

Glossary  
Datenkommunikation 384.081 SS2012

Term:	Abbreviation for:	Meaning or Hint:	OSI Layer
AAA	Authentication, Authorization, Accounting	Security Server für IP Einwahltechniken (Useraccounts, Passwords, Rights, Billing)	Layer 7
AAL	ATM Adaptation Layer	Anpassung höherer Protokoll für den Transport über 53byte Zellen	
ABR	Available Bit Rate	Traffic Parameter / Service Class for ATM Traffic Contact - Garantie Bandbreite	
ACK	Acknowledgement		Layer 1-4
ADPCM	Adaptive Differential Pulse Code Modulation	Codec or digital voice transmission (G.726,16-40 kbit/s)	Layer 1
ADSL	Asymmetric Digital Subscriber Line	Einwahltechnologie für Internet	Layer 1,2
AFI	Address Family Identifier	RIPv1 und RIPv2 Header Feld	Layer 3
AIN	Advanced Intelligent Network	"Implementiert bspw. 0800 Nummern im öffentlichen Telefonnetz"	
AMI	Alternate Mark Inversion	Code	Layer 1
API	Application Programming Interface	"Programmier-Schnittstelle zum Protokoll-Stack"	Layer 4 <-> Layer 5
APPN	Advanced Peer-to-Peer Networking	IBM's New Network Architecture: Mixture of X.25, NetBios and Source Route Bridging	Layer 2-3
ARP	Address Resolution Protocol	Mapping IP Addresses to MAC Addresses	Layer 2, 3
ARQ	Automatic Repeat reQuest	Feedback Error Control for CO protocols	Layer 2,3 4
AS	Autonomous System	IP routing domain of an ISP or big company identifiable in the Internet	Layer 3
ASCII	American Standard Code fir Information Interchange	Code Table	Layer 6,7
ASK	Amplitude-Shift-Keying	"Amplituden-Modulation"	Layer 1
ATM	Asynchronous Transfer Mode	Network Technology - CO Cell Switching	Layer 2
BAUD	Symbol rate = Bit rate if digital levels are equal 2	"Schrittrate: Anzahl der Symbol-Änderungen pro Sekunde"	Layer 1
BECN	Backward Explicit Congestion Notification	Congestion Indication Backward Direction Frame Relay	
BER	Bit Error Rate	"Bit Fehler Rate"	Layer 1
BGP	Border Gateway Protocol	Routing Protocol for Internet routing between autonomous systems (AS)	Layer 3
BIA	Burnt-In-Address	Eindeutige MAC Adresse eines Netzwerkkarte eines Herstellers	Layer 2
B-ISDN	Broadband - ISDN	another name for ATM	Layer 2
Bit	Binary Digit	"Grundeinheit der Informationsdarstellung"	Layer 1-7
BPDU	Bridge Protocol Data Unit	Spanning Tree Message	Layer 2
BRAS	Broadband Remote Access Server	Einwahlserver (ADSL, VDSL, etc)	Layer 2,3,7
BRI	Basic Rate Interface	ISDN-UNI	Layer 1-3, 7
BSC	Binary Synchronous Control protocol (IBM)	Character-oriented protocol (old protcol of IBM)	Layer 2
CAS	Channel Associated Signaling	Transport of four bits (ABCD) for signaling per voice channel between PABXs	Layer 3,7
CBR	Constant Bit Rate	Traffic Parameter / Service Class for ATM Traffic Contact - Garantie Echtzeit	
CC	Cluster Controler	"Kommunikationsrechner (Slave) für Terminal-Netzwerker"	Layer 2-7
CCITT	Comite Consultativ International Telephonique et Telegraphique	"Vorgänger von ITU-T"	N.A.
