178]
RFC	Request for Comments (technical policy documents approved by the IETF which are available at <a href="http://www.ietf.org/rfc.html">http://www.ietf.org/rfc.html</a> )	[b-ITU-T J.179]
RFC	Request for Comments. Technical policy documents approved by the IETF which are available on the World Wide Web at <a href="http://www.ietf.cnri.reston.va.us/rfc.html">http://www.ietf.cnri.reston.va.us/rfc.html</a>	[b-ITU-T J.370], [b-ITU-T J.460.4]

RFI	Remote Failure Indication	[b-ITU-T J.132]
RFI	Radio Frequency Interface	[b-ITU-T J.170], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.460.4], [b-ITU-T J.800.2]
RFI	Radio Frequency Interface (specification defining MAC and Physical layer interfaces between CMTS and CM network elements)	[b-ITU-T J.179]
RFoG	Radio Frequency (RF) over Glass	[b-ITU-T J.294], [b-ITU-T J.381], [b-ITU-T J.700]
RF(oG)	Radio Frequency (over Glass)	[b-ITU-T J.382]
RG	Residential Gateway	[b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.705]
RGB	Red Green Blue	[b-ITU-T J.197], [b-ITU-T J.700]
RGW	Residential Gateway	[b-ITU-T J.292]
RIN	Relative Intensity Noise	[b-ITU-T J.185], [b-ITU-T J.186]
RIP	Relative Interaction Path	[b-ITU-T J.116]
RIP	Routing Information Protocol	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]
RJ	Registered Jack	[b-ITU-T J.296]
RJ-11	Registered Jack-11	[b-ITU-T J.161]
RKS	Record Keeping Server	[b-ITU-T J.160], [b-ITU-T J.164], [b-ITU-T J.179], [b-ITU-T J.360], [b-ITU-T J.363]
RKS	Record Keeping Server. The device which collects and correlates the various Event Messages	[b-ITU-T J.170]
RLL	Radio in the Local Loop	[b-ITU-T J.114]
RLS	Resource List Server	[b-ITU-T J.367]
RM	Receive Module	[b-ITU-T J.222.1], [b-ITU-T J.222.2]
RMS	Root Mean Square	[b-ITU-T J.116], [b-ITU-T J.142], [b-ITU-T J.185], [b-ITU-T J.222.1]
RMS	Rights Management System	[b-ITU-T J.290]
RMSE	Root Mean Square Error	[b-ITU-T J.149], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343]
RMS-FUS	Remote Management and Firmware Update Services	[b-ITU-T J.705]
RNG	Ranging	[b-ITU-T J.112], [b-ITU-T J.116]
RNG	Random Number Generator	[b-ITU-T J.1026]
RNG-RSP	Ranging Response MAC Message	[b-ITU-T J.222.1]

ROH	Receiver-Off-Hook, also known as "howler tone"	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
ROI	Region Of Interest	[b-ITU-T J.343.5], [b-ITU-T J.343.6]
RoIP	Radio over Internet Protocol	[b-ITU-T J.1106]
RoIP	Radio over IP	[b-ITU-T J.1107], [b-ITU-T J.1108]
ROM	Read-Only Memory [b-ITU-T J.192], [b-ITU-T J.206], [b-ITU-T J.296], [b-ITU-T J.1011]	[b-ITU-T J.126], [b-ITU-T J.1011]
ROM	Read Only Memory	[b-ITU-T J.298]
R-P	Resource Priority	[b-ITU-T J.263]
RPC	Remote Procedure Call [b-ITU-T J.296], [b-ITU-T J.380.7], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]	[b-ITU-T J.111], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
rpchof	Remainder polynomial coefficients, highest order first [b-ITU-T J.183]	[b-ITU-T J.181], [b-ITU-T J.183]
RR	Radio Relay	[b-ITU-T J.132]
RR	Reduced Reference [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.3], [b-ITU-T J.343.4],	[b-ITU-T J.244], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.3], [b-ITU-T J.343.4],
RRNR-TV	Reduced Reference and No Reference objective models for standard definition TeleVision	[b-ITU-T J.249]
RS or R/S	Reed-Solomon/Reed Solomon(coding) [b-ITU-T J.83], [b-ITU-T J.116], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.142], [b-ITU-T J.222.1]	[b-ITU-T J.82], [b-ITU-T J.83], [b-ITU-T J.116], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.142], [b-ITU-T J.222.1]
RS	Router Solicitation	[b-ITU-T J.222.2]
RSA	An algorithm for public-key encryption invented by Ron Rivest, Adi Shamir and Len Adleman	[b-ITU-T J.366.8]
RSA	Public key cryptosystem developed by Rivest, Shamir, Adleman; also company by same name marketing public key technology	[b-ITU-T J.290]
RSA	Rivest, Shamir, Adleman(a public key cryptographic algorithm)	[b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
RSIP	Realm Specific IP	[b-ITU-T J.170]
RSOH	Regenerator Section Overhead	[b-ITU-T J.132]
RST	Regenerator Section Termination	[b-ITU-T J.132]
RST	Residential SIP Telephony [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.460.3], [b-ITU-T J.460.4], [b-ITU-T J.704], [b-ITU-T J.800.0]	[b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.460.3], [b-ITU-T J.460.4], [b-ITU-T J.704], [b-ITU-T J.800.0]
RSVP	Resource reSerVation Protocol [b-ITU-T J.161], [b-ITU-T J.163], [b-ITU-T J.170], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.290], [b-ITU-T J.361], [b-ITU-T J.700]	[b-ITU-T J.161], [b-ITU-T J.163], [b-ITU-T J.170], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.290], [b-ITU-T J.361], [b-ITU-T J.700]
RSVP	Resource ReSerVation Protocol (defined in RFC 2205)	[b-ITU-T J.179]

RSVP	Resource ReSerVation Protocol [b-IETF RFC 2210]	[b-ITU-T J.190]
RSVP	Resource reSerVation setup Protocol	[b-ITU-T J.703]
RSVP+	IPCablecom profile and extension of RSVP (defined in the IPCablecom DQoS Recommendation)	[b-ITU-T J.179]
RTCP	Real Time Control Protocol [b-ITU-T J.171.1], [b-ITU-T J.192], [b-ITU-T J.241], [b-ITU-T J.361], [b-ITU-T J.460.2]	[b-ITU-T J.170],
RTCP	Real-time Transport Control Protocol [b-ITU-T J.161], [b-ITU-T J.460.1], [b-ITU-T J.700]	[b-ITU-T J.120],
RTCP	RTP Control Protocol [b-ITU-T J.171.2], [b-ITU-T J.298], [b-ITU-T J.360]	[b-ITU-T J.121],
RTCP XR	Real Time Control Protocol Extended Reports	[b-ITU-T J.460.2]
RTD	Round Trip Delay	[b-ITU-T J.112], [b-ITU-T J.116]
RTE	Real-time Encoder	[b-ITU-T J.700]
RTMP	Real Time Messaging Protocol	[b-ITU-T J.181 Amendment 1]
RTO	Retransmission Timeout [b-ITU-T J.171.1], [b-ITU-T J.171.2]	[b-ITU-T J.170],
RTP	Real-time Transport Protocol [b-ITU-T J.121], [b-ITU-T J.161], [b-ITU-T J.171.2], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.261], [b-ITU-T J.263], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.700], [b-ITU-T J.702]	[b-ITU-T J.120], [b-ITU-T J.121], [b-ITU-T J.161], [b-ITU-T J.171.2], [b-ITU-T J.192], [b-ITU-T J.193], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.261], [b-ITU-T J.263], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.700], [b-ITU-T J.702]
RTP	Real Time Protocol [b-ITU-T J.162], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.175], [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.241], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.703]	[b-ITU-T J.111], [b-ITU-T J.162], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.175], [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.241], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.703]
RTP	Real-Time Protocol	[b-ITU-T J.298]
RTP	Real-Time Transfer Protocol	[b-ITU-T J.160]
RTS	Request to Send	[b-ITU-T J.118]
RTSP	Real Time Streaming Protocol [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.1201]	[b-ITU-T J.120], [b-ITU-T J.205], [b-ITU-T J.206], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.1201]
RTT	Rating Text Table	[b-ITU-T J.94]
Ru	Report up	[b-ITU-T J.196.2]
Ru	uplink Report	[b-ITU-T J.196.3]
Rx	Receiver	[b-ITU-T J.381]
S/N	Signal to Noise ratio	[b-ITU-T J.142]
SA	Security Association [b-ITU-T J.170], [b-ITU-T J.222.2], [b-ITU-T J.222.3]	[b-ITU-T J.125],

