THE TELECOM DICTIONARY

of Acronyms, Abbreviations, Jargon and Technical Terms Encountered in Australian Telecommunications.

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of

ABBREVIATIONS, ACRONYMS, JARGON AND TECHNICAL TERMS ENCOUNTERED IN AUSTRALIAN TELECOMMUNICATIONS

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PREFACE

The proliferation of abbreviations, acronyms and technical terms seems to be inevitably associated with the development of technology. In one way this proliferation could be said to be a good thing, at least for the engineers and technical people involved in the technology, for it allows them to make shortcuts in their speech and writing, greatly saving their time. And so long as they are talking to others with the same technical background, there is no interruption to the communication.

But for the ordinary layperson, or even to a technical person versed in a different technology to that being discussed, these shortcuts of speech and writing often lead only to dead ends of incomprehension.

Telecommunications is certainly not exempt from this problem. Indeed, it may well be one of the worst offenders. Many ordinary people coming into contact with Telecom Australia's operations are bewildered by the variety of acronyms and technical terms that seem to spring up at every turn.

This Dictionary has been compiled in order to assist the process of communication, to create some outlets from the dead ends. It is not, however, in any sense a technical dictionary. It does not offer precise technical definitions. Its aim is to assist the intelligent layperson to at least extract some grain of understanding from Telecom's more technical publications and communications, even if only by spelling out the full wording of some of the acronyms.

An attempt has been made to indicate the area of application of particular terms by listing this in brackets immediately after the entry in the Dictionary, for example (computers) or (videotex). Occasionally, entries are marked as (Telecom); these are terms which have primary application within or by Telecom Australia rather than in telecommunications in general.

This is only the first edition of the Telecom Dictionary. It is hoped to publish it annually, updating it by inclusion of new terms as they arise. In order for this to be successful, we would be grateful if readers and users of this Dictionary could let us know of new terms that they encounter, so that we can include them. Forms for this purpose will be found at the back of the Dictionary.

Finally, it is important for us to acknowledge that this Dictionary has not sprung from nothing. It is based heavily on a variety of glossaries and dictionaries previously published internally within Telecom and by other organisations. We would like to offer our thanks in particular to Graham Pearce of Engineering Development and to Graeme Abbey of Computer Coordination for their help and advice.

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SOURCES AND REFERENCES

1. "Glossary of Technical Terms and Acronyms", Engineering Development Division, Telecom HQ.

2. "Common Abbreviations", F.Drew, Operations Support Systems, Engineering Department, Telecom Victoria.

3. "List of Standard Abbreviations", Information Systems Facilities and Standards Manual, Telecom HQ.

4. "List of Acronyms in Use", Marketing Planning Branch, Telecom Victoria.

5. "Tech Talk", AT&T Bell Telephone Laboratories.

6. "Common Satellite Terms", Aussat Pty Ltd.

7. "Prestel, the Technology", British Telecom.

8. I.E.E.E. definition.

9. Information and Publicity Office, Telecom HQ.

10. American Telephone and Telegraph.

11. "The Videotex Revolution", Sam Fedida.

12. "PAL Television for Servicemen", W.C.Cook, Wren Books 1974.

13. "Glossary of Commonly Used Terms and Abbreviations", PMG Submission, APO Commission of Inquiry, 1973.

14. Engineering Services, Telecom HQ.

15. L.M.Ericsson.

Unmarked entries are from a variety of publicly-available sources.

A

A : 1. (electronics); Ampere (q.v.). 2. Area.

a : (abbr.); see Atto.

A BOARD : (telephony); Manual operating position handling calls to nearby towns from local telephone subscribers.

A DIGIT SELECTOR : (switching); In a director system, a two-motion selector which returns dialling tone to a calling subscriber, steps vertically to the level indicated by the first digit dialled, then rotates automatically into that level to select and connect the BC-digit selector of a free director.

A FRAME : (telephony); Australia's first plastic moulded (bakelite) table telephone, introduced in 1933, and so called because of its highly accentuated moulding.

A HUNTER : (switching); In a director system, a hunting selector which, before dialling tone is returned to a calling subscriber, selects and connects to a free A-digit selector.

A LAW : (data transmission); The method of encoding sampled audio waveforms used in the 2048kbit/s 30 channel PCM primary system, widely used outside America.

A PARTY : (telephony); Originator of a call.

A POSITION : (telephony); Operating position in a manual exchange where subscribers' lines and operator-controlled trunks are terminated and calls originated by local subscribers are handled.

A/L/P : (LEOPARD); Associated Line Prime.[2]

AA : (data transmission); Automatic Answer.

AAR : (telephony); Automatic Alternative Routing.

AAT : (MOPAX); Automatic Answer Trunk Circuit.[2]

ABANDONED CALLS : (telephony); Call during which the calling party goes back on-hook without waiting for the call to be connected or for advice such as busy tone, or information from an operator that the call cannot be connected.

ABBM : (radio); Automatic Base Band Monitor.[1]

ABBREVIATED DIALLING : (telephony); A facility available with more advanced telephones (connected to either ARE or AXE exchanges) allowing for the dialling of stored numbers via an abbreviated dialling code of two or three digits instead of the normal seven.

ABBREVIATED DIALLING PREFIX : (telephony); The dialling code indicating that the information following is an abbreviated number.

ABC : 1. Australian Broadcasting Corporation (previously the Australian Broadcasting Commission). 2. (telephony); Answer Back Code. 3. (telephony); Automatic Bill Calling. 4. (television); Automatic Brightness Control.

ABD : (traffic management); Average Business Day.

ABID : (switching); The equipment required in step-by-step exchanges for the identification (ID) of the calling ("A") and called ("B") Customer's Number and Category for charging, call-back and call-monitoring purposes. See also CLI.[1]

ABM : see ABBM.

ABORT : (data transmission); A function invoked by a primary or secondary sending station causing the recipient to discard (and ignore) all bit sequences transmitted by the sender since the preceding flag sequence.

ABORT TIMER : (data transmission); Automatic on-hook device for a data modem if no answer-back is received, or the distant end is busy; normally set for 15 second delay.

ABRAD : (electronics); Access Barring Resistor and Diode.

ABSBH : (traffic management); Average Busy Season Busy Hour.

ABSENT SUBSCRIBER : (telephony); A facility available with more advanced telephones (connected to AXE exchanges) where calls made to a subscriber's number during a specified period can be intercepted and transferred to either absent subscriber service operators, or an answering machine, giving appropriate information to the caller.

ABSOLUTE ADDRESS : (computers); An address in machine language that identifies a storage or a device without the use of any intermediate reference.

ABSOLUTE CODE : (computers); One using absolute addresses and written in machine language.

ABSOLUTE DELAY : (data transmission); The amount of time a signal is delayed. It may be expressed in time (ie. milliseconds) or in number of characters, pulse times, word times, major cycles, or minor cycles.

ABSORBER VALVE : 1. (radio); That in an absorption modulator which absorbs excess power during troughs of the modulation cycle. 2. (telegraphy); In a transmitter, it is used to stabilise voltages during keying.

ABSORPTION : (radio); Attentuation caused by dissipation of energy, when radio waves lose power going through foliage, rain or oxygen, or when sound waves are reflected by soft energy absorbing material.

ABSORPTION CAPACITOR : (electronics); One connected across a spark gap to dampen the discharge.

ABSORPTION FADING : (radio); Variation in the absorption of radiowave propogated through the ionosphere due to changes in the densities of ionisation.

ABSORPTION INDEX : (radio); 1. The ratio of the electromagnetic radiation absorption constant to the refractive index. 2. the functional relationship between the sun's angle (at any latitude and local time) and the ionospheric absorption.

ABSORPTION INDUCTOR : see Interphase Transformer.

ABSORPTION LOSS : (electronics); Loss of energy in one circuit caused by conversion into another form of energy or transfer to another circuit.

ABSORPTION PEAK : (radio); Greater than average loss at a particular frequency due to greater absorption at that frequency.

ABSORPTION WAVEMETER : (electronics); One which depends on a resonance absorption in a tuned circuit, constructed with very stable inductance and capacitance.

ABT : Australian Broadcasting Tribunal.[1]

ABU : Asia-Pacific Broadcasting Union.

AC : 1. (electronics); Alternating current - an electric current, whose direction of flow alternates or varies periodically (usually 50 times a second, ie 50 Hertz, in domestic electrical power).[1] 2. Access. 3. (Telecom); Advice of Charge. 4. Awaiting Connection. 5. (telephony); Alternate Call listing. 6. (AXE); Accounting, function block in CHS.[2]

AC PICK UP : (telephony); Interfering currents in one channel arising from EMFs induced by currents in other channels, including power mains at power frequencies. Interference also occurs when DC is switched.

AC SIGNALLING SYSTEM : Any system of signalling that utilises a code of signals based on the selective transmission of alternating currents of specified frequency or frequencies.

AC TRANSFORMER : (electronics); A machine which alters the voltage and current of an alternating supply in inverse ratio to one another.

AC&R : American Cable and Radio System.

ACAST : Advisory Committee on the Application of Science and Technology to Development.

ACC : 1. (television); Automatic Chrominance Control. 2. Administrative Committee on Co-ordination. 3. (radio); Automatic Carrier Control.

ACCELERATING ELECTRODE : (television); Electrode, which cause electrons emitted from an electron gun to accelerate in their journey to the screen of a cathode ray tube.

ACCELERATING VOLTAGE : (television); A voltage applied to an electrode which accelerates a beam of electrons or other charged particles.

ACCELERATION TIME : (computers); The time taken by a mechanical input/output device, such as a magnetic tape transport, to reach its operating speed after the instruction to act has been interpreted.

ACCEPTANCE ANGLE : (fibre optics); The maximum angle, measured from the core centerline, within which light may be coupled into a fibre for a uniformly illuminated optical waveguide.

ACCEPTOR : 1. (electronics); A series resonant circuit. 2. (electronics); an impurity element that increases the number of holes in a semiconductor crystal.

ACCESS ATTEMPT : (computers); The process by which one or more users interact with a telecommunications system in order to initiate user information transfer.

ACCESS BARRED SIGNAL : (telephony); A signal sent back indicating that the call will not be completed because it is barred by a customer user facility.

ACCESS CIRCUIT : (telephony); Relay set or junction which routes a call into a particular item of equipment.

ACCESS CODE : (telephony); A number, or group of numbers, which a caller dials to obtain connection to a telephone exchange or service.[1]

ACCESS CONDITION : (telephony); Determines the manner in which a service can obtain connection to other services or service levels, eg. automatic, manual, STD, ISD, trunk operator, CCR etc. see also Service Condition.

ACCESS CONTROL : (telephony); Action taken to permit or deny use of the components of a communications system.

ACCESS DENIAL : (telephony); Access failure due either to the issuing of a system blocking signal by the telecommunication system, or to exceeding maximum access time and nominal system access time during an access attempt.

ACCESS DENIAL PROBABILITY : (telephony); Ratio of access attempts which result in access denial to total access attempts.

ACCESS DENIAL TIME : (telephony); Elapsed time between the start of an access attempt and access failure due to access denial.

ACCESS DIALLER : (Telecom); A device, used in conjunction with a telephone, to enable persons with manipulative or dexterity problems to make and receive telephone calls unaided.

ACCESS FAILURE : (telephony); Termination of an access attempt in any manner, other than initiation of user information transfer between the intended source and destination.

ACCESS LEVEL : (computers); Terminals connected to a central processor are not permitted access to all levels of program and data.

ACCESS LINE : (telephony); A circuit between a subscriber and a switching centre. Any line giving access to a larger system or network. Also the private lines feeding to a common control switching arrangement or enhanced private switched communications service switch from a PBX.

ACCESS ORIGINATOR : (computers & telephony); The functional entity responsible for initiating a particular access attempt.

ACCESS PERMISSION : (computers); Authority given after access controls have checked that an attempt to access a processor has the correct status with no security objections.

ACCESS PHASE : (computers & telephony); In an information transfer transaction, the phase during which an individual access attempt is made.

ACCESS POINTS : (cables); A class of junction points in dedicated outside plant. They are semi-permanent splice points, at the junction of a branch feeder cable and distribution cables; points used to make connections for testing of or for use on particular communications circuits.

ACCESS PREFIX : (telephony); In the international network, the origin country's single common access prefix both for the international and the intercontinental network.

ACCESS REQUEST : (computers); A control message issued by an access originator for the purpose of initiating an access attempt.

ACCESS SELECTOR : (switching); A selector used to connect common equipment (eg. in routine tests of artifical traffic equipment) sequentially to corresponding points in each of a series of identical circuits.

ACCESS TIME : 1. (data transmission); the time interval between the instant at which a control unit initiates a call for data and the instant delivery of the data is completed. 2. (computers & telephony); in a telecommunications system, the elapsed time between the start of an access attempt and successful access.

ACCESS TO STORE : (computers); Entry or extraction of data from a storage memory. In a random access memory (RAM) each location is independent of all other locations and the locations can be referred to in any order. In a sequential memory, each location is accessed in turn.

ACCOUNTING RATE : The rate per traffic unit agreed upon to establish international telecommunications accounts.

ACCOUNTING RATE QUOTA : The part of the total accounting rate per telecommunications traffic unit corresponding to the facilities made available in each country; this quota is fixed by agreement.

ACCRUE : (LEOPARD); Accumulate.[2]

ACCS : (AXE); Access Select.[2]

ACCT : (abbr.); Account.[3]

ACCUDATE : (Telecom computers); Accounting Update.[2]

ACCUMULATOR : 1. (computers); A device which records the cumulative total of signals input. 2. (electronics); a device for storing electricity, ie. a rechargable battery or cell. Car batteries are the most commonly encountered accumulators. Telephone exchange batteries are of similar principle, but usually larger and of greater capacity.[1]

ACCUMULATOR BOX : (electronics); A vessel, usually made of glass, lead-lined wood, or celluloid, for containing the plates and electrolyte of an accumulator.

ACCUMULATOR GRID : (electronics); The lead grid which forms one of the plates of a lead acid accumulator having pasted plates.

ACCUMULATOR SWITCHBOARD : (electronics); A switchboard upon which are mounted all necessary switches and instruments for controlling charging and discharging of a battery of accumulators.

ACCUMULATOR TRACTION : see Battery Traction.

ACD : see Automatic Call Distributor.

ACDS : (telephony); Automatic Call Distribution System.

ACE : see Advanced Communication Experiment.

ACESA : Australian Computer Equipment Suppliers' Association.

ACHROMATIC : (television); Free from colour. The points in a chromaticity diagram generally referred to as "white" points and located on the black body curve above the temperature of 2000°K.[12]

ACKNOWLEDGEMENT : (data transmission); A character or group of characters generated at a receiving device to indicate to the sending device that information has been received either correctly or incorrectly.

ACKNOWLEDGEMENT SIGNAL UNIT : (data transmission); A signal unit which carries information about whether the signal units in the block indicated were received correctly.

ACOA : Administrative and Clerical Officers Association.[1] Approximately 7000 members of this association are employed by Telecom Australia.

ACOUSTIC COUPLER : (data transmission); A device which can send and/or receive signals through a service without being electrically connected to it, by converting electric signals into audio signals (and vice-versa), enabling data to be transmitted over the telephone network via a conventional telephone handset.

ACOUSTIC COUPLING : see Acoustic Coupler).

ACOUSTIC DELAY : (acoustics and telephony); Delay introduced into sound reproduction of speech or music along a telephone line, by conversion to sound, which is caused to travel a suitable distance along a pipe before reconversion into electric currents. Delay is also obtained through magnetic recording or through wave filters.

ACOUSTIC DISTORTION : (acoustics); Distortion in sound reproducing systems, due to alteration in the acoustic ratio of sounds arriving at the listener's ears when compared with the original or with a natural ratio.

ACOUSTIC FEEDBACK : (acoustics); see Feedback.

ACOUSTIC NOISE : (transmission); A disturbance in the audio frequency range.

ACOUSTIC SHOCK : (acoustics); Shock produced by hearing a sudden loud sound.

ACOUSTIC SHOCK REDUCER : (acoustics and telephony); A limiter which cuts off peaks of noise power thereby eliminating shock. Used on operators' headsets.

ACOUSTIC WAVE : (acoustics); A wave transmitted through solid, liquid or gas as a result of mechanical vibrations of a sound source. The frequency range of acoustic waves is usually taken as the effective range of a normal human ear, from 15Hz up to about 15kHz.

ACOUSTICS : 1. The science of sound. 2. The sound properties of a building or place, such as a public hall.[1]

ACQUISITION TIME : 1. (data transmission); The amount of time required to attain synchronism. 2. (satellite control communications); the time required for locking tracking equipment on a signal from a communications satellite.

ACS : 1. (Telecom computers); Accident and Compensation Statistical System.[2] 2. Australian Computer Society. 3. Advanced Communications Service (q.v.).

ACTIVE : (electronics); Any device or circuit which introduces gain or uses a source of energy other than that inherent in the signal.

ACTIVE LASER MEDIUM : (fibre optics); The material within a laser, such as crystal, gas, glass, liquid or semi-conductor that emits coherent radiation (or exhibits gain phenomena) as the result of stimulated electronic or molecular transitions to lower energy states.

ACTIVE LINES : (television); Those which are effective in producing a television picture.

ACTIVE NETWORK : (telephony); A network that includes a source of power.

ACTIVE REPAIR TIME : (computers); That portion of the downtime during which the repair personnel are working on the failed parts of an item.

ACTIVE SATELLITE : (satellites); A satellite carrying a station intended to transmit or retransmit radio communication signals.

ACTIVE SIGNALLING LINK : (data transmission); A signalling link which has successfully completed the initial alignment procedures and can carry signalling traffic.

ACTIVE STATION : (data transmission); Station that is currently eligible to enter or accept messages.

ACTIVE TIME : (computers); Time spent in the information transfer phase within the service time interval of an information transfer transaction. A user's active time excludes all time spent in the access and disengagement phase, all time spent in the idle and exit state, and all time outside the service time interval. Active time is comprised of consecutive and alternating operational service and outage periods.

ACTIVE TRANSDUCER : (electronics); Any transducer in which the applied power controls or modulates locally supplied power, which becomes the transmitted signal, as in a modulator, radio transmitter or carbon microphone.

ACTIVE TRANSMITTER : (telephony); Telecom's 20E electronic transmitter, a successor to the No13 (carbon) transmitter. Already in use in advanced business systems, the electronic transmitter is to be installed into the 800 series as from 1984.

ACTIVITY FACTOR : (telephony); A decimal fraction less than one which represents the fraction of the busy hour that a single voice channel is likely to be actively in use.

ACTIVITY RATIO : (computers); For a processor, the ratio of the number of records which have been moved in a data file being updated to the total number of records in the file.

ACTUAL ADDRESS : see Absolute Address.

ACTUATOR : (electronics); A device used to bring electronic equipment into operation, to calibrate it, or to cause a switch to operate to activate a circuit.

ACTY : (abbr.); Activity.[3]

ACU : see Automatic Calling Unit.

ACUA : Australian Computer Users' Association.

AD : see Abbreviated Dialling.

ADA : (computers); A high level computer language devised by the French CII Honeywell Bull and now widely used by the American Department of Defence. It is not an acronym, but the name of Ada Lovelace, the daughter of Lord Byron, mathematician and friend of the 19th century theoretical inventor of the computer, Charles Babbage.

ADAB : Australian Development Assistance Bureau (previously Australian Development Assistance Agency).[1]

ADAPTIVE CHANNEL ALLOCATION : (transmission); A method of multiplexing where the information capacities of channels are not predetermined but are assigned on demand.

ADAPTIVE DELTA MODULATION : see Delta Modulation.

ADAPTIVE PREDICTIVE CODING : (data transmission); A narrowband analog to digital conversion technique employing a one-level or multi-level sampling system in which the value of the signal at each sample time is adaptively predicted to be a linear function of the past values of the quantised signals.