CCS	Common Channel Signaling	Transparent signaling channel for interconnection of PABXs	Layer 3,7
CEP	Connection Endpoint Identifier	"OSI Socket"	Layer 4
CHAP	Challenge Authentication Protocol	Part of PPP Connection Establishment -> Authentication based on cryptos	Layer 7
CIR	Committed Information Rate	Traffic Parameter for Frame Relay Traffic Contact - Garantie	
CL	Connectionless	Service or protocol variant without error recovery (ER)	Layer 1,2,3,4
CLP	Cell Loss Priority	dient zur Kennzeichnung von Zellen höherer Priorität in ATM (QoS Thema)	
CNLP	Connectionless Network Layer Protocol	"OSI IP Protocol"	Layer 3
CO	Connection-oriented	Service or protocol variant with optional error recovery (ER)	Layer 1,2,3,4
CRC	Cycle Redundancy Check	FCS based on Polynom Division	Layer 2
C-RQ	Continuous RQ	"Variante von ARQ"	Layer 2,3,4
CS	Circuit Switching	"Leitungsvermittlung"	Layer 1
CS-ACELP	Conjugate Structure Algebraic Code Excited Linear Predictor	Codec or digital voice transmission (G.729, 8 kbit/s)	Layer 1
CSMA/CD	Carrier Sense Multiple Access / Collision Detection	Zugriffsverfahren für Ethernet half duplex media	Layer 2
CTS	Clear To Send	"Quittiersignal Modems bereit zum Senden (V.24 Steuersignal)"	Layer 1
CV	Code Violation	"Verletzung der Codier-Vorschrift"	Layer 1
DC	Direct Current	"Gleichanteil eines Signals"	Layer 1
DCD	Data Carrier Detected	"Kontrollsignal Modem is für Empfang eingeschwungen (V.24 Steuersignal)"	Layer 1
DDCMP	Digital Data Communications Message Protocol	Old protocol of Digital Equipment Company (DEC)	Layer 2
DE	Discard Eligibility	dient zur Kennzeichnung von Rahmen höherer Priorität in Frame Relay (Qos Thema)	
DHCP	Dynamic Host Configuration Protocol	Parameterserver for TCP/IP protocol stack (leasing of IP addresses, def-gateway, dns server ...)	Layer 3, 4, 7
DLCI	Data Link Connection Identifier	local connection identifier / local-physical address used for Frame-Relay Virtual Circuits	Layer 2,3

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DLE	Data Link Escape	Control Characer of ASCII Code	Layer 2
DLSw	Data Link Switching	Method to transport non-routable IBM SNA Token Ring traffic over a TCP/IP Network	Layer 2-4
DNS	Domain Name Service	Mapping DNS names to IP Addresses	Layer 3,7
DSCP	Differential Services Codepoint	TOS-Bits im IP Header zur Unterscheidung von Traffic Service Klassen	Layer 3
DSLAM	Digital Subscriber Line Access Multiplexer	Modem Channel Bank for ADSL Modems, Einwahlknoten bei ADSL	Layer 2,3
DSP	Digital Signal Processor	"Generierung von Signalformen aufgrund arithmetischer Algorithmen"	Layer 1
DWDM	Dense Wavelength Division Multiplexing	"Wellenlängen Multiplexen"	Layer 1
ECN	Explicit Congestion Notification	Congestion Indication Forward Direction IP Router if ECN capable	
ED	Ending Delimeter	Frame Synchronization - "Rahmensynchronisation"	Layer 1
EFCI	Explicit Forward Congestion Indication	Congestion Indication Forward Direction ATM	
EGP	Exterior Gateway Protocol	Internet Routing between ASs (e.g. BGPv4)	Layer 3
EIR	Excess Information Rate	Traffic Parameter for Frame Relay Traffic Contact - Wenn möglich	
EMR	Electro Magnetic Radiation		Layer 1
ER	Error Recovery	"Fehlerbereinigung durch Neuübertragung -> ARQ"	Layer 2-4
ES	End System	OSI Speak for host computer	Layer 7
ET	Exchange Termination	Other name for ISDN-LE	
FCS	Frame Check Sum	"Rahmen Prüfsumme"	Layer 2
FDM	Frequency Division Multiplexing	"Frequenzmultiplexen"	Layer 1
FEC	Forward Error Correction	"Fehler korrigierende Kodierung"	Layer 2
FEC	Fast Ethernet Channeling	Cisco Bundling of several parallel fast ethernet links to one logical channel (Cisco LACP)	Layer 2
FECN	Forward Explicit Congestion Notification	Congestion Indication Forward Direction Frame Relay	
FEP	Front-End Processor	"Kommunikationsrechner (Master) für Terminal-Netzwerke"	Layer 2-7
FSK	Frequency-Shift-Keying	"Frequenz-Modulation"	Layer 1
FTP	File Transfer Protocol	" File Transfer Protocol basierend auf TCP"	Layer 5-7
GEC	Gigabit Ethernet Channeling	Cisco Bundling of several parallel gigabit ethernet links to one logical channel (Cisco LACP)	Layer 2
GLBP	Gateway Load Balancing Protocol	Virtual Router for solving First Hop Redundancy problem on network level (Cisco)	Layer 2, 3
GSM	Global System for Mobile communication - Group Special Mobile	"Weltweite Mobil-Telefonie"	N.A.