SA	Source Address	[b-ITU-T J.160], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.1102], [b-ITU-T J.1103]
SAA	Server-Assignment-Answer	[b-ITU-T J.360 Amendment 1]
SAC	Secure Authenticated Channel	[b-ITU-T J.293], [b-ITU-T J.1026], [b-ITU-T J.1027]
SAC	Selectable Active Codes	[b-ITU-T J.222.1], [b-ITU-T J.222.2]
SADS	Service and Application Discovery and Selection	[b-ITU-T J.702]
SAFE	Service/Application Functional Entity	[b-ITU-T J.126]
SAID	Security Association Identifier	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.125], [b-ITU-T J.213], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
SAP	Service Access Point	[b-ITU-T J.82], [b- ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.195.1]
SAR	Segmentation and Reassembly sublayer	[b-ITU-T J.82], [b-ITU-T J.131], [b-ITU-T J.132]
SAR	Server-Assignment-Request	[b-ITU-T J.360 Amendment 1]
SAV	Source Address Verification	[b-ITU-T J.222.2], [b-ITU-T J.222.3]
SBM	Subnet Bandwidth Manager	[b-ITU-T J.190]
SBR	Spectral Band Replication	[b-ITU-T J.388]
SBS	Stimulated Brillouin Scattering	[b-ITU-T J.185]
SC	Sequence Count	[b-ITU-T J.82], [b-ITU-T J.132]
SC	Sub-Channel	[b-ITU-T J.196.2], [b-ITU-T J.196.3]
SC	SID_Cluster	[b-ITU-T J.222.2]
SC	Service Compatible	[b-ITU-T J.900]
SCA	Selective Call Acceptance	[b-ITU-T J.460.0]
SCB	Solicitor Call Blocking	[b-ITU-T J.460.3]
SCCCN	L2TPv3 Start-Control-Connection-Connected message	[b-ITU-T J.212]
SCCP	Signalling Connection Control Part	[b-ITU-T J.160]
SCCRP	L2TPv3 Start-Control-Connection-Reply message	[b-ITU-T J.212]
SCCRQ	L2TPv3 Start-Control-Connection-Request message	[b-ITU-T J.212]
SCD	Session Control Domain	[b-ITU-T J.179]
S-CDMA	Synchronous Code Division Multiple Access	[b-ITU-T J.210], [b- ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.223.1]

SCF	Security Client Function	[b-ITU-T J.190]
SCF	Selective Call Forwarding	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
SCF	Service Control Function	[b-ITU-T J.700]
SCG_Ru	Sub-Carrier Group for Ru frame	[b-ITU-T J.196.2], [b-ITU-T J.196.3]
SCI	IP-based SDV Control Interface	[b-ITU-T J.1102]
SCK	Security chipset Key [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
SCKv	Security chipset Key Vendor [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
SCM	Sub-Carrier Multiplexing	[b-ITU-T J.185], [b-ITU-T J.186]
SCMS	Serial Copy Management System	[b-ITU-T J.296]
SCP	Service and Content Protection [b-ITU-T J.701], [b-ITU-T J.702], [b-ITU-T J.704], [b-ITU-T J.705]	[b-ITU-T J.296],
SCR	Selective Call Rejection	[b-ITU-T J.460.0]
S-CSCF	Serving- Call Session Control Function	[b-ITU-T J.262], [b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.388], [b-ITU-T J.460.1], [b-ITU-T J.460.3], [b-ITU-T J.700]
SD	Standard Definition Amendment 1], [b-ITU-T J.196.1], [b-ITU-T J.291], [b-ITU-T J.296], [b-ITU-T J.361], [b-ITU-T J.381], [b-ITU-T J.700], [b-ITU-T J.1006]	[b-ITU-T J.181]
SD	Secure Digital	[b-ITU-T J.290]
SD	Service Discovery	[b-ITU-T J.702]
SD	Secondary Device	[ITU-T J.1020]
SD&S	Service Discovery and Selection	[b-ITU-T J.700]
SD/HD	TV Signal Degrade/High Definition Television	[b-ITU-T J.195.1]
SDH	Synchronous Digital Hierarchy	[b-ITU-T J.81], [b-ITU-T J.132]
SDI	Serial Digital Interface	[b-ITU-T J.287]
SDI	IP-based SDV Data Interface	[b-ITU-T J.1102]
SDK	Software Development Kit [b-ITU-T J.298], [b-ITU-T J.1005]	[b-ITU-T J.295],
SDL	Specification and Description Language [b-ITU-T J.196.3], [b-ITU-T J.222.2]	[b-ITU-T J.195.3],
SDMP	Secure Data Management Platform	[b-ITU-T J.1027], [b-ITU-T J.1028]
SDP	Session Description Protocol 4566][b-ITU-T J.120], [b-ITU-T J.161], [b-ITU-T J.162], [b-ITU-T J.170], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.178], [b-ITU-T J.192], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.362], [b-ITU-T	defined by [RFC

	J.368], [b-ITU-T J.388], [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.703]	
SDP	Severely Disturbed Period	[b-ITU-T J.142]
SDP	Service Delivery Platform	[b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.704]
SDT	Service Description Table	[b-ITU-T J.94]
SDTV	Standard Definition Television	[b-ITU-T J.140], [b-ITU-T J.151], [b-ITU-T J.381], [b-ITU-T J.388]
SDU	Service Data Unit	[b-ITU-T J.82], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.195.3], [b-ITU-T J.196.3]
SDU	Single-Dwelling Unit	[b-ITU-T J.700]
SDV	Switched Digital Video	[b-ITU-T J.381], [b-ITU-T J.700], [b-ITU-T J.704], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1104]
SECAM	Séquentiel couleur à mémoire (Sequential colour with memory)	[b-ITU-T J.81], [b-ITU-T J.94], [b-ITU-T J.185], [b-ITU-T J.222.1], [b-ITU-T J.702]
Seedv	Seed Vendor	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
SEI	Supplemental Enhancement Information	[b-ITU-T J.286], [b-ITU-T J.296]
SEQ	Sequences	[b-ITU-T J.89]
SEQ	Sequence index	[b-ITU-T J.343.5], [b-ITU-T J.343.6]
SES	Severely Errored Second	[b-ITU-T J.132], [b-ITU-T J.142]
SET	Secure Electronic Transaction	[b-ITU-T J.222.3]
SETPI	Synchronous Equipment Timing Physical Interface	[b-ITU-T J.132]
SETS	Synchronous Equipment Timing Source	[b-ITU-T J.132]
SF	Service Flow	[b-ITU-T J.222.2], [b-ITU-T J.1102], [b-ITU-T J.1103]
SFID	Service Flow Identifier	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122], [b-ITU-T J.222.2], [b-ITU-T J.1102], [b-ITU-T J.1103]
SFN	Single Frequency Network	[b-ITU-T J.296]
SFR	Source Frame Rate	[b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342]
SG	Signalling Gateway. A SG is a signalling agent that receives/sends SCN native signalling at the edge of the IP network. In particular, the SS7 SG function translates variants ISUP and TCAP in an SS7-Internet Gateway to a common version of ISUP and TCAP.	[b-ITU-T J.170]
SG	Signalling Gateway	[b-ITU-T J.160], [b-ITU-T J.171.1], [b-ITU-T J.171.2], [b-ITU-T J.360], [b-ITU-T J.460.1]