ADAPTIVE PULSE CODE MODULATION : (transmission); A technique which effectively reduces occupied bandwidth per active speaker by reducing sampling rates during periods of overflow peak traffic.

ADAPTIVE SPEED DEVICE : (data transmission); Device that senses speed and code of incoming data and automatically adjusts to it.

ADAPTOR : 1. Any device that effects operation between different parts of one or more systems or sub-systems. 2. (videotex); A device enabling a television receiver to act as a videotex terminal by connecting the television with the telephone.

ADCCP : see Advanced Data Communications Control Procedure.

ADDED BIT : (data transmission); A bit delivered to the intended user in addition to intended user information bits and delivered overhead bits.

ADDED BLOCK : (data transmission); Any block or other delimited bit group delivered to the intended destination user in addition to intended user information bits and delivered overhead bits.

ADDED BLOCK PROBABILITY : (data transmission); The ratio of added blocks to total blocks received at a specified destination during a measurement period.

ADDITIONAL PERIOD : (telephony); Unit of time used for charging telephone calls longer than the minimum chargeable period.

ADDITIVE PRIMARIES : (television); Sources of light of particular hues which, by additive mixture in various proportions, can be made to match an almost complete range of visible colours. The primaries used for colour television are red, green and blue.[12]

ADDL : (computers); Abstract Data Description Language.

ADDR : (abbr.); Address.[3]

ADDRESS : 1. (computers); A character or group of characters that identifies a register, a particular part of storage, or some other data source or destination. 2. (data transmission); A coded representation of the destination of data, or of the originating terminal. Multiple terminals on one communication line, for example, must have unique addresses. 3. (telegraphy); Telegraph messages reaching a switching centre carry an address before their text to indicate the destination of the message.

ADDRESS FIELD : (data transmission); The sequence of bits immediately following the opening flag of a frame identifying the secondary station sending, or designated to receive, the frame.

ADDRESS FIELD EXTENSION : (data transmission); An enlargement of the address field to include more addressing information.

ADDRESS FORMAT : (computers); The way the instruction's address is arranged.

ADDRESS MESSAGES : (switching); A message sent in the forward direction containing the signalling information required to route and connect the call. It includes address information, class of service information, and additional information relating to user and network facilities. It may also contain the calling customer identity.

ADDRESS SEPARATOR : (data transmission); The character which separates the different addresses in the selection signals.

ADDRESS SIGNAL : (switching); A signal containing one element of the part of the selection signals which indicates the destination of an initiated call.

ADDRESS SIGNAL COMPLETE : (switching); A signal sent in the backward direction indicating that signals required for routing the call to the called party have been received, and that no called party's line condition signals will be sent.

ADJACENT CHANNEL : (transmission); One whose frequency is immediately above or below that of the required signal.

ADJACENT CHANNEL INTERFERENCE : (transmission); Interference caused by a transmitter or carrier system operating in an adjacent channel.

ADJACENT SIGNALLING POINTS : (transmission); Two signalling points that are directly interconnected by a signalling link.

ADM : Adaptive Delta Modulation. See Delta Modulation.

ADMINISTRATIVE PROGRAM : (computers and telephony); This is part of an application program for an SPC central office/exchange, specifically relating to software areas such as (a) soft data operations, (b) central office/exchange configuration control and extension, (c) traffic measurement and system monitoring and (d) central office/exchange maintenance and testing.

ADMITTANCE : (electronics); A measure of the ease with which alternating current flows in a circuit. It is the reciprocal of impedance, and is expressed in siemens. Admittance is the vector sum of a resistive component called 'conductance' and a reactive component called 'susceptance'.

ADP : see Automatic Data Processing.

ADPCM : (transmission); Adaptive Differential Pulse Code Modulation.[2]

ADR : see Automatic Disturbance Recorder.

ADR-C : Automatic Disturbance Recorder Concentrator.

ADRAS : (Telecom); Accident Data Record Analysis System.

ADS : 1. (data transmission); Analog(ue) Data Service (as opposed to Digital Data Service).[1] 2. (telephony); Abbreviated Dialling Store.

ADSTE : Association of Drafting, Supervisory and Technical Employees [1] Telecom Australia employs about 1500 members of this association.

ADU : see Automatic Dialling Unit.

ADV : (abbr.); Advice.[3]

ADVANCED COMMUNICATION EXPERIMENT : (Telecom); A Telecom in-house trial, from November 1977 to February 1979, of a variety of advanced telecommunications services not then in general use.

ADX : (telephony); Automatic Disturbance Exchange.

AEC : see Australian Electrotechnical Committee.

AEIA : see Australian Electronics Industry Association.

AERIAL : (radio); see Antenna.

AERIAL CABLE : see Aerial Construction.

AERIAL CONSTRUCTION : (telephony); Construction on which conductors, usually of copper wire, either bare or insulated, are supported by insulators on crossarms and poles to provide customers, junction or trunk telephone lines.[1]

AERIAL EFFICIENCY : see Radiation Efficiency.

AEROPHARE : see Radio Beacon.

AEROPLANE EFFECT : (radio); Error in direction finding by radio which arises from the tilt of the transmitting aerial on an aircraft, or from any horizontal component in the emitted wave.

AET : see Automatic Exchange Tester.

AF : Audio Frequency. See Frequencies.

AFC : see Automatic Frequency Control.[1]

AFTEL : (videotex); The closed user group (CUG) videotex service, operated by the Australian Federation of Travel Agents. Based on the Prestel technology, AFTA is run by Computer Accounting Services, a division of Mayne Nickless.

AGC : see Automatic Gain Control.

AH : (abbr.); After Hours (normally refering to a telephone number).

AH : (electronics); Ampere Hour, a unit of charge capacity usually applied to an electric cell or battery.[1]

AIDTAC : Australian Inter-departmental Telecommunications Advisory Committee.[1]

AIR BREAK : (electronics); Term applied to a switch or circuit breaker which has the contacts in the air.

AIR CAPACITOR : (electronics); One in which the dielectric is nearly all air, for tuning electrical circuits with minimum dielectric loss.

AIR CORE : (electronics); An inductor with no magnetic material in its core.

AIR CORE CABLE : see Dry Core Cable.

AIR GAP : (electronics); A small hole in a magnetic circuit, eg. that between pole piece and armature of an electromagnetic relay, even when the relay is in the operated position.

AIR SOUNDING : Measuring atmospheric phenomena or determining atmospheric conditions usually by means of apparatus carried by balloons or rockets.

AIR SPACED COIL : (electronics); Inductance coil in which the adjacent turns are spaced (instead of being wound close together) to reduce self capacitance and dielectric loss.

AIR TERMINAL : (electronics); Elevated structure acting as a lightning protector, collecting local charge and reducing electric field strength.

AIS : Automatic Interception Service.[1]

AJC : (AXE); A-Junctor Circuit, hardware.[2]

AL : (LEOPARD); Associated Line.[2]

ALARM : Device such as a lamp, buzzer, bell etc. arranged to call attention.[1]

ALARM CALL SERVICE : (telephony); An operator or automatic device calls a given telephone number, at a time specified in advance by the subscriber, and makes an appropriate announcement.

ALARM CENTRE : (telephony); A location generally within a technical control facility that receives local and remote alarms.

ALARM SENSORS : see Variation Monitors.

ALERTING LAMP : (telephony); A lamp on a manual operating suite indicating that a particular circuit is carrying an incoming call requiring the operator's attention.

ALERTING SIGNAL : (telephony); A ringing signal sent to customers to indicate they should answer their telephones.

ALFA : see Automatic Line Fault Analysis.

ALGOL : (computers); Algorithmic Language. An international problem-solving language designed for the concise, efficient expression of arithmetic and logical processes and the control of those processes.

ALGORITHM : (computers); A prescribed set of well-defined rules or processes for the solution of a problem in a finite number of steps.

ALIGN : (electronics); To adjust timing or tuning or gain of a unit or part thereof to ensure that the unit functions correctly.

ALIGNED BUNDLE : (fibre optics); A bundle of optical fibres in which the distribution of relative spatial co-ordinates of each fibre is the same at the two ends of the bundle, as opposed to the random orientation of fibres in bundles typically employed as optical communication transmission lines.

ALIGNER : (computers); A device used to align the elements of one data structure to particular elements of another structure and, in some cases, also to change between the two structures.

ALIGNMENT : (electronics); Checking a circuit to ensure it is operating at specified levels at all points and that distortion and other undesired features are within permitted limits.

ALIGNMENT ERROR RATE MONITORING : (transmission); A procedure by which the error rate of a signalling link is measured during the initial alignment.

ALIR : Automatic Line Insulation Routiner.

ALIVE : 1. (electronics); Either charged with DC potential different from the earth's or connected to a source of ac or dc power. 2. (acoustics); an alive room is one with reflecting rather than absorbent walls.

ALKALINE CELL : (electronics); A primary cell using an alkaline electrolyte, often potassium hydroxide. Gives higher current drain than ordinary carbon zinc dry cells.

ALL-CHANNEL CATV AMPLIFIER : (television and radio); A broadband amplifier capable of amplifying without distortion television and broadcast radio signals. See also CATV.

ALL-PASS NETWORK : (transmission); One which introduces a specified phase-shift response without appreciable attenuation for any frequency.

ALL-RELAY AUTOMATIC SYSTEM : (electronics); A small switching unit which only utilises electromechanical relays with simple contact assemblies and no rotating or electronic components.

ALLIGATOR CLIP : (electronics); A test clip having long, narrow jaws, usually serrated.

ALLOC : (abbr.); Allocation.[3]

ALLOCATED CIRCUIT : (telephony); A circuit designed and reserved for the use of a particular customer.

ALLOTTER : (telephony); A switch which parcels out an incoming load to different operating units, specifically a uniselector used to improve the efficiency of distribution of line finders, by automatically pre-selecting and pre-connecting the first available line finder in the group to which it has access.

ALPETH : (cables); A cable sheath technology utilising a corrugated aluminium tape with polyethelene oversheath.

ALPHABET : (telegraphy and data); A table of correspondence between an agreed set of characters and the signals which represent them.

ALPHABET TRANSLATION : (data transmission); The process converting the meaning in a particular alphabet to one or more different alphabets in the same or different code.

ALPHAGEOMETRIC : (videotex); Technique for building up letters and pictures by geometric coloured shapes as used in Canadian TELIDON.

ALPHAMERIC DISPLAY : A rectangle divided into a total of 14 segments which form all capital letters of the alphabet and all numbers from 0 to 9. It is commonly used to display information.

ALPHAMOSIAC : (videotex); Technique for building up letters and pictures by small blocks of colour as used in the British PRESTEL and French TELETEL.

ALPHANUMERIC : A generic term of alphabetic letters, numeral digits and special characters which are machine processable. Used to designate a character set which contains letters, figures and punctuation marks.

ALPHAPHOTOGRAPHIC : (videotex); Technique producing high quality still pictures on the TV screen or on a portion of the screen, as used by 'Picture Prestel'.

ALT-ROUTE : (switching); To employ alternate routing techniques.

ALT-ROUTE AUTOMATIC : (switching); The action of a central office/exchange in sequential testing of trunks over several routes in attempting to complete a call.

ALTERNATE MARK INVERSION SIGNAL : (transmission); A pseudo-ternary signal, conveying binary digits, in which successive 'marks' are normally of alternative polarity but equal in amplitude, and in which 'space' is of zero amplitude. Sometimes called bipolar signal.

ALTERNATE MARK INVERSION VIOLATION : (transmission); A 'mark' which has the same polarity as the previous 'mark' in the transmission of AMI signals. Sometimes called bipolar violation.

ALTERNATE ROUTE : (switching); An alternative communications path used if the normal one is not available. There may be one or more possible alternative paths.

ALTERNATE ROUTE PATTERN : (switching); The way a switch has been programmed to hunt for an available circuit to reach a required destination.

ALTERNATING CURRENT : (electronics); Continuously variable current, rising to a maximum in one direction, falling to zero, then reversing direction and rising to a maximum in the other direction, then falling to zero and repeating the cycle. Usually follows a sinusoidal growth and decay curve.

ALTERNATING DISCHARGE CURRENT : (electronics); Through a gas discharge protector is the RMS value of an approximately sinusoidal alternating current flowing through the protector.

ALTERNATION : (electronics); One of the halves of a complete AC cycle.

ALTERNATIVE TELEPHONE SERVICE : (telephony); Two telephones connected to either an exchange service or PBX extension and controlled by a changeover switch. Only one telephone can be used at any time.

ALTERNATOR : (electronics); Rotary machine for the generation of AC electricity, usually at a frequency of 50 Hz.[1]

ALU : (computers); Arithmetic and Logic Unit. The hardware part of a processor where arithmetic and logical operations are performed.

ALUMINA : (electronics); Aluminium Oxide, used in solid-state components as a dielectric.

AM : 1. Administration Manager. 2. see Amplitude Modulation. 3. (data transmission); Asynchronous Data Multiplexer.

AM/PR : (transmission); Amplitude Modulation/Partial Response.

AMA : Automatic Message Accounting (old term for Call Charge Record (q.v.)).[1]

AMALGAMATED WIRELESS (AUSTRALASIA) LIMITED : Formed in 1913 as a merger of the Australian operations of the British group Marconi and the German Telefunken, now 49 percent owned by the Australian government.

AMBIENT NOISE LEVEL : (acoustics); The level of acoustic noise existing in a room or other location, as measured with a sound level meter. It is usually measured in decibels above a reference level of 0.00002 newton per square meter in SI units.

AMBIGUITY ERROR : (telephony); An error in the reading of a number when digital representation is changing. All the digits may not change at exactly the same instant, ie. a photograph could give an incorrect figure, such as 699 changing to 700 might be photographed as 600.

AMD : Advanced Micro Devices.

AMERICAN NATIONAL STANDARDS INSTITUTE : Organisation supported by US industry to establish uniformity of standards.

AMERICAN WIRE GAUGE : A means of specifing wire diameter, the Brown and Sharpe (B&S) gauge. The higher the number, the smaller the diameter.

AMI : (transmission); Alternate Mark Inversion.

AMMETER : (electronics); An instrument for the measurement of electric current.[1]

AMP : see Ampere.

AMPERE : (electronics); The SI unit of electrical current. A current of one ampere flowing through a resistance of one ohm produces a voltage drop (or potential difference) of one volt. Amperes equal Volts divided by Ohms.[1]

AMPERE PER METER : (electronics); The SI unit of magnetic field strength. The field strength in the interior of an elongated uniformly wound solenoid that is excited with a linear current density in its winding of one ampere per meter of axial distance.

AMPERE'S RULE : (electronics); The relationship between the direction of an electric current and its associated magnetic field.

AMPERE-HOUR : (electronics); When the current is one ampere, the quantity of electricity that flows in one hour.

AMPERE-TURNAMPLIDYNE : (electronics); A rotating machine which in effect acts as a power amplifier. A small change in the excited field produces a rapid change in output voltage. Used in servo systems.

AMPLIFICATION : 1. (transmission); The strengthening of a weak signal (and contrasting with Attenuation, q.v.) 2. (electronics); The ratio between the output signal power and the input signal of a device. 3. (electronics); Gain.

AMPLIFIER : A device, usually electrical, which receives input or energy at a lower level and emits it, in the same form, at higher energy levels.[1]

AMPLIFIER STAGE : An amplifier coupled to other devices in cascade so that the output of one stage provides the input to the next.

AMPLITUDE : (transmission); The strength of a signal.

AMPLITUDE DISTORTION : (electronics); Distortion occurring in an amplifier or other device when the output amplitude is not a linear function of the input amplitude under specified conditions.

AMPLITUDE EQUALISER : (electronics); A corrective network designed to modify the amplitude characteristics of a circuit or system over a desired frequency range.

AMPLITUDE MODULATION : (radio); A method of modifing a sine wave signal in order to make it 'carry' information. The sine wave, or 'carrier', has its amplitude modified in accordance with the information to be transmitted. see Appendix 5.

AMPLITUDE QUANTISED CONTROL : (transmission); A synchronisation control system in which the functional relationship between actual phase error and derived error signal includes dicontinuities.

AMPLITUDE-SHIFT KEYING : (data transmission); Data signals which produce a number of different amplitude levels of a sine-wave carrier.

AMPLITUDE-VERSUS-FREQUENCY DISTORTION : (transmission); That distortion in a transmission system caused by the non-uniform attenuation or gain of the system with respect to frequency under specified terminal conditions.

AMPOS : (cables); A cable fault locating device using a fixed tone transmitter and a receiving detector.[1]

ANALOG : (computers and data transmission); Refers to continuous (linear) variation of signal magnitude in computation or transmission (see also Digital).[1] Physical quantities such as temperature are continuously variable and so are described as 'analog'. Data characters, on the other hand, are coded in discrete separate pulses or signal levels, and are referred to as 'digital'. The normal way of transmitting a telephone, or voice, signal has been analog, but now digital encoding (using PCM) is coming into use over trunks.

ANALOG CONTROL : (transmission); A synchronisation control system in which the relationship between the actual phase error between clocks and the error signal device is a continuous function.

ANALOG DECODING : (computers); A process whereby one set of reconstructed analog signal samples is generated from the digital signal representing a sample.

ANALOG ENCODING : (computers); A process in which digital signals are generated, representing the sample taken of an analog signal value at a given instant.

ANALOG EXCHANGE : (switching); An exchange that switches analog signals.

ANALOG JUNCTION : (switching); A transmission path designed to pass analog signals.

ANALOG LOOP-BACK : (data transmission); Method of testing modem and business machines by disconnecting the telephone line and looping back the transmitted line signal into the local receiver.

ANALOG SIGNAL : (electronics); A nominally continuous electrical signal that varies in amplitude or frequency in response to changes of sound, light, position, or pressure impressed on a transducer.

ANALOG SWITCH : (switching); A switching unit designed, designated or used to connect circuits between users for real-time transmission of analog signals.

ANALOG SYNCHRONISATION : see Analogue Control.

ANALOG TRANSMISSION : (transmission); Transmission of a continuously variable signal as opposed to a discretely variable signal.

ANALOG/DIGITAL CONVERTER : (computers); A device which converts an analog signal into a digital representation.

ANALOGUE : see Analog.

ANECHOIC CHAMBER : (acoustics); An acoustically dead room, ie. one with no echoes or reverberations.

ANG : see Angstrom.

ANGLE MODULATION : (transmission); Modulation in which the angle of a sine-wave carrier is the characteristic varied from its reference value. Frequency modulation and phase modulation are particular forms of angle modulation.

ANGLE OF ARRIVAL : (radio); Vertical angle between the horizontal plane and the path by which a radio signal arrives at a receiving antenna.

ANGLE OF DEPARTURE : (radio); Vertical angle between the horizontal plane and the path by which a radio signal leaves a transmitting antenna.

ANGLE OF DEVIATION : (fibre optics); The net angular deflection experienced by a light ray after it passes through a refractive medium.

ANGLE OF INCIDENCE : (fibre optics); The acute angle between a ray and the normal to the surface on which the ray is incident.

ANGLE OF REFLECTION : (fibre optics); Angle between a reflected ray and the normal to the surface by which the ray has been reflected.

ANGSTROM : The unit for specification of the wave length of electro- magnetic radiation covering visible light and X-Rays. Equal to 10^{-10} metres (.0000001 mm) 10Ang = 1 nanometre (.001 microns) in SI Units. See also Wavelength.[1]

ANGULAR FREQUENCY : The frequency of a periodic phenomenon expressed in radians per second.

ANGULAR MISALIGNMENT LOSS : (fibre optics); An optical power loss caused by angular deviation from the optimum alignment of source to optical waveguide, waveguide to waveguide, or waveguide to detector.

ANI : (telephony); Automatic Number Insertion.

ANIK : (satellites); Spacecraft used in the Canadian Domestic Satellite system.