HDB3	High Density Bipolar 3	Code	Layer 1
HDLC	High-level Data Link Control	Bit-oriented protocol with Bit-stuffing	Layer 2
HSRP	Hot Standby Router Protocol	Virtual Router for solving First Hop Redundancy problem on network level (Cisco)	Layer 2, 3
HTTP	HyperText Transfer Protocol	"Transport-Protokoll für HTTP Pages"	Layer 5-7
ICMP	Internet Control Message Protocol	Fehlersignalisierungsprotokoll für IP Transportsystem	Layer 3
IDRP	ICMP Router Discover Protocol		
IGP	Interior Gateway Protocol	Routing within an AS (e.g. RIP, OSPF, EIGRP)	Layer 3
IP	Internet Protocol	CL PS Best-Effort	Layer 3
IP	Internet Protocol	Network Technology (CL - PS)	Layer 3
IPCP	IP Control Protocol	Part of PPP Connection Establishment -> IP NCP -> DHCP on WAN	Layer 3, 4, 7
IPX	Internetwork Packet Exchange (Novell Netware)	Network Technology (CL - PS)	Layer 3
I-RQ	Idle-RQ	"Variante von ARQ"	Layer 2,3,4 - 7
IS	Intermediate System	OSI Speak for packet switch / router	Layer 3
ISBN	International Standard for Book Numbering	FCS for Books	N.A.
ISDN	Integrated Services Digital Network	Network Technology - Circuit Switching	Layer 2
ISDN-LE	ISDN Local Exchange	"ISDN Wählamt, ISDN Switch"	Layer 1-3
ISO	International Standardization Organisation	Creates Standards for everything on this planet and even more	N.A.
ITU-T	International Telecommunication Union - T	Telecommunication Standardization Sector	N.A.
LACP	Link Access Control Protocol	Bundling of several parallel physical links to one logical link seen by STP and load balancing across	Layer 2
LAN	Local Area Network	Network Technology (Shared Media)	Layer 2
LAPB	Link Access Procedures Balanced	HDLC based CO-ER protocol for X.25 layer 2	Layer 2
LAPD	Link Access Procedures, D channel	HDLC based CO-ER protocol for ISDN signaling layer 2, Q.921, with ER	Layer 2
LAPF	Link Access Procedure for Frame Relay	HDLC based CL and CO-ER protocol for frame-relay layer 2, Q.922	Layer 2
LAPM	Link Access Procedure for Modems	HDLC based CO-ER protocol for ARQ between modems (part of V.42 modems)	Layer 1
LCN	Logical Channel Number	local connection identifier / local-physical address used for X.25 Virtual Circuits	Layer 2,3
LCP	Linear Predictive Encoding	Codec or digital voice transmission (GSM, 6,5-13 kbit/s)	Layer 1

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LCP	Link Control Protocol	Part of PPP Connection Establishment	Layer 2
LD-CELP	Low Delay Code Excited Linear Predictor	Codec or digital voice transmission (G.728, 16 kbit/s)	Layer 1
LLC	Logical Link Control	HDLC Mode used on LAN (CL or CO)	Layer 2
LMI	Local Management Interface	Signalisierungsprotokoll bei Frame Relay am UNI bei PVC Betrieb	
LSA	Link State Advertisement	OSPF Routing Message, die Topologieinformation transportiert	Layer 3
MAC	Media Access Control	Zugriffsverfahren für LAN shared media	Layer 2
MAN	Metropolitan Area Network		
MSS	Maximum Segment Size	TCP Option negotiert during connection setup (three-way-handshake)	Layer 3,(4,7)
MSTP	Multiple Spanning Tree Protocol	Protocol for creating multiple spanning trees (alternative to PVST); open standard	Layer 2
MTU	Maximum Transmission Unit	"Maximale Länge eines Rahmens/Paketes/Segmentes in Bytes"	Layer 2-4
NACK	Negative Acknowledgement		Layer 1-4
NAPT = PAT	Network Address Port Translation	Mapping between private and one single official IP addresses additionaly with UDP or TCP port number translation	Layer 3,(4,7)
NAT	Network Address Translation	Mapping between private and official IP addresses	Layer 3,(4,7)
NCP	Network Control Protocol	Part of PPP Connection Establishment	Layer 3
NNI	Network Network Interface	Interface zwischen PS Switch und PS Switch	
NRZ	Non Return to Zero	Code	Layer 1
NRZI	Non Return to Zero Inverted	Code	Layer 1
NSAP-Address	Network Service Point Address	"OSI IP Adresse"	
NT	Network Termination	ISDN "Modem"	
OSI-Model	Open System Interconnection - 7 Layer Model	"Modell zur strukturierten Darstellung/Unterteilung von Kommunikationsaufgaben"	Layer 1 - 7
OSPF	Open Shortest Path First	Dynamic routing protocol (link state) transported over IP	Layer 3
PABX / PBX	Private (Automatic) Branch Exchange	"Private Nebenstellen Telefonanlage"	Layer 1-3
PCM	Pulse Code Modulation	Codec or digital voice transmission (G.711, 64kbit/s)	Layer 1
PDH	Plesiochronous Digital Hierarchy	TDM Technique - Circuit Switching	Layer 1
PHB	Per Hop Behaviour	Bestandteil von IP QoS Methode "Differential Services Model"	Layer 3
PLL	Phased Locked Loop	Electronical Control Circuit	Layer 1
PNNI	Private NNI bzw.	Interface zwischen privaten ATM Switches - Signaling und Routing Protocol (ähnlich OSPF)	
POTS	Plain Old Telephone System	"Festnetz noch auf analoger Übertragung basierend"	N.A.
