

# **Summary and Index of ATSC Terms**

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The Advanced Television Systems Committee, Inc., is an international, non-profit organization developing voluntary standards for digital television. The ATSC member organizations represent the broadcast, broadcast equipment, motion picture, consumer electronics, computer, cable, satellite, and semiconductor industries.

Specifically, ATSC is working to coordinate television standards among different communications media focusing on digital television, interactive systems, and broadband multimedia communications. ATSC is also developing digital television implementation strategies and presenting educational seminars on the ATSC standards.

ATSC was formed in 1982 by the member organizations of the Joint Committee on InterSociety Coordination (JCIC): the Electronic Industries Association (EIA), the Institute of Electrical and Electronic Engineers (IEEE), the National Association of Broadcasters (NAB), the National Cable Television Association (NCTA), and the Society of Motion Picture and Television Engineers (SMPTE). Currently, there are approximately 140 members representing the broadcast, broadcast equipment, motion picture, consumer electronics, computer, cable, satellite, and semiconductor industries.

ATSC Digital TV Standards include digital high definition television (HDTV), standard definition television (SDTV), data broadcasting, multichannel surround-sound audio, and satellite direct-to-home broadcasting.

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## Summary and Index of ATSC Terms

### 1. SCOPE

The following tables catalog the definitions of acronyms and terms used in ATSC standards, recommended practices, and informational documents. For each entry, the source document is listed along with the definition given in the document. The definitions given herein represent the definition contained in the referenced document.

Legend: A = acronym, T= term, F = field name. The “Source” field refers to the ATSC Standards document in which the acronym or term is used. Note that for some terms, the definition varies depending upon the document (i.e., application).

### 2. ATSC ACRONYMS

Type	Entry	Source	Definition
A	16QAM	80	16 (level) quadrature amplitude modulation
A	16-VSB	53, 54	vestigial sideband modulation with 16 discrete amplitude levels.
A	1CBPS	80	1 coded bit per symbol
A	2CBPS	80	2 coded bits per symbol
A	8PSK	80	8 (level) phase shift keying
A	8-VSB	53, 54	vestigial sideband modulation with 8 discrete amplitude levels.
A	A/D	53, 54	analog to digital converter
A	ABA TDES	70	112 bit triple DES used in “encrypt-decrypt-encrypt” mode
A	ABC TDES	70	168 bit triple DES used in “encrypt-decrypt-encrypt” mode
A	ACATS	53, 54	Advisory Committee on Advanced Television Service
A	acmod	52	audio coding mode
A	addbsi	52	additional bit stream information
A	addbsie	52	additional bit stream information exists
A	addbsil	52	additional bit stream information length
A	AEIT	81	Aggregate event information table
A	ACAP	101, 102	Advanced Common Application Platform
A	ACAP-J	101	ACAP Procedural (Java)
A	ACAP-X	101	ACAP Declarative (XHTML)
A	AES	53, 54	Audio Engineering Society
A	AETT	81	aggregate extended text table
A	AFT	54	active format description.
A	AFI	95	authority and format identifier
A	ANSI	53, 54	American National Standards Institute
A	API	100	application programming interface
A	ARM	96, 100	application reference model
A	ASCII	80	American Standard Code for Information Interchange
A	ASTD	81	ancillary service target decoder
A	ATM	53, 54	asynchronous transfer mode
A	ATSC	70, 65, 69, 71, 80, 81, 90, 91, 92, 95, 96, 98, 110	Advanced Television Systems Committee
A	ATTC	54	Advanced Television Test Center

A	ATV	53, 54	advanced television
A	ATVEF	91	Advanced Television Enhancement Forum
A	audblk	52	audio block
A	audprodi2e	52	audio production information exists, ch2
A	audprodie	52	audio production information exists
A	auxbits	52	auxiliary data bits
A	auxdata	52	auxiliary data field
A	auxdatae	52	auxiliary data exists
A	auxdatal	52	auxiliary data length
A	AWGN	54, 80	additive white Gaussian noise
A	baie	52	bit allocation information exists
A	bap	52	bit allocation pointer
A	BER	80	bit error ratio
A	bin	52	frequency coefficient bin in index [bin]
A	BIOP	95	broadcast inter-ORB protocol
A	blk	52	block in array index [blk]
A	blksw	52	block switch flag
A	BMP	65, 69	basic multilingual plane
A	bnd	52	band in array index [bnd]
A	bps	53, 54, 90	bits per second
A	bpsk	81	binary phase shift keying
A	bsi	52	bit stream information
A	bsid	52	bit stream identification
A	bslbf	57, 65, 69, 70, 81, 90, 92, 93, 94, 95, 97, 98, 100, 110	bit serial, leftmost bit first (From A/57A: "Bit string, left bit first, where "left" is the order in which the bit strings are written in the Standard. Bits strings are written as strings of 1s and 0s within single quotation marks, e.g. '1000 1001'. Blanks within a bit string are for ease of reading and have no significance.")
A	bsmod	52	bit stream mode
A	BSS	110	buried spread spectrum (direct sequence)
A	BWS	80	slot bandwidth (for a given service, within a transponder)
A	BWT	80	transponder bandwidth
A	CA	70, 81	conditional access
A	CAM	70	conditional access module
A	CAT	65, 69, 70, 81, 94, 98	conditional access table
A	CBC	70, 96	cipher block chaining
A	CDTV	54	conventional definition television
A	CEA	69	Consumer Electronics Association
A	ch	52	channel in array index [ch]
A	chbwcod	52	channel bandwidth code
A	chexpstr	52	channel exponent strategy
A	chincpl	52	channel in coupling
A	chmant	52	channel mantissas
A	C/I	110	signal-to-interference ratio (between transmitters within a network)
A	clev	52	center mixing level coefficient
A	cmixlev	52	center mix level
A	compr	52	compression gain word

A	compr2	52	compression gain word, ch2
A	compr2e	52	compression gain word exists, ch2
A	compre	52	compression gain word exists
A	copyrightb	52	copyright bit
A	cplabsexp	52	coupling absolute exponent
A	cplbegf	52	coupling begin frequency code
A	cplbndstrc	52	coupling band structure
A	cplco	52	coupling coordinate
A	cplcoe	52	coupling coordinates exist
A	cplcoexp	52	coupling coordinate exponent
A	cplcomant	52	coupling coordinate mantissa
A	cpldeltba	52	coupling dba
A	cpldeltbae	52	coupling dba exists
A	cpldeltlen	52	coupling dba length
A	cpldeltinseg	52	coupling dba number of segments
A	cpldeltoffst	52	coupling dba offset
A	cplendf	52	coupling end frequency code
A	cplexps	52	coupling exponents
A	cplexpstr	52	coupling exponent strategy
A	cplfgaincod	52	coupling fast gain code
A	cplfleak	52	coupling fast leak initialization
A	cplfsnroffst	52	coupling fine SNR offset
A	cplinu	52	coupling in use
A	cplleake	52	coupling leak initialization exists
A	cplmant	52	coupling mantissas
A	cplsleak	52	coupling slow leak initialization
A	cplstre	52	coupling strategy exists
A	CRL	96	certificate revocation list
A	CRC	53, 54, 65, 69, 81, 90, 91, 92, 93, 95, 98	cyclic redundancy check
A	crc1	52	crc - cyclic redundancy check word 1
A	crc2	52	crc - cyclic redundancy check word 2
A	crcrsv	52	crc reserved bit
A	CS	110	cadence signal
A	csnroffst	52	coarse SNR offset
A	CSS	100	Cascading Style Sheet
A	CVCT	65, 69, 71, 81, 90, 94	cable virtual channel table
A	CW	70	control word (The key used for MPEG transport scrambling).
A	d15	52	d15 exponent coding mode
A	d25	52	d25 exponent coding mode
A	d45	52	d45 exponent coding mode
A	DA	100	declarative application
A	DAE	100	Declarative Application Environment
A	DASE	96, 100	DTV Applications Software Environment
A	DAU	90, 91, 93, 95	data access unit
A	DAVIC	91, 100	Digital Audio Visual Council

A	dba	52	delta bit allocation
A	dbpbcod	52	dB per bit code
A	DC	91	DownloadCancel
A	DCC	65, 69, 94	directed channel change
A	DCCRR	65	DCC capable DTV reference receiver
A	DCCSCT	65, 69	DCC selection code table
A	DCT	53, 54	discrete cosine transform
A	DDB	91, 95	DownloadDataBlock
A	DDE	92	declarative data essence
A	DEB	92, 93	data program element buffer
A	DEBn	90, 91	data elementary stream buffer for synchronized data elementary stream n
A	DEBSn	90	data elementary stream buffer size for synchronized data elementary stream n
A	deltba	52	channel dba
A	deltbae	52	channel dba exists
A	deltbaie	52	dba information exists
A	deltlen	52	channel dba length
A	deltnseg	52	channel dba number of segments
A	deltfst	52	channel dba offset
A	DES	70	Data Encryption Standard
A	DES	70, 90, 93, 96	data elementary stream
A	DET	69, 81, 90, 91, 92, 93, 94	data event table
A	DFS	110	data field synchronization data segment
A	DH	96	Diffie-Hellman
A	DHCP	96	Dynamic Host Configuration Protocol
A	dialnorm	52	dialogue normalization word
A	dialnorm2	52	dialogue normalization word, ch2
A	DII	91, 94, 95	DownloadInfoIndication
A	DIT	69	data information table
A	dithflag	52	dither flag
A	DLNA	71	Digital Living Network Alliance
A	DNS	96	domain name services
A	DOCSIS	96	Data Over Cable Service Interface Specification
A	DOM	100	document object model
A	DS	110	delay spread
A	DSI	91, 94, 95	DownloadServerInitiate
A	DSM	54	digital storage media
A	DSM-CC	54, 81, 90, 91, 92, 93, 94, 95, 96	digital storage media command and control
A	DSL	96	digital subscriber line
A	DSNG	80	digital satellite news gathering
A	DST	90, 81, 91, 93, 94, 95	data service table
A	DSS	54	data segment synchronization
A	dsurmod	52	Dolby surround mode
A	DTD	100	document type definition
A	DTH	80	direct to home