SG	Service Group	[b-ITU-T J.222.2]
SHA	Secure Hash Algorithm	[b-ITU-T J.222.2], [b-ITU-T J.366.8]
SHA-1	Secure Hash Algorithm 1	[b-ITU-T J.112 Annex A], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.3], [b-ITU-T J.290]
SHF	Super High Frequency	[b-ITU-T J.142]
SHP	Stereo High Profile	[b-ITU-T J.296]
SI	Service Information	[b-ITU-T J.94], [b-ITU-T J.111], [b-ITU-T J.117], [b-ITU-T J.128], [b-ITU-T J.142], [b-ITU-T J.183], [b-ITU-T J.200], [b-ITU-T J.282], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.900], [b-ITU-T J.1011], [b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
SI	Spatial Information	[b-ITU-T J.249]
SI	System Information or Service Information	[b-ITU-T J.703]
SID	Service Identifier	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.125], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.298], [b-ITU-T J.1102], [b-ITU-T J.1103]
SID	System IDentification number	[b-ITU-T J.160]
SID	Service ID. A 14-bit number assigned by a CMTS to identify an upstream virtual circuit. Each SID separately requests and is granted the right to use upstream bandwidth.	[b-ITU-T J.175]
SID	(Upstream) Service Identifier	[b-ITU-T J.213]
SID	Silence Insertion Descriptor	[b-ITU-T J.361]
SIG	Service Information Generator	[b-ITU-T J.1027]
SIM	Subscriber Identity Module	[b-ITU-T J.360 Amendment 1]
SIMPLE	SIP for Instant Message and Presence Leveraging Extensions	[b-ITU-T J.367]
SIP	Session Initiation Protocol	[b-ITU-T J.218], [b-ITU-T J.261], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.262], [b-ITU-T J.365], [b-ITU-T J.366.0], [b-ITU-T J.367], [b-ITU-T J.368], [b-ITU-T J.369], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.2], [b-ITU-T J.460.3], [b-ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.705], [b-ITU-T J.1102], [b-ITU-T J.1101], [b-ITU-T J.1103]
SIP	Session Initiation Protocol. An application-layer control (signalling) protocol for creating, modifying, and terminating sessions with one or more participants.	[b-ITU-T J.170]
SIP	Session Initiation Protocol, VoIP signaling protocol, defined by [b-IETF RFC 3261]	[b-ITU-T J.460.1]
SIP+	Session Initiation Protocol Plus. An extension to SIP.	[b-ITU-T J.170], [b-ITU-T J.361]
SIS	Systems for Interactive Services	[b-ITU-T J.111]



SIS	Subscriber Information Service [b-ITU-T J.380.2], [b-ITU-T J.380.6], [b-ITU-T J.706]	[b-ITU-T J.380.1],
SIT	Satellite Information Table	[b-ITU-T J.94]
SL-ESF	Signalling Link Extended SuperFrame	[b-ITU-T J.112 Annex A], [b-ITU-T J.116]
SLA	Service Level Agreement [b-ITU-T J.282], [b-ITU-T J.705]	[b-ITU-T J.241],
SLAAC	Stateless Address Autoconfiguration	[b-ITU-T J.218], [b-ITU-T J.222.2]
SLE	Screening List Editing	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
SLED	Software Loopback for eDOCSIS	[b-ITU-T J.126], [b-ITU-T J.800.2]
SLF	Subscription Locator Function	[b-ITU-T J.360]
SLI	L2TPv3 Set Link Info message	[b-ITU-T J.212]
SLIP	Serial Line Interconnection Protocol	[b-ITU-T J.118]
SM	Station Maintenance	[b-ITU-T J.222.2]
SM	Security Module	[b-ITU-T J.702]
SMAC	Source MAC	[b-ITU-T J.213]
SMATV	Satellite Master Antenna Television	[b-ITU-T J.84], [b-ITU-T J.84], [b-ITU-T J.110], [b-ITU-T J.111], [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.142], [b-ITU-T J.183], [b-ITU-T J.382]
SMATV-DTM	SMATV system based on Digital TransModulation	[b-ITU-T J.84]
SMATV-IF	SMATV system based on distribution at IF	[b-ITU-T J.84]
SMATV-S	SMATV system based on distribution at extended Superband	[b-ITU-T J.84]
SMI	Structure of Management Information	[b-ITU-T J.800.0]
SMIL	Synchronized Multimedia Integration Language	[b-ITU-T J.124]
SMK	Secret Mask Key [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
SMS	Subscriber Management System [b-ITU-T J.380.6], [b-ITU-T J.1005], [b-ITU-T J.1027]	[b-ITU-T J.116],
SMS	Spectrum Management System	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122]
SMS	Short Message Service	[b-ITU-T J.115]
S-MTA	Standalone Multimedia Terminal Adapter	[b-ITU-T J.191], [b-ITU-T J.192]
S-MTA	Stand-alone MTA – a single node which contains an MTA and a non J.112 MAC (e.g., Ethernet)	[b-ITU-T J.175]
S-MTA	Standalone MTA (a single node that contains an MTA and a non-DOCSIS MAC (e.g., Ethernet))	[b-ITU-T J.179]

SN	Sequence Number	[b-ITU-T J.131], [b-ITU-T J.132]
SNAP	Sub-network Access Protocol	[b-ITU-T J.111], [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.222.2]
SNF	Service Navigation Function	[b-ITU-T J.702]
SNFD	Source Normalized Frame Difference	[b-ITU-T J.249]
SNG	Satellite News Gathering	[b-ITU-T J.92]
SNI	Sequence Number Invalid	[b-ITU-T J.132]
SNMP	Simple Network Management Protocol	[b-ITU-T J.111], [b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.126], [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.172], [b-ITU-T J.173], [b-ITU-T J.175], [b-ITU-T J.177], [b-ITU-T J.186], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.223.1], [b-ITU-T J.223.2], [b-ITU-T J.290], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.360], [b-ITU-T J.369], [b-ITU-T J.370], [b-ITU-T J.460.4], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.705]
SNMPE	Source Normalized High Frequency Energy	[b-ITU-T J.249]
SNR	Signal-to-Noise Ratio	[b-ITU-T J.83], [b-ITU-T J.223.2], [b-ITU-T J.287], [b-ITU-T J.296], [b-ITU-T J.382]
SNS	Source Name Sub-Table	[b-ITU-T J.128]
SNS	Social Network Service	[b-ITU-T J.230], [b-ITU-T J.295], [b-ITU-T J.298]
SNTP	Simple Network Time Protocol	[b-ITU-T J.287], [b-ITU-T J.360]
SO	Service Operator	[b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109]
SoA	Start of Authority	[b-ITU-T J.191], [b-ITU-T J.192]
SOAP	Simple Object Access Protocol	[b-ITU-T J.177], [b-ITU-T J.291], [b-ITU-T J.700]
SOAP	Simple Object Access Protocol / Service Oriented Architecture Protocol	[b-ITU-T J.380.7]
SOC	System-on-Chip	[b-ITU-T J.290]
SOC	System on a Chip	[b-ITU-T J.298]
SoC	System on Chip	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028]
SOH	Section Overhead	[b-ITU-T J.132]
SOHO	Small Office, Home Office	[b-ITU-T J.195.1]
SP	Simple Profile	[b-ITU-T J.296], [b-ITU-T J.388]