ANISOCHRONOUS : (transmission); A signal is anisochronous if the time interval separating any two significant instants is not necessarily related to the time interval separating any other two significant instants.

ANISOTROPIC : Showing different electrical properties in different planes or along different axes.

ANNOUNCEMENT MACHINE : (telephony); A recording machine which gives voice guidance to a telephone user if the call cannot be connected, or the person requires information.

ANNOUNCEMENT TRUNK : (telephony); Trunk within a central office/exchange which provides access to an announcement machine.

ANNUAL CHARGE RATIO : The ratio of the annual charge of one additional circuit on the alternative route to the annual charge of one additional circuit on the high-usage route. The first of these is calculated by summing the annual charge per circuit of each link comprising the alternative route, plus the annual charge of switching one circuit at each intermediate switching centre.

ANNUAL RENTAL : see Annual Service Charge.

ANNUAL SERVICE CHARGE : (Telecom); A charge levied by Telecom (under Section II of the Telecommunications Act) for its maintenance and fault restoration service for customer switching systems under standard maintenance service agreements. Levied by Telecom and its predecessor, the PMG, since 1st February 1907. Prior to this a 'flat rate' existed - a rate that varied in each State.

ANNUAL TRANSMISSION VARIATIONS : Changes in transmission due to climate changes. In modern equipment arrangements are usually made for these variations to be offset or compensated by built-in devices.

ANNULLING NETWORK : (electronics); Components added to filters to improve characteristics at the two ends of pass bands.

ANNUNCIATOR : (telephony); Original name for the indicator on magneto switchboards which indicated the particular line calling the exchange.

ANODE : (electronics); Positive pole or conductor or element. Electrons (charges of negative electricity) flow to the anode.[1]

ANODISE : Formation of a thin film of an oxide on a metallic surface, usually to produce an insulating layer.

ANOMALOUS PROPAGATION : (radio); Abnormal propagation due to to discontinuities in the propagation medium and often resulting in the reception of signals well beyond their normal range.

ANS : (abbr.); Answer.[3]

ANSI : see American National Standards Institute.

ANSO COMMITTEE : Automatic Network and Switching Objectives Committee.

ANSWER SIGNAL : (telephony); Signal sent in the backward direction to indicate the called line has answered. Answer signals are usually loops to central offices from called subscribers, and battery reversals between offices.

ANSWER SUPERVISION : (telephony); The off-hook indication sent back to the originating end when the called line answers. For calls controlled by manual operating positions, the cord circuit supervisory lamp normally dims on receipt of this signal.

ANSWERBACK : (telex and data transmission); A signal or sequence of signals from a receiving business machine (such as telex) indicating that it is ready to accept or acknowledge receipt of data, or to identify itself. The signal may be received audibly through a loudspeaker at the transmitting end for manual operation or electronically for automatic operation.

ANSWERING JACK : (telephony); The jack on a manual operating position, associated with a particular line or trunk, into which an operator inserts a plug to answer an incoming call.

ANSWERING TIME OF OPERATORS : (telephony); At the outgoing exchange, the interval between the end of the transmission of the calling signal and its answer by an operator at the distant exchange. At the incoming exchange, the interval between the appearance of a calling signal on a position and its answer by an operator.

ANTENNA : (radio); A device which transmits or collects radio waves. Also referred to as Aerial.[1]

ANTENNA ARRAY : (radio); Several antennas coupled together to give a required degree of directivity.

ANTENNA DIRECTIVITY : (radio); The directivity of an antenna in a given direction is the ratio of the radiation intensity in a given direction from the antenna to the radiation intensity averaged over all directions.[8]

ANTENNA GAIN, PARTIAL : (radio); The partial gain of an antenna for a given polarization. In a given direction, that part of the radiation intensity corresponding to a given polarisation divided by the radiation intensity that would be obtained if the power accepted by the antenna were radiated isotropically.[8]

ANTENNA GAIN, TOTAL : (radio); The total gain of an antenna in a given direction, is the sum of the partial gains for any two orthogonal polarizations.[8]

ANTENNA LOBE : (radio); A three dimensional section of the radiation pattern of a directional antenna bounded by one or two cones of nulls or regions of diminished intensity.

ANTENNA MATCHING : (radio); The process of adjusting impedance so that the input impedance of an antenna equals the characteristic impedance of its transmission line.

ANTENNA NOISE TEMPERATURE : (radio); The temperature of a resistor having an available noise power per unit bandwidth equal to that at the antenna output at a specified frequency.

ANTENNA PATTERN : (radio); A diagram showing the efficiency of radiation in all directions from the antenna.

ANTI-JAMMING : (radio); Counter measures taken to reduce the effects of any jamming of a radio communication system.

ANTI-REFLECTION COATING : (fibre optics); A thin, dielectric or metallic film applied to an optical surface to reduce the reflectance and increase the transmittance.

ANTI-SIDETONE INDUCTION COIL : (telephony); A device used in telephones for reducing sidetone effects.

ANTI-SIDETONE TELEPHONE SET : (telephony); Telephone instrument so designed that only a very small part of the transmitted speech passes through the earpiece.

ANTI-STUFFING DEVICE : (telephony); Item to enable pay phones to be modified to eliminate this difficulty.

ANTIMONY BATTERY : (electronics); Name for storage cell which utilises lead-antimony alloy plates.

ANTIOPE : (videotex); The French videotex system, developed by CCETT, the Research Centre of the French Telecommunications and Broadcasting Authority.

ANTIVOX : (transmission); Use of a voice actuated circuit to prevent operation of a transmitter when an associated receiver is in use.

ANV : (fault despatch); Answer No Voice.[2]

ANZCAN : (cables); Proposed 15,000 km undersea international telecommunications cable linking Australia, NZ and Canada via South Pacific island nations. This will eventually supersede the aging "COMPAC" cable.[1]

ANZTELL : (videotex); Corporate videotex service offered by the Australian and New Zealand Banking Group Limited.[9]

AO : Administration Officer.

AOM : (switching); The maintenance communications system associated with LM Ericsson's AXE exchange system. The generic term is Exchange Communications Controller (ECC).

AP : 1. (Telecom); Approved Policy. 2. (LEOPARD); Assigned Priority.[2]

APCAMS : see Automatic Pressurised Cable Alarm and Monitoring System.

APCM : (transmission); Adaptive Pulse Code Modulation.

APD : see Avalance Photodiode.

APDU : (switching); LM Ericsson's AXE dimensioning and provisioning system.[1]

APEA : Association of Professional Engineers (Australia).[1] Telecom employs about 600 members of this association.

APERIODIC ANTENNA : (radio); An antenna which is not periodic or resonant at particular frequencies and so can be used over a wide band of frequencies.

APERTURE : (radio); That portion of a plane surface near a unidirectional antenna, perpendicular to the direction of maximum radiation intensity, through which the major part of the radiation passes. The clear diameter of the parabolic reflector of a microwave antenna.

APL : (computers); A Programming Language. A data language with a syntax and character set designed for mathematical applications, especially those involving numeric or literal arrays.

APNG : (cables); Submarine cable between Australia and Papua New Guinea.

APO : see Australian Post Office.

APOGEE : (satellites); The point in the orbit of an earth satellite which is at a maximum distance from the centre of the earth. See also Perigee.

APPEARANCE : (telephony); The point at which a circuit is terminated and access is gained to the circuit, with special reference to terminations on boards attended by operators.

APPLETON LAYERS : (radio); Reflecting layers in the ionosphere; the F1 and F2 layers.

APPLICATION : (Telecom); The receipt of a customer's specific requirement, whether written or oral, for the provision of a service or facility.

APPLICATION PROGRAM : (computers); The working programs in a system may be classed as application programs and supervisory programs. The application programs are the main data processing programs. They are usually unique to one type of application, whereas the supervisory programs could be used for a variety of different application types.

APPLIQUE : (electronics); A small addition to a standard circuit to enable it to perform additional functions or provide additional features.

APPLN : (abbr.); Application.[3]

APPR : (abbr.); Approve.[3]

APRS : Appointment and Reminder Service.[1]

APS 210 : (switching); AXE Programming System (software).[2]

APS : Australian Public Service.

APSA-FDO : Australian Public Service Association (Fourth Division Officers' Association). Telecom Australia employs about 3500 members of this association.

APSAA : Australian Public Service Artisan's Association. Telecom Australia employs about 850 members of this association.

APT 210 : (switching); AXE Switching System (software).[2]

APT : 1. (telegraphy); Automated Public Telegram System (computer based). 2. see Addressable Pressure Transducer. 3. (switching); An LM Ericsson switching system.

APTC HDDBA : Australian Postal and Telecommunications Commissions Heads of Departments, Divisions and Branches Association. Telecom Australia employs about 100 members of this association.

APTU : Australian Postal and Telecommunications Union.[1] Telecom Australia employs about 26,000 members of this association.

APZ 210 : (switching); AXE Data Processing System (software).[2]

APZ : (switching); The central processing unit of the AXE exchange system.

AQL : see Acceptable Quality Level.

ARAEN : (transmission); Reference apparatus for the determination of transmission performance ratings.

ARB : (switching); A type of automatic telex exchange.

ARC : (electronics); A sustained luminous discharge between electrodes.

ARC CHUTE : (electronics); Device which ensures rapid extinguishing of an arc between contacts in a circuit-breaker by enclosing the arc between plates.

ARC-BACK : (electronics); Reverse flow of current during what is normally the non-conducting half-cycle of applied alternating voltage in a rectifying tube.

ARCHITECTURAL PROTECTION : (computers); Relates to facilities built into a system to ensure security is maintained, eg. that one program cannot interfere with another or access be given to data which should not be available to the other user. Both hardware and software design are involved in this.

ARCHITECTURE : (computers); The interaction between hardware and software in a computing system to achieve the most economic, efficient, secure, rapid, or easiest to maintain system.

ARCHIVED FILE : (computers); A data file which is not available for immediate on-line access. Magnetic tapes and disks are the most common form of archive at present.

ARCNET : (data transmission); Attached Resources Computer Network, a data communications network operating at speeds up to 2.5m bps provided by the American based Datapoint Corporation.

ARCS : (transmission); Analog Radio Concentrator System.

ARD : (switching); A type of crossbar PABX.

ARE : (switching); Electronically controlled crossbar exchange.

AREA CODE : (telephony); A group of numbers which a caller dials before then dialling a subscribers' telephone number in another Closed Numbering Area (CNA).[1]

AREGON INTERNATIONAL : (videotex); A British videotex company, controlled by their Department of Industry, to market videotex software overseas.

ARF : (switching); Urban or large crossbar exchange.

ARIANE : (satellites); European Space Agency rocket used for launching of geostationary satellites.

ARIEL : (satellites); Range of UK research satellites.

ARITHMETIC AND LOGIC UNIT : (computers); The hardware part of a processor which deals with arithmetical and logical operations.

ARITHMETIC UNIT : (computers); A unit within a processor which only performs arithmetical operations. Sometimes the arithmetic unit is called the ALU, in which case logical operations are also carried out.

ARK : (switching); Rural or small crossbar exchange.

ARM : (switching); Crossbar trunk switching exchange.

ARM : (telephony); A wooden rectangular cross-section attached to a pole which carries insulators supporting telephone wires. Different lengths are used, depending on the numbers of circuits to be carried.

ARMATURE : (electronics); The coil or coils of a generator or electric motor, usually mounted so that they rotate as part of an electro-magnetic circuit.[1]

ARMATURE WINDING : (electronics); The winding of an electrical machine, either motor or generator, in which current is induced.

ARMOUR : (cables); Steel wires or tapes wrapped around a telephone cable to provide physical strength or protection.

ARMOUR WIRE : (cables); Zinc coated mild or high-tensile steel wire of various gauges to protect and provide tensile strength for cables.

ARPA : US Advanced Research Projects Agency.

ARPANET : (computers and packet switching); Advanced Research Projects Agency computer Network, being a resource sharing system through a multicomputer network for the American Department of Defence. It was also the world's first packet-switched data network, having been operational since 1970.

ARQ : see Automatic Request-Repeat.

ARRESTOR : (electronics); Device used to protect equipment from high and dangerous electrical currents/voltages, particularly lightning.[1]

ART : see Automatic Register Tester.

ARTICULATED : (computers); Describes some early types of submarine cable repeaters made up of jointed strings of water-tight containers, intended to behave mechanically in the same way as the submarine cable itself.

ARTICULATION INDEX : (telephony); To measure the articulation index, the speech spectrum is divided into several unequal bands which contribute equally to intelligibility (in terms of a subjectively measured articulation score). The intensity of speech varies according to the band so weighting factors are introduced, according to the ratio of the speech energy in the band to the hearing threshold.

ARTIFICIAL ANTENNA : (radio); A device which behaves, so far as the transmitter is concerned, like a proper antenna, but it does not radiate any power at radio frequencies.

ARTIFICIAL EAR : (acoustics); A device which has the same acoustic impedance as the average external human ear. The artificial ear comprises an acoustic network and a measurement microphone which permit calibration of earphones used in audiometry.

ARTIFICIAL LINE : (transmission); A complex of resistances, inductances etc, which provide the same overall parameters as a real transmission line or route, including its characteristic impedance and frequency versus attenuation characteristics.

AS : (AXE); Auxilliary Services Function Block in TSS.[2]

ASA 210 : (switching); AXE executive system assembly language.[2]

ASC : 1. (switching); Auxiliary Scale Change relay set. 2. (packet switching); Accounting Service Centre. 3. Austral Standard Cables.

ASCII : (computers); American Standard Code for Information Interchange. (commonly pronounced "askee"). A standard code used by many computers, video-display terminals, teleprinters, and computer peripherals in which 128 numerals, letters, symbols and special codes are represented by a 7 bit binary number.

ASD : (AXE); Auxiliary Service Device.[2]

ASDP162 : (switching); The LM Ericsson PABX automatic call distribution system.

ASEAN : (cables); Association of South East Asian Nations submarine cable.

ASEANIS : (cables); ASEAN cable between Indonesia and Singapore.

ASEANPS : (cables); ASEAN cable between Philippines and Singapore.

ASGN : (abbr.); Assign.[3]

ASLIB : Association of Special Libraries and Information Bureaux (London).[1]

ASP : (traffic management); Access Switch Position.[2]

ASR : (telex); Automatic Send and Receive. A teletypewriter terminal with paper tape or magnetic storage.

ASS : Automatic Self Scan.

ASSEMBLE : (computers); To translate a program expressed in an assembly language and to link subroutines.

ASSEMBLER : (computers); A program used to assemble; a program capable of translating assembly code into object code. Also called assembly program.

ASSEMBLY LANGUAGE : (computers); A computer-orientated programming language whose statements may be instructions or declarations. The instructions usually have a one-to-one correspondence with machine instructions.

ASSIGNED FREQUENCY : (radio); A radio frequency which has been reserved for use by a particular organisation.

ASSIGNER : (switching); The circuit elements or logic units which distribute traffic to different items of common control equipment. Also, the operation staff personnel who allocate work loads, equipment or plant to specific users or requirements.

ASSOCIATED MODE : (transmission); The mode where messages for a signalling relation involving two adjacent signalling points are conveyed over a directly interconnected signalling link.

ASTATIC : (telegraphy); Term used in mechanical telegraph days to indicate a relay or other system which had no bias or normal rest position in neutral equilibrium.

ASTEC : Australian Science and Technology Council.[1]

ASTERISK : (videotex); A standard videotex keypad character - preferred name; "star".

ASTIC : (telephony); see Anti-sidetone Induction Coil.

ASYMMETRICAL MODULATOR : (transmission); see Unbalanced Modulator.

ASYNCHRONOUS : (data transmission); Not synchronous.

ASYNCHRONOUS OPERATION : 1. A sequence in which operations are executed out of time coincidence with any event. 2. An operation that occurs without a regular or predictable time relationship to a specified event.

ASYNCHRONOUS TAPE : (computers); Recorded bit lengths and spacings on magnetic tape which are variable because of tape transport differences.

ASYNCHRONOUS TIME-DIVISION MULTIPLEXING : (transmission); An asynchronous transmission mode that makes use of time-division multiplexing.

ASYNCHRONOUS TRANSMISSION : (data transmission); Transmission in which each information character or sometimes word or small block is individually synchronised, usually by the use of start and stop elements. The gap between each character or word is not of a necessarily fixed length.

AT : see Available Time.

AT&T : American Telephone and Telegraph Co. (Bell System, USA).[1]

ATC : Australian Telecommunications Commission. see Telecom Australia.

ATD : Automatic Test Desk.[2]

ATDA : Australian Telecommunications Development Association.[1]

ATDR : see Automatic Traffic Dispersion Recorder.

ATEA : Australian Telecommunications Employees Association.[1] Telecom Australia employs approximately 25,000 members of this association.

ATFA : Australian Table of Frequency Allocations.[1]

ATLC : Auto Transmission Level Checker.[1]

ATM : 1. (Banking); Automated Teller Machine. 2. Australian Telecommunications Mission. Aids missions in developing countries - in particular, Indonesia.[1]

ATMOSPHERIC DUCT : (radio); A layer in the lower atmosphere, occasionally of great horizontal extent, in which the vertical refractivity gradients are such that radio signals are guided or focused within the duct and tend to follow the curvature of the earth with much less than normal attenuation.

ATMOSPHERIC NOISE : (radio); Radio noise caused by natural atmospheric processes, primarily by lightning.

ATMOSPHERICS : (transmission); Noise on circuits, either line or radio, resulting from lightning or other natural phenomena.

ATPOA : Australian Telephone and Phonogram Officers' Association.[1] Telecom Australia employs about 9000 members of this association.

ATS : (switching); Automatic Trunk Switching Exchange.

ATST : (switching); Automatic Trunk Switching Terminal.[1]

ATTACHMENTS : (telephony); General name for all outside plant items used in conjunction with poles and route erection.

ATTENDANT : (telephony); The operator at a PABX console or operating position.

ATTENDANT EXCLUSION : (telephony); PABX feature which bars the attendant from monitoring an established call.

ATTENDANT RECALL : (telephony); PABX feature which brings the attendant back in to a circuit to provide assistance when needed.

ATTENDED OPERATION : (data transmission); In data set applications, individuals are required at both stations to establish the connection and transfer the data sets from talk (voice) mode to data mode.

ATTENUATION : (transmission); Decrease in magnitude of current, voltage, or power of a signal in transmission between points. May be expressed in decibels. Attenuation of a signal occurs with distance, to an extent determined by four parameters - the effective resistance of the conductors, their mutual electrostatic capacity, their self inductance and leakage. See also Carrier Systems.

ATTENUATION EQUALISER : (electronics); Circuit components which enable the frequency and attenuation characteristics of a route to be adjusted to a common standard.

ATTENUATION LIMITED OPERATION : (transmission); The condition prevailing when the signal amplitude (rather than distortion) limits the communication capacity.

ATTENUATOR : (electronics); Circuit component which introduces loss into a circuit with no distortion.

ATTI/IVS-3 : (videotex); A modified version of the IVS-3 videotex software, with the capability of being compatible with both the NAPLPS standard and Prestel terminals.

ATTITUDE-STABILISED SATELLITE : (satellites); A satellite with at least one axis maintained in a specified direction.

ATTO : SI prefix meaning 0.000 000 000 000 000 001 (10^{-18}).

ATTU : (transmission); Automatic Transmission Tester Unit.[2]

ATUG : Australian Telecommunications Users Group.

AUDIBLE : (acoustics); Range of sound which can be heard by a normal human ear, a frequency range extending roughly from 15Hz to 15kHz.

AUDIBLE RINGING TONE : (telephony); The information tones sent back to the calling telephone subscriber as an indication that the called line is being rung (see also Ring Tone).

AUDIO FREQUENCY : (acoustics); The human ear's frequency band, normally from about 15Hz to about 15kHz.

AUDIO FREQUENCY PROTECTION RATIO : (transmission); Agreed minimum value of the audio frequency signal-to-interface ratio considered necessary to achieve a subjectively defined reception quality.