PPP	Point-to-Point Protocol	IP Dial In Technology - CL	Layer 2
PPPoA	PPP over ATM	Tunneling of PPP over ATM Virtual Circuit	Layer 2
PPPoE	PPP over Ethernet	Tunneling of PPP over Ethernet Link	Layer 2
PRI	Primary Rate Interface	ISDN-UNI	Layer 1-3, 7
proxy ARP	proxy Address Resolution Protocol	Solving First Hop Redundancy problem on IP host level	Layer 2, 3
PS	Packet Switching	"Paketvermittlung"	Layer 3
PSK	Phase-Shift-Keying	"Phasen-Modulation"	Layer 1
PSTN	Public Switched Telephone Network	"Gutes altes Festnetz"	N.A.
PVC	Permanent Virtual Circuit	CO PS with permanent connection without any call setup	Layer 2, 3
PVST	Per VLAN Spanning Tree	Cisco technique to allow different STP trees for different VLANs	Layer 2
Q.2931		ATM Signalisierungsprotokoll am UNI	Layer 3,7
Q.921	=LAPD	HDLC Variante am ISDN D-Kanal	Layer 2
Q.922	=LAPF	HDLC Variante Control Plane (CO) / Data Plane (CL) bei Frame Relay	
Q.931		ISDN Signalisierungsprotokoll am UNI transportiert von Q.921	Layer 3,7
Q.932		Frame Relay Signalisierungsprotokoll am UNI transportiert von Q.922 bei SVC Betrieb	
QAM	Quadratur Amplituden Modulation	"Wichtiges Basis-Verfahren für viele Übertragungstechniken"	Layer 1
QoS	Quality of Service	"Garantien des Netzwerkes bezüglich Delay, Jitter, Loss, Throughput"	Layer 2,3
QPSK	Quadrature Phase-Shift-Keying	"Quadratur-Phasen-Modulation"	Layer 1
Radius	Open standard AAA Server	Security Server für IP Einwahntechniken (Useraccounts, Passwords, Rights, Billing)	Layer 7
RAS	Remote Access Server	Einwahlserver (ISDN, Modem)	Layer 2,3,7
RFC	Request For Comments	Internet Standard Document	Layer 1-7
RIP	Routing Information Protocol	Dynamic routing protocol (distance vector) transported over UDP	Layer 3 (4)
RNR	Receiver Not Ready	HDLC Supervisory Frame - > ACK plus Flow Control STOP	Layer 2
RPC	Remote Procedure Call	Session Layer for TCP/IP	Layer 5
RR	Receiver Ready	HDLC Supervisory Frame - > ACK plus Flow Control GO	Layer 2

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RR	Route Reflector	BGP Technique to reduce amount Full-mesh of internal BGP sessions	Layer 3
RSTP	Rapid Spanning Tree Protocol	Protocol for creating single spanning tree (802.1D-2004, 802.1w)	Layer 2
RTO	Retransmission Timeout	TCP	Layer 4
RTP	Real-time Transport Protocol	CL-transport protocol for delivering audio and video over IP networks (UDP based)	Layer 4,5
RTS	Request To Send	"Steuersignal um Träger des Modems einzuschalten (V.24 Steuersignal)"	Layer 1
RTT	Round-Trip-Time	Duration from tmt. of information until ACK rcv	N.A.
