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The
Focal
Illustrated Dictionary of
Telecommunications

- essential data for on-the-job use
- over 6,000 terms, definitions and acronyms
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PLANT A
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classes are based on multiples of 1.5 Mbit/s (*TI*) and three classes on multiples on 2.0 Mbit/s (*EI*). Each class specifies a maximum possible downstream and upstream bandwidth, taking factors such as line conditions, wire gauge, loop length, etc. into account. Classes 1 and 2M1 are for operating under best conditions and classes 4 and 2M3 for worst conditions. Progress in ADSL chipset development has allowed even faster rates than those in Table A.3 to be achieved in practice.

asymmetrical duplex transmission: The process of using two separate *transmission rates* to transmit *data* simultaneously over the same *transmission line*.

asynchronous data channel: A *data communications channel* in which no separate *timing* information is transferred between the sender and receiver. *Asynchronous transmission* occurs.

asynchronous multiplexer: An older type of *multiplexer* which handled *asynchronous data channels*.

asynchronous network: A *transmission network* which does not operate using a *synchronous* or *mesochronous clock*.

asynchronous satellite: A *satellite* whose rotation in its *orbit* is not affected by the rotation of the object around which it is moving.

asynchronous terminal: A *terminal* which operates using *asynchronous transmission*. It is also often referred to as an *ASCII terminal* or a *dumb terminal*.

Asynchronous Time Division Multiplexing (ATDM): A *Time Division Multiplexing (TDM)* technique which uses *asynchronous transmission*.

Asynchronous Transfer Mode (ATM): A *packet switching* communications standard which uses *packets* of constant length, called *ATM cells*. These cells are routed through the *network* by reference to *address* information rather than by their position in a *frame*. Operation is *connection mode* by setting up *virtual channels*. ATM is able to carry a mix of *traffic types: voice, data, and video*.

asynchronous transmission: A communication system in which there is no *timing* relationship between different elements. *Transmission* in an asynchronous system occurs with use of *start bits* and *stop bits*. See also *anisochronous system* and *synchronous transmission*.

ATB: *All Trunks Busy*.

ATC: *ATM Transfer Capabilities*.

ATDM: *Asynchronous Time Division Multiplexing*.

ATIS: *Alliance for Telecommunications Industry Solutions*.

ATM: *Asynchronous Transfer Mode*.

ATM Adaptation Layer (AAL): In the *B-ISDN* model this layer adapts the functions or services provided by the higher layers into the ATM bearer service. It comes between the ATM layer and the next higher layers in the user plane, the control plane and the management plane. The

CCD: *Charge Coupled Device.*
CCD scanner: *Charge Coupled Device scanner.*
CCH: *Connections per Circuit Hour.*
CCIA: *Computer and Communications Industry Association.*
CCIR: *Comite Consultatif des Radiocommunications. (International Consultative Committee for Radio). Now renamed the ITU-R.*
CCIS: *Common Channel Interoffice Signalling.*
CCITT: *Comite Consultatif International de Telegraphique et Telephonique. (Consultative Committee for International Telegraph and Telephone.) Now renamed ITU-T.*
CCL: *Cordless Class License.*
CCR: *Commitment, Concurrency and Recovery.*
CCS: *Cent Call Seconds or Common Channel Signalling.*
CCSA: *Common Control Switching Arrangement.*
CCSC: *Common Channel System Codeword.*
CCSS: *Common Channel Signalling System. See Common Channel Signalling.*
CCTV: *Closed Circuit Television.*
CDDI: *Copper Distributed Data Interface.*
CDF: *Combined Distribution Frame.*
CDMA: *Code Division Multiple Access.*
CDO: *Community Dial Office.*
CDPD: *Cellular Digital Packet Radio.*
CDPSK: *Coherent Differential Phase Shift Keying.*
CDR: *Call Detail Recording.*
CDV: *Cell Delay Variation.*
CEC: *Commission of the European Communities.*
Ceefax: *A teletext system, introduced in the UK by the BBC in the 1970s, for transmitting data over the normal television transmission signal.*
CEI: *Comparably Efficient Interconnection.*
cell: (1) *In a cellular radio system it is the geographical area covered by a base station and using the same frequency. (2) In a transmission system, such as packet switching or ATM, it is the group of bits which contains user information, and is usually made up of a payload, a header and a trailer, as in Figure C.8.*
Cell Delay Variation (CDV): *A measure of Quality of Service (QoS), used in ATM systems, which defines the variation in delay of a transmitted cell.*
Cell Insertion Ratio (CIR): *A Quality of Service (QoS) performance measure in ATM systems. It is caused by bit errors in the header address field and is measured as the ratio of the inserted cells to the total number of cells entering a Virtual Circuit (VC).*

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