A	DTS	53, 54, 81, 90, 92	decoding time stamp
A	DTV	65, 69, 70, 80, 90, 91, 96, 100, 110	digital television
A	DTVCC	94	digital television closed captioning
A	DTx	110	distributed transmission
A	DTxA	110	distributed transmission adapter
A	DTxN	110	distributed transmission network
A	DTxP	110	distributed transmission packet
A	DTxR	110	distributed translator
A	DTxS	110	distributed transmission system
A	DTxT	110	distributed transmitter
A	D/U	54, 110	desired (signal) to undesired (signal) ratio
A	DVB	69, 70, 80, 81, 90	Digital Video Broadcasting
A	DVB-SI	80	Digital Video Broadcasting—Service Information
A	DVCR	54	digital video cassette recorder
A	DVS	69, 81	Digital Video Subcommittee
A	dynrng	52	dynamic range gain word
A	dynrng2	52	dynamic range gain word, ch2
A	dynrng2e	52	dynamic range gain word exists, ch2
A	dynrnge	52	dynamic range gain word exists
A	EA	81	emergency alert
A	EBU	80, 94	European Broadcasting Union
A	ECB	70	electronic codebook (DES cipher mode)
A	ECC	110	error correcting code
A	ECM	54, 70, 81	entitlement control message
A	EDE	70, 96	encrypt-decrypt-encrypt
A	EIA	69, 94	Electronic Industries Alliance
A	EIT	65, 69, 70, 81, 90, 91, 92, 93	event information table
A	EMM	54, 65, 69, 70, 98	entitlement management message
A	EPG	65, 69, 76, 91, 94	electronic program guide
A	ERP	110	effective radiated power
A	ES	53, 54, 81, 90, 91, 93	elementary stream
A	ESCR	53, 54, 91	elementary stream clock reference
A	ETM	65, 69, 81, 90, 92	extended text message
A	ETS	80	European Telecommunication Standard
A	ETT	65, 69, 81, 90, 92, 94	extended text table
A	exps	52	channel exponents
A	fbw	52	full bandwidth
A	fdccod	52	fast decay code
A	FDM	80	frequency division multiplex
A	FDMA	80	frequency division multiple access
A	FEC	53, 80	forward error correction
A	fgaincod	52	channel fast gain code
A	FIFO	80	first-in, first-out shift register

A	FIR	80	finite impulse response
A	floorcod	52	masking floor code
A	floortab	52	masking floor table
A	FPLL	54	frequency and phase-locked-loop
A	FRAGnkj	92	IP fragmentation buffer for fragment identifier $j$ , multicast address $k$ , in program element $n$
A	frmsizecod	52	frame size code
A	fscod	52	sampling frequency code
A	fsnroffst	52	channel fine SNR offset
A	gainrng	52	channel gain range code
A	GHz	80	gigahertz (109 cycles per second)
A	GOP	53, 54	group of pictures
A	GPS	65, 69, 76, 81, 110	Global Positioning System
A	grp	52	group in index [grp]
A	HAVi	100	Home Audio Video Interoperability
A	HDTV	53, 54, 80	high-definition television
A	HEX	80	hexadecimal notation
A	HPA	80	high power amplifier
A	HTML	70, 90, 100	Hypertext Markup Language
A	HTTP	96	Hyper Text Transfer Protocol
A	HTTPS	96	Hyper Text Transfer Protocol – Secure
A	I/O	80	input/output
A	IBO	80	input back off
A	ICMP	96	Internet Control Message Protocol
A	ICP	96	interaction channel provider
A	ICSP	96	interactive content service provider
A	IDL	100	Interface Definition Language
A	IDR	80	intermediate data rate
A	IEC	53, 54, 69, 71, 80, 81, 90, 94	International Electrotechnical Commission
A	IEEE	71, 90, 96	Institute of Electrical and Electronics Engineers
A	IESS	80	Intelsat Earth Station Standard
A	IETF	91, 92, 94, 96	Internet Engineering Task Force
A	IF	80	intermediate frequency
A	IP	91, 92, 94, 96, 100	Internet Protocol
A	IPG	69	interactive program guide
A	IPGRMBnk	92	IP datagram buffer for $k$ th IP multicast address in the $n$ th program element
A	IPM	92, 96	IP multicast
A	IPTV	71	Internet Protocol television
A	IPX	91	Internetwork Packet Exchange
A	IOR	95	interoperable object reference
A	ISAN	57, 76	International Standard Audiovisual Number
A	ISDN	96	Integrated Services Digital Network
A	ISI	54	intersymbol interference
A	ISO	53, 54, 69, 71, 80, 81, 90, 91, 94, 96	International Organization for Standardization



A	ISP	96	Internet service provider
A	ITU	53, 54, 90, 92, 94, 96	International Telecommunication Union
A	ITV	96	interactive television
A	IV	70	initialization vector
A	JDK	100	Java Development Kit
A	JEC	54	Joint Engineering Committee (of EIA and NCTA)
A	JMF	100	Java Media Framework
A	JPEG	100	Joint Photographic Expert Group
A	kbps	69, 90, 95	1,000 bits per second
A	LAN	96	local area network
A	langcod	52	language code
A	langcod2	52	language code, ch2
A	langcod2e	52	language code exists, ch2
A	langcode	52	language code exists
A	lfe	52	low frequency effects
A	lfeexps	52	lfe exponents
A	lfeexpstr	52	lfe exponent strategy
A	lfefgaincod	52	lfe fast gain code
A	lfefsnroffst	52	lfe fine SNR offset
A	lfemant	52	lfe mantissas
A	lfeon	52	lfe on
A	LLC-SNAP	90, 91	Logical Link Control - Sub Network Access Protocol
A	LMS	54	least mean squares
A	LNA	80	low-noise amplifier
A	LNB	80	low-noise block downconverter
A	LSB	91, 110	least significant byte
A	LTST	91, 94	long term service table
A	MAC	90, 92	media access control
A	mbps	53, 54, 80, 90, 95, 110	1,000,000 bits per second
A	MCPC	80	multiple channels per carrier
A	MD	110	maximum delay
A	MD5	96	message digest 5
A	MGT	65, 69, 70, 81, 90, 91	master guide table
A	MHz	69, 80	megahertz (10 <sup>6</sup> cycles per second)
A	MIME	94, 100	Multipurpose Internet Mail Extensions
A	MIP	96	minimal implementation profile
A	mixlevel	52	mixing level
A	mixlevel2	52	mixing level, ch2
A	MMI	70	man-machine interface
A	MNG	100	Multiple Network Graphics
A	MP@HL	53, 54	Main Profile at High Level
A	MP@ML	53, 54	Main Profile at Main Level
A	MPAA	65, 69	Motion Picture Association of America
A	MPE	92	multi-protocol encapsulation
A	MPEG	53, 54, 65, 69,	Moving Picture Experts Group; Refers to standards developed by the ISO/IEC

		70, 71, 80, 81, 90, 91, 92, 93, 94, 95, 96, 110	JTC1/SC29 WG11.
A	MPEG-1	53, 54, 95	Refers to ISO/IEC standards 11172-1 (Systems), 11172-2 (Video), 11172-3 (Audio), 11172-4 (Compliance Testing), and 11172-5 (Technical Report).
A	MPEG-2	53, 54, 95	MPEG-2 – Refers to ISO/IEC standards 13818-1 (systems), 13818-2 (video), 13818-3 (Audio), 13818-4 (Compliance).
A	MRD	81, 93	MPEG-2 registration descriptor
A	MS	92	media stream
A	MSB	80, 110	most significant bit
A	mstrcplco	52	master coupling coordinate
A	MTU	90, 91, 92	maximum transmission unit
A	MUX	53, 80	multiplex
A	nauxbits	52	number of auxiliary bits
A	nbombsbf	90, 92	network byte order, most significant bit first
A	nchans	52	number of channels
A	nchgrps	52	number of fbw channel exponent groups
A	nchmant	52	number of fbw channel mantissas
A	ncplbnd	52	number of structured coupled bands
A	ncplgrps	52	number of coupled exponent groups
A	ncplmant	52	number of coupled mantissas
A	ncplsubnd	52	number of coupling sub-bands
A	nfchans	52	number of fbw channels
A	NIC	96	network interface card
A	nlfegrps	52	number of lfe channel exponent groups
A	nlfemant	52	number of lfe channel mantissas
A	NRSS	70	National Renewable Security Standard
A	NRT	90, 91, 92, 94, 95	network resources table
A	NSAP	95	network service access point
A	NTP	92, 96	network time protocol
A	NTSC	69	National Television Systems Committee
A	NVOD	65, 69, 100	near video on demand
A	OBO	80	output back off
A	OCSP	96	On-Line Certificate Status Protocol
A	OCT	80	octal notation
A	OD	110	offset delay
A	OMP	110	operations and maintenance packet
A	OOB	65, 69	out of band
A	OQPSK	81	offset quadrature phase shift keying
A	ORB	95	object request broker
A	origbs	52	original bit stream
A	OSI	96	Open System Interconnection
A	OUI	90, 94, 95, 97	organization unique identifier
A	P	80	puncturing
A	PA	100	procedural application
A	PAE	100	Procedural Application Environment
A	PAT	65, 69, 80, 81, 90, 91, 92, 94, 110	program association table