AUDIO FREQUENCY SIGNAL-TO-INTERFACE RATIO : (transmission); Ratio (expressed in dB) between the values of the voltage of the wanted signal and the voltage of the interference. This ratio corresponds closely to the difference in volume of sound (expressed in dB) between the wanted program and the interference.

AUDIOGRAM : (acoustics); Plot of hearing loss against frequency, for each ear.

AUDIOMETER : (acoustics); Instrument used in the measurement of hearing.

AUSINET : (data transmission); Australian Information Network run by Control Data.

AUSSAT : (satellites); The Australian national domestic communications satellite, of which there will be two (with a third as a spare), being built by Hughes Communications International in America. The first two of these spin-stabilised HS 376 satellites (costing ca $146m each) will be launched from Cape Canaveral on NASA's space shuttle in 1985. The third will be launched about 1988. AUSSAT Pty Ltd is the name of the organisation set up to manage the satellite. Telecom is a major shareholder. See also ITERRA.

AUSTDATA : (data transmission); Australian Data Communications Market Research Study.[1]

AUSTEL : (videotex); The first Australian (CUG) videotex service.

AUSTPAC : (packet switching); Telecom's packet switched data service, which began operation in December 1982. The service is distinctive from DDS and DATEL, which provide dedicated data circuits for point to point and multipoint networks conveying large volumes of data. Austpac, whose charging is distance independent, caters for data users who desire a flexible data network which can handle synchronous and asynchronous data streams of various speeds and protocols with smaller amounts of data.

AUSTRALIAN ELECTRONICS INDUSTRY ASSOCIATION : A group formed in 1981 from the former Electronics Industry Council and the Electronic Component Group of the ATDA, and which represents some 50 of Australia's leading electronics and communications companies.[1]

AUSTRALIAN ELECTROTECHNICAL COMMITTEE : Consisting of representatives from electrical and telecommunication engineering interests, it represents Australia and the SAA in the IEC.

AUSTRALIAN POST OFFICE : The predecessor to Australia Post and Telecom Australia.[1]

AUTH : (abbr.); Authority.[3]

AUTHENTICATION : (computers); Checks included in computer programs to ensure that only those authorised to extract information or amend instructions in a computer are permitted to take such action.

AUTHENTICATOR : (computers); Words or numbers which must be inserted in the instructions at an appropriate point before a processor will continue with action.

AUTHORISED ATTACHMENTS : see Permitted Attachments.

AUTHORISED FREQUENCY : (radio); A frequency that is allocated and assigned by a competent authority to a specific user for a specific purpose.

AUTO TRANSFORMER : One having a single tapped winding rather than separate primary and secondary windings.[1]

AUTO-START : A standby power system which starts up when the public supply fails. Such units are essential at larger telephone exchanges.

AUTOBAND : (data transmission); Automatic data rate determination. The first character to be transmitted following completion of modem handshake is an autoband identity character.

AUTODIALLER : (data transmission); see Automatic Dialling Unit.

AUTODIN : (data transmission); Automatic digital data communications network used by the American military.

AUTOMANUAL CENTRE : (telephony); A centre with switchboards for handling subscribers' traffic to operators, including enquiry and directory enquiry traffic.

AUTOMATIC ALTERNATIVE ROUTING : (switching); During the setting up of a call, the automatic selection of an alternative routing where the originally selected out-going route is unavailable.

AUTOMATIC ANSWER : 1. (telephony); The answering of a telephone call by a tape recorder which can pass on a short message and record an incoming message. 2. (data transmission); A facility by which the called data terminal equipment automatically responds to the calling signal and the call is established.

AUTOMATIC BOOKED CALL : (telephony); With prior indication from a subscriber, a call may be made automatically from his telephone terminal to a particular telephone number at a specific date and time.

AUTOMATIC CALL DISTRIBUTOR : (telephony); A customer terminal device which holds and distributes calls to selected answering points in a pre-determined order.[1] A system designed to evenly distribute heavy incoming traffic among clerks or attendants.

AUTOMATIC CALLING : (data transmission); A facility by which selection signals must be entered continuously at the full character rate. The address characters will be generated in the data terminal equipment.

AUTOMATIC CALLING UNIT : (data transmission); A dialling device which permits a business machine to automatically dial calls over the communications network.

AUTOMATIC CREDIT CARD SERVICE : (telephony); Payment of call charges is made by placing a credit card in a specially adapted telephone.

AUTOMATIC DATA PROCESSING : (computers); Relates to the processing of data within a system where the major functions are performed by a computer and the peripheral units attached thereto.[1]

AUTOMATIC DIALLING UNIT : (data transmission); A customer terminal device which facilitates automatic dialling and call set-ups to frequently called stored telephone numbers.[1]

AUTOMATIC DISTURBANCE RECORDER : (switching); A device or aid used with ARF crossbar switching equipment to continuously monitor the exchange's common control devices.

AUTOMATIC EXCHANGE : (switching); A telephone system in which communications between subscribers is effected without the aid of an operator by means of switches set in operation by the process of dialling at the originating subscriber's equipment.

AUTOMATIC EXCHANGE TESTER : (switching); Used in the crossbar switching system to test equipment performance by setting up connections in the same manner as by ordinary subscriber.[1]

AUTOMATIC FREQUENCY CONTROL : (electronics); Circuitry which controls the frequency of oscillators in equipment within specified limits.

AUTOMATIC GAIN CONTROL : (television); Similar to Automatic Volume Control (q.v.), it is a system used in television receivers to keep screen brightness and sound levels from undue fluctuation and consequent loss of synchronisation.

AUTOMATIC LINE FAULT ANALYSIS : (telephony); A computerised system for the analysis of line faults, their frequency, causes and locations.[1]

AUTOMATIC MESSAGE ACCOUNTING : (telephony); A system which automatically records all the data of a dialled long distance call needed for preparation of an itemised bill for subscribers. This system can also provide information for inter-administration accounting.

AUTOMATIC NUMBER IDENTIFICATION : (switching); Equipment which identifies the telephone number of the line initiating a call in order to send this information to the message accounting apparatus.

AUTOMATIC PRESSURISED CABLE ALARM AND MONITORING SYSTEM : (cables); First installed as a trial system on Melbourne city junction cables in mid 1978, APCAMS monitors the whole Cable Pressure Alarm (CPA) network. When alarm levels are detected, a telephone call is automatically initiated to a predetermined data terminal, and alarm information printed out.[1]

AUTOMATIC RE-ROUTING : (switching); During the setting up of a call, the automatic selection of alternative routing where a congestion signal is received over the originally selected route from a distant switching centre.

AUTOMATIC REDIAL : (telephony); A facility available with more advanced telephones (connected to AXE exchanges) allowing for the automatic redialling of numbers previously engaged or unavailable.

AUTOMATIC REGISTER TESTER : (switching); Used in the crossbar switching system to test up to 20 different types of traffic through every Register; checking different digit combinations, dial speeds, impulse ratios, most interior types of line and different kinds of revertive signals.[1]

AUTOMATIC REPEAT ATTEMPT : (switching); When difficulty is encountered in setting up a call, arrangements can be provided to make another attempt.

AUTOMATIC REQUEST-REPEAT : (data transmission); A system of error control in which the receiving terminal can detect a transmission error and automatically transmit a request-repeat signal to the transmit terminal. The transmit terminal then re-transmits the character, code block, or message until it is either correctly received or the error persists beyond a predetermined number of transmittals.

AUTOMATIC SEQUENTIAL CONNECTION : (data transmission); A facility provided by a public data service to automatically connect, in a predetermined sequence, the data terminal equipment at various addresses to a single data terminal.

AUTOMATIC SIGNAL TRUNK : (telephony); A method of controlling the signalling on circuits terminated on manual operating positions. Also called straightforward trunk or plug-supervision trunk.

AUTOMATIC SWITCHING EQUIPMENT : (switching); Equipment in which switching operations are performed by electrically controlled apparatus without the intervention of operators.

AUTOMATIC TELEPHONE PAYMENT : (data transmission); Payment of bills or fund transfer via an ordinary telephone line (using keypad not dial). The user calls the computer as for an ordinary telephone call, then keys in code numbers to identify himself, the transaction required to be made, and the amount. The computer does the rest.

AUTOMATIC TRAFFIC DISPERSION RECORDER : (telephony); A unit used to find the distribution of calls originating from automatic telephones.

AUTOMATIC TRANSFERRED CHARGE CALL : (telephony); The automatic debiting to a called subscriber's account of relevant charges for calls made to his telephone number.

AUTOMATIC TRANSFERRED DEBITING OF CALL CHARGES : (telephony); The automatic debiting to a called subscriber's account of charges for calls made from any telephone by persons identified by the use of a secret code.

AUTOMATIC TRANSFORMER : (electronics); One having a single tapped winding rather than separate primary and secondary windings.

AUTOMATIC TRANSMISSION LOSS CHECKER : (transmission); A micro-processor driven test instrument for performing transmission tests on telephone circuits.

AUTOMATIC VOLUME CONTROL : (radio); An automatic feedback system used in radio receiving and transmitting equipment to compensate for signal strength variation and alleviate signal fading.

AUTOTRANSFORMER : (electronics); Transformer in which both the primary and secondary currents flow through one common part of the coil.

AUX : (abbr.); Auxiliary.[3]

AUXILIARY CHANNEL : (transmission); A secondary channel whose direction of transmission is independent of the primary channel and is controlled by an appropriate set of secondary control interchange circuits.

AUXILIARY OPERATION : (computers); An off-line operation performed by equipment not under control of the central processing unit.

AUXILIARY ROUTE : (switching); A traffic route within a traffic routing hierarchy which is not a basic route.

AVAIL : (abbr.); Availability.[3]

AVAILABLE : 1. (transmission); A measure of the degree to which a system, sub-system or equipment is operable and not in a stage of congestion or failure. A data circuit is said to be available when its service is deemed to operate satisfactorily. This does not, however, imply that the transmission is error-free. Periods of unsatisfactory operation (eg loss of circuit, intolerable numbers of errors in received data etc) constitute unavailable time, or outage time. 2. (switching); The percentage of total trunks in a group which can accessed by a particular switch.

AVAILABLE LINE : (facsimile); The portion of the scanning line which can be used specifically for picture signals. Also known as useful line.

AVAILABLE TIME : (data transmission); The transmission time over which no error-second outage (ESO) was encountered.

AVALANCHE PHOTODIODE : (electronics); A photodiode designed to take advantage of avalanche multiplication of photocurrent.

AVC : see Automatic Volume Control.

AVERAGE BLOCK LENGTH : (data transmission); The average value of the total number of bits in blocks transferred across a source-user/telecommunication system functional interface. The average block length is specified by the telecommunication system operator and is used in determining values for the block-oriented performance parameters.

AVERAGE CALL DURATION : (traffic management); Obtained by dividing the total number of minutes of conversation recorded by the recorded number of effective calls.

AVERAGE HOLDING TIME : (traffic management); The sum of the durations of all call attempts made by users during the mean busy hour, divided by the total number of call attempts. The average length of time for which the equipment is in use for call attempts.

AVIA : Australian Videotex Industry Association.

AVS : (switching); AXE verification system for APZ 210.[2]

AWA : see Amalgamated Wireless (Australasia) Limited.

AWG : see American Wire Gauge.

AWT : (telephony); Average Work Time of DAS Operators.[1]

AXB : (telex); LM Ericsson's SPC telex exchange.[2]

AXE : (switching); Fully computerised local exchange developed by L.M. Ericsson, now being progressively introduced into the Australian network.[9] See Appendices 6 and 10.

AXIAL LEAD : (electronics); A connecting lead from a resistor or capacitor which comes out from an end along the axis.

AXIAL RAY : (fibre optics); A light ray that travels along the optical axis.

B

B&S : Brown and Sharp - the American standard for wire gauges. SWG (Standard Wire Gauge) is the British Standard (imperial).[1]

B/B : (switching); Backbone.

BACKBONE ROUTE : (switching); In a network permitting alternative routing, a call between two terminal exchanges is said to transverse the backbone route if at each switching stage the last choice traffic route has been used to extend the connection, ie, it is a point-to-point connection made up entirely of circuits of final choice routes.[1]

BACKWARD CHANNEL : (transmission); A secondary channel whose direction of transmission is constrained to be always opposite to that of the primary channel.

BALFOR : (traffic management); Balancing and Forecasting of Traffic - an automated traffic planning aid. See also TDAS.[1]

BAND : (transmission); A range of frequencies between two defined limits.

BANDWIDTH : (transmission); The range of frequencies available for signalling. The difference expressed in cycles per second (hertz) between the highest and lowest frequencies of a band.

BANDWIDTH, NOMINAL : (transmission); The maximum range of frequencies, including guard bands, assigned to a channel.

BARRED ACCESS : (telephony); The restriction or prevention of service from a particular telephone to selected telephone numbers or codes.[1]

BASEBAND : 1. (transmission); The band of frequencies occupied by the signal in a carrier system before it modulates the carrier frequency. 2. (local area networks); Systems which only provide one communication channel between the various devices on the network, analogous to a telephone party line system.

BASEBAND SIGNALLING : (transmission); Transmission of a signal at its original frequencies, ie a signal not changed by modulation.

BASIC : (computers); Beginners' All-purpose Symbolic Instruction Code. A simplified computer language used by many personal microcomputer systems as well as in larger systems.

BATCH PROCESSING : (computers); A method of data processing in which a number of similar input items are accumulated and processed together.

BATTERY : (electronics); A group of electric cells connected together. The term is often loosely used to describe a single cell, eg a Torch Battery.[1]

BAUD : (data transmission); Unit of signalling speed. The speed in bauds is the number of discrete conditions or signal events per second. (This is applied only to the actual signals on a communication line). If each signal event represents only one bit condition, baud is the same as bits per second. When each signal event represents

other than one bit (eg see Dibit), baud is the inverse of time duration in secs. Named after Frenchman Emile Baudot.

BAUDOT CODE : (data transmission); A code for the transmission of data in which five equal-length bits represent one character. This code is used in most DC teletypewriter machines where one start element and 1.42 stop elements are added.

BBD : see Baud.

BBN : (transmission); Broadband Bearer Network Model.[1]

BCD : (computers); Binary-coded decimal. A coding system in which each decimal digit from 0 to 9 is represented by four binary digits.

BCM : Business Customer Management.

BDD : (fault despatch); see Busy During Dialling.

BDM : (switching); Bus Distribution Magazine [15].

BDS : (switching); Bus Distribution Subsystem [15].

BEARER : The medium for the transmission of communications from point to point; it can be a pair of wires on poles or in cable, a coaxial cable, a radio link or an optical fibre. Usually reference to a bearer connotes the transmission of a number of channels simultaneously, eg broadband bearer. Bearers can thus be effective as voice frequencies (VF), carrier frequencies or radio frequencies (RF) - see also Carrier.[1]

BEL : (acoustics); Ten decibels (qv).

BEND LOSS : (fibre optics); A form of increased attenuation caused by bends radiating from the side of the fibre. The two types of bend losses are (1) those occurring when the fibre is curved around a restrictive radius of curvature and (2) microbends caused by small distortions of the fibre imposed by externally induced perturbations.

BER : see Bit Error Rate

BES : Building Engineering Services.

BESIS : (Telecom computers); Buildings Engineering Services Information System.[2]

BEX : see Broadband Exchange.

BHCA : (telephony); Busy Hour Call Attempts.[1]

BHD : (traffic management); Busy hour discharge.

BIAS : (electronics); The dc voltage applied to a transistor or a relay to establish a desired opening point.

BIAS DISTORTION : (telex); In teletypewriter applications, the uniform shifting of the beginning of all marking pulses from their proper positions in relation to the beginning of the start pulse.

BIC : (AXE); Bus Interface Circuit.[2]

BICC : British Insulated Calendar Cables, the inventors of filled cable.

BILATERAL CONTROL : (switching); A synchronisation control system between exchanges A and B is bilateral if the clock at exchange A controls that at exchange B and the clock at exchange B controls that at exchange A.

BILDSCHIRMTEXT : (videotex); The interactive videotex system of the Federal Republic of Germany. It is based on the UK Prestel system.[11]

BINARY : (computers); Numbering system based on 2s rather than 10s. The digits used in the binary numbering system are 0 and 1 only.

BINARY DIGIT : (computers); One of the two digits in the representation of data in binary notation, ie. 0 or 1, On or Off, etc.

BIPOLAR : 1. (electronics); One of several fundamental processes for fabricating integrated circuits. A bipolar IC is made up of layers of silicon with differing electrical characteristics. Current flows between the layers when a voltage is applied to the junction or boundary between the layers. 2. (transmission); A type of MLB pulse coding.

BIPOLAR TRANSISTOR : (electronics); A transistor whose operation depends on the flow of both negatively charged electrons and positively charged "holes".[9]

BISTABLE : (electronics); The capability of assuming either of two stable states, thus of storing one bit of information.

BISYNC : see BSC

BIT : (computers); An abbreviation of binary digit, the smallest unit of information in a binary system. A bit represents the choice between a mark or space (one or zero) condition.

BIT ERROR RATE : (data transmission); Used to express the performance of a data transmission circuit, it is the ratio of the number of received bits in error to the number of transmitted bits.

BIT RATE : (data transmission); The speed at which bits are transmitted, usually expressed in bits per second.

BIT/S : Binary Digits/Second. The expression of speed of data transmission, or the data signalling rate.[1]

BITES : (telephony); Backward Interworking Telephony Events.[1]

BJC : (AXE); B-Junctor Circuit, hardware.[2]

BKER : see Block Error Rate

BL : Building Line.

BLACK LEVEL : (television); In colour television transmission, the black level corresponds with blanking level and is located at an amplitude of 7½% of the peak carrier (or synchronising pulse peak level).[12]

BLOCK : (data transmission); A set of associated words, characters or digits handled as a unit.

BLOCK ERROR RATE : (data transmission); Used to express the performance of a data transmission circuit, it is the ratio of the number of received blocks in error to the number of blocks transmitted.

BLOCK, DISTRIBUTION : see Distribution Block [1]

BM : Benchmark.

BMS : Budget Monitoring System.

BOCIS : Business Office Control and Information System.[4]

BOIS : Business Office Information System. A proposed computer system permitting Business Office staff direct access to SPC exchange information and to activate changes to customer services.[1]

BOOLEAN ALGEBRA : 1. (electronics); Shorthand notation for expressing logic functions dealing with on-off circuit elements; associated by operators as AND, OR, NOT, thereby permitting computations and demonstration as in many mathematical systems. Named after English mathematician George Boole. 2. (computers); Algebraic rules for manipulating logic equations.

BORSCHT : (telephony); Acronym standing for a range of factors considered in switching/customer line interface (viz, Battery, Overvoltage protection, Ringing, Supervision, Coding, Hybrid, Testing).[1]

BOSS : (Telecom computers); Business Office Statistical System.[2]

BPA : (Telecom); Business Performance Analyser.[14]

BPO : British Post Office - British Telecom's antecedent.[1]

BREAK : (switching); A term implying a break in a circuit (as a switch in the 'off' position).[1]

BRIDGED TAP : (transmission); Portion of the transmission facility that does not form the direct transmission path.

BRIGHTNESS : (television); The factor which enables the observer to be aware of differences of luminance, or reflecting power, of a surface. Although the terms "brightness" and "luminance" are identical in general, the first is used to describe humanly observed conditions, whereas the second is used to identify measured or metered conditions. Luminance is measured in "lumens".[12]

BRL : Balance Return Loss.[1]

BROADBAND : (transmission); Communication channel having a bandwidth greater than a voice-grade channel, and therefore capable of high speed transmission. 2. (local area networks); Systems which are capable of allowing many stations to transmit at the same time, and which can also carry much more information than just simple data signals.[9]

BROADBAND BEARER : See Carrier.[1]

BROADBAND EXCHANGE : (transmission); Public switched communication system of (the American) Western Union featuring various bandwidth FDX connections.