SP	Service Provider [b-ITU-T J.1005], [b-ITU-T J.1006]	[b-ITU-T J.700],
SP	Service Protection	[b-ITU-T J.702]
SPF	Security Portal Function	[b-ITU-T J.190]
SPF	Stateful Packet Filtering	[b-ITU-T J.191], [b-ITU-T J.192]
SPI	Synchronous Parallel (or Physical) Interface [b-ITU-T J.132]	[b-ITU-T J.131],
SPI	Security Parameters Index	[b-ITU-T J.171.1], [b-ITU-T J.171.2]
SPI	Serial Peripheral Interface	[b-ITU-T J.222.2]
SPI	Service Provider Interface	[b-ITU-T J.294], [b-ITU-T J.700]
SPP	Subscriber Programmable PIN	[b-ITU-T J.460.0], [b-ITU-T J.460.1]
SPR	Subscription Profile Repository	[b-ITU-T J.368]
sps	Symbols per second	[b-ITU-T J.83]
SPS	Sequence Parameter Set	[b-ITU-T J.286]
SPTS	Single Program(me) Transport Stream	[b-ITU-T J.117], [b-ITU-T J.181], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.212], [b-ITU-T J.280], [b-ITU-T J.287], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.700]
SRC	Source	[b-ITU-T J.149]
SRC	Source Reference Channel or Circuit	[b-ITU-T J.244], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
SRM	Session and Resource Manager	[b-ITU-T J.111], [b-ITU-T J.700]
SRM	System Renewability Message	[b-ITU-T J.197]
SRM	Service Reference Model	[b-ITU-T J.703]
SROI	Spatial Region of Interest	[b-ITU-T J.340]
SRV	Server	[b-ITU-T J.170]
SS	Security Sublayer [b-ITU-T J.195.3], [b-ITU-T J.196.1], [b-ITU-T J.196.3]	[b-ITU-T J.195.1],
SS	Spread Spectrum	[b-ITU-T J.240]
SS7	Signalling System No. 7 [b-ITU-T J.360], [b-ITU-T J.460.1]	[b-ITU-T J.164],
SS7	Signalling System No. 7. An architecture and set of protocols for performing out-of-band call signalling with a telephone network.	[b-ITU-T J.170]
SSC	Symbol Sub-Cell	[b-ITU-T J.196.2], [b-ITU-T J.196.3]

SSCQE	Single Stimulus Continuous Quality Evaluation [b-ITU-T J.244], [b-ITU-T J.245]	[b-ITU-T J.140],
SSCS	Service Specific Convergence Sublayer	[b-ITU-T J.82]
SSD	Secure Software Download [b-ITU-T J.128], [b-ITU-T J.222.3]	[b-ITU-T J.126],
SSDP	Simple Service Discovery Protocol	[b-ITU-T J.296]
SSF	Server Signal Fail	[b-ITU-T J.132]
SSF	Security Server Function	[b-ITU-T J.190]
SSI	Synchronous Serial Interface	[b-ITU-T J.131], [b-ITU-T J.132]
SSID	Service Set Identifier	[b-ITU-T J.296]
SSL	Secure Socket(s) Layer [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.365], [b-ITU-T J.380.7], [b-ITU-T J.700]	[b-ITU-T J.170],
SSM	Source (-) Specific Multicast [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.700]	[b-ITU-T J.222.2],
SSRC	Synchronizing Source	[b-ITU-T J.361]
SSU	System Software Update	[b-ITU-T J.298]
SSW	Sequence Synchronizing Word	[b-ITU-T J.88]
ST	Stuffing Table	[b-ITU-T J.94]
ST	Spatial-Temporal	[b-ITU-T J.340]
STB	Set Top Box [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.197], [b-ITU-T J.241], [b-ITU-T J.604], [b-ITU-T J.703], [b-ITU-T J.1004],	[b-ITU-T J.111], [b-
STB	Set-Top Box [b-ITU-T J.112 Annex A], [b-ITU-T J.114], [b-ITU-T J.115], [b-ITU-T J.117], [b-ITU-T J.151], [b-ITU-T J.185], [b-ITU-T J.186], [b-ITU-T J.190], [b-ITU-T J.195.1], [b-ITU-T J.230], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.301], [b-ITU-T J.343.4], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.707], [b-ITU-T J.900], [b-ITU-T J.1001], [b-ITU-T J.1005], [b-ITU-T J.1011], [b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1103], [b-ITU-T J.1106], [b-ITU-T J.1107], [b-ITU-T J.1108], [b-ITU-T J.1109], [b-ITU-T J.1201], [b-ITU-T J.1210], [b-ITU-T J.1600]	[b-ITU-T J.112 Annex
STB	Set-Top-Box [b-ITU-T J.294], [b-ITU-T J.302]	[b-ITU-T J.193],
STC	System Time Clock	[b-ITU-T J.181]
STD	Set Top Device	[b-ITU-T J.128]
STD	Standard Channel Plan	[b-ITU-T J.222.1]
STM	Synchronous Transport Module	[b-ITU-T J.132]
StopCCN	L2TPv3 Stop-Control-Connection-Notification message	[b-ITU-T J.212]
STP	Signalling Transfer Point	[b-ITU-T J.177]

STT	System Time Table	[b-ITU-T J.700]
STU	Set Top Unit [b-ITU-T J.116], [b-ITU-T J.118]	[b-ITU-T J.111],
STU	Set-Top Unit A], [b-ITU-T J.114], [b-ITU-T J.115]	[b-ITU-T J.112 Annex
STUN	Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators [b-ITU-T J.296], [b-ITU-T J.360], [b-ITU-T J.362], [b-ITU-T J.460.1], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.703]	
SVC	Scalable Video Coding	[b-ITU-T J.604]
SVD	Subscriber Video Device [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.702]	[b-ITU-T J.290],
SVG	Scalable Vector Graphics	[b-ITU-T J.294]
S-Video	Super-Video	[b-ITU-T J.197]
SVoD	Subscription Video-on-Demand	[b-ITU-T J.98]
SW	Session Word	[b-ITU-T J.96]
SW	Software [b-ITU-T J.296], [b-ITU-T J.701]	[b-ITU-T J.126],
sync	synchronizing signal	[b-ITU-T J.83]
SYNC	Synchronisation	[b-ITU-T J.112], [b-ITU-T J.116]
SYSLOG	System Logging	[b-ITU-T J.190]
SYSLOG	System Log	[b-ITU-T J.191], [b-ITU-T J.192]
SYSLOG	System Logging Protocol – a protocol which defines the transport mechanism for the messages carrying various logging information	[b-ITU-T J.369]
T-MAC	Transmission-MAC	[b-ITU-T N.62]
TA	Transmitter Amplifier	[b-ITU-T J.186]
TA	Trust Authority	[b-ITU-T J.1011]
TAI	International Atomic Time	[b-ITU-T J.94]
TApp	Trusted Application	[b-ITU-T J.1201], [b-ITU-T J.1202]
TB	Tuning Band	[b-ITU-T J.222.1]
TBD	To Be Determined	[b-ITU-T J.83]
TC	Transmission Convergence sublayer	[b-ITU-T J.112], [b-ITU-T J.116]
TC	Time Code	[b-ITU-T J.285]
TC8PSK	Trellis Coded 8-Phase Shift Keying [b-ITU-T J.185], [b-ITU-T J.186]	[b-ITU-T J.142],
TCA	Threshold Crossing Alerts	[b-ITU-T J.705]