A	PCR	53, 54, 65, 69, 70, 90, 91, 110	program clock reference
A	PDU	92	protocol data unit
A	pel	53, 54	pixel
A	PES	53, 54, 65, 69, 70, 81, 90, 91, 92, 93	packetized elementary stream
A	phsflg	52	phase flag
A	PNG	100	Portable Network Graphics
A	phsflginu	52	phase flags in use
A	PID	53, 54, 65, 69, 70, 76, 81, 90, 91, 92, 93, 94, 98, 110	packet identifier
A	PKI	96	public key infrastructure
A	PMT	53, 65, 69, 70, 80, 81, 90, 91, 93, 94, 95	program map table
A	POD	97	point of deployment
A	POTS	96	plain old telephone service
A	ppm	110	parts per million
A	PRBS	80, 110	pseudo random binary sequence
A	PSI	53, 54, 69, 70, 81, 90	program specific information
A	PSIP	54, 65, 69, 70, 81, 90, 91, 92, 93, 94, 95, 96	Program and System Information Protocol; a collection of tables describing virtual channel attributes, event features, and other information.
A	PSK	80	phase shift keying
A	PTC	65, 69	physical transmission channel
A	PTS	53, 54, 81, 90, 91, 100	presentation time stamp
A	PU	53, 54, 90	presentation unit
A	QEF	80	quasi-error-free
A	QPSK	80, 81	quadrature phase shift keying
A	QUAM	69, 81	quadrature amplitude modulation
A	rbnd	52	rematrix band in index [rbnd]
A	RCU	69	remote control unit
A	RCE	100	runtime code extension
A	rematflg	52	rematrix flag
A	rematstr	52	rematrixing strategy
A	RF	80, 110	radio frequency
A	RFC	91, 92, 94, 96	request for comment
A	RFI	80	request for information
A	riuimsbf	110	repeated, inverted, unsigned integer, most significant bit first
A	riuimsbfwp	110	repeated, inverted, unsigned integer, most significant bit first, with parity
A	ROM	54	read-only memory
A	roomtyp	52	room type
A	roomtyp2	52	room type, ch2
A	rpchof	57, 65, 69, 81, 90, 98	remainder polynomial coefficients, highest order first

A	RRT	65, 69, 81, 90	rating region table
A	RS	53, 80, 110	Reed-Solomon
A	RSA	96	Rivest, Shamir, Aldeman
A	RTT	69	ratings text table
A	SAP	92	session announcement protocol
A	SbN	91, 92, 94	smoothing buffer
A	sbnd	52	sub-band in index [sbnd]
A	SCPC	80	single channel per carrier
A	SCR	53, 54	system clock reference
A	SCTE	65, 69, 70, 81, 90, 92, 96	Society of Cable Telecommunications Engineers
A	SD	69	standard definition
A	sdycod	52	slow decay code
A	SDF	91, 94	service description framework
A	SDO	97	standards development organization
A	SDP	92	session description protocol
A	SDT	90,92	service description table
A	SDTV	53, 54, 69	standard definition television
A	seg	52	segment in index [seg]
A	SFN	110	single frequency network
A	sgaincod	52	slow gain code
A	SHA-1	96	Secure Hash Standard 1
A	SI	65, 90	system information
A	SI	69, 80, 81	service information
A	skipfld	52	skip field
A	skipl	52	skip length
A	skiple	52	skip length exists
A	slev	52	surround mixing level coefficient
A	SLD	91,92, 94	service location descriptor
A	SMPTE	53, 54, 69, 92, 94	Society of Motion Picture and Television Engineers
A	SNG	80	satellite news gathering
A	snroffste	52	SNR offset exists
A	SP	110	synchronization packet
A	SRM		system renewability message
A	SSL	96	secure socket layer
A	STB	96	set-top box
A	STC	54, 100	system time clock
A	STD	53, 54, 65, 69, 81, 90, 94	system target decoder
A	STL	112	studio-to-transmitter link
A	STS	110	synchronization time stamp
A	STT	65, 69, 81, 90	system time table
A	surmixlev	52	surround mix level
A	syncframe	52	synchronization frame
A	syncinfo	52	synchronization information
A	syncword	52	synchronization word
A	TAD	110	transmitter and antenna delay
A	TBD	80	to be determined

A	TBn	90, 91	transport buffer for data elementary stream n
A	TBSn	90, 92	transport buffer size for data elementary stream n
A	tcimsbf	110	two's complement integer, most significant bit first
A	TCM	80	trellis coded modulation
A	TCP	96	Transmission Control Protocol
A	TCP/IP	76, 90	Transport Control Protocol/Internet Protocol
A	TDAC	52	time division aliasing cancellation
A	TDES	70	triple DES
A	TDM	80	time division multiplex
A	timecod1	52	time code first half
A	timecod1e	52	time code first half exists
A	timecod2	52	time code second half
A	timecod2e	52	time code second half exists
A	TLS	96	transport layer security
A	TOV	54	threshold of visibility
A	TS	65, 69, 70, 81, 90, 91, 92, 93, 95, 98, 110, 112	transport stream
A	TSDT	80, 81	transport stream descriptor table
A	TSFS	94, 95, 96	transport stream file system
A	TSID	69, 95	transport stream ID or transmission signal ID
A	TTL	92	time to live
A	TV	80	television
A	TVCT	65, 69, 71, 81, 90, 94	terrestrial virtual channel table
A	TVPG	69	television parental guidelines
A	TWTA	80	traveling wave tube amplifier
A	UDP	92, 96	User Datagram Protocol
A	UDPn <sub>kj</sub>	92	UDP buffer for port <i>l</i> , fragment identifier <i>j</i> , IP multicast address <i>k</i> , in program element <i>n</i>
A	U-N	91	user to network
A	uilsBf	100	unsigned integer least significant byte first
A	uilsWBf	100	unsigned integer least significant word and byte first
A	uimsbf	57, 65, 69, 70, 80, 81, 90, 92, 93, 94, 95, 97, 98, 100, 110	unsigned integer, most significant bit first
A	uipfmsbf	110	unsigned integer plus fraction, most significant bit first
A	unicode	65, 69, 70	Unicode™
A	URI	94, 95, 96, 100	uniform resource identifier
A	URL	69	uniform resource locator
A	UTC	65, 69, 76, 81, 90	Coordinated Universal Time
A	U-U	95	user-to-user
A	UUID	94, 100	universal unique identifier
A	VBI	69	vertical blanking interval
A	VBV	53, 54, 81	video buffering verifier
A	VC	69	virtual channel
A	VCT	65, 69, 70, 71,	virtual channel table

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		90, 91, 93, 94	
A	V-ISAN	57, 76	Version of an International Standard Audiovisual Number
A	VSB	53, 69	vestigial sideband
A	W3C	100	World Wide Web Consortium
A	WAN	96	wide area network
A	WM	110	watermark
A	XDML	100	Extensible DTV Markup Language
A	XML	76, 100	Extensible Markup Language.
A	XOR	110	exclusive OR function

### 3. ATSC TERMS

Type	Entry	Source	Definition
T	ACAP application	101	An application that is written only to the interfaces and semantic guarantees defined in ACAP. A suitably signaled ACAP application will run on any terminal that complies to an ACAP terminal specification.
T	ACAP terminal	101	A terminal or other device that conforms to an ACAP Terminal Specification.
T	ACAP terminal specification	101	An ACAP terminal specification is a specification that includes all normative and selected optional elements of its underlying ACAP specification, and provides additional specifications as required
T	access unit	53, 54	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 a 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 bit stream 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.
T	action	93	A trigger semantic that implies some behavior on the receiver without any associated data item.
T	activation	93	The process of enabling the target referenced by a trigger which may cause rendering. For a trigger referring to graphic data, activation might cause the rendering of a graphical object on the screen. For a trigger referring to audio data, activation might cause the emission of the appropriate sounds.
T	activation time	93	The System Time Clock instant at which the target of a trigger is activated.
T	active object content	100	A category of content types which includes both application/java and application/javatv-xlet content types.
T	aligned	95	A bit in a coded bit stream is byte-aligned if its position is a multiple of 8-bits from the first bit in the stream.
T	anchor frame	53, 54	A video frame that is used for prediction. I-frames and P-frames are generally used as anchor frames, but B-frames are never anchor frames.
T	application	90, 94	An aggregation of related data items, including but not limited to: procedural code, declarative data, and other data.
T	application activation	100	The process of transitioning an application's lifecycle state from the initialized to the active state, a process which entails decoding the application initial entity.
T	application delivery file system	100	An optional file system provided by the application delivery system; an application delivery file system may be mounted (logically attached) to a directory of the local file system; in general, all nodes (directories and files) of an application delivery file system are constrained to support only read access.
T	application delivery system	100	A mechanism by which an application is announced and signaled, and has its resources delivered to an application environment.
T	application emission policy	100	A set of rules for determining grantable permissions based on conditions defined by the application emitter.
T	application emitter	100	The entity which controls the emission of applications through mechanisms implemented by an application delivery system; for example, a terrestrial broadcaster.
T	application entity collection	100	A collection of application entities which expresses an application as a whole.
T	application entity	100	A unit of information that expresses some portion of an application.