BROADBAND NETWORK : (transmission); The 'spinal cord' of the national communication system, composed of high capacity (broadband) coaxial cable and microwave radio bearers extending around Australia. The broadband network also connects to international undersea cables, as well as to satellite earth stations at Moree, Ceduna and Carnarvon.[1]

BROADBAND SYSTEMS : (transmission); Carry one television channel or more than 300 speech channels. No theoretical upper limit, but present practical systems have 2,700 channels.

BROADCAST VIDEOTEX : (videotex); The generic name for videotex systems employing one-way communication. The entire set of frames is transmitted repeatedly, the user specifies and the receiver selects, stores, and displays the required information. Most systems at present are inserting the information in the interframe blanking of a TV signal transmitted over the air.[11]

BROADCASTING SATELLITE SERVICE MODE : (satellites); Programs or other material (such as data) sent from a groundstation via the satellite are received directly by one-way transmission from the satellite by use of many small 'receive-only' earth stations located on the user's premises.[6]

BS : (AXE); Base Station.[2]

BSA : British Standards Association.[1]

BSC : (data transmission); Binary synchronous communications. A uniform discipline, using a definite set of control characters and control character sequences, for synchronized transmission of binary-coded data between stations in a data communications system . Also called BISYNC.

BSI : British Standards Institute.

BSS : British Standard Specification.[1]

BT : 1. (telephony); Busy tone. 2. British Telecom. 3. (switching); Software associated with ETC (q.v.) in AXE exchanges.[1]

BT-D : (AXE); Bothway Trunk Digital.[2]

BTC : (switching); Bothway Trunk Circuit [15].

BTM : Bell Telephone Manufacturing Company in Antwerp, Belgium (an ITT subsidiary).[1]

BTS : Business Telecommunications Services Pty Ltd.[4]

BTX : (switching); Bus Terminator and Extender [15].

BUBBLE MEMORY : (electronics and computers); When an external magnetic field is applied perpendicularly to a thin film of a fermomagnetic single crystal, small cylindrical domains normal to the film surface are produced within the thin film. These small magnetic domains are called magnetic bubbles, and they can be moved within the thin film by changing the external magnetic field appropriately. This phenomenon can be used to produce a memory function by assigning the presence of or absence of a bubble at a given position in the thin film to the binary digit 1 or 0.

BUFFER : 1. (data transmission); A storage device used to compensate for a difference in rate of data flow, or time of occurrence of events, when transmitting data from one device to another. 2. (electronics); A circuit inserted between other circuit elements to prevent interactions, to match impedances, to supply additional drive capability, or to delay the rate of information flow. Buffers may be inverting or non-inverting. 3. (fibre optics); The material that covers and protects fibres but has no optical function.

BUG : (computers); A mistake in a program that prevents proper operation of the program. See also Debug.[9]

BULK UPDATE : (videotex); A means of amending information in the database at higher speed than the basic manual system.[7]

BUNDLE : (fibre optics); A group of fibres for transmitting a single optical signal.

BUS : 1. (abbr.); Business.[3] 2. (data transmission and electronics); One or more conductors used for transmitting signals, data or power. An example of some special buses are data and flag buses. A data bus transmits data or information. Often the bus acts as a common connection among a number of locations.

BUSINESS OFFICE INFORMATION SYSTEM : (computers); A proposed computer system permitting Telecom Business Office staff direct access to SPC exchange information and to activate changes to customer services.

BUSY DURING DIALLING : (telephony); Refers to a condition of automatic switching where, through plant congestion, the number called cannot be reached.

BUSY HOUR : (traffic management); The average over one hour when the incidence of traffic is greatest is selected as being indicative of reasonably stable conditions, and this is called the busy hour.

BUTT : see Buttinski

BUTTINSKI : (telephony); A special hand telephone used by technicians and lines staff for testing purposes.[1]

BWB : Backward Wiring Board.

BYO : (LEOPARD); Busy Out of Order.[2]

BYTE : (computers); A sequence of (usually 8) adjacent bits operated upon as a unit within a computer or for information exchange between devices.

C

C : 1. (electronics); Refers to the rated capacity of a battery, the figure in the denominator being the number of hours required to to complete a full charge or discharge, thus C/500 represents a current equivalent to 1/500 of the rated capacity so that if C equals 50 Ah the current will be 50/500 or 0.1A. 2. (computers); A high-level computer language.

c : (abbr.); see Centi.

C&G : Capacity and Growth.[2]

C/A : (Telecom); Completion Advice.[2]

C/C : (LEOPARD); Command Code.[2]

CA : 1. (AXE); Charging Analysis.[2] 2. (telephony); Call Abandoned.[2]

CAB : 1. (fault despatch); Coin Attachment Blocked. 2. Cabinet. 3. Computer Assisted Billing.

CABINET (AND PILLAR) : (telephony); An above ground terminating cross-connecting point for external cables, so named because the original units consisted of a cable terminating frame inside a steel cabinet. The connection between main and branch cable pairs is made by means of 'jumper wires'. Cabinets facilitate the efficient use of main cable pairs and provide ready access to pairs for testing.[1]

CABLE : (transmission); An assembly of insulated conductors (usually copper) within a lead, plastic or a plastic/metal composite sheath. A large number of cable types and sizes is required to meet the diverse range of applications encountered in Telecom's network. See Appendix 1.[1]

CABLE CABINET AND/OR PILLAR : (telephony); A large size outdoor cross-connecting unit used in conjunction with subscribers' cable plant for improved flexibility and maximum cable use. Current units are of 300, 900 and 1800 pair capacity.

CABLE OCCUPANCY : (cables); The ratio of the number of working pairs at a given point in the cable to the total number of pairs in the cable at that point.

CABLE PRESSURE ALARM : (cables); Most large-capacity cables are pressurised, that is, air is pumped into them under pressure. If a break occurs in the cable, not only will the escaping air help keep out dirt and moisture, but the drop in pressure activates an alarm which alerts maintenance staff to the need to repair the cable. See also Automatic Pressurised Cable Alarm.[9]

CABLE TV : See CTV.

CABS : (Telecom); Customer Accounting and Billing System - an automated system for billing customers.[1]

CABX : (AXE); Centralised PABX.[2]

CAD : (computers); Computer Aided Design.[4]

CALL BLOCKING : see Call Congestion Loss

CALL CONGESTION LOSS : (traffic management); Is the ratio of the number of first call attempts which were unsuccessful (owing to the unavailability of suitable connecting paths) to the total number of first call attempts during the same period of time.

CALL IDENTIFICATION SIGNAL : (telephony); To allow the CT3(I) to differentiate between local or STD calls a Call Identification Signal is sent from the exchange on all STD calls. This signal is applied when sufficient digits have been analysed in the exchange to determine that the call is STD. On receipt of the CIS the instrument sets itself to charge at the STD rate, and if no CIS is received the instrument sets itself to charge at the local (timed or untimed) rate.

CALL RECORD PRINTER : (telephony); Printing equipment used in telephone exchanges in association with a particular subscriber's line to record details of calls made from the subscriber's service. These details include the number dialled, the time and duration of the call, operation of the subscriber's meter, the time at which incoming calls are received.[1]

CAM : (computers); Computer Aided Manufacture.[4]

CAMA : (telephony); Centralised Automatic Message Accounting. See CCR.[1]

CAMPS : (cables); Cable Management and Provisioning System (automated).[1]

CANDLEPOWER : (television); The luminous intensity of a source of light, the origin being the amount of light emitted by a standard sperm candle. The light flux emitted and measured over the surface of a regular sphere surrounding the candle results in a total of 4 pi lumens.[12]

CANTAT-I : (cables); The first all-Commonwealth coaxial cable link, completed between Britain and Canada in 1961.

CANTAT-II : (cables); Laid in 1962.

CANTOT : (Telecom computers); Complaints Analysis of Trouble Reports on Trunk Circuits - computerised fault analysis system.[1]

CAPACITANCE : (electronics); The property of a capacitor of storing an electric charge measured in FARADS which can later be recovered.[1]

CAPACITOR : (electronics); A circuit element which stores electrical charges measured in farads. Usually consists of two conducting plates insulated from each other, the insulating material being called a dielectric. They hinder the flow of current, a purpose for which they are frequently included in circuit design. This hindrance is called reactance and is expressed in ohms. Reactance - for a given capacitance - falls with increase in frequency.[1]

CAPACITY CIRCUIT : 1. (transmission); The number of communication channels that can be derived from a given circuit at the same time. 2. (data transmission); The information capacity measured in bits per second of a circuit.

CAPS : (cables); Compressed Air Pressure System.[2]

CAPTAIN: (videotex); Character And Pattern Telephone Access Information Network. A Japanese videotex standard.[9]

CAR : (Telecom computers); Credit Advisory Register.[2]

CARGO : (telephony); Complaints Analysis Recording and Graphing Organisation - refers to Automatic Switching and provides systematic analysis of subscribers complaints, facilitating location and correction of switching malfunctions.[1]

CARRIER : 1. (transmission); A continuous frequency capable of being modulated or impressed with a signal. see Appendix 2 2. (television); The radio frequency wave radiated by a transmitter, which is modulated by the required form of information. In a monochrome television transmission there are two carrier waves; the vision transmitter

carrier and the sound transmitter carrier. In a colour television system, in addition to the above, there is the colour or chrominance subcarrier.[12]

CARRIER CABLE : (cables); A cable designed primarily for use with systems providing up to 120 circuits each.

CARRIER EQUIPMENT : (transmission); Equipment used to transmit signals over many individual channels on the one bearer. see Appendix 2.

CARRIER SYSTEM : (transmission); A means of obtaining a number of channels over a single path at the originating end, transmitting a wideband or high-speed signal and recovering the original. see Appendix 2.

CAS : 1. (Telecom computers); Cost Accounting System.[2] 2. (AXE); Channel Associated Signalling.[2]

CAT : (abbr.); Catalogue.[3]

CATGY : (abbr.); Category.[3]

CATHODE : (electronics); Negatively charged pole conductor or element from which current flows to an Anode.[1]

CATHODE-RAY TUBE : (electronics); An electronic tube in which a controlled beam of electrons is produced and directed on to a surface to give a visible display or effect. The basic display element of televisions, VDUs and oscilliscopes.[9]

CATNAP : (Telecom computers); Computer Aided Network Assessment Program.[1]

CATV : (television); Community Antenna Television. An external hard-wired TV service, where the signal derives from a common off-air receiving antenna, usually in areas of poor signal reception. See also CTV - Cable TV.[1]

CAX : (switching); Country Automatic Exchange - a small exchange, but over 200 lines, particulary suitable for rural networks.[1]

CB : 1. (switching); Central or Common Battery (exchange). 2. (radio); Citizen's Band radio communication system.[1]

CBC : (fault despatch); Cannot Be Called.[2]

CBD : (of a city); Central Business District.[4]

CBDT : (fault despatch); Cannot Break Dial Tone.[2]

CBL : (abbr.); Cable.[3]

CBT : (fault despatch); Cannot Break Tone.[2]

CC : (cables); Cadmium Copper. A type of wire used for open wire lines.[2]

CC'T : (abbr.); Circuit.[1]

CCAS : (telephony); Call Charge Analysis System.[1]

CCCC : CCITT Co-ordination Committee - a Telecom management group.[1]

CCD : (electronics); Charge-Coupled Device.

CCF : (satellites); Central Control Facility.[9] A facility at a Main Earth Station in Telecom's Iterra Network Service.[1]

CCETT : Centre Commun d'Etudes de Television et de Telecommunication (of France).[11]

CCI : (switching); Call Charge Interface Equipment - an interface between an EDG and the central computer billing system to format and check customer accounts.[1]

CCIR : Comite Consultatif International des Communications Radioelectriques; known in English as the International Radio Consultative Committee, an ITU body.[1]

CCIS : see Common Channel Interoffice Signalling.[5]

CCITT : Comite Consultatif International Telegraphique et Telephonique, a Merger of CCIF and CCIT known in English as the International Telegraph and Telephone Consultative Committee - an international technical standards and specifications committee within the International Telecommunications Union (ITU).[1] Its purpose is to promote compatibility between communications practices and performance standards of various nations.

CCN : (telephony); Charge Call Number.[2]

CCNA : (transmission); Computer Corrected Network Analyser.

CCO : (fault despatch); Cannot Call Out.[2]

CCR : (telephony); Call Charge Record - a record of all details and charges supplied to customers for international and STD trunk calls. (Formerly called "Auto Message Accounting" - AMA).[1]

CCS : 1. (traffic management); 100 call-seconds. 36 CCS equal one erlanghour.[4] 2. (Telecom); Common Channel Signalling.[14]

CCTV : Closed Circuit Television - usually an internal hard-wired television system.[1]

CCU : Central Control Unit.[1]

CDA : Control Data (Australia) Pty. Ltd.[1]

CDE : (abbr.); Code.[3]

CDE : Chief Development Engineer.[1]

CDMA : (transmission); Code-division multiple access. Multiple-access technique that utilizes full-satellite bandwidth and whole-time slots by employing a special coding-decoding technique.

CDSPS : Control Data Standard Plotting System [1]

CE : (switching); Control Exchange.[2]

CECC : CENEL Electronic Components Committee.

CEEFAX : (videotex); A form of broadcast videotex provided by the B.B.C. in Britain.[7]

CELL : A chemical source of electrical energy. There are several types but the best known is the simple torch cell, incorrectly called a battery.[1]

CEMPR : (telephony); Call Event and Meter Pulse Recorder.[2]

CENEL : see European Electrical Standards Co-ordination Committee.

CENPEX : Centralised Private Exchange.[1]

CENTI : SI prefix for 0.01 (10^{-2}). Abbreviated as c. Rarely used, apart from centimetre.

CENTOC : (Telecom traffic management); Centralised Traffic Occupancy - phase one of the Daily Traffic Recording (DTR) computerised traffic recording and monitoring system. See also TDAS.[1]

CENTRAL PROCESSING UNIT : (computers); Portion of a computer which directs the sequence of operations, interrupts the coded instructions, and initiates the proper commands to the computer circuits for execution.

CENTRALISED INTERCEPTION : A customer facility provided at the local exchange.[1]

CENTREX : (AXE); Centralised PABX.[2]

CEPT : Conference of European Post and Telecommunications Administrations. European Posts and Telecommunications Consortium.[1]

CEPT STANDARD : (videotex); Conference of European Post and Telecommunications Administration Videotex Presentation Layer Data Syntax. The agreed European videotex standard, combining features of the British Prestel and the French Antiope systems.[9]

CERDIP : (electronics); Ceramic dual-in-line package, being a form of encapsulation of integrated circuits.

CES : see Customer Earth Station.

CESS : (Telecom computers); Customer Equipment Statistics System.[2]

CGF : (Telecom); Composite Growth Factor.[2]

CGM : (Telecom); Chief General Manager.[2]

CHAC : (AXE); Charging Assessment Facility.[2]

CHANNEL : 1. (transmission); A single one-way path for transmitting electric signals. 2. (telegraphy); At normal speeds of analogue transmission measured in bauds, a telegraph channel needs a band of frequencies only about 300Hz wide as against 3000Hz for a speech channel so that, when circuits are derived in carrier systems, several telegraph

circuits can be accommodated in a normal speech circuit band. In digital telegraph (data) transmission, circuit capacity depends on transmission speed in bits/second.[1]

CHANNEL, ANALOG : (transmission); Refers to a channel that will pass alternating current but not direct current. A switched-voice channel is an analog channel. If an analog channel is said to carry digital data, it is actually carrying the analog representation of the digital data in the form of various frequencies.

CHANNEL, DIGITAL : (transmission); A channel capable of carrying direct current as opposed to analog channels.

CHARACTER : 1. (transmission); Letter, figure, punctuation or other sign in a text to be transmitted by alphabetic telegraphy or other means.[1] 2. (videotex); A single numeric or alphabetic digit, a symbol, or a single graphic element.[7]

CHARACTER GENERATOR : (computers); Generally, an electronic circuit which converts ASCII codes into the appropriate shape of a letter or number as displayed on a video screen or printed out on a dot-matrix printer.[9]

CHARACTER, CONTROL : (computers); 1. A character whose occurrence in a particular context initiates, modifies, or stops a control operation or function. 2. A character used to initiate functions such as line feed, carriage return, etc. 3. Synonymous with function code.

CHARGE ANALYSIS CHARTS : (Telecom); Used by Telecom State Administrations to derive exchange charging centre strapping (or data) designs. At present largely a manual process, it is currently being automated by the Switching Design Branch.

CHARGING DISTRICT : (telephony); An area comprising a number of charging zones for telephone calls. For the longer distance trunk calls the charge is based on the distance between the centres of the districts.[13]

CHARGING ZONES : (telephony); Telephone exchanges are grouped to form zones. Telephone calls within a zone and to adjacent zones are local calls. For the shorter distance trunk calls the charge is based on the distance between the zone centres.[13]

CHEMICAL VAPOUR DEPOSITION : (fibre optics); A method of producing optical fibres with the required grading of refractive index.

CHILL : (computers); The CCITT High Level Language, an English-like programming language intended to be used in implementing both the operational and the support software for modern telecommunications switching systems. It has absorbed many features of earlier languages but has been optimised to suit telecommunications switching system applications.

CHIP : Tiny semi-conductor substrate for an integrated circuit.[1]

CHNG : (abbr.); Change.[3]

CHP : Charging Processor.

CHRG(S) : (abbr.); Charge(s).[3]

CHROMATICITY DIAGRAM : (television); An internationally used diagram formed by plotting one of the three chromaticity co-ordinates against one other of the three.[12]

CHROMINANCE : (television); The property of light which produces a sensation of colour in the human eye. The particular hue or colour is dependent upon the wavelength of the emitted or reflected rays, and this is expressed in millimicrons, or billionths of a metre.[12]

CHS : (AXE); Charging Subsystem.[2]

CI : (telephony); Country Installations.[2]

CIAG : Computer Industry Advisory Group.[4]

CID : Circuit Information Distribution.[2]

CIE : 1. (fault despatch); Called In Error.[2] 2. (satellites); Customer Interface Equipment. An Iterra service switching component.[1]

CINDA : (Telecom); Customer Interface Data Analysis Project.[2]

CIRCUIT : (transmission); A means of both-way communication between two points comprising associated send and receive channels.[13]

CIRCUIT CONTROL : (transmission); A long communications system such as a broadband carrier system may pass through a number of maintenance districts each of which would maintain the equipment in the local area. However, overall control of the circuits contained in

the system is vested in the district in which the main terminal is located, eg a capital city. In very long systems, control over parts of the route is exercised from each end, eg in the Melbourne-Sydney coaxial cable, Melbourne controls circuits to Canberra, and Sydney controls the rest of the route.[1]

CIRCUIT DERIVATION : (transmission); A means or stage whereby a line or channel which would normally only carry one circuit is arranged to carry more than one circuit - see "Carrier Systems".[1]

CIRCUIT, FOUR-WIRE : (transmission); A system in which the transmitting and receiving paths are separate channels.

CIRCUIT, MULTIPOINT : (transmission); A system consisting of a circuit connecting three or more terminals, any or all of which may simultaneously receive information flowing in the common circuit.

CIRCUIT, TWO-WIRE : (transmission); A system in which all transmitting and receiving is performed over one pair of wires.

CIS : see Call Identification Signal

CJ : (AXE); Junctor Functions.[2]

CL : 1. (AXE); Call supervision function block in TCS.[2] 2. Customer Loss.[2]

CLADDING : (fibre optics); The low-refractive-index material which surrounds the core of the fibre and protects against surface-contaminant scattering. In all glass fibres the cladding is glass. In plastic-clad silica fibres, the plastic cladding may also serve as the coating.