TCAP	Transaction Capabilities Application Protocol. A protocol within the SS7 stack that is used for performing remote database transactions with a Signalling Control Point. [b-ITU-T J.170]
TCAP	Transaction Capabilities Application Part [b-ITU-T J.160]
TCAP	Transaction Capabilities Application Part (part of the SS7 signalling stack) [b-ITU-T J.460.1]
TCC	Transmit Channel Configuration [b-ITU-T J.222.2]
tcimsbf	twos complement integer, most significant bit first [b-ITU-T J.280]
TCM	Trellis Code Modulation [b-ITU-T J.142], [b-ITU-T J.222.1]
TCP	Transmission Control Protocol [b-ITU-T J.111], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.120], [b-ITU-T J.121], [b-ITU-T J.122], [b-ITU-T J.124], [b-ITU-T J.128], [b-ITU-T J.161], [b-ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.223.2], [b-ITU-T J.230], [b-ITU-T J.241], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.360], [b-ITU-T J.380.7], [b-ITU-T J.388], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.705], [b-ITU-T J.1600]
TCP/IP	Transport Control Protocol/Internet Protocol [b-ITU-T J.280]
TCS	Transmit Channel Set [b-ITU-T J.128], [b-ITU-T J.222.1], [b-ITU-T J.222.2]
TD	Transmit Degrade [b-ITU-T J.132]
TD	Timeout for Disconnect [b-ITU-T J.170], [b-ITU-T J.177]
TD	Terminal Device [b-ITU-T J.702], [b-ITU-T J.705]
TDD	Time Division Duplexing [b-ITU-T J.195.1]
TDD	Telecommunications Device for the Deaf [b-ITU-T J.460.0]
TDES	Triple Data Encryption Standard [b-ITU-T J.298]
TDL	Tapped Delay Line [b-ITU-T J.84]
TDM	Time Division Multiplex [b-ITU-T J.84], [b-ITU-T J.118], [b-ITU-T J.382]
TDM	Time Division Multiplexing [b-ITU-T J.126], [b-ITU-T J.183], [b-ITU-T J.211], [b-ITU-T J.222.1], [b-ITU-T J.361], [b-ITU-T J.800.2]
TDM Services	Legacy T1/E1 or T3/E3 voice and/or data transport [b-ITU-T J.211]
TDMA	Time Division Multiplex Access [b-ITU-T J.112], [b-ITU-T J.118],
TDMA	Time-Division Multiplex Access [b-ITU-T J.112 Annex A]
TDMA	Time Division Multiple Access [b-ITU-T J.115], [b-ITU-T J.116], [b-ITU-T J.196.2], [b-ITU-T J.196.3], [b-ITU-T J.211], [b-ITU-T J.222.1], [b-ITU-T J.222.2]

TDT	Time Date Table	[b-ITU-T J.298]
TE	Terminating Equipment	[b-ITU-T J.115]
TEA	TDM Emulation Adapter	[b-ITU-T J.800.2]
TE-CMTS	Time Division Multiplexing Emulation – Cable Modem Termination System	[b-ITU-T J.222.1]
TEE	Trusted Execution Environment	[b-ITU-T J.1026], [b-ITU-T J.1027], [b-ITU-T J.1028], [b-ITU-T J.1201], [b-ITU-T J.1202]
TEI	TDM Emulation Interface	[b-ITU-T J.222.1], [b-ITU-T J.222.2]
TEK	Traffic Encryption Key	[b-ITU-T J.125], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
TEL	Telephone	[b-ITU-T J.190]
TEV	Target Error Vector	[b-ITU-T J.142]
TF	Transmit Fail	[b-ITU-T J.132]
TFTP	Trivial File Transfer Protocol	[b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.126], [b-ITU-T J.160], [b-ITU-T J.167], [b-ITU-T J.170], [b-ITU-T J.177], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.369], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.705]
TFTP	Trivial File-Transfer Protocol	[b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.122],
TFTP	Trivial File Transfer Protocol	[b-IETF RFC 1350] [b-ITU-T J.190]
TGCP	Trunking Gateway Control Protocol	[b-ITU-T J.160], [b-ITU-T J.171.2], [b-ITU-T J.175], [b-ITU-T J.360]
TGS	Ticket Granting Server	[b-ITU-T J.160], [b-ITU-T J.167]
TGS	Ticket Granting Server. A sub-system of the KDC used to grant Kerberos tickets.	[b-ITU-T J.170]
TGT	Ticket Granting Ticket	[b-ITU-T J.261], [b-ITU-T J.369]
TI	Turner Identifier	[b-ITU-T J.181]
TI	Time Interleaver	[b-ITU-T J.382]
TID	Tribune Identifier	[b-ITU-T J.181]
TIM	Trace Identifier Mismatch	[b-ITU-T J.132]
TLS	Transport Layer Security	[b-ITU-T J.170], [b-ITU-T J.192], [b-ITU-T J.261], [b-ITU-T J.292], [b-ITU-T J.296], [b-ITU-T J.360], [b-ITU-T J.366.8], [b-ITU-T J.367], [b-ITU-T J.380.7], [b-ITU-T J.702], [b-ITU-T J.705]
TLS	Transparent LAN Service	[b-ITU-T J.213]
TLV	Type Length Value	[b-ITU-T J.128], [b-ITU-T J.288], [b-ITU-T J.297], [b-ITU-T J.383]