T	application environment:	100	The context (system) in which an application is processed.
T	application initial entity	100	The application entity which is initially decoded during application activation processing.
T	application initialization	100	The process of transitioning an application's lifecycle state from the uninitialized to the initialized state, a process which entails decoding the application root entity.
T	application resource collection	100	The set of application resources which embody an application entity collection.
T	application resource	100	A bit-stream serialization (a physical embodiment) of an application entity; an application resource may be of bounded (determinate) or unbounded (indeterminate) length; an application resource may be manifest or implied.
T	application resumption	100	The process of transitioning an application's lifecycle state from the suspended to the active state.
T	application root entity	100	A specific element of an application entity collection which is processed before all other elements in the collection during application initialization processing.
T	application termination	100	The process of transitioning an application's lifecycle state from to the uninitialized state.
T	application-defined facility	100	A facility defined by a DASE application.
T	application environment	95	The context (client system) in which an application is processed..
T	application identifier	93	A globally unique identifier of an application that is used for binding triggers to applications.
T	application resource	94	A bit-stream serialization (a physical embodiment) of a part of an application that implements one of the data models defined in this document (A/94).
T	ARM data application	100	A data application as defined by ATSC A/94.
T	asynchronous data	90, 94	Stand-alone or audio/video-related data transmitted with no strong timing requirements in the sense that it is not associated with any transmitted clock references and availability of data in a data receiver is not governed by any such clock references.
T	asynchronous transfer mode	53, 54	A digital signal protocol for efficient transport of both constant-rate and bursty information in broadband digital networks. The ATM digital stream consists of fixed-length packets called "cells," each containing 53 8-bit bytes—a 5-byte header and a 48-byte information payload.
T	asynchronous trigger	93	A structure transmitted within an MPEG-2 transport stream containing a reference to a target and some opaque user data bytes which may also include a reference to an application that is intended to process it.
T	ATSC transport	57	The ATSC MPEG-2 Transport Stream as defined in ATSC A/53B.
T	audio block	52	A set of 512 audio samples consisting of 256 samples of the preceding audio block, and 256 new time samples. A new audio block occurs every 256 audio samples. Each audio sample is represented in two audio blocks.
T	audio-visual event	90	An event where elementary streams are all of type video or audio.
T	audio-visual work	57	A sequence of related images, with or without accompanying sound, which is intended to be made visible as a moving image through the use of devices, regardless of the medium of initial or subsequent fixation.
T	authorization	100	The process of determining if a privileged operation is permitted..
T	authorized operation	100	An unprivileged operation or a privileged operation for which permission has been granted.
T	automation event	76	An entry in a playlist that triggers an action by an automation system to initiate playback, start a machine, switch a signal, control an effect, change a configuration, or other action that changes the content or configuration of a program output channel.



T	attribute	76	A qualifier on an XML tag that provides additional information.
T	base PID	69	A packet identifier of fixed value 0x1FFB.
T	Bi-directional picture	53, 54	Pictures that use both future and past pictures as a reference. This technique is termed bidirectional prediction. B-pictures provide the most compression. B-pictures do not propagate coding errors as they are never used as a reference.
T	bin	52	The number of the frequency coefficient, as in frequency bin number n. The 512 point TDAC transform produces 256 frequency coefficients or frequency bins.
T	binding	95	A binding is a collection of bytes in a directory object that defines an association between a name and a reference (IOR) to an object. A binding may also contain descriptive information about the bound object.
T	binding name	95	The name that appears in a binding.
T	binding structure	95	The DirectoryMessageBody() of a directory object, consisting of a list of bindings associating object names with their locations.
T	BIOP object	95	An object formatted according to the generic BIOP message structure defined in the DSMCC.
T	bit rate	53, 54, 90, 92	The rate at which the bit stream is delivered from the channel to the input of a decoder.
T	block	53, 54	A block is an 8-by-8 array of pel values or DCT coefficients representing luminance or chrominance information.
T	bounded resource	100	An application resource of determinate length.
T	buried spread spectrum	110	A technique permitting carriage of data in the same spectrum with, but without interference to, another signal by transmitting that data at a much reduced level relative to the primary signal and using coding techniques to permit its recovery with adequate signal-to-noise ratio.
T	bury ratio	110	The ratio, normally expressed in dB, between the average power of the primary 8-VSB signal and the power of a buried spread spectrum sharing the same channel.
T	byte-aligned	53, 54, 90, 92	A bit in a coded bit stream is byte-aligned if its position is a multiple of 8-bits from the first bit in the stream.
T	candidate specification	100	A specification under scrutiny or consideration for some purpose.
T	carousel	95	A carousel identifies a group of objects transmitted repeatedly from a particular service provider for a specific purpose (service).
T	carousel	97	A download scenario where the modules are repeated.
T	CDATA	76	A predefined XML tag for Character DATA that says, "don't interpret these characters", as opposed to Parsed Character Data (PCDATA), in which the normal rules of XML syntax apply.
T	certification	100	The process of granting a certificate of compliance to a compliant application or a compliant system; in general, such a process is a legal or a business related process, not a technical process.
T	channel	53, 54, 94	A digital medium that stores or transports a digital television stream.
T	coded representation	53, 54	A data element as represented in its encoded form.
T	coefficient	52	The time domain samples are converted into frequency domain coefficients by the transform.
T	communication channel	90, 96	A digital medium that transports a digital stream. A communication channel can be unidirectional or bi-directional.
T	compliance testing	100	The process of determining that an application or system complies (is in compliance) with a conformance statement which applies to a candidate specification.
T	compliant	100	An application which has undergone compliance testing and has been determined to be

	application		in compliance with a conformance statement which applies to a candidate specification.
T	compliant system	100	A system which has undergone compliance testing and has been determined to be in compliance with a conformance statement which applies to a candidate specification.
T	compliant	100	The state of having satisfied a compliance testing process.
T	compression	53, 54	Reduction in the number of bits used to represent an item of data.
T	conformance	100	A specification of a conformance statement.
T	conformance criteria	100	The individual assertions that compose a conformance statement.
T	conformance statement	100	A set of assertions which defines adherence to a candidate specification.
T	constant bit rate	53, 54, 90	Operation where the bit rate is constant from start to finish of the bit stream.
T	content	57	An audiovisual work.
T	content	76	Essence plus its metadata.
T	content	94	A general term which refers to either an application or application resource.
T	content	100	An unspecified unit of information; the essential nature or character of some material; for example, streaming video content and markup content.
T	content ID	76	A label for content. This may take the form of a global label such as ISAN, or a "house number".
T	content processor	100	An identifiable component of an application environment which decodes or executes a specific content type.
T	content type	95	A content-type is the top-level media type used to declare the general type of data. A subtype is used to convey a specific format for that type of data. For example, a media type of "image/xyz" indicates that the data is an image, even without knowledge of the specific image format "xyz".
T	content type	100	A specific type of content identified by a MIME media type; a (metadata) property of an application resource.
T	conventional definition television	54	This term is used to signify the analog NTSC television system as defined in ITU-R Recommendation 470. See also standard definition television and ITU-R Recommendation 1125.
T	coupled channel	52	A full bandwidth channel whose high frequency information is combined into the coupling channel.
T	coupling band	52	A band of coupling channel transform coefficients covering one or more coupling channel sub-bands.
T	coupling channel	52	The channel formed by combining the high frequency information from the coupled channels.
T	coupling sub-band	52	A sub-band consisting of a group of 12 coupling channel transform coefficients.
T	DASE Application	100	A collection of information that expresses a specific set of externally observable behavior.
T	DASE content	100	A DASE Application or the content that composes the application.
T	DASE Extension	100	A well-defined set of functionality that extends the DASE Standard; an extension may be qualified as a standard extension, if defined by the ATSC, or a non-standard extension, if defined by a third party.
T	DASE level	100	A particular specification of the DASE Standard within a series of DASE Standards that specify functional supersets of prior DASE levels.
T	DASE receiver	100	A physical embodiment of the DASE System.
T	DASE Standard	100	The set of specifications, formally enumerated in the body of this specification (Part 1), that compose the ATSC Standard known as DASE (DTV Application Software Environment).
T	DASE System	100	A collection of logical components which supports the processing and presentation of DASE Applications.
T	DASE trigger	100	A bounded application resource which is asynchronously delivered to an active DASE

			Application; a DASE trigger is typically generated by an application emitter to cause some behavior in an active DASE Application.
T	data access unit	90, 93	The portion of a synchronized or synchronous data elementary stream that is associated with a particular MPEG-2 presentation time stamp.
T	data carousel	90, 96	The scenario of the DSM-CC User-to-Network Download Protocol that embodies the cyclic transmission of data.
T	data element	53, 54	An item of data as represented before encoding and after decoding.
T	data element	90	A self-contained subset of a data elementary stream.
T	data elementary stream	90, 92	The payloads of a series of consecutive MPEG-2 transport streams packets referenced by a unique PID value.
T	data essence	100	Content of an indeterminate type.
T	data field sync	110	The data segment added by the modulator that includes mode indicators, training signals for receiver adaptive equalizers, and similar information, and that serves as the starting point for the data processing functions that start from known states. Depending upon the context, the term can apply to Data Field Sync data segments having the middle PN-63 sequence in either phase, or it can apply only to the Data Field Sync data segments that alternate with Data Frame Sync data segments.
T	data frame sync	110	The Data Field Sync data segment in which the middle PN-63 sequence is not inverted relative to the two adjacent PN-63 sequences.
T	data segment	110	A part of the data framing structure, comprising 832 total symbols, that begins with a Data Segment Sync word, represented by four transmitted 2-level symbols, and carries 828 symbols of payload thereafter.
T	data module	90	An ordered sequence of bytes of a bounded size.
T	data module	93	The fundamental data entity resulting from the in-order re-assembly of the payload of the DSM-CC downloadDataBlock messages pertaining to the same downloadId, moduleId, and moduleVersion field values.
T	data receiver	90, 92, 95	Any device capable of receiving and consuming data carried on an MPEG-2 transport stream.
T	data service	90, 92, 94, 95	A collection of applications and associated data elementary streams as signaled in a data service table of the service description framework. A data service is characterized by a profile and a level.
T	data source	90, 92, 95	The provider of data that is being inserted into the MPEG-2 transport stream.
T	datagram	90, 92, 94, 96	A datagram is the fundamental protocol data unit in a packet-oriented data delivery protocol. Typically, a datagram is divided into header and data areas, where the header contains full addressing information (source and destination addresses) with each data unit. Datagrams are most often associated with connectionless network and transport layer services.
T	declarative application environment	100	An environment that supports the processing of declarative applications; an XDML user agent (browser) is an example of a declarative application environment.
T	declarative application	100	An application which primarily makes use of declarative information to express its behavior; an XDML document instance is an example of a declarative application.
T	declarative information	100	Information expressed in the form of assertions; e.g., P is, Q is, R is, or, more succinctly, {P, Q, R}.
T	decoded stream	53, 54, 90, 92, 95	The decoded reconstruction of a compressed bit stream.
T	decoder	53, 54, 90, 92, 93, 95	An embodiment of a decoding process.