CLASN : (abbr.); Classification.[3]

CLASS : (Telecom computers); Capacity Loading and Scheduling System - a computerised Telecom system for scheduling resource applications on switching projects.[1]

CLEAN FEED : (television); A television signal broadcast or transmitted without commercial advertisements.[9]

CLEAVED COUPLED-CAPACITY LASER : (fibre optics); A tiny semiconductor laser invented by AT&T Bell Laboratories that can be tuned electronically to transmit ultra-pure light at ten or more frequencies. It can transmit data at up to a billion bits per second over distances of up to 160km without a repeater.[9]

CLI : 1. (telephony); Calling Line Identification - a customer facility in crossbar and SPC exchanges for billing and surveillance purposes. CLI identifies the number of the calling party's line.[1] 2. (switching); Clock Interface Relay Set.[2]

CLIENT : (Telecom); Commercial Interface Automation - a strategic overview of systems concerned with customer service provision (eg SPAN, TEL/DRS etc).[1]

CLM : (AXE); Clock Module.[2]

CLOCK : (electronics); An electric circuit that generates timing pulses to synchronize the operation of a computer or a digital system.

CLOSED NUMBERING AREA : (telephony); An area within which subscribers dial only the wanted number when calling each other.[13]

CLOSED USER GROUP (CUG) : (videotex); A group of frames within an IP's database to which access is restricted.[7]

CLRCE : (abbr.); Clearance.[3]

CM : 1. Circular Memorandum.[1] 2. (ARF); C-Stage Marker.[2]

CMBD : CCITT Study Group on 'Performance Objectives of Telephone Networks'.[1]

CME : Circuit Multiplication Equipment - now known as DASI (see definition).[1]

CMO : Common Mode Operation.[1]

CMOS : (electronics); Complementary Metal-Oxide Semiconductor. An MOS fabrication process which permits NMOS and PMOS devices to be created in the same integrated circuit. Although it refers to an IC manufacturing technology, the term is almost always used to describe an IC logic family with low power dissipation.

CMTT : CCIR/CCITT Joint Study Group on Television and Sound Transmission.[1]

CNA : see Closed Numbering Area.

CNCP : Canadian National/Canadian Pacific Telecommunications.

CNET : Centre Nationale d'Etudes des Telecommunications (French PTT's Research arm).[1]

CNI : Changed Number Interception.[1]

CNR : (fault despatch); Coins Not Returning or Coins No Service.[2]

CO : 1. Changeover 2. see Cutover 3. (switching); Cut-off - a switching malfunction where a call in progress is interrupted.[1]

COAXIAL CABLE : (cables); A cable containing pairs known as coaxial tubes consisting of a centre wire placed coaxially in a tube and insulated from it.[13] Coaxial cables are available with from 2 to 18 tubes and with plastic or paper-insulated core and interstice pairs varying in number according to the number of tubes.[1]

COAXIAL TUBE : (cables); A pair of wires, one in the form of a tube, surrounding, but insulated from the other.[13] The usual contruction is of a centre copper conductor coaxially placed in a tube of about 9.5 mm diameter formed from soft copper and supported by polyethylene discs. Two layers of mild steel tapes are used to lap helically the outer conductor to provide magnetic shielding as well as rigidity and mechanical protection for the tube.[1]

COB : Close of Business.[2]

COBOL : (computers); Common business-oriented language. Used to express problems of data manipulation and processing procedures in the business field in English narrative form.

CODE, FIVE-LEVEL : (data transmission); 1. A term frequently used as a synonym for Baudot code. 2. Any code using five elements, or bits, to designate one character. Such a code has 32 possible discrete combinations of the five-code elements.

CODEC : (data transmission); An assembly comprising an encoder and decoder in the same equipment.

COIN TELEPHONE : (telephony); A public telephone operated by inserting coins.[13]

COIN TELEPHONE REPLACEMENT PROGRAM : (telephony); Begun in 1976, and completed in 1983, this was a program to replace all coin telephones, other than Red Phones, with CT3s. It also included the replacement of all wooden public telephone cabinets with new aluminium/glass cabinets.

COIN WARNING SIGNAL : (telephony); On STD calls CT3s have a visual warning lamp which glows when the last coin is collected and flashes when a meter pulse reduces the paid credit time to one metering period. On the CT3(I)s there is also a small loudspeaker, which emits a 500 Hz tone for 500 milliseconds.

COLORFONE : (telephony); The standard dial telephone handset in Australia. Now being progressively replaced for new installations by the Touchfone Mark IV.[13]

COLOUR PICTURE SIGNAL : (television); The complete electrical signal transmitted by the vision transmitter. It is composed of a monochrome or luminance component; a subcarrier, modulated by hue and saturation information; and the colour burst synchronising information. Also referred to as the composite video signal. Does not include the sound channel.[12]

COM : (computers); Computer Ouput to Microfilm - Direct output from computer in microfilm or microfiche form rather than on hard copy (paper).[1]

COMMANDER : (Telecom); A range of modern telephone PABX-type systems available from Telecom Australia, offering advanced features such as abbreviated dialling, intercom facilities, and simple methods for transferring calls.[9]

COMMON CARRIER : A company which carries communications (or any kind of goods) without itself taking an active role in specifying what it will or will not carry.[9]

COMMON CHANNEL INTEROFFICE SIGNALLING : (telephony); An AT&T digital system which transmits all signalling information for calls over a special network, separate from the talking path. It saves time and money compared with systems that use the talking path as the signalling channel.[5]

COMMON CONTROL SYSTEMS : (switching); The term describes crossbar and Stored Program Control (SPC) exchanges in which a major portion of the equipment is provided for common use of subscribers, as distinct from step equipment in which a much larger proportion of plant is individual to subscribers.[13]

COMMON PLANT : (telephony); Plant which is shared by subscribers to complete telephone calls, as distinct from plant which is individual to the subscriber. Embraces common control equipment in exchanges, function cables and trunk systems.[13]

COMMON USE : See Joint Use.[1]

COMMUNICATING WORD PROCESSOR : A sophisticated device resembling a memory typewriter capable of communication with (transmitting/receiving typed text) other similar machines.[1]

COMPAC : (cables); The Commonwealth Trans-Pacific Cable Linking Australia (at Sydney) with Canada via Auckland, Suva and Hawaii and linking in a Trans Canadian broadband link with the CANTAT (Canadian Trans-Atlantic Cable) - see also SEACOM.[1]

COMPANDOR : (transmission); A device for improving the signal-to-noise ratio of a communication link and for decreasing the absolute levels of noise when no signal is being transmitted. It consists of a compressor at the transmitting end and an expandor at the receiving end.

COMPANY COIN TELEPHONE : A coin-operated local call instrument leased to customers by approved suppliers.[1]

COMPEPP : (Telecom computers); Computer Programming of External Plant Projects.[2]

COMPERIS : (Telecom computers); Computer Personnel Information System.[2]

COMPILER : (computers); A computer program which converts a program written in a high-level language (the source code) into machine instructions (the object code). A compiler does this once only, for the whole program. Compare with Interpreter.[9]

COMPLEMENTARY COLOURS : (television); With the three primary colour system concerned, a complementary colour is one located in the chromaticity diagram upon a straight line drawn from a reference colour through the reference white. For instance, the complementary colours of the three primaries are as follows. Red/Cyan, Blue/Yellow and Green/Magenta. In this system, the complementary colour to each of the primary colours is a colour composed of an equal mixture of each of the other primary colours.[12]

COMPLN : (abbr.); Completion.[3]

COMPOSITE VIDEO SIGNAL : see Colour Picture Signal.[12]

COMPUTER : Any device capable of accepting information, applying the prescribed process to the information, and supplying the results of these processes.

COMPUTER APPLICATION : The system or problem to which a computer (processor) is applied.[1]

COMPUTER POWER : An Australian software company (one third owned by News Corporation), much involved in videotex systems.[9]

COMPUTER PROGRAM : A complete specification of instructions to carry out one or more processes on data.[1]

COMREG : (Telecom computers); Computer Project Register.[2]

COMSAT : Communications Satellite Corporation. Manager for INTELSAT.[13]

CONC : (abbr.); Concession.[3]

CONCENTRATOR : (transmission); A communications device that provides communications capability between many low-speed, usually asynchronous, channels and one or more high-speed, usually synchronous, channels.

CONCENTRATOR : See Line Concentrator.[1]

COND : (abbr.); Condition.[3]

CONDENSER : (electronics); Earlier term for "Capacitor".[1]

CONDUCTOR : (electronics); A substance in which some of the electrons are so loosely attached to the atom that they can be induced to move from atom to atom and so produce a flow of electric current. Copper and aluminium are the most commonly used conductors.[1]

CONDUIT : (cables); Pipes used to house cables in urban and suburban areas.[13] Generally laid underground for protection.[1]

CONDUIT ROUTE (cables); Physical path followed by underground pipes to contain telephone cables.[13]

CONF : (abbr.); Configuration.[3]

CONFRAVISION : Telecom's Conference Television facility.[1] See Teleconferencing.

CONGESTION : (telephony); A situation where a telephone call cannot be made because all common plant is already in use.[13]

CONTRAFAST : (Telecom); Consolidated Trunk Forecast - an element of the national trunk development plan.[1]

CONTROL CHARACTER : (computers); 1. A character whose occurrence in a particular context initiates, modifies, or stops a control function. 2. In the ASCII code, any of the 32 characters in the first two columns of the standard code table.

CONVERGENCE : (television); The adjustment of the differential sweep requirements of the three individual and separately located electron beams in the picture tube. When adjusted, at all points over the raster they converge together at the same hole in the shadow-mask, and therefore activate the three colour dots of one "triad".[12]

COORD : (abbr.); Co-ordinator.[3]

COORDS : (abbr.); Co-ordinates.[3]

COP : (cables); Cable Ordering Project (a computerised system for the scheduling of cable purchases for all States).[1]

COPAS : (Telecom computers); Commercially-Oriented Product Availability System.[2]

CORE : (fibre optics); The light-conducting portion of the fibre, defined by the high-refractive-index region. The core is normally in the centre of the fibre, bounded by the cladding material.

CORE MEMORY : (computers); A memory that uses small magnetic cores as the storage element and is characterised by low-cost storage and a relatively slow memory-operating speed.

CORUS : A computer-based system for determining exchange spare parts requirements.[1]

COSRA : (Telecom); Computerised Surveillance of Radio Alarms.[1] see also SORA.

COTC : Canadian Overseas Telecommunications Corporation, a wholly government owned statutory body.

COTER : (traffic management); Catalogue of Traffic Engineering References.[1]

COTERP : see Coin Telephone Replacement Program

COUPLING LOSS : (fibre optics); The loss of power in a pulse of light at the interface between two optical devices such as a laser and an optical fibre.[9]

CP/M : (computers); A popular operating system for (particularly 8-bit) microcomputers. see Operating System.[9]

CPA : see Cable Pressure Alarm.

CPE : Chief Planning Engineer.[1]

CPFLI : (cables); Cellular plastics insulated filled lead-in.

CPFUT : (cables); Cellular plastics insulated filled unit twin.

CPM : (computers); Cards Per Minute (refers to rate of processing punched data cards).[1]

CPS : Cycles per second - superseded by Hertz (Hz) the unit of frequency of a vibration, alternating current, etc. Cycle, when applied to an alternating current or voltage, denotes the full cycle from zero to maximum voltage(or current) in one direction, the fall to zero and then the rise to maximum in the opposite direction and the fall to zero again.[1]

CPT : Compania Peruana de Telefonos S.A.

CPU : See Central Processing Unit.

CR : (AXE); Code Reception.[2]

CR : (abbr.); Credit.[3]

CRD : 1. (AXE); Code Receiver Device. 2. (fault despatch); Cord Damaged.[2]

CRITICAL ANGLE : (fibre optics); The angle at which a light wave in an optical fibre core will just be reflected back into the core when it strikes the cladding.[9]

CROSSBAR EQUIPMENT : (switching); Exchange equipment of a type introduced into Australia in the 1950s. Employs the principle of common control. A crossbar switch consists of a number of vertical and horizontal bars, each moving under the control of electromagnets, a unique set of contacts being associated with a particular position of vertical and horizontal bars.[13]

CROSSTALK : Unwanted voice communication induced into a circuit from an adjacent circuit.[1] Arises chiefly from unbalanced electrostatic and electro-magnetic couplings between pairs of conductors, and the two types of unbalance are measured in terms of capacity unbalance and mutual impedance.

CRP : See Call Record Printer.[1]

CRT : see Cathode Ray Tube.

CS : (AXE); Code Sending.[2]

CSA : (telephony); Centralised Service Assessment.[1]

CSA/B : (AXE); Control Store for Speech.[2]

CSAC : (telephony); Centralised Service Assessment Centre.[1]

CSC : (AXE); Control Store for Space Switching Module.[2]

CSD : (AXE); Code Sender Device.[2]

CSDC : see Circuit Switched Digital Capability.[5]

CSH : Called Subscriber Held.[2]

CSK : (abbr.); Commonwealth Sketch.[3]

CSM : (Telecom); Customer Service Manager.[9]

CSN : (telegraphy); Channel Sequence Number, a control character in the VDU/TRESS system.

CSO : (Telecom computers); Computer Systems Officer.[1]

CSP : (LEOPARD); Customer's Service Priority.[2]

CSS : (Telecom computers); Customer Switching Systems data base.[2]

CSTD : Call State Transition Diagram - a technical documentational method or procedure.[1]

CSU : (switching); Central Store Unit - microprocessor-controlled (memory) for ARE-11 exchanges (replacing previous CSM).[1]

CT : (telephony); Coin Telephone (also PT - Public Telephone).[1]

CT3 : (telephony); Multipurpose coin telephone No3, introduced in 1971 to provide the public with STD calling and to reduce operator assistance traffic. An improved version, provided with expanded tariff abilities, known as CT3(I) was introduced in 1975. Both are supplied by STC Pty Ltd, and manufactured in Japan by the Anritsu Electric Company. Sometimes called the "Green Phone".[9]

CTD : (fault despatch); Coin Telephone Damaged.[2]

CTE : International Exchange.[1]

CTES : (satellites); Community Telecommunications Earth Station. Now known as Customer Earth Station or CES.[1]

CTNE : Compania Telefonica Nacional de Espana (Spain's Telecommunications Administration).[1]

CTO : 1. (telegraphy); Chief Telegraph Office, of which there is one in the capital of each State. 2. Chief Technical Officer.[1]

CTP : (LEOPARD); Coin Telephone Public.[2]

CTPOA : Commonwealth Telephone and Phonogram Officers' Association.[13] Now Australian Telephone and Phonogram Officer's Association.

CTR : (fault despatch); Cannot Trip Ring.[2]

CTV : (television); Cable Television - a hard-wired external television service (rather than a broadcast TV service).[1]

CUDN : (data transmission); Common User Data Network, a message-switched data network (Telecom Australia) operational since January 1972. Used by SPAN (Service Provision Advice Network).[1]

CUG : (videotex); see Closed User Group.[7]

CURRENT : (electronics); The rate of flow of electricity past a given point, measured in amperes. There are four main types of current; - Alternating Current (AC) - Direct

Current (DC) [1] - Varying Direct Current - Pulsating Direct Current. See also Ampere.

CUST : (abbr.); Customer.[3]

CUSTOMER : The applicant, renter, or user of any service of facility. (formerly Subscriber).[1]

CUSTOMER EARTH STATION : (satellites); A common term for all Iterra service Earth Stations, regardless of circuit capacity. Replaces HTES, CTES and ETES.[1]

CUTI : (Telecom computers); Computerised Tariff Information.[2]

CUTOVER : (telephony); Bringing new equipment into service.[1]

CVD : see Chemical Vapour Deposition.

CVSD : (data transmission); Continuously Variable Slope Delta Modulation. A type of digital compression method.

CW : 1. (telephony); Call Waiting - a customer facility.[1] 2. (fibre optics); Continuous Wave.

CWP : see Communicating Word Processor.

CWS : see Coin Warning Signal

CYAN : (Television); A colour which is a mixture of equal parts of blue and green. The complementary colour of red. Radiation at a wavelength of 494 millimicrons.[12]

CYBERNET : (computers); Control Data Computer Network.[2]

D

d : (abbr.); see Deci.

D/A CONVERTER : (computers and data transmission); Digital-to-Analog converter. A unit that converts a digital signal into a voltage or current whose magnitude is proportional to the numeric value of the digital signal.

DA : (abbr.); see Deka.

DA : 1. (AXE); Digit Analysis.[2] 2. (switching); Digit Absorbing. 3. (cable reticulation); Distribution Area. 4. (Telecom); see Deferred Applicant. 5. (Telecom); Drafting Assistant.[1]

DAA : (telephony); Directory Assistance Automation - a project to computerise data needed by Directory Assistance operators.[1]

DAC : 1. (Telecom); Directory Assistance Centre.[2] 2. (Iterra); Demand Assignment Controller.[1]

DAF : (LEOPARD); Didn't Answer Fault.[2]

DAGS : (switching); Digit Absorbing Group Selector.[2]

DAH : (computers); Data Acquisition Hardware.[1]

DAMA : (satellites); see Demand-Assigned Multiple Access.

DAR : (switching); Digit Absorbing Relay Set.[2]

DAS/C : (Telecom); Directory Assistance Service/Computerised.[4]

DASI : Demand Assignment Speech Interpolation equipment, which utilises gaps in spoken conversations to multiply the number of conversations carried on a circuit.[1]

DATA : Any representation such as characters or analog quantities to which meaning might be assigned.

DATA ABOVE VOICE : (data transmission); On each analogue radio bearer it is possible to install a 2 Mbit digital transmission system on a narrow frequency band above that used for the telephony system.

DATA LINK : (data transmission); Two or more data terminal installations and their interconnecting circuit.[1]

DATA MODEM : see Modem.[13]

DATA PROCESSING CENTRE : (computers); A computer processing installation.[13]

DATA SET : (data transmission); A circuit termination device used to provide an interface between a data communication circuit and a data terminal. A modulation and demodulation function is typically performed in a data set. See also Modem.

DATA SIGNAL : (data transmission); Signal representing a set of binary digits used to convey information.[13]

DATA TERMINAL : (computers); A class of devices characterized by keyboards and CRT displays.

DATA TRANSMISSION : The sending of computer information from one place to another or from one part of a system to another via telecommunications links.[13]

DATABASE : 1. (computers); A large file of related records. 2. (videotex); A set of frames with a common frame or link, such as all frames pertaining to a subject, to an individual IP, or (more broadly), all frames available at a particular computer centre.[7]

DATAMIS : (Telecom computers); Datel and Telex Management Information System.[2]

DATAMISS : (Telecom computers); Data Marketing Inventory and Sales Statistics - a computer system.[1]

DATAPAC : A Canadian public packet switched network, operational since 1977.

DATAPHONE : (data transmission); A service offering in which various types of data are transmitted over the message network using Bell System data sets to connect business machines to the network.

DATAROUTE : (data transmission); The world's first nation-wide public data network, operational since February 1973, and run by the Trans-Canada Telephone System.

DATEL : (data transmission); Telecom service which utilises the normal analogue telephone network for the transmission of digital data. A typical use of the service is feeding data into time shared computer services, using modems at each terminal point.[1]

DATRAN : (data transmission); The world's first public circuit-switched data network, operational from December 1973, and run by the (American) Data Transmission Co.

DAV : see Data Above Voice

DAVID : (data transmission); Digital (Data) Above Video - (not used in Australia as at 1984).[1]

DBC : (computers); Data Base Controller.[2]

DBP : (computers); Dispersion Batch Processor.[2]

DBS : (satellites); Direct Broadcasting Satellite - one which broadcasts direct to small receiving stations (privately owned) rather than to one Main Earth Station.[1]

dB : (dB) deciBel, a logarithmic (base 10) electrical unit used to compare or indicate changes in levels of intensity. Used to express sound intensity as a ratio in relation to a reference level, (eg. 3db = 2 x volume, 7db = 5 x volume, 20 db = 100 x volume).[1]

DC : (electronics); Direct Current - a unidirectional current of electricity such as is obtainable from a torch cell or car battery.[1]

DCARS : (Telecom cables); District Cable Assigner's Recording System.[2]

DCARS : (cables); An automated Distribution Cable Assignment and Recording System.[1]

DCE : (data transmission); Data Communications Equipment (or Data Circuit-Terminating Equipment). The equipment that provides the functions required to establish, maintain, and terminate a connection, the signal conversion, and coding required for communication between data terminal equipment and the data circuit. The data communication equipment may or may not be an integral part of a computer. (e.g., a modem).