TLV	Type/Length/Value	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.218], [b-ITU-T J.222.1], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
TLV	Type-Length-Value	[b-ITU-T J.126], [b-ITU-T J.163], [b-ITU-T J.177], [b-ITU-T J.183], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.196.3]
TLV	Type-Length-Value (technique used in formatting protocol elements)	[b-ITU-T J.179]
TMCC	Transmission and Multiplexing Configuration Control	[b-ITU-T J.383]
TMN	Telecommunications Management Network	[b-ITU-T J.110], [b-ITU-T J.700]
TN	Telephone Number	[b-ITU-T J.175]
TNT	Transponder Name Table	[b-ITU-T J.94]
ToD	Time of Day	[b-ITU-T J.192], [b-ITU-T J.213], [b-ITU-T J.222.2], [b-ITU-T J.222.3]
ToD	Time of the Day – the network protocol which delivers the time of the day to a network client from the Time Of the Day from the network server	[b-ITU-T J.369]
ToS	Type of Service (also DiffServ Code Point, DSCP)	[b-ITU-T J.160], [b-ITU-T J.222.2], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.292]
TOT	Time Offset Table	[b-ITU-T J.94]
TOT	Time of Transmission	[b-ITU-T J.298]
TP	Test Presentation	[b-ITU-T J.140], [b-ITU-T J.245]
TP	Transponder	[b-ITU-T J.298]
TR	Technical Report	[b-ITU-T J.296], [b-ITU-T J.360]
TROI	Temporal Region of Interest	[b-ITU-T J.340]
TS	Transport Stream	[b-ITU-T J.82], [b-ITU-T J.83], [b-ITU-T J.112 Annex A], [b-ITU-T J.116], [b-ITU-T J.118], [b-ITU-T J.120], [b-ITU-T J.131], [b-ITU-T J.132], [b-ITU-T J.142], [b-ITU-T J.181 Amendment 1], [b-ITU-T J.183], [b-ITU-T J.193], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.286], [b-ITU-T J.287], [b-ITU-T J.288], [b-ITU-T J.290], [b-ITU-T J.292], [b-ITU-T J.293], [b-ITU-T J.294], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.302], [b-ITU-T J.343.5], [b-ITU-T J.343.6], [b-ITU-T J.382], [b-ITU-T J.383], [b-ITU-T J.388], [b-ITU-T J.702], [b-ITU-T J.900], [b-ITU-T J.1006], [b-ITU-T J.1210]
TS	Test Session	[b-ITU-T J.140], [b-ITU-T J.245]
TS	Technical Specification	[b-ITU-T J.366.0]
TSID	Transport Stream ID	[b-ITU-T J.117]
TSID	Transport Stream Identification	[b-ITU-T J.151]
TSID	MPEG2 Transport Stream ID	[b-ITU-T J.212]



TSLE	Transport Stream synchronisation Loss Error	[b-ITU-T J.132]
TSMF	Transport Stream Multiplexing Frame	[b-ITU-T J.183], [b-ITU-T J.282]
TSP	Time Division Multiplexing Service Processor	[b-ITU-T J.222.1]
TSP	Telephony Service Provider	[b-ITU-T J.800.1]
T-STD	Transport Stream System Target Decoder	[b-ITU-T J.181 Amendment 1]
TTL	Time To Live	[b-ITU-T J.218], [b-ITU-T J.282]
TTP	Trusted Third Party	[b-ITU-T J.1010], [b-ITU-T J.1011]
TTS	Timestamped TS	[b-ITU-T J.297]
TU	Tributary Unit	[b-ITU-T J.132]
TURN	Transversal Using Relay Network address translation (NAT)	[b-ITU-T J.360], [b-ITU-T J.362], [b-ITU-T J.460.1], [b-ITU-T J.700]
TV	Television	[b-ITU-T J.84], [b-ITU-T J.183], [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.1011], [b-ITU-T J.1106], [b-ITU-T J.1210], [b-ITU-T J.1600]
TV 3	TeleVision class 3	[b-ITU-T J.249]
TVCT	Terrestrial Virtual Channel Table	[b-ITU-T J.117], [b-ITU-T J.151]
TVE	TV Everywhere	[b-ITU-T J.181 Amendment 1]
TVM	TV Virtual Machine	[b-ITU-T J.1201]
TVOS	Television Operating System	[b-ITU-T J.1201], [b-ITU-T J.1202]
Tx or TX	Transmitter	[b-ITU-T J.185], [b-ITU-T J.186], [b-ITU-T J.381]
UA	User Agent	[b-ITU-T J.262], [b-ITU-T J.263], [b-ITU-T J.360], [b-ITU-T J.365]
UAR	User-Authorization-Request	[b-ITU-T J.360 Amendment 1]
UBG	Upstream Bonding Group	[b-ITU-T J.222.2]
UCC	Upstream Channel Change	[b-ITU-T J.112], [b-ITU-T J.116], [b-ITU-T J.122]
UCD	Upstream Channel Descriptor	[b-ITU-T J.112], [b-ITU-T J.112 Annex B], [b-ITU-T J.112 Annex C], [b-ITU-T J.116], [b-ITU-T J.122], [b-ITU-T J.212], [b-ITU-T J.222.1], [b-ITU-T J.222.2]
UCID	Upstream Channel Identifier	[b-ITU-T J.128], [b-ITU-T J.222.2]
UDC	Upstream Drop Classifier	[b-ITU-T J.222.2]

UDP	User Datagram Protocol	[b-ITU-T J.111], [b-ITU-T J.120], [b-ITU-T J.121], [b-ITU-T J.126], [b-ITU-T J.128], [b-ITU-T J.160], [b-ITU-T J.161], [b-ITU-T J.162], [b-ITU-T J.170], [b-ITU-T J.171.2], [b-ITU-T J.172], [b-ITU-T J.177], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.214], [b-ITU-T J.218], [b-ITU-T J.222.2], [b-ITU-T J.223.2], [b-ITU-T J.241], [b-ITU-T J.281], [b-ITU-T J.282], [b-ITU-T J.290], [b-ITU-T J.293], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.360], [b-ITU-T J.361], [b-ITU-T J.362], [b-ITU-T J.388], [b-ITU-T J.460.2], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.1210]
UDP	User Datagram Protocol. A connectionless protocol built upon Internet Protocol (IP)	[b-ITU-T J.179], [b-ITU-T J.370]
UE	User Equipment	[b-ITU-T J.261], [b-ITU-T J.360], [b-ITU-T J.363], [b-ITU-T J.367], [b-ITU-T J.368], [b-ITU-T J.369], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.460.3]
UGS	Unsolicited Grant Service	[b-ITU-T J.214], [b-ITU-T J.222.1], [b-ITU-T J.222.2]
UGS	Unsolicited Grant Service (Annex B/ J.112 QoS scheduling type used for constant bit rate services (e.g., voice codecs))	[b-ITU-T J.179]
UGS/AD	Unsolicited Grant Service with Activity Detection	[b-ITU-T J.179]
UHD	Ultra High Definition	[b-ITU-T J.381], [b-ITU-T J.1006]
UHDTV	Ultra High Definition Television	[b-ITU-T J.183], [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.207], [b-ITU-T J.297], [b-ITU-T J.381]
UHF	Ultra High Frequency	[b-ITU-T J.84], [b-ITU-T J.151]
UI	Unit Interval	[b-ITU-T J.132]
UI	User Interface	[b-ITU-T J.200], [b-ITU-T J.205], [b-ITU-T J.230], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.298], [b-ITU-T J.1011]
UICC	Universal Integrated Circuit Card	[b-ITU-T J.360 Amendment 1]
uimsbf	unsigned integer, most significant bit first	[b-ITU-T J.96], [b-ITU-T J.181], [b-ITU-T J.183], [b-ITU-T J.280], [b-ITU-T J.287]
uinshf	unsigned integer, most significant first	[b-ITU-T J.128]
UMID	Unique Material Identifier	[b-ITU-T J.181]
UNEQ	UNEQuipped	[b-ITU-T J.132]
UNI	User-Network Interface	[b-ITU-T J.170]
UNO-CDR	Universal Networked Object – Common Data Representation	[b-ITU-T J.111]
UNO-RPC	Universal Networked Object – Remote Procedure Call	[b-ITU-T J.111]
UPID	Unique Program Identifier	[b-ITU-T J.380.2]
UPnP	Universal Plug and Play	[b-ITU-T J.190], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.295],