T	decoding (process)	53, 54, 95	The process defined in the Digital Television Standard that reads an input coded bit stream and outputs decoded pictures and audio samples.
T	decoding (process)	90, 92, 93	The process defined in the Digital Television Standard that reads an input coded bit stream and outputs decoded pictures, audio samples, or data objects.
T	decoding time-stamp (DTS)	53, 54	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.
Y	delay spread	110	The difference in arrival times at a point in space or at a receiver input of a signal and its significant echoes or of signals emitted by different transmitters.
T	descriptor	65, 69	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.
T	D-frame	53, 54	Frame coded according to an MPEG-1 mode which uses DC coefficients only.
T	digital channel	65	A set of one or more digital elementary streams. (See virtual channel.)
T	digital storage media (DSM)	54	A digital storage or transmission device or system.
T	directory link	95	An alternative term for a binding.
T	directory path	95	A sequence of directory links, in which for each link in the sequence except the last one the object referenced by the link is the directory containing the next link in the sequence.
T	discrete cosine transform	53, 54	A mathematical transform that can be perfectly undone and which is useful in image compression.
T	download scenario	97	The collection of DSM-CC control and data messages with the same DownloadID value.
T	downmixing	52	Combining (or mixing down) the content of n original channels to produce m channels, where m<n.
T	earliest activation time	93	The earliest activation time is the earliest System Time Clock instant at which a specific target is activated using all emitted triggers (both asynchronous and synchronized).
T	earliest target acquisition time	93	The target acquisition time of the first instance of a target transmitted by means of one of the asynchronous delivery protocols specified in ATSC Standard A/90.
T	editing	53, 54	A process by which one or more compressed bit streams are manipulated to produce a new compressed bit stream. Conforming edited bit streams are understood to meet the requirements defined in the Digital Television Standard.
T	effective permissions	100	A set of granted permissions which apply to an application instance.
T	elementary stream (ES)	53, 54, 92, 93, 95	A generic term for one of the coded video, coded audio or other coded bit streams. One elementary stream is carried in a sequence of PES packets with one and only one stream_id.
T	elementary stream clock reference (ESCR)	53, 54	A time stamp in the PES Stream from which decoders of PES streams may derive timing.
T	embedded Xlet	100	An Xlet that was loaded as a result of processing a markup content entity referenced by a declarative application; an embedded Xlet is specified by means of an XDML object element.
T	encoder	53, 54	An embodiment of an encoding process.

T	encoding (process)	53, 54, 90, 92	A process that reads a stream of input pictures or audio samples and produces a valid coded bit stream as defined in the Digital Television Standard.
T	encyrption	70	The method of protecting EMM and ECM messages by cryptographic methods.
T	end-user	100	The individual operating or interacting with a receiver.
T	entitlement control message (ECM)	54	Entitlement control messages are private conditional access information which specify control words and possibly other stream-specific, scrambling, and/or control parameters.
T	entitlement management message (EMM)	54	Entitlement management messages are private conditional access information which specify the authorization level or the services of specific decoders. They may be addressed to single decoders or groups of decoders.
T	entropy coding	53, 54	Variable length lossless coding of the digital representation of a signal to reduce redundancy.
T	entry point	53, 54	Refers to a point in a coded bit stream after which a decoder can become properly initialized and commence syntactically correct decoding. The first transmitted picture after an entry point is either an I-picture or a P-picture. If the first transmitted picture is not an I-picture, the decoder may produce one or more pictures during acquisition.
T	environment resource	100	A physical or logical component of an application environment; e.g., a region of the graphics frame buffer, an input device, a shared semaphore, a memory pool, etc.
T	epoch	110	An instant in time that is arbitrarily selected as a point of reference.
T	essence	54, 76	In its simplest form, essence = content – metadata. In this context, (video) essence is the image itself without any of the transport padding (H and V intervals, ancillary data, etc).
T	event	53, 54	A collection of elementary streams with a common time base, an associated start time, and an associated end time.
T	event	65	A collection of associated program elements that have a common timeline for a defined period. An event is equivalent to the common industry usage of “television program.” An event may also be an analog “television program.”
T	event	69, 90, 92	A collection of elementary streams with a common time base, an associated start time, and an associated end time. An event is equivalent to the common industry usage of “TV program.”
T	event	93	A trigger that contains user-defined payload which has meaning to the receiver.
T	event	94	A binding of a program to a Virtual Channel at a specific time.
T	exponent set	52	The set of exponents for an independent channel, for the coupling channel, or for the low frequency portion of a coupled channel.
T	extension facility	100	A facility defined by a standardized extension to the DASE Standard.
T	field	53, 54	For an interlaced video signal, a “field” is the assembly of alternate lines of a frame. Therefore, an interlaced frame is composed of two fields, a top field and a bottom field.
T	facility	100	A non-empty collection of content types and their associated processors.
T	forbidden	53, 54, 90, 92, 95	This term, when used in clauses defining the coded bit stream, indicates that the value shall never be used. This is usually to avoid emulation of start codes.
T	frame	53, 54	A frame contains lines of spatial information of a video signal. For progressive video, these lines contain samples starting from one time instant and continuing through successive lines to the bottom of the frame. For interlaced video a frame consists of two fields, a top field and a bottom field. One of these fields will commence one field later than the other.
T	full bandwidth (fbw) channel	52	An audio channel capable of full audio bandwidth. All channels (left, center, right, left surround, right surround) except the lfe channel are fbw channels.
T	GPS Time	76	Time signal distributed via GPS comprising number of seconds elapsed since 0000 Universal Time on January 6 1980. Offset from UTC by an integer number of seconds (currently 13) due to leap seconds added to UTC but not to GPS time.

T	grantable permission	100	A permission which may be granted if requested; determined by permission policy.
T	granted permission	100	A requested permission which is granted to a subject.
T	group	97	A collection of messages and modules.
T	group of pictures (GOP)	53, 54	A group of pictures consists of one or more pictures in sequence.
T	high-definition television	53	High-definition television has a resolution of approximately twice that of conventional television in both the horizontal (H) and vertical (V) dimensions and a picture aspect ratio (HxV) of 16:9. ITU-R Recommendation 1125 further defines "HDTV quality" as the delivery of a television picture which is subjectively identical with the interlaced HDTV studio standard.
T	high-definition television	54	High-definition television provides significantly improved picture quality relative to conventional (analog NTSC) television and a wide screen format (16:9 aspect ratio). The ATSC Standard enables transmission of HDTV pictures at several frame rates and one of two picture formats; these are listed in the top two lines of Table 5.1. The ATSC Standard also enables the delivery digital sound in various formats.
T	high level	53, 54	A range of allowed picture parameters defined by the MPEG-2 video coding specification which corresponds to high-definition television.
T	host	70	A device where module(s) can be connected. For example, a television, an integrated receiver-decoder, or a PC.
T	Huffman coding	53, 54, 90	A type of source coding that uses codes of different lengths to represent symbols which have unequal likelihood of occurrence.
T	hybrid application	100	A hybrid declarative application or a hybrid procedural application.
T	hybrid declarative application	100	A declarative application that makes use of active object content; an XDMML document with an embedded Java Xlet is an example of a hybrid declarative application.
T	hybrid procedural application	100	A procedural application that makes use of markup content; a Java Xlet that creates and causes the display of an XDMML document instance is an example of a hybrid procedural application.
T	implementation-defined facility	100	A facility defined by an implementer of a DASE System.
T	implied resource	100	An application resource whose content is not manifested directly to an application or application environment, but instead is visible only to the receiver platform.
T	independent channel	52	A channel whose high frequency information is not combined into the coupling channel. (The lfe channel is always independent.)
T	interaction channel	96	A digital medium that transports digital data from servers to clients and vice versa. An interaction channel is a logical construct built on top of physical channels.
T	interaction channel provider	96	The entity that provides access to inter-network connectivity to ITV clients. An Internet Service Provider may serve as an Interaction Channel Provider.
T	interactive content service provider	96	The entity that provides services to ITV clients using a two-way communication channel.
T	interoperable object reference	95	A data structure IOP::IOR that contains the information necessary to locate an object in a network; originally developed as part of the CORBA specification, later specialized by the ISO DSM-CC Standard to the case of an MPEG-2 broadcast network.
T	interstitial	76	A special kind of work of typically less than 5 minutes inserted between program segments. May comprise advertisements, promotions, or other short program material
T	intra-coded picture	53, 54	Pictures that are coded using information present only in the picture itself and not depending on information from other pictures. I-pictures provide a mechanism for