DCGM : (Telecom); Deputy Chief General Manager.[1]

DCRIS : (Telecom); Distributed Customer Record Information System - an automated Service Order system under development.[1]

DCWP : (Telecom); Draft Capital Works Programme.[2]

DDD : (US telephony); Direct Distance Dialling (the equivalent of STD).

DDF : (data transmission); Digital Distribution Frame.[1]

DDN : (data transmission); Digital Data Network.

DDR : (switching); Decadic Dispersion Recorder (in electro-mechanical exchanges). See also TDAS.[1]

DDS : (data transmission); Digital Data Service - Telecom's leased line data service for larger use customers. (see also Netplex, Netstream, and Packet Switching).[1]

DDX-1 : (data transmission); Dendenkosha Data Exchange Network, begun in 1973, an experimental circuit and packet switched hybrid data network of the (Japanese) Nippon Telegraph and Telephone Corporation.

DDX-2 : (data transmission); Under field tests since 1976, an advanced version of DDX-1 (q.v.).

DEBUG : (computers); To detect, locate, and remove mistakes from a program.

DEC : (abbr.); Decadic.[2]

DECA : see Deka.

DECI : SI prefix for 0.1 (10^{-1}). Abbreviated as d. Rarely used.

DECIMAL DIGIT : (computers); A character used to represent one of ten digits in the numeration system with the base of 10.

DECODE : (transmission); To determine the meaning of individual characters or groups of characters in a message through the reversal of some previous coding. Also called decrypt.

DECODER : (data transmission); A device used to reconstruct an analogue signal from a digitally encoded signal.[1]

DEDICATED LINE : (data transmission); A line permanently assigned to specific data terminals not part of switched networks. Also called a private line.

DEF : (abbr.); Deferred.[3]

DEFERRED APPLICANT : (Telecom); One whose application for telephone service has been deferred, usually pending major plant extension work.[1]

DEGAUSSING : (television); The action of removing any residual magnetic fields in the immediate area of the picture tube by the gradual reduction to zero of an alternating magnetic field.[12]

DEKA : SI prefix for 10. Abbreviated as da. Very rarely used.

DELAY, ABSOLUTE : (transmission); The real-time interval from the transmission to reception of a signal over a circuit. Also called transmission time or circuit delay.

DELEGATION : (Telecom); Delegation is given under the provisions of Telecommunications Act 1975 or Regulations to enable officers to carry out approved functions and accept responsibilities attached to the positions they occupy. It is necessary that they exercise certain powers, which by law or usage, have been vested in the Minister or the Commission. The necessary approval is given by the issue of appointments or delegations according to the requirements of the particular Act or Regulation.[1]

DELTA MODULATION : (transmission); The technique of encoding an analogue wave form by taking one bit samples and determining the output by comparing the analogue signal with the previously quantised value. For linear delta modulation, the step size is fixed and the quantised signal can only increase or decrease by one step size each sample period. Adaptive delta modulation is the technique where the step size changes in response to the rate of change of the input signal.

DELY : (abbr.); Delivery.[3]

DEMAND ASSIGNED MULTIPLE ACCESS : (satellites); A scheme whereby a large number of subscribers utilise a single satellite transponder via a limited number of SCPC channels.[1]

DEMODULATION : (transmission); The process of extracting a modulated signal from a carrier wave - (see Modulation).[1]

DEPARTMENT OF COMMUNICATIONS : A Federal Government Department which handles policy aspects of communications, and oversees both Australia Post and Telecom Australia.[9]

DESATURATION : (television); The reduction in saturation of a colour, caused by the addition of white to that colour.[12]

DESCN : (abbr.); Description.[3]

DESTN : (abbr.); Destination.[3]

DETLS : (abbr.); Details.[3]

DETRAM : (traffic management); Detailed Traffic Measurements sub-system of TDAS.[1]

DEVN : (abbr.); Deviation.[3]

DFB : (fibre optics); Distributed FeedBack (in a laser).

DH : (fibre optics); Double Heterostructure, double heterojunction laser.

DIA. : (abbr.); Diameter.[1]

DIAGNOSTIC PROGRAM : (computers); Special program for checking a computer's hardware for proper operation.

DIBIT : (computers); A group of 2 bits. In a four-phase modulation, each possible dibit is encoded as one of four unique carrier phase shifts. The four possible states for a dibit are 00, 01, 10, 11.

DIGIT : A character that stands for an integer.

DIGITAL : 1. Data in discrete quantities; constrasts with analog; computation or transmission method employing binary mode impulses at high speed. 2. Pertaining to data in the form of digits.

DIGITAL LINE PATCH : (data transmission); Two or more digital line sections interconnected in tandem in such a way that the specified rate of the digital signal transmitted and received is the same over the whole length of the line path.

DIGITAL RADIO CONCENTRATOR SYSTEM : (telephony); A rural (outback) telecommunications system utilising digital radio techniques to provide a telephone service for up to 120 remote customers on each system.[1]

DIGITAL SWITCHING : (data transmission); A process in which connections are established by operations on digital signals without converting them to analog signals. see Appendices 6 and 10.

DIGITEL CONFERENCE : (Telecom); A modern touch-pad telephone available for purchase or rental from Telecom Australia. It has a loud-speaker and a microphone, allowing completely hands-free operation, and enabling a telephone conference to be set up.[9]

DIGITEL MEMORY : (Telecom); A modern touch-pad telephone available for purchase or rental from Telecom Australia. It has a loud-speaker allowing others to listen in to the conversation, and can store up to 10 frequently called numbers.[9]

DIGITEL MONITOR : (Telecom); A modern touch-pad telephone available for purchase or rental from Telecom Australia. It has a loud-speaker allowing others to listen in to the conversation.[9]

DIMEX : (Telecom computers); Exchange Dimensioning (ARF, ARE) computer program.[1]

DIN : Deutsche Industrie Normen - a German system of measurement or calibration standards..[1]

DIODE : (electronics); Originally two element electron tubes. The term is now also used to describe solid state electronic devices with similar characteristics.[1]

DIP : (electronics); Dual in-line package. A package for electronic components that is suited for automated assembly into printed-circuit boards. The DIP is characterized by two rows of external connecting terminals or pins which are inserted into the holes of the printed circuit board.

DIR : (abbr.); Directory.[3]

DIRECT ACCESS : (videotex); The facility provided to a user of being able to call any page directly, but keying *n# (where n is the page number), thereby avoiding the use of possibly several routing pages.[7]

DISCON : (data transmission); Digital Integrated Secure Communications Network, the Australian Department of Defence's digital data network, introduced in 1982.

DISPERSION : (fibre optics); The cause of bandwidth limitation in a fibre. Because dispersion causes a broadening of input pulses along the length of the fibre, this mechanism is usually referred to as pulse spreading. The two major types of dispersion are mode and material dispersion.

DISPLAN : (Telecom); Disaster Plan.[2]

DISQ : (cables); Disc Insulated Star Quad.[2]

DISTORTION : (transmission); An unwanted change in wave form that occurs between two points in a transmission system.

DISTR : (abbr.); District.[3]

DISTRIBUTED PROCESSING : (computers); A situation in which processing power in a computer network is partially distributed out to slaved mini- or micro-computers or intelligent terminals (q.v.).[9]

DISTRIBUTION BLOCK : (telephony); Small terminating device for re-arranging and cross-connecting internal telecommunication wiring in buildings. It contains 'in' and 'out' terminals, thus permitting flexibility in the interconnecting of wiring.

DISTRIBUTION FRAME : (switching); Terminating units in exchanges and large buildings for connecting the fixed cabling in such a manner that inter-connection by 'cross connections' (or 'jumper wires') may be readily made. See also MDF and IDF.[1]

DIV : (data transmission); Data In Voice. Superimposition of data transmission into "gaps" in analogue speech channels using bandwidth compression and other techniques.[1]

DLC : (LEOPARD); District LEOPARD Centre (Qld only).

DKM : (cables); Duct kilometre.[2]

DLD : (fibre optics); Dark Line Defect.

DLI : (AXE); Digital Line Interface.[2]

DLR : (data transmission); Digital Line Repeater.[1]

DLS : (AXE); Digital Line Signalling.[2]

DLTE : (data transmission); Digital Line Terminal Equipment.[1]

DM : (switching); D-Stage Marker.[2]

DM : (transmission); Delta Modulation.[1]

DMA : (computers); Direct memory access. A method of gaining direct access to a memory location in order to store data.

DMC : (Telecom); District Major Customer.[4]

DMR : (Telecom); Defective Material Reports - an automated quality assurance reporting and monitoring system.[1]

DN : (telephony); Directory Number.[1]

DNA : (fault despatch); Does Not Answer.[2]

DND : (fault despatch); Did Not Dial.[2]

DO : (fault despatch); Drop Out.[2]

DOC : Department of Communications.[1]

DOMIS : (Telecom); District Operations Management Information System.[4]

DOR : Digital (Data) Over Radio - use of a dedicated analogue radio bearer channel for digital transmission, usually at 8, 17 or 34 Mbit/s speeds.[1]

DOT : Department of Transport.[1]

DOT-MATRIX DISPLAY : (electronics); A display format consisting of small light-emitting elements arranged as a matrix

DOV : (data transmission); Digital (Data) Over Voice - similar to DAV, but term applies to cable systems rather than radio bearers.[1]

DOWI : Derived Order Wire Interface.[2]

DOWN LINK : (satellites); Radio link from a satellite to an earth station.[1]

DP : 1. (LEOPARD); Despatch Priority.[2] 2. (switching); Double Pole - applies to a switching device having two paths.[1]

DPC : 1. see Data Processing Centre. 2. (Telecom); Design and Practices Co-ordinator (State Administrations).[1]

DPCM : (transmission); Differential Pulse Code Modulation.[1]

DPG : (Telecom switching); Data Production Group(s). Source of data for electronic exchange operation.[1]

DPL : (data transmission); DATEL Private Line.[4]

DPPM : (transmission); Differential Pulse Position Modulation.

DPR : (Telecom); Defective Performance Reports.[2]

DR : 1. (transmission); Direct Route. 2. (switching); Discriminating Relay Set.[2]

DRACULA : (videotex); Data Recording and Concentrator Unit for Line Applications. A unit which allows remote monitoring of a number of Information Retrieval Computers. See also VAMPIRE.[1]

DRAM : (electronics); Dynamic Random Access Memory. A type of memory chip which must be continually refreshed by a periodic electrical charge.[9]

DRCS : 1. (telephony); see Digital Radio Concentrator System. 2. (videotex); see Dynamically Redefinable Character Sets.

DRCTRY : (Telecom computers); Telex Directory List[2]

DRIVER : 1. (computers); A program or routine that controls either external devices or other programs. 2. (electronics); An element which is coupled to the output stage of a circuit to increase its power or current-handling capability.

DRO : (computers); Destructive Read Out.

DROP WIRE : (telephony); A re-inforced pair of wires used as an aerial lead-in to customers' premises from street poles.[1]

DRS : (transmission); Digital Radio Systems.

DRY CORE CABLE : (cables); A cable which is not filled with a solid insulator. See Appendix 1.

DS : 1. (AXE); Data Store. 2. (switching); Decadic Sender.[2]

DSC : (Telecom); District Support Centre. It will provide DTM districts with system expertise and support for its electronic switching centres (exchanges) ie. ARE & AXE, which are themselves grouped into EMG's (Exchange Maintenance Groups). Each DSC also interfaces with the State Support Centre (SSC).[1]

DSC : (Telecom); District Support Centre.[2]

DSE : (data transmission); Data Switching Exchange.

DSG : (AXE); Data Support Group.[2]

DSR : 1. (Telecom); Design Standards Engineer. 2. (switching); Discriminating Selector Repeater.[2]

DTE : (data transmission); Data terminal equipment. 1. The equipment comprising the data source, the data sink, or both. 2. Equipment usually comprising the following functional units; control logic, buffer store, and one or more input or output devices or computers. It may also contain error-control, synchronization, and station-identification capability.

DTM : (Telecom); District Telecommunications Manager [1]

DTMF : (telephony); Dual tone multi-frequency, a tone signalling system used in the Touchfone 12.

DTO : (Telecom); District Telecommunications Office [1]

DTR : (traffic management); Daily Traffic Recording - a computerised system for monitoring telephone traffic information. CENTOC is Phase One of this system, and TADMAR a further development. See also TDAS.[1]

DTS : (data transmission); Digital Termination System.

DTU : (computers); Data Transcription Unit - a functional unit where data is transcribed into computer-legible form prior to processing.[1]

DTU : (data transmission); Data Transmision Unit.[2]

DUCT : (cables); Conduit for housing cables - usually of 100 mm diameter.[1]

DUPLEX : (data transmission); See Full Duplex, Half Duplex.

DUV : (data transmission); Digital (Data)-under-Voice - an overseas technique for inserting digital transmission in the lower part of the spectrum of an analogue broadband bearer - (not used in Australia as at 1984).[1]

DWELL : (transmission); The usually adjustable time length of an output pulse that is independent of input signal duration. Pertains to a pulsed logic amplifier output, either immediate or delayed.

DXL : (data transmission); DATEL Exchange Line.[4]

DYNAMICALLY REDEFINABLE CHARACTER SETS : (videotex); A future development that will enable high definition graphics and foreign charactes to be used on a (Viatel-type) terminal.

E

E : (abbr.); see Exa.

E/O : (fibre optics); Electronic-to-optical.

EAPD : (fibre optics); Electroabsorbtion Avalance PhotoDiode.

EAR : (telephony); Event Analysis Recorder [1]

EARLY BIRD : (satellites); The first synchronous satellite (one that, while geostationary, keeps time with the rotation of the earth), launched by America on 6 April 1965 and positioned above the Atlantic. Managed by INTELSAT, the satellite was later known as INTELSAT-I, and provided all forms of communication between North America, Britain and Europe.

EARTH STATIONS : (satellites); Ground equipment that is necessary to communicate through a satellite. These can be "receive oply" or "transmit and receive" and will vary in size and cost, depending on application.[6]

EC : Electricity Commision (of New South Wales).

ECC : 1. (telephony); Electronic Call Charging, a sub-system in ARE-11 exchanges to produce the CCR (Call Charge Record) as well as provide software subscribers' meters. The equipment will also collect a wide range of maintenance and statistical data, the latter being used to provide information regarding call patterns and quantities. 2. (switching); Exchange Communications Controller - the central computerised centre serving exchanges in a number of Districts, through which all communications between SPC exchanges and other data banks - eg, NPAC, NSC, TBO's, etc - are connected.[1]

ECHO : (transmission); A wave which has been reflected or otherwise returned with sufficient magnitude and delay for it to be perceptible in some manner as a wave distinct from that directly transmitted.

ECHO CANCELLER : (transmission); An electronic chip that removes echoes occurring in satellite and terrestrial long-distance phone calls of about 3200 km and beyond. Essentially it creates an inverted copy of an echo which then cancels out the real echo when it comes along.[9]

ECHO SUPPRESSOR : (transmission); Equipment installed in exchanges to suppress an echo effect over long distance voice routes. See Echo Canceller.[1]

ECOM : The US Army's Electronic Command.

ECP : (Telecom); Engineering Construction Programme - Telecom's three year programme of capital investment to ensure the efficient planned expansion of the telecommunications network to meet existing and new customer demand for service.[1]

EDAS : (Telecom computers); Exchange Data Acquisition System - computer system permitting on-line access to SPC exchange information and statistics, in particular, allowing automatic meter readings and account preparation.[1]

EDB : (videotex); External Data Base. A data base on a system other than videotex, but accessible through the videotex system by means of a "gateway".[9]

EDC : (Telecom); Equipment Design Co-ordination.[2]

EDG - CCI : (Telecom); Exchange Data Gateway - Call Charge Interface. Enables telephone meter data to be input to the Telephone Accounting System.[14]

EDIT PASSWORD : (videotex); The four-character password, entered by and IP, which allows access to editing the database.[7]

EDITOR : (videotex); An editor on a videotex system is one who updates the database.[7]

EDM : (data transmission); End of Message signal.[2]

EDP : 1. (computers); Electronic Data Processing (see Automatic Data Processing). 2. (Telecom); Engineer Development Programme.[1]

EEC : European Economic Community.

EER : (Telecom computers); Exchange Equipment Register.[2]

EES : (electronics); Electrode Earth System.[2]

EFFECTIVE CAPACITY : (telephony); The actual number of telephone subscribers which could be given service at a particular telephone exchange.[13]

EFS : see Error Free Second

EFT : Electronic Funds Transfer, a method of tranferring monetary credits into or between bank accounts by telecommunications.[9]

EFTA : European Free Trade Association.

EFTPOS : Electronic Funds Transfer at Point Of Sale. A means whereby banks can offer a service to customers which will allow them to pay for goods by having the shop automatically debit their savings account by communicating with the bank's computer over the telecommunications network.[9]

EHACC : Electrical Hazards Action Co-ordination Committee.[2]

EHI : (electronics); Equalised High input Impedance.

EHT : (television); Extra High Tension - refers to the anode voltage of a TV picture tube or cathode ray tube which has to be extraordinarily high to accelerate electrons to the fluorescent screen.[1]

EI : (Telecom); Engineering Instruction. See also TP.[1]

EIN : (packet switching); European Informatics Network, a packet switched data network, operational since 1976, of nine EEC countries.

ELC : (Telecom); Engineering Department Library Committee (HQ).[1]

ELCU : (transmission); Electronic Line Concentrator Unit.[1]

ELCBR : (electronics); Earth Leakage Core Balance Relay Set.[2]

ELDO : (satellites); European Launcher Development Organisation [1]

ELECTROLYSIS : (electronics); A chemical decomposition of certain substances by an electric current passing through them. Usually refers to the corrosion of underground cable sheath from electric earth currents normally caused by electric trains, trams, etc.[1]

ELECTRON : Is defined as the smallest existent quantity of negative electricity. Its opposite is the proton which is the electric charge of equal magnitude but positive sign. In some substances known as electrical conductors (copper is the most common) electrons can be easily detached to produce a flow from atom to atom, hence an electric or electronic current.[1]

ELECTRONIC MAIL : (data transmission); Delivery of messages from sender to receiver in some visual or digital form via electronic means.

ELIXIR : (Telecom computers); Equipment and link utilisation inventory records system.[2]

ELSA : see Extended Local Service Area.[13]

EM : (AXE); Extension Module.[2]

EMA : (switching); Exchange Maintenance Area.[2]

EMB : (AXE); Extension Mode Bus.[2]

EMC : 1. (Telecom); Exchange Maintenance Centre - a trial operations control point for a number of ARE 11 and AXE Exchanges. (Term now obsolete - see OSC, SSC in lieu). 2. (electronics); Electro-Magnetic Compatibility - compatability designed into various electronic and electro-magnetic equipments so that induced interference between them does not occur.[1]

EMF : (electronics); Electro-Motive Force - see Volt.[1]

EMG : (Telecom); Exchange Maintenance Group. A number of electronic (SPC) exchanges grouped for operation and maintenance purposes. There may be a number of EMG's (between 2-5) in each District. See also OSC.[1]

EMI : (electronics); ElectroMagnetic Interference. Term used to denote the induced interference between electrical/electronic equipments where operating and spurious frequencies generated by one can have a harmful effect on others.[1]

EMP : (Telecom); Energy Management Programme.[2]

EMP : ElectroMagnetic Pulse - a powerful, injurious, electrical surge which would be induced into exposed telecommunication equipment if a nuclear explosion occurred high above the earth's surface.[1]

EMU : Equal Marginal Utility.[2]

EMULATE : (computers); To imitate a computer system by a combination of hardware and software that allows programs written for one computer to be run on another (compare with Simulator).