	[b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.705]	
UPS	Uninterrupted Power Supply	[b-ITU-T J.126], [b-ITU-T J.199]
UPS	Uninterruptible Power Supply	[b-ITU-T J.173], [b-ITU-T J.460.2]
URI	Uniform Resource Identifier	[b-ITU-T J.171.2], [b-ITU-T J.200], [b-ITU-T J.360], [b-ITU-T J.367], [b-ITU-T J.380.1], [b-ITU-T J.380.2], [b-ITU-T J.388], [b-ITU-T J.460.0], [b-ITU-T J.460.1],
URI	Uniform Resource Identifier (see [IETF RFC 3986])	[b-ITU-T J.181]
URI	Universal Resource Identifier	[b-ITU-T J.175]
URI	Usage Rights Information	[b-ITU-T J.1010]
URI	User Right Information	[b-ITU-T J.298]
URL	Uniform Resource Locator	[b-ITU-T J.120], [b-ITU-T J.192], [b-ITU-T J.230], [b-ITU-T J.296], [b-ITU-T J.367], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.800.0]
URL	Universal Resource Locator	[b-ITU-T J.205], [b-ITU-T J.206]
URN	Uniform Resource Name	[b-ITU-T J.460.1]
US	Upstream	[b-ITU-T J.128], [b-ITU-T J.211], [b-ITU-T J.212], [b-ITU-T J.222.2], [b-ITU-T J.296], [b-ITU-T J.1106], [b-ITU-T J.1107]
US	Up Stream	[b-ITU-T J.1108], [b-ITU-T J.1109]
USB	Universal Serial Bus	[b-ITU-T J.126], [b-ITU-T J.190], [b-ITU-T J.290], [b-ITU-T J.291], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.702]
USFS	Upstream Selective Forwarding Switch	[b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192]
USM	User Security Model	[b-ITU-T J.191], [b-ITU-T J.192]
US-SG	Upstream Service Group	[b-ITU-T J.222.2]
Ut	Unavailable time	[b-ITU-T J.142]
UTC	Universal Time Coordinated	[b-ITU-T J.94]
UTC	Coordinated Universal Time	[b-ITU-T J.181], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.222.2], [b-ITU-T J.222.3], [b-ITU-T J.280], [b-ITU-T J.287], [b-ITU-T J.460.1]
UTC	Coordinated Universal Time (Also known as Greenwich Mean Time (GMT) or Zulu time)	[b-ITU-T J.211]
UTF-8	Unicode Transformation Format (the 8-bit form)	[b-ITU-T J.124]
UTF-16	Unicode Transformation Format (the 16-bit form)	[b-ITU-T J.124]

UUID	Universally Unique Identifier	[b-ITU-T J.124], [b-ITU-T J.380.2]
VACM	View-based Access Control Model [b-ITU-T J.192], [b-ITU-T J.370]	[b-ITU-T J.191],
VAD	Voice Activity Detection [b-ITU-T J.163], [b-ITU-T J.164], [b-ITU-T J.361]	[b-ITU-T J.161],
VANC	Vertical Ancillary data space in digital video streams	[b-ITU-T J.287]
VBI	Vertical Blanking Interval [b-ITU-T J.700], [b-ITU-T J.702]	[b-ITU-T J.89],
VBR	Variable Bit Rate [b-ITU-T J.181 Amendment 1], [b-ITU-T J.361]	[b-ITU-T J.161],
VBV	Video Buffer Verifier Amendment 1], [b-ITU-T J.286]	[b-ITU-T J.181
VC	Virtual Container or Virtual Channel	[b-ITU-T J.132]
VC-1	Video Codec 1	[b-ITU-T J.700]
VCI	Virtual Channel Identifier [b-ITU-T J.132], [b-ITU-T J.170]	[b-ITU-T J.116],
VCI	ATM Virtual Channel Identification, defined by ITU-T I.363	[b-ITU-T J.112 Annex A]
VCM	Variable Coding and Modulation	[b-ITU-T J.382]
VCN	Virtual Channel Number	[b-ITU-T J.94]
VCO	Voltage-Controlled Oscillator	[b-ITU-T J.292]
VCPS	Video Content Protection System	[b-ITU-T J.197]
VCR	Video Cassette Recorder [b-ITU-T J.700], [b-ITU-T J.702]	[b-ITU-T J.151],
VCT	Virtual Channel Table [b-ITU-T J.151], [b-ITU-T J.302], [b-ITU-T J.700]	[b-ITU-T J.94],
Vendor_SysID	Vendor System Identification [b-ITU-T J.1027], [b-ITU-T J.1028]	[b-ITU-T J.1026],
VFS	Virtual File System	[b-ITU-T J.1202]
VGA	Video Graphics Array	[b-ITU-T J.343.4]
VGA	Video Graphics Array (640 x 480 pixels)	[b-ITU-T J.246], [b-ITU-T J.247]
VH	Vertical High frequency component	[b-ITU-T J.88]
VHF	Very High Frequency	[b-ITU-T J.84], [b-ITU-T J.151]
V-ISAN	Version-ISAN	[b-ITU-T J.181]
VITC	Vertical Interval Time Code	[b-ITU-T J.89], [b-ITU-T J.287]
VITS	Vertical Interval Test Signal	[b-ITU-T J.88]

VLAN	Virtual Local Area Network [b-ITU-T J.223.2], [b-ITU-T J.290]	[b-ITU-T J.222.2],
VLC	Variable Length Coding [b-ITU-T J.88], [b-ITU-T J.603]	[b-ITU-T J.81],
VLD	Variable Length Decoding	[b-ITU-T J.88]
VLSI	Very Large Scale Integration	[b-ITU-T J.83]
VM	Virtual Machine [b-ITU-T J.296], [b-ITU-T J.1010], [b-ITU-T J.1011]	[b-ITU-T J.294],
VM	Voice Mail	[b-ITU-T J.460.1]
VMWI	Visual Message Waiting Indicator	[b-ITU-T J.460.0]
VoD	Video on Demand [b-ITU-T J.181 Amendment 1], [b-ITU-T J.201], [b-ITU-T J.207], [b-ITU-T J.230], [b-ITU-T J.241], [b-ITU-T J.281], [b-ITU-T J.292], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.297], [b-ITU-T J.380.3], [b-ITU-T J.381], [b- ITU-T J.700], [b-ITU-T J.701], [b-ITU-T J.703], [b-ITU-T J.704], [b-ITU-T J.707], [b-ITU-T J.1005], [b-ITU-T J.1006]	[b-ITU-T J.97], [b- ITU-T J.127], [b-ITU-T J.193], [b-ITU-T J.212], [b-ITU-T J.290], [b-ITU-T J.900]
VoD	Video-on-Demand	[b-ITU-T J.98], [b- ITU-T J.127], [b-ITU-T J.193], [b-ITU-T J.212], [b-ITU-T J.290], [b-ITU-T J.900]
VOD	Video on Demand [b-ITU-T J.1201], [b-ITU-T J.1210]	[b-ITU-T J.298],
VoIP	Voice over IP [b-ITU-T J.179], [b-ITU-T J.193], [b-ITU-T J.222.2], [b-ITU-T J.223.1], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.361], [b-ITU-T J.704]	[b-ITU-T J.161], [b- ITU-T J.179], [b-ITU-T J.193], [b-ITU-T J.222.2], [b-ITU-T J.223.1], [b-ITU-T J.290], [b-ITU-T J.294], [b-ITU-T J.361], [b-ITU-T J.704]
VoIP	Voice-over-IP	[b-ITU-T J.175]
VoIP	Voice over Internet Protocol [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.292], [b-ITU-T J.367], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.700]	[b-ITU-T J.177], [b- ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.195.1], [b-ITU-T J.196.1], [b-ITU-T J.292], [b-ITU-T J.367], [b-ITU-T J.460.0], [b-ITU-T J.460.1], [b-ITU-T J.700]
V-OLT	Video-Optical Line Terminal	[b-ITU-T J.185]
V-OLT	Optical Line Terminal for Video signals	[b-ITU-T J.186]
V-ONT	Video-Optical Network Terminal	[b-ITU-T J.185]
V-ONT	Optical Network Terminal for Video signals	[b-ITU-T J.186]
V-ONU	Video distribution Optical Network Unit	[b-ITU-T J.294]
V-ONU	Video Optical Network Unit	[b-ITU-T J.700]
VP	Virtual Path	[b-ITU-T J.131], [b-ITU-T J.132]
VPC	VoIP Positioning Centre	[b-ITU-T J.460.1]
VPE	Virtual Path Entity	[b-ITU-T J.131], [b-ITU-T J.132]
VPI	Virtual Path Identifier	[b-ITU-T J.132], [b-ITU-T J.170]
VPI	ATM Virtual Path Identification, defined by ITU-T I.363	[b-ITU-T J.112 Annex A]