			random access into the compressed video data. I-pictures employ transform coding of the pel blocks and provide only moderate compression.
T	IP multicast application buffer	92	The buffer following the smoothing buffer of an MPEG-2 program element of stream_type 0x0D. The purpose of this buffer is to collect only the IP Multicast data bytes out of the smoothing buffer and to re-assemble them into complete datagrams.
T	IP multicast data stream	92	A collection of IP packets with the same IP multicast address and port number.
T	IP multicast service	92	The portion of an A/90 data broadcast service comprising the IP multicast sessions and their announcements and descriptions.
T	IP multicast virtual channel	92	An ATSC virtual channel including an IP multicast service. The virtual channel may include other video and audio elementary streams.
T	IPM program element	92	An MPEG-2 program element of stream_type 0x0D that carries IP multicast datagrams in DSM-CC addressable sections.
T	ITV client	96	A software or hardware entity capable of establishing a two-way communication channel with remote servers for the purpose of exchanging data and performing interactive transactions.
T	latest activation time	93	The latest activation time is the latest System Time Clock instant at which a specific target is activated using all emitted triggers (both asynchronous and synchronized).
T	latest target acquisition time	93	The target acquisition time of the last instance of a target transmitted by means of one of the asynchronous delivery protocols specified in ATSC Standard A/90.
T	latency	90	The total time from when a data object is transmitted in a MPEG-2 transport stream until the time it is fully decoded in the data receiver.
T	layer	53, 54, 90	One of the levels in the data hierarchy of the video and system specification.
T	legacy application	100	Any application that is expressly marked as such in an application's metadata resource.
T	level	53, 54	A range of allowed picture parameters and combinations of picture parameters.
T	level	90	The abstracted dimension that is used to refer to the size of the data elementary buffer in the transport system target decoder governing the delivery of data access units of a data service.
T	linked	53	Alternative elements of a Program are 'Linked' when they have identical values in the linked_component_tag field of their Enhanced Signaling Descriptors.
T	local file system	100	The file system provided by the local receiver platform.
T	local policy	100	A set of rules for determining grantable permissions based on conditions defined by both the receiver manufacturer and the end-user.
T	low frequency effects (lfe) channel	52	An optional single channel of limited (<120 Hz) bandwidth, which is intended to be reproduced at a level +10 dB with respect to the fbw channels. The optional lfe channel allows high sound pressure levels to be provided for low frequency sounds.
T	macroblock	53, 54	In the advanced television system a macroblock consists of four blocks of luminance and one each Cr and Cb block.
T	major channel	69	The first number in a two-part number used to identify a virtual channel. Each virtual channel carries one service, such as a television program. The major channel in the U.S. for current NTSC broadcasters is usually their NTSC channel number.
T	main level	53, 54	A range of allowed picture parameters defined by the MPEG-2 video coding specification with maximum resolution equivalent to ITU-R Recommendation 601.
T	main profile	53, 54	A subset of the syntax of the MPEG-2 video coding specification that is expected to be supported over a large range of applications.
T	manifest resource	100	An application resource whose content is manifested directly to an application or an application environment.
T	markup	100	Text that is added to the primary information content of a document in order to convey information about that content.
T	markup content	100	A type of content which takes the form of a markup language; an XDMML document is an

			example of markup content.
T	markup language	100	A formalism that describes a class of documents which employ markup in order to delineate the document's structure, appearance, or other aspects; XDMML is an example of a markup language.
T	maximum target acquisition period	93	The period between the earliest target acquisition time and the latest activation time for a specific target using all emitted triggers.
T	maximum transmission unit	90, 92	The largest amount of data that can be transferred in a single unit across a specific physical connection. When using the Internet Protocol, this translates to the largest IP datagram size allowed.
T	minimum target acquisition period	93	The time period between the latest possible target acquisition time and the earliest possible activation time for a specific target.
T	metadata	76	Information about essence.
T	metadata	76	Information about data essence; a type of content which describes content. Metadata may also be construed as data essence in certain contexts; that is, the relationship between metadata and data essence is mutually recursive.
T	MIME media type	100	A specification of a type of essence, the syntax of which is defined by MIME.
T	minor channel	69	The second number in a two-part number used to identify a virtual channel. The minor number changes for each different service that is or will be presented in a DTV transport stream.
T	module	70	A small device, not working by itself, designed to run specialized conditional access processing in association with a host. For example, a conditional access subsystem.
T	module	97	The payload data that is delivered to the receiver.
T	module delivery parameters	95	The delivery parameters of data modules are conveyed in DownloadInfoIndication messages. One DownloadInfoIndication message can convey the module delivery parameters of multiple data modules of the same U-U Object Carousel.
T	monomedia content type	100	A type of content which does not support the general embedding of other content types within its serialized or presented forms; for example, a PNG image is an instance of a monomedia content type.
T	motion vector	53, 54	A pair of numbers which represent the vertical and horizontal displacement of a region of a reference picture for prediction.
T	multimedia content type	100	A type of content which supports limited or general embedding of other content types within its serialized or presented forms; for example, an XDMML document is an instance of a multimedia content type.
T	multiplexer	76	A device that combines MPEG-2 packets from one or more elementary streams into one or more MPEG-2 transport stream outputs containing a multiplex of packets, or that combines multiple transport streams into a system level multiplex.
T	multiplexer (mux)	90, 92, 95	A physical device that is capable of inserting MPEG-2 transport stream packets into and extracting MPEG-2 transport stream packets from an MPEG-2 transport stream.
T	multiprotocol encapsulation	90, 92	The encapsulation of datagrams in addressable sections.
T	namespace	76	A standard that enables the definition of a unique label for the set of element names defined by a specific schema. A document using that schema can be included in any other document without having a conflict between XML element names. The elements defined in the schema are then uniquely identified so that, for example, the parser can tell when an element called <name> should be interpreted according to that schema, rather than using the definition for an element called "name" in a different schema.
T	native application	100	An intrinsic function implemented by a receiver platform; a close captioning display is an example of a native application.
T	network	96	A data carriage medium or a collection of data carriage media links used to exchange information between a service provider and one or more client agents or devices.
T	non-compliant	100	The state of having failed a compliance testing process.



T	NSAP address	95	Network Service Access Point (NSAP) consists of AFI, Type, carouselId, specifier, privateData, as specified in Figure 11-2 of DSM-CC. It is a globally unique identifier that is used to identify a particular service domain.
T	object	93	Any arbitrary data item available to a receiver.
T	object	95	An object is an entity transmitted using the Object Carousel Protocol; it is a serialized object rather than an object definition. This could be raw data representing a file, a directory or a service gateway.
T	object key	95	A collection of bytes that uniquely identifies an object of a TSFS within the data carousel module that contains it.
T	octet	100	An 8-bit byte.
T	opportunistic data	90	Data inserted into the remaining available bandwidth in a given transport stream after all necessary bits have been allocated for video, audio and other services.
T	pack	53, 54	A pack consists of a pack header followed by zero or more packets. It is a layer in the system coding syntax.
T	packet	53, 54	A packet consists of a header followed by a number of contiguous bytes from an elementary data stream. It is a layer in the system coding syntax.
T	packet	90, 92, 93, 95	A packet is a set of contiguous bytes consisting of a header followed by its payload.
T	packet	110	A collection of data sent as a unit, including a header to identify and indicate other properties of the data, and a payload comprising the data actually to be sent, either having a fixed, known length or having means to indicate either its length or its end.
T	packet data	53, 54	Contiguous bytes of data from an elementary data stream present in the packet.
T	packet identifier (PID)	53, 54, 76, 90, 92, 93, 95	A unique integer value used to associate elementary streams of a program in a single or multi-program transport stream.
T	padding	53, 54	A method to adjust the average length of an audio frame in time to the duration of the corresponding PCM samples, by continuously adding a slot to the audio frame.
T	Part	53	A Part is an independently-maintainable portion of an ATSC document. It shares a common root document number with other Parts of the document.
T	PAT-E	53	A table with the same syntax as Program Association Table as defined by ISO/IEC IS 13818-1:2000 (E) transmitted using an enhanced VSB mode defined in Annex D of A/53.
T	playlist	76	Also known as the "traffic schedule". A sequential list of automation events to be played back for a station output channel.
T	payload	53, 54	Payload refers to the bytes which follow the header byte in a packet. For example, the payload of a transport stream packet includes the PES_packet_header and its PES_packet_data_bytes or pointer_field and PSI sections, or private data. A PES_packet_payload, however, consists only of PES_packet_data_bytes. The transport stream packet header and adaptation fields are not payload.
T	payload	90, 92, 93, 95	Payload refers to the bytes following the header byte in a packet.
T	PCR discontinuity	93	A time point at which the PCR changes by more than one unit.
T	permission	100	Authorization to perform a privileged operation.
T	permission policy	100	A set of rules for determining grantable permissions.
T	PES packet	53, 54, 90	The data structure used to carry elementary stream data. It consists of a packet header followed by PES packet payload.
T	PES packet header	53, 54, 90	The leading fields in a PES packet up to but 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 defined as the leading fields in a PES packet up to but not including the padding_byte fields.
T	PES stream	53, 54	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.
T	PES stream	90	A continuous sequence of PES packets of one elementary stream with one stream_id.
T	physical channel	65, 69, 90	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.
T	picture	53, 54	Source, coded, or reconstructed image data. A source or reconstructed picture consists of three rectangular matrices representing the luminance and two chrominance signals.
T	pixel	53, 54	“Picture element” or “pel.” A pixel is a digital sample of the color intensity values of a picture at a single point.
T	playlist	76	Also known as the “traffic schedule”. A sequential list of automation events to be played back for a station output channel.
T	PMT-E	53	A table with the same syntax as Program Map Table as defined by ISO/IEC IS 13818-1:2000 (E) transmitted using an enhanced VSB mode defined in Annex D of A/53.
T	PMT-E_PID	53	A PID that identifies the Transport Stream packets that carry TS_program_map_section()s in a TS-E.
T	P-picture	53, 54	Pictures that are coded with respect to the nearest previous I or P-picture. This technique is termed forward prediction. P-pictures provide more compression than I-pictures and serve as a reference for future P-pictures or B-pictures. P-pictures can propagate coding errors when P-pictures (or B-pictures) are predicted from prior P-pictures where the prediction is flawed.
T	preload data	93	DAU’s or objects accessible to the receiver delivered in advance of their activation by subsequent triggers.
T	presentation time-stamp (PTS)	53, 54, 90	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.
T	presentation unit (PU)	53, 54, 90	A decoded audio access unit or a decoded picture.
T	primary Xlet	100	The first Xlet that was loaded as a result of processing a procedural application’s initial entity.
T	privileged operation	100	An operation which is controlled by the security framework.
T	procedural application environment:	100	An environment that supports the processing of procedural applications; a Java Virtual Machine and its public APIs constitute an example of a procedural application environment.
T	procedural application	100	An application which primarily makes use of procedural information to express its behavior; a non-empty set of compiled Java Xlets is an example of a procedural application.
T	procedural information	100	Information expressed in the form of procedures; e.g., do F, do G, do H, or, more succinctly, <F(), G(), H(>
T	profile	53, 54	A defined subset of the syntax specified in the MPEG-2 video coding specification.
T	profile	90, 92, 95	A defined subset of data delivery characteristics.
T	program	53	Program shall mean the collection of all elements within the emission that have the same program number, independent of the methods used to propagate the program elements.
T	program	54	A collection of program elements. Program elements may be elementary streams. Program elements need not have any defined time base; those that do have a common time base and are intended for synchronized presentation.
T	program	65, 69,	A collection of program elements. Program elements may be elementary streams.