RZ	Return to Zero	Code	Layer 1
SABM	Set Asynchronous Balanced Mode	"HDLC Rahmen für Verbindungsaufbau (Connection Request)"	Layer 2
SACK	Selective Acknowledgement	"Spielart von Continuous RQ (kommt bspw. optional bei TCP vor)"	Layer 2,3,4
SAP	Service Access Point	"OSI Schnittstelle zwischen Layer"	Layer 2-7
SAPI	Service Access Point Identifier	Protocol selector for content of LAPD frames	
SD	Starting Delimiter	Frame Synchronization - "Rahmensynchronisation"	Layer 1
SDH	Synchronous Digital Hierarchy	TDM Technique - Circuit Switching	Layer 1
SDLC	Synchronous Data Link Control (IBM)	Mother of HDLC	Layer 2
SDM	Space Division Multiplexing	"Raummultiplexen"	Layer 1
SMTP	Simple Mail Transfer Protocol	"Transport-Protokoll für Email"	Layer 5-7
SNA	System Network Architecture	IBM's 5 Layer Network Model	Layer 1-7
SNAP	Subnetwork Access Protocol	Alternate Ethernet framing of higher layers (alternate to 802.3+802.2 LLC or Ev2)	Layer 2
SNMP	Simple Network Management Protocol	Standard Netzwerkmanagement für TCP/IP Welt	Layer (1-7),7
SNR	Signal Noise Ratio	"Signal-Rausch-Abstand gemessen in Dezibel"	Layer 1
SREJ	Selective Reject	"Spielart von Continuous RQ" (kommt bspw. optional bei HDLC vor)"	Layer 2,3,4
SS7	Signaling System 7	Signalisierungsprotokoll zwischen ISDN-LEs am NNI, Pendant zu Q.931 am UNI	Layer 3,7
STM	Synchronous Transfer Mode	Other name fo SDH	
STP	Spanning Tree Protocol	Protocol for creating single spanning tree (802.1D-1998)	Layer 2
SVC	Switched Virtual Circuit	CO PS with connection on demand through call setup procedure	Layer 2, 3
TACACs	Cisco AAA Server	Security Server für IP Einwahltechniken (Useraccounts, Passwords, Rights, Billing)	Layer 7
TCN	Topology Change Notification	Part of STP Message	Layer 2
TCP	Transmission Control Protocol	Co Internet transport Layer (Continuous-RQ technique)	Layer 4
TDM	Time Division Multiplexing	"Zeitmultiplexen"	Layer 1
TE	Terminal Equipment	ISDN Endgerät (Telefon, FAX, Router, PC)	
TEI	Terminal Endpoint Identifier	Layer 2 LAPD Address am BRI Bus	
Telco	Telecommunication Operator / Telephone Company	"Telekom Unternehmen"	N.A.
TFTP	Trivial File Transfer Protocol	"Einfaches File Transfer Protocol basierend auf UDP" (Idle-RQ technique)	Layer 5-7
TFTP	Trivial File Transport Protocol	simple file transfer	Layer 7
TOS	Type Of Service	old QoS Header in IP	Layer 3
TTL	Time To Live	IP Header Field for implementing kill mechanism in CL PS based on routing tables	Layer 3
UA	Unnumbered Acknowledgement	"HDLC Rahmen für Verbindungsaufbau (Connection Acknowledged)"	Layer 2
UBR	Unspecified Bit Rate	Traffic Parameter / Service Class for ATM Traffic Contact - Best Effort	Layer 2
UDP	User Datagram Protocol	CL Internet transport Layer, BE	Layer 4
UI	Unnumber Information	"HDLC Rahmen für Datagramme (CL service)"	Layer 2
UNI	User Network Interface	Interface zwischen ES und PS/CS Switch	Layer 2,3
VBR	Variable Bit Rate	Traffic Parameter / Service Class for ATM Traffic Contact - Garantie (Echtzeit)	Layer 2
VLAN	Virtual LAN	Multiplexing of several logical LANs (broadcast domains) over L2 switched Ethernet infrastructure	Layer 2
VLSM	Variable Length Subnet Mask	classless handling of IP addressing	Layer 3
VoIP	Voice over IP	"Digitalisierte Sprache über IP Technologie"	Layer 3,4,5
VPI/VCI	Virtual Path Identifier / Virtual Circuit Identifier	local connection identifier / local-physical address used for ATM Virtual Circuits	Layer 2,3
VPN	Virtual Private Network		Layer 3-4
VRRP	Virtual Router Redundancy Protocol	Open HSRP	Layer 2, 3
WAN	Wide Area Network	Network Technology (CS or PS)	Layer 2, 3
WLAN	Wireless LAN		Layer 1-2