EN : (telephony); Equipment Number.[1]

EN/DN : (telephony); Equipment Number/Directory Number Translation.[1]

ENCODE : (transmission); Conversion of a character into its equivalent combination of bits. Also called encrypt.

ENCODER : (data transmission); A device used to produce a digital representation of an analogue signal.[1]

ENPA : (Telecom); Exchange Network Provisioning Aid.[1]

ENQ : (transmission); Enquiry. Used as a request for response to obtain identification and/or an indication of station status. In binary synchronous communication (BSC), ENQ is transmitted as part of an initialization sequence in point-to-point operation and as the final character of a selection or polling sequence in multipoint operation.

EOA : (data transmission); End of address.

EOM : (telegraphy); End of Message, a control character in the VDU/TRESS system.

EOT : (data transmission); End of transmission. Indicates the end of a transmission, which may include on or more messages, and resets all stations on the line to the control mode.

EPA : Ericsson's Pty. Ltd. (Aust.) - the Australian subsidiary of LM Ericsson (Sweden).[1]

EPOA : External Plant Officer's Association. Telecom Australia employs about 600 members of this association.

EPODIS : (Telecom computers); External Plant Operations District Information System - a management information computer system.[1]

EPROM : (computers and electronics); Erasable and Programmable Read Only Memory. A PROM that can be erased and reused indefinitely. Most EPROMs are erased under ultraviolet light and can be recognised by the clear cover over the silicon chip.

EPSS : (packet switching); Experimental Packet Switched Service (United Kingdom).

EPWAS : (Telecom); External Plant Work Assessment Scheme - a system developed to assist in the assessment of work performance and productivity in the External Plant area.[1]

EQUALISATION : (transmission); The process of correcting a channel for its transmission deficiencies.

EQUATORIAL ORBIT : (satellites); A satellite orbit whose plane coincides with that of the equator of the primary body.

EQUIP : (abbr.); Equipment.[3]

EQUIPPED ENDS : (switching); Refers to switching plant fully prepared for the connection of telephone subscribers or traffic carrying circuits.[13]

ERF : (Telecom); Exchange Reference File. A computerised collection of information (about 250 headings eg, capacity, type of exchange, facilities, etc) for all telephone exchanges in Australia.[1]

ERF : (Telecom); Exchange Reference File.[2]

ERICOFON : (Telecom); The telephone with upright handset position and dial in the base.[1]

ERL : (traffic management); Erlang.

ERL : (transmission); Echo Return Loss.[1]

ERLANG : (traffic management); The unit of telephone traffic intensity. The numer of erlangs of traffic is the number of calls in progress in a given group of circuits (at a given point in time).[1]

ERLANGHOUR : (traffic management); Unit of traffic volume; 1 erlanghour is equal to the mean traffic intensity of 1 erlang maintained for 1 hour. = 10 Erlangs maintained for 6 minutes = 2 Erlangs maintained for 1/2 hour, etc.[1]

EROS : (fibre optics); Emitter-receiver for optical systems. Diode that can serve either as a transmitting LED source or as a receiving photodiode.

ERP : (radio); Effective Radiated Power (of a broadcast transmitter).[1]

ERP : (traffic management); Exchange Reference Point.[2]

ERROR FREE SECOND : (data transmission); A transmission time interval of one second in which no data bit error is present.

ERROR SECOND : (data transmission); A transmission time interval of one second in which there is one or more bit errors. An event of 10 or more consecutive error seconds is referred to as an error second outage (ESO), or simply outage.

ES : 1. (satellites); Earth Station. 2. Edison Screw - refers to a standard screw lamp base and socket. Sizes range from the pea lamp to large flood lamps.[1] 3. (traffic management); see Error Second.

ESAA : Electricity Supply Association of Australia.[1]

ESC : (Telecom); Exchange Service Centre - a trial form of control point for a number of SPC exchanges (term now obsolete - see OSC, SSC in lieu).[1]

ESD : Electro-Static Discharge phenomena - causes damage to integrated circuits.[1]

ESLO : (Telecom); Emergency Service Liaison Officer.[2]

ESM : (Telecom); Engineering Section Manager.[1]

ESO : (data transmission); Error Second Outage. see Error Second

ESTABLISHMENT : (Telecom); The numbers and grades and classes of positions required to perform the function stipulated for an organisation or part of an organisation.[1]

ESUPC : Electricity Safe Use Policy Committee.[2]

ETB : (switching); Exchange Terminal Board.[2]

ETC : (AXE); Exchange Terminal Circuit - PCM/GSS (transmission switching) circuit interface equipment in AXE exchanges (see also Appendix 10 at rear).[1]

ETES : (satellites); Emergency Telecommunications Earth Station. Now known as Customer Earth Station or CES.[1]

ETHERNET : (data transmission); A baseband Local Area Network system developed by Xerox, in conjunction with Intel and Digital Equipment.

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ETHERNET : (data transmission); A baseband Local Area Network system developed by Xerox, in conjunction with Intel and Digital Equipment.

ETP : (telephony); Enhanced Telephone Pairs.[4]

ETS : 1. (switching); Electronic Tandem Switching. 2. (traffic management); see Exchange Traffic Simulator

ETX : (data transmission); End of text. Indicates the end of text. If multiple transmission blocks are contained in a message in BSC, ETX terminates the last block of the message. The block check character is sent immediately following ETX. ETX requires a reply indicating the receiving station's status.

EURONET : (packet switching); A public packet switched data network, operational since 1978, of nine EEC countries.

EUROPEAN ELECTRICAL STANDARDS CO-ORDINATION COMMITTEE : Formed in the late 1960's and comprising countries from the EEC and EFTA.

EUTELSAT : (satellites); European Telecommunications Satellite Organization.

EXA : SI prefix for 1 000 000 000 000 000 000 (10^{18}). Abbreviated as E. Rarely used because of its magnitude. For example, the age of the universe (some 15 billion years) is only about 0.5 exasecond.[9]

EXCH : (abbr.); Exchange.[3]

EXCHANGE : (switching); A place where various types of communication lines are switched together at the command of the telecommunications user. See Appendix 3 and Appendix 6.[1]

EXCHANGE BOUNDARY : (telephony); The perimeter of an area to be served by a particular telephone exchange.[13]

EXCHANGE TRAFFIC SIMULATOR : (traffic management); Used to acceptance test new telephone exchanges and extensions, it generates calls randomly in a way similar to live traffic, and prints out details of failed calls as they occur.

EXDATA : (Telecom computers); A computer support aid in the determination of essential site-related installation engineering configuration information (eg. cabling details, equipment allocation, etc) for each individual AXE exchange being constructed. See also TRAFDATA.[1]

EXECUTE TIME : (computers); The time required to interpret a machine instruction and perform the indicated operation on the operand. Critical for evaluation purpose.

EXECUTION : (computers); The performance of a specific operation such as would be accomplished through processing one instruction, a series of instructions, or a complete program.

EXPANDOR : (electronics); A transducer which for a given amplitude range or input voltages produces a larger range of output voltages.

EXT : (abbr.); Extension.[2]

EXTENDED LOCAL SERVICE AREA : (telephony); The area within which telephone calls are local calls. "Extended" relates to the enlargement of local call areas in 1960.[13]

EXTENSION : (telephony); 1. A telephone instrument which is not directly connected to a telephone exchange service but may be interconnected through a switchboard to an exchange.[13] 2. A circuit which connects one or more stations to a PBX or intercom system through which calls can be switched either to the switched network or to other extensions connected to that PBX or intercom. See also Indoor Extension, Outdoor Extension.[1]

EXTERNAL PLANT : (Telecom); Applied to outdoor Line Plant. External plant commences on the line side of the exchange Main Distribution Frame and continues to the final termination point in a subscriber's premises. It also includes inter-exchange junction line plant. Such plant is installed and maintained by Lines staff.[1]

EXTN : (abbr.); Extension.[3]

F

f : (abbr.); see Femto.

FAC : (abbr.); Facility.[3]

FACS : (Telecom computers); Frame and Cable System. A computer system for recording allocation of cable pairs and terminating frame usage.[1]

FACSIMILE : A system for the transmission of images. The image is scanned at the transmitter, reconstructed at the receiver, and duplicated on some form of paper.

FADING : (radio); The fluctuating in intensity of any or all components of a received radio signal due to changes in the characteristics of the propagation path.

FADS : (traffic management); Force Administration Data System.[2]

FAMIS : (Telecom computers); Finance and Accounting Management Information System.[2]

FARAD : (electronics); The unit of electrical capacitance. It is too large to be practical and Microfarad - (F) - a millionth of a farad, and Micro-Microfarad - uuF (or picofarad - pF) - a millionth of a Microfarad are the common units.[1]

FASS : (Telecom); Fault Analysis for Special Services. A computerised system for the analysis of fault dockets associated with special services - eg, telex, data, leased, private wire, telegraphs, etc.[1]

FAX : see Facsimile.[4]

FB : (switching); Foreign Battery.[2]

FCC : Federal Communications Commission (of the United States). A board of seven commissioners, appointed by the President under the Communication Act of 1934, having the power to regulate all interstate and foreign electrical communication systems originated in the United States.

FDC : (Telecom); Fault Despatch Centre. A centralised point at which faults reported by service users, are co-ordinated and actioned. Part of the LEOPARD system.[1]

FDM : (transmission); Frequency-Division Multiplex. An analogue carrier equipment feature. see Carrier, Multiplex.[1]

FDMA : (transmission); Frequency-Division Multiple Access. A type of satellite operation.

FDR : (switching); Bothway Line Relay Set.[2]

FDX : (data transmission); Full-duplex.

FEEDBACK : 1. See AVC. 2. (acoustics); A distortion or howl in amplification equipment caused by the input source being too close to the output, ie, microphones too close to speakers.[1] 3. (data transmission); The signal or data feed back to the PC from a controlled machine or process to denote its response to the command signal.

FEMTO : SI prefix for 0.000 000 000 000 001 (10^{-15}). Abbreviated as f.

FEMTOSECOND LASERS : (fibre optics); Lasers which turn on and off in as little as 30 femtoseconds have been developed by AT&T Bell Laboratories, and may be the basis of lightwave communications systems with millions of times the capacity of today's systems.[9]

FEP : see Front End Processor.

FESM : (Telecom); Field Engineering Section Manager.[1]

FET : (electronics); Field-effect transistor. A transistor whose internal operation is unipolar in nature and widely used in integrated circuits due to small geometrics, low power dissipation, ease of manufacture, and low cost.

FEXT : (transmission); Far End Crosstalk.[1]

FIFO : (computers); First In First Out.

FIFO BUFFER OR SHIFT REGISTER : (computers); A shift register with an additional control section that permits input data to "fall through" to the first vacant stage so the if there are any data contained, they are available at the output even though all the stages are not filled. In effect, it is a variable-length shift register whose length is always the same as the data stored therein.

FILIAL PAGE : (videotex); A page numerically descendent from another page; thus page 1234 is a filial of page 123. See also Parent Page.

FILLED CABLE : (cables); A plastic-insulated cable in which the normal air voids of the cable core are filled with a jellified waterproof compound to restrict the flow of water along the cable, thus preventing the spread of water-induced faults.[1]

FILTER, BANDPASS : (transmission); A wave filter that blocks all frequencies outside a designated band-width but does not inhibit those frequencies within the bandwidth.

FINAL CHOICE ROUTE : (switching); A final choice route is the last choice traffic route from a switching stage in an alternative routing system and can form part of a backbone route.[1]

FIR : (switching); Incoming Relay Set.[2]

FIRMWARE : (computers); A program placed into ROM.

FITES : (telephony); Forward Interworking Telephony Events.[1]

FIXED SATELLITE SERVICE MODE : (satellites); The satellite provides a two-way link between two defined fixed points. This mode can be used as an alternative to conventional terrestrial microwave or coaxial cable systems.[6]

FLAGS : (computers); 1. Any of various types of indicators used for identification. 2. A character that signals the occurance of some condition, such as the end of a word.

FLIP-FLOP : (electronics); A circuit which remains in either of two conditions. They are particularly useful for counting.[1]

FLIP-PHONE : (Telecom); A handy touch-pad telephone available for purchase from Telecom Australia. It folds down into a compact shape, then flips open for use.[9]

FLOWCHART : (computers); A graphical representation for the definition, analysis, or solution of a problem. Symbols are used to represent a process or sequence of decisions and events.

FLOWMETER : See Gas Pressure Alarms.[1]

FLT : (abbr.); Fault.[3]

FM : Frequency Modulation. See Modulation.[1]

FNB : (fault despatch); Faint Bell.[2]

FNN : (LEOPARD); Full National Number.[2]

FNR : (fault despatch); Faint Reception.[2]

FNT : (fault despatch); Faint Transmission.[2]

FOC : (Telecom); Field Operations Centre.[2]

FOI : Freedom of Information Act, which gives the public the right to obtain information from Government and semi-Government bodies, including Telecom Australia.[9]

FOK : (fault despatch); Found OK - reported fault not confirmed when checked.[1]

FOOTPRINT : (satellites); The area on the Earth covered by the satellite's transmitting antennas.[9]

FORTRAN : (computers); FORmula TRANslator. A language used to process mathematical formulae and computations.[1]

FORWARD CHANNEL : (data transmission); A channel in which the direction of transmission coincides with that in which information is being transferred.

FOTS : (fibre optics); Fibre Optics Transmission Systems.[4]

FRAME : 1. (transmission); A set of consecutive time slots in which the position of each digit time slot can be identified by reference to a frame-alignment signal. 2. (videotex); A screenful of information, standardised in videotex as 24 rows of 40 character positions. A number of frames may form a page, in which case they would each be identified by a sequential lower case alphabetic character. Only the "a" frame of a page may be directly accessed.[7]

FRAME ALIGNMENT : (transmission); The state in which the frame of the receiving equipment is correctly phased with respect to that of the received signal.

FRAME ID : (videotex); The letter identifying a frame within a page.[7]

FRAME, DISTRIBUTION : see Distribution Frame.

FREE CHOICE : (videotex); Routing from a page that does not follow strict filial lines, eg a route from page 20 that goes to page 33 on choice 1, rather than the strict filial 201. See Strict Choice.

FREQUENCY : (radio); The commonly used bands are medium (MF), high (HF), very high (VHF), ultra high (UHF) and super high frequency (SHF).[13] See Appendix 4.[1]

FREQUENCY DIVISION MULTIPLEX : (transmission); A mutiplex system in which the available frequency range is divided into narrower frequency bands, each used for a separate channel.[13]

FRIAR : (fault despatch); Fault Recording Indicator for Automatic Routiners.[2]

FRONT END PROCESSOR : (computers); A communications computer associated with a host computer. It may perform line control, message handling, code conversion, error control, and applications functions such as control and operation of special-purpose terminals.

FS : (switching); Final Selector.[2]

FSK : (transmission); Frequency Shift Keying.[4]

FTR : 1. (fault despatch); Faint Transmission. 2. Fleeting Test Reversal[2]

FTZ : Fernmeldetechnisches Zentralamt (the telecommunications arm of the West German PTT).[1]

FULL DUPLEX : (data transmission); Transmission in both directions simultaneously.[7]

FUNCTN : (abbr.); Function(al).[3]

FUR : (switching); Outgoing relay set.[2]

FYEOP : (Telecom); Five Year Engineering Operations Plan.[4]

FYER : (Telecom); Five Year Engineering Requirements.[2]

G

G : (abbr.); see Giga.

G/T : (satellites); A measure of satellite Earth Station receiving performance related to the effective collecting area of the antenna and the intrinsic noise of the Earth Station receiving equipment.[1]

GAAS : see Gallium Arsenide.[9]

GALLIUM ARSENIDE : A compound semiconductor material used in electronic devices such as lasers and light-emitting diodes.[9]

GAS PRESSURE ALARM (GPA) : (cables); A device for indicating failure of pressure usually due to a fault, in pressurised underground cables. See also CPA and APCAMS.[1]

GATE : (electronics); 1. A device having one output channel and one or more input channels such that the output-channel state is completely determined by the input-channel states, except during switching transients. 2. A combinational logic element having at least one input channel.

GATEWAY : (videotex); An interface which allows access to external data bases via the videotex system.[9]

GATEWAY EXCHANGE : (telephony); The OTC international call switching centre in Sydney (ie, the 'gateway') for all calls into and out of Australia.[1]

GBH : (traffic management); Group Busy Hour.[2]

GDR : (Telecom computers); General Data Register.[2]

GEOSTATIONARY SATELLITE : A satellite in a stationary orbit (q.v.) having the earth as its primary body.

GEOSYNCHRONOUS SATELLITE : A satellite that travels around the earth in exactly the earth's rotation time. See Synchronous Orbit.

GI : (fibre optics); see Graded Index Fibre.

GIGA : SI prefix denoting 1 000 000 000 (10^9). Abbreviated as G.

GIGABYTE : (computers); One thousand million bytes or characters. Equivalent to about 160 million English words, or the length of about 1,600 novels.[9]

GIGO : (computers); "Garbage In, Garbage Out". An aphorism indicating that no computer program can produce valid results if it is supplied with vague or incorrect information.[9]

GIV : (switching); Incoming Group Selector Stage.[2]

GLOBAL KEYWORD : (videotex); A keyword that can be used from anywhere in a database to search for particular information. See also Nodal Keyword.

GOLDPHONE : (telephony); Also known as CT4. A replacement for the former Redphone coin telephone.[1] It offers full STD and ISD facilities, and has a LCD display of the amount of credit remaining. It will also give change on remaining credit.[9]

GOS : (Telecom); Grade of Service.[2]

GP : (switching); Group.[2]

GRADED INDEX FIBRE : (fibre optics); A fibre whose index of refraction decreases radially from the centre of the core; offers wideband capability with moderate coupling efficiency.

GRAPHNET : (packet switching); An American public packet switched network.

GRC : (cables); Glass Reinforced Cement - material being evaluated for possible use for in-ground cable jointing pits.[1]

GRID : (electronics); In an electron tube, an element between the cathode and anode. The name stems from the mesh-like construction adopted.[1]

GROUND : (electronics); A conducting path, intentional or accidental, between an electric circuit or equipment and the earth or some large conducting body serving in place of the earth (a voltage reference).

GROUP : (transmission); An internationally agreed type of assembly of 12 voice telephone channels used in analogue transmission systems. See also Supergroup, Carrier.[1]

GROUP CHARGING : (telephony); A system whereby telephone exchanges are grouped into zones and zones are grouped into districts for call charging purposes.[13]

GROUP MODEM : (transmission); A device for shifting a group of 12 speech channels from one position in the frequency spectrum to another.[13]

GRP : (abbr.); Group.[3]

GS : (AXE); Group Switching or Group Selector.[2] see Appendix 10.

GSN : (AXE); Group Switching Network.[2] see Appendix 10.

GSS : (AXE); Group Switching Subsystem.[2] see Appendix 10.

GSS-D : (switching); Group Selector (or Switching) Stage (Digital) of an electronic exchange, particularly AXE.[1] see Appendix 10.

GTE : General Telephone and Electric Company (USA).[1]

GUV : (switching); Outgoing Group Selector Stage.[2]

GV : (switching); Group Selector Stage in ARF/ARE/ARM exchanges.[1]

GVC : (switching); Group Selector (third stage).[2]

GVM : (switching); Group Selector Marker.[2]

GVP : (switching); Group Selector, Provincial.[2]

H

h : (abbr.); see Hecto.

H/U : (abbr.); High Usage.[2]

HACBSS : (satellites); Homestead And