		90, 92, 93, 94, 95	Program elements need not have any defined time base; those that do have a common time base and are intended for synchronized presentation. The term program is also used in the context of a "television program" such as a scheduled daily news broadcast.
T	program clock reference (PCR)	53, 54, 90, 93	A time stamp in the transport stream from which decoder timing is derived.
T	program element	53, 54, 76	A generic term for one of the elementary streams or other data streams that may be included in a program.
T	program element	65, 69, 90, 92, 93, 94, 95	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.
T	program map table	53, 65	The collection of all the TS_program_map_section(s).
T	program segment	76	Portion of a TV program as defined in the traffic format assigned to the program.
T	program specific information (PSI)	53, 54, 90, 92, 95	PSI consists of normative data which is necessary for the demultiplexing of transport streams and the successful regeneration of programs.
T	PSIP event	76	A defined period of time on a virtual channel with associated metadata related to a show.
T	quantizer	53, 54	A processing step which intentionally reduces the precision of DCT coefficients
T	random access	53, 54	The process of beginning to read and decode the coded bit stream at an arbitrary point.
T	receiver	96	Any device capable of receiving and consuming data carried on either broadband or narrowband network.
T	receiver platform	100	A physical embodiment of hardware, operating system, and native applications of the manufacturer's choice, which collectively constitute a receiver.
T	region	65, 69	A geographical area consisting of one or more countries.
T	rely (up)on	100	A formulaic expression used throughout the DASE Standard to indicate the level of expectation which a DASE Application may have regarding the behavior of a DASE System; the expression shall not rely (up)on indicates that no expectation of behavior may be assumed.
T	remultiplexer	76	A packet multiplexer capable of combining MPEG-2 transport stream packets from one or more inputs containing a multiplex of packets into one or more MPEG-2 transport stream outputs.
T	requested permission	100	A request for authorization to perform a privileged operation.
T	reserved	53, 54, 90, 92, 93, 95	This term, when used in clauses defining the coded bit stream, indicates that the field may be used in the future for Digital Television Standard extensions.
T	resource	100	An application resource or an environment resource.
T	resource identifier	94, 100	An identifier which labels a resource; e.g., a URI.
T	resource reference	94, 100	The use of a resource identifier to refer to an application resource.
T	RF watermark	110	A buried spread spectrum (BSS) signal carrying codes used for the purpose of identification of the host signal with which it is associated and for carrying a small amount of low speed data.
T	root	76	The outermost element in an XML document that contains all other elements.

T	schedule	76	The binding of shows to virtual channels at particular times. A schedule is the generic name for “Television Schedule” that consists of multiple audio-video presentations carried on a channel over a period of time.
T	schema	76	A database-inspired method for specifying constraints on XML documents using an XML-based language. Since schemas are founded on XML, they are hierarchical, so it is easy to create an unambiguous specification and possible to determine the scope over which definitions and comments are meant to apply.
T	scrambling	53, 54, 90, 94	The alteration of the characteristics of a video, audio or coded data stream in order to prevent unauthorized reception of the information in a clear form. This alteration is a specified process under the control of a conditional access system.
T	scrambling	70	The method of obscuring digital streams by cryptographic methods.
T	SDP announcement stream	92	A collection of session description protocol datagrams transmitted on a given IP multicast address and pertaining to the same sessionID.
T	SDP stream	92	The collection of one or more SDP announcement streams.
T	secondary Xlet	100	Any Xlet explicitly registered and started by a primary Xlet, an embedded Xlet or another secondary Xlet.
T	security framework	100	A set of services which provide protection from certain threats.
T	service	100	A virtual channel, as defined by ATSC A/65.
T	section	65, 69, 90, 92, 94, 95	A data structure comprising a portion of an ISO/IEC 13818-1 or ISO/IEC 13818-6 defined table, such as the program association table (PAT), conditional access table (CAT), or program map table (PMT). All sections begin with the table_id and end with the CRC_32 field, and their starting points within a packet payload are indicated by the pointer_field mechanism defined in the ISO/IEC 13818-1 International Standard.
T	service description framework	90, 92, 94, 95	The information conveyed in the program element and providing the data service table and optionally the network resource table of a single data service.
T	service domain	95	A Service Domain identifies a structured group of objects. It is an abstract entity defined for the purpose of scoping. Each instance of an Object Carousel represents a Service Domain. Each Service Domain is identified by a globally unique NSAP address. Each Service Domain has a Service Gateway serving as its root directory.
T	service gateway	95	A Service Gateway is the one and only entry-point to the content that is broadcast by the Object Carousel. It serves as the root directory of the Object Carousel. There is a Service Gateway associated with each Service Domain.
T	service location descriptor	93	A descriptor specifying the stream type, PID, and language code for some of the MPEG-2 Program Elements comprising a virtual channel.
T	session	92	A collection of IP multicast data streams bound by a common announcement and description. Announcement and description protocols are defined in IETF RFC 2974 and IETF RFC 2327 respectively.
T	session announcement	92	A session announcement is a mechanism by which a session description is conveyed to users in a proactive fashion, i.e., the session description was not explicitly requested by the user.
T	session description	92	Information used to announce and discover a session, which may include session identification, session version, name, start and end times, and other information.
T	schema	76	A database-inspired method for specifying constraints on XML documents using an XML-based language. Since schemas are founded on XML, they are hierarchical, so it is easy to create an unambiguous specification and possible to determine the scope over which definitions and comments are meant to apply.
T	show	76	The composition of the primary work and interstitials in a single timeline suitable for broadcast.
T	show segment	76	A contiguous subset of a show identified with a single start time and end time pair referenced to the show’s timeline.
T	slice	53, 54	A series of consecutive macroblocks.
T	software	97	A data service as defined by this specification (A/97).