VPME	Virtual Path Multiplexing Entity	[b-ITU-T J.131], [b-ITU-T J.132]
VPN	Virtual Private Network	[b-ITU-T J.179], [b-ITU-T J.190], [b-ITU-T J.213], [b-ITU-T J.700], [b-ITU-T J.704]
VQE	Visual Quality Experience	[b-ITU-T J.705]
VQEG	Video Quality Experts Group	[b-ITU-T J.149], [b-ITU-T J.244], [b-ITU-T J.246], [b-ITU-T J.247], [b-ITU-T J.249], [b-ITU-T J.341], [b-ITU-T J.342], [b-ITU-T J.343], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6],
VQM	Video Quality Metric(s)	[b-ITU-T J.149], [b-ITU-T J.246], [b-ITU-T J.249], [b-ITU-T J.343.1], [b-ITU-T J.343.2], [b-ITU-T J.343.3], [b-ITU-T J.343.4], [b-ITU-T J.343.5], [b-ITU-T J.343.6]
VR	Virtual Reality	[b-ITU-T J.1210]
VRN	Video Rich Navigation	[b-ITU-T J.700]
VSb	Vestigial SideBand	[b-ITU-T J.83], [b-ITU-T J.150], [b-ITU-T J.151]
VSC	Vertical Service Code	[b-ITU-T J.460.1]
VSI	Video Service Interface	[b-ITU-T J.1101], [b-ITU-T J.1102], [b-ITU-T J.1104], [b-ITU-T J.1103]
VSP	Vendor Specific Parameter	[b-ITU-T J.128]
VSP	Video Service Provider	[b-ITU-T J.197]
VSWR	Voltage Standing Wave Ratio	[b-ITU-T J.185], [b-ITU-T J.186]
VT	Vertical Temporal frequency component	[b-ITU-T J.88]
VT	Video Telephony (bidirectional conversational communication with video and audio)	[b-ITU-T J.388]
VTR	Video Tape Recorder	[b-ITU-T J.92]
W3C	World Wide Web Consortium	[b-ITU-T J.296], [b-ITU-T J.365], [b-ITU-T J.1006]
WAN	Wide Area Network	[b-ITU-T J.126], [b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192], [b-ITU-T J.218], [b-ITU-T J.294], [b-ITU-T J.295], [b-ITU-T J.296], [b-ITU-T J.298], [b-ITU-T J.700]
WAN-Data	Wide Area Network (WAN) Data Address Realm	[b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192]
WAN-Man	Wide Area Network (WAN) Management Address Realm	[b-ITU-T J.190], [b-ITU-T J.191], [b-ITU-T J.192]
WDM	Wavelength Division Multiplexing	[b-ITU-T J.185], [b-ITU-T J.186], [b-ITU-T J.293], [b-ITU-T J.700]
WEP	Wired Equivalent Privacy	[b-ITU-T J.296]
WHT	Walsh-Hadamard Transform	[b-ITU-T J.88], [b-ITU-T J.147], [b-ITU-T J.240]

Wi-Fi	Wireless Fidelity	[b-ITU-T J.195.1]
WM	Water Mark	[b-ITU-T J.95]
WMA	Windows Media Audio	[b-ITU-T J.700]
WPA	Wi-Fi Protected Access	[b-ITU-T J.296]
WPS	Wi-Fi Protected Setup	[b-ITU-T J.296]
WRS	Wireless Relay Station	[b-ITU-T J.114]
WS	Web Service	[b-ITU-T J.365]
WSDL	Web Services Description Language [b-ITU-T J.380.7], [b-ITU-T J.700]	[b-ITU-T J.365],
WST	World System Teletext	[b-ITU-T J.287]
WTR	Wait to Restore	[b-ITU-T J.132]
WTSA	World Telecommunication Standardization Assembly	[b-ITU-T J.197]
WTSC	World Telecommunication Standardization Conference	[b-ITU-T J.90]
wTVML	worldwide Television Markup Language	[b-ITU-T J.201]
WVGA	Wide Video Graphics Array	[b-ITU-T J.343.4]
WWW	World Wide Web	[b-ITU-T J.282]
X509	Recommendation ITU-T X.509: Information Technology – Open Systems Interconnection – The Directory: Authentication Framework	[b-ITU-T J.800.2]
XAiT	Extended Application Information Table (OCAP)	[b-ITU-T J.128]
XCAP	XML Configuration Access Protocol [b-ITU-T J.367], [b-ITU-T J.460.1], [b-ITU-T J.705]	[b-ITU-T J.360],
XCAP	eXtensible markup language Configuration Access Protocol	[b-ITU-T J.700]
XDM XML	Document Management	[b-ITU-T J.367]
XDMC	XML Document Management Client	[b-ITU-T J.367]
XDMS	XML Document Management Server	[b-ITU-T J.367]
XDS	XCAP Data Server	[b-ITU-T J.360]
xDSL	x Digital Subscriber Line	[b-ITU-T J.282]
xDSL	(symmetric, asymmetric, high bit-rate, very high speed) Digital Subscriber Line	[b-ITU-T J.700]
XG-PON	10-Gigabit Passive Optical Network	[b-ITU-T J.185]
XHTML	extensible Hyper Text Markup Language [b-ITU-T J.200], [b-ITU-T J.201]	[b-ITU-T J.127],
XM	Cross Modulation	[b-ITU-T J.142]
XM	Cross Modulation distortion	[b-ITU-T J.185], [b-ITU-T J.186]
XML	eXtensible Markup Language [b-ITU-T J.200], [b-ITU-T J.201], [b-ITU-T J.290], [b-ITU-T J.360 Amendment 1], [b-ITU-T J.365], [b-ITU-T J.367], [b-ITU-T J.380.1], [b-ITU-T J.380.2], [b- ITU-T J.700], [b-ITU-T J.702], [b-ITU-T J.703], [b-ITU-T J.705], [b-ITU-T J.800.0]	[b-ITU-T J.181],

XOR	Exclusive [b-ITU-T J.147], [b-ITU-T J.222.1], [b-ITU-T J.222.3]	[b-ITU-T J.83],
XSD	XML Schema Definition	[b-ITU-T J.365], [b-ITU-T J.800.0]
XSL	eXtensible Stylesheet Language	[b-ITU-T J.200]
XSLT	XSL Transformations	[b-ITU-T J.200]
YUV	Color/Colour Space and file format [b-ITU-T J.247], [b-ITU-T J.342]	[b-ITU-T J.246],



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