	download data service		
T	source stream	53, 54	A single, non-multiplexed stream of samples before compression coding.
T	spectral envelope	52	A spectral estimate consisting of the set of exponents obtained by decoding the encoded exponents. Similar (but not identical) to the original set of exponents.
T	splicing	53, 54	The concatenation performed on the system level or two different elementary streams. It is understood that the resulting stream must conform totally to the Digital Television Standard.
T	standard definition television (SDTV)	53, 54	This term is used to signify a digital television system in which the quality is approximately equivalent to that of NTSC. This equivalent quality may be achieved from pictures sourced at the 4:2:2 level of ITU-R Recommendation 601 and subjected to processing as part of the bit rate compression. The results should be such that when judged across a representative sample of program material, subjective equivalence with NTSC is achieved. Also called standard digital television. See also conventional definition television and ITU-R Recommendation 1125.
T	standard facility	100	A facility defined by the DASE Standard.
T	start codes	53, 54, 90	32-bit codes embedded in the coded bit stream that are unique. They are used for several purposes including identifying some of the layers in the coding syntax. Start codes consist of a 24-bit prefix (0x000001) and an 8-bit stream_id.
T	STD input buffer	53, 54, 90, 94	A first-in, first-out buffer at the input of a system target decoder for storage of compressed data from elementary streams before decoding.
T	still picture	53, 54	A coded still picture consists of a video sequence containing exactly one coded picture which is intra-coded. This picture has an associated PTS and the presentation time of succeeding pictures, if any, is later than that of the still picture by at least two picture periods.
T	stream	65, 69, 90, 92, 94, 95	An ordered series of bytes. The usual context for the term stream is the series of bytes extracted from transport stream packet payloads that have a common unique PID value (e.g., video PES packets or program map table sections).
T	stream data	90, 92, 94	A stream is a data object which has no specific start or end. The decoding system may need only a small fraction of the total data to activate a given application. An example includes stock ticker services.
T	strictly compliant application	100	A compliant application that makes use of only standard and application-defined facilities.
T	studio-to-transmitter link	112	A system used to convey program-related signals or data from a studio or other origination point to the transmitter site, typically using either radio (microwave) or coax/fiber landline systems.
T	synchronization frame	52	A unit of the serial bit stream capable of being fully decoded. The synchronization frame begins with a sync code and contains 1536 coded audio samples.
T	synchronized data	90	Data that uses MPEG-2 PCRs and MPEG-2 PTSs with the objective of matching presentation and/or display of data units with access units of other streams (typically audio and video).
T	synchronized trigger	93	A structure transmitted within an MPEG-2 transport stream containing a the same information as an asynchronous trigger but with the addition of a PTS.
T	synchronous data	90	Data that uses MPEG-2 PCRs and MPEG-2 PTSs with the objective of delivering data units with timing constraints, these data units being processed for presentation and/or display as a standalone stream.
T	system clock reference (SCR)	53, 54	A time stamp in the program stream from which decoder timing is derived.
T	system header	53, 54	The system header is a data structure that carries information summarizing the system characteristics of the Digital Television Standard multiplexed bit stream.
T	system target	53, 54,	A hypothetical reference model of a decoding process used to describe the semantics of

	decoder (STD)	90, 94	the Digital Television Standard multiplexed bit stream.
T	system time clock	93	The clock in the receiver derived from the arriving PCR values that matches the clock in the emission system.
T	table	65	The collection of re-assembled sections bearing a common table_id and version number. Note that this definition of table constrains version-number to apply to the collection of sections as contrasted to each section.
T	table	90, 92, 95	The collection of re-assembled sections bearing a common version number.
T	table, PSIP	65, 69	A collection of tables describing virtual channel attributes, event features, and others. PSIP tables are compliant with the private section syntax of ISO/IEC 13818-1.
T	table instance	65, 69	Tables are identified by the table_id field. However, in cases such as the RRT and EIT, several instances of a table may be defined simultaneously. All instances have the same PID and table_id but different table_id_extension.
T	table instance	90, 92	Tables are identified by the table_id field. However, in cases such as the data event table, several instances of a table are defined simultaneously. All instances are conveyed in transport stream packets of the same PID value and have the same table_id field value. Each instance has a different table_id_extension value.
T	table instance	95	A collection of re-assembled sections with a common table_id, table_id_extension, and version_number. Examples are the PSIP EITs and the Data Broadcasting DETs, where the source_id appears in the table_id_extension field to distinguish different instances of the tables.
T	tag	76	A piece of text that describes a unit of data, or element, in XML. The tag is distinguishable as markup, as opposed to data, because it is surrounded by angle brackets (< and >). For example, the element <Channel>My 100</Channel> has the start tag <Channel>, the end tag </Channel>, which enclose the data "100". To treat such markup syntax as data, an entity reference or a CDATA section is used.
T	tap	90, 94	A reference to a data resource, including but not limited to: a data elementary stream, a data carousel module, or a network resource.
T	tap	95	A data structure used to establish a link from an object reference to a lower layer communication channel.
T	target	93	Pre-load data that refers to a DAU or a data object available to a receiver.
T	target acquisition time	93	The time instant at which the last byte of a target leaves the Transport System Target Decoder for the asynchronous MPEG-2 Program Element conveying the target.
T	time-stamp	53, 54, 90	A term that indicates the time of a specific action such as the arrival of a byte or the presentation of a presentation unit.
T	traffic format	76	A defined structure that specifies for each traffic system the organization of a primary work and interstitials. A series of traffic formats linked together form a 24 hour broadcast log. Traffic formats are typically linked to a specific program.
T	traffic system	76	A management system comprising a database for tracking the sale of advertising, and the scheduling of program elements, advertising, promotional announcements, and other interstitial material.
T	transport stream	90, 92, 93, 94, 95, 100	Refers to the MPEG-2 transport stream syntax for the packetization and multiplexing of video, audio, and data signals for digital broadcast systems.
T	transport stream packet header	53, 54, 90, 92, 93, 95	The leading fields in a transport stream packet up to and including the continuity_counter field.
T	transport system target decoder	93	A hypothetical reference model defined in ATSC Standard A/90 of a decoding process used to describe the semantics of the Digital Television Standard multiplexed bit stream.

T	trigger	93	A collective name referring to either asynchronous or synchronized triggers.
T	Trusted application	101	An application that is eligible to be trusted and to which is granted access to some sensitive resources.
T	TS-M	53	The portion of TS-R that contains only all Transport Stream packets transmitted by the main mode (see Annex D of A/53).
T	TS-R	53	The recombined Transport Stream containing all Transport Stream packets delivered by all transmission modes (main, one-half rate and one-quarter rate) (see Annex D of A/53).
T	TS-E	53	The portion of TS-R that contains only all Transport Stream packets transmitted by one-half rate and/or one-quarter rate modes (see Annex D of A/53).
T	TS-Ea	53	The portion of TS-E that contains only all Transport Stream packets transmitted by one-half rate mode (see Annex D of A/53).
T	TS-Eb	53	The portion of TS-E that contains only all Transport Stream packets transmitted by one-quarter rate mode (see Annex D of A/53).
T	unbounded resource	100	An application resource of indeterminate length; e.g., a data stream.
T	uniform resource identifier	95	URI Uniform Resource Identifiers (URIs) provide a simple, unified and extensible mechanism for identifying a resource. The URI framework [URI] provides a way to concatenate a base-URI with a relative-URI to form an absolute URI identifying a resource.
T	unprivileged operation	100	An operation which is not controlled by the security framework.
T	user	94	The reader and/or implementer of an ATSC Standard.
T	user agent	100	An embodiment of a declarative application environment.
T	UTC	76	Coordinated Universal Time, the basis for the worldwide system of time. Determined using atomic clocks and maintained by the US Naval Observatory and other laboratories around the world. Adjusted occasionally with leap seconds to maintain synchronization with the solar day based on the rotation of the earth.
T	valid XML	76	A valid XML document, in addition to being well formed, conforms to all the constraints imposed by a Schema. It does not contain any tags that are not permitted by the schema, and the order of the tags conforms to the schema's specifications.
T	value	76	Used in XML to indicate the number or characters entered for a particular parameter or variable.
T	variable bit rate	53, 54	Operation where the bit rate varies with time during the decoding of a compressed bit stream.
T	version number	69	A number that increments each time there is a change in a referenced table.
T	video buffering verifier (VBV)	53, 54	A hypothetical decoder that is conceptually connected to the output of an encoder. Its purpose is to provide a constraint on the variability of the data rate that an encoder can produce.
T	video sequence	53, 54	A video sequence is represented by a sequence header, one or more groups of pictures, and an end_of_sequence code in the data stream.
T	viewer	94	The person using a receiver to view the virtual channel.
T	virtual channel	65, 69, 76	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.
T	virtual channel	90, 92,	A virtual channel is the designation, usually a number, that is recognized by the user as

		93, 94, 95	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.
T	virtual channel number	95	A virtual channel number is the designation that is recognized by the user as the single entity that will provide access to an analog TV programming 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.
T	window	52	A time vector which is multiplied by an audio block to provide a windowed audio block. The window shape establishes the frequency selectivity of the filterbank, and provides for the proper overlap/add characteristic to avoid blocking artifacts.
T	V-ISAN	76	ISAN combined with a version identifier to provide a globally unique identifier of the version of an audiovisual work
T	W3C	76	The World Wide Web Consortium ( <a href="http://www.w3c.org/">http://www.w3c.org/</a> ). The international body that governs Internet standards.
T	well-formed	76	An XML document that is syntactically correct. To determine whether or not a well-formed document is valid, a validating parser and a schema are required.
T	work	57	A version of an audiovisual work.
T	work	76	A completed artistic creation, produced or accomplished through the effort, activity or agency of a person or group, comprised of any combination of picture (or video) essence, sound (or audio) essence and/or data (or auxiliary) essence. work segment A contiguous subset of a work; identified with a single start time and end time pair referenced to the work's timeline; and a defined subset of the elements of the work.
T	work segment	76	A contiguous subset of a work; identified with a single start time and end time pair referenced to the work's timeline; and a defined subset of the elements of the work.
T	Xlet	100	An element of active object content expressed as a Java class which implements the <code>javax.tv.xlet.Xlet</code> interface; a collection of Java class files and possibly related resources, one class file of which implements the <code>javax.tv.xlet.Xlet</code> interface; a collection of resources packaged as a Java archive which embodies the functionality of an Xlet.
T	XML document	76	In general, an XML structure in which one or more elements can contain text intermixed with sub-elements.
T	XML element	76	A unit of XML data, delimited by tags which can enclose other elements. For example, in the XML structure, " <code>&lt;VirtualChannels&gt;&lt;Channel&gt;..&lt;/Channel&gt;&gt;&lt;Channel&gt;..&lt;/Channel&gt;&lt;/VirtualChannels&gt;</code> ", the <code>&lt;VirtualChannels&gt;</code> element contains two <code>&lt;Channel&gt;</code> elements
T	XML schema	76	The W3C schema specification for XML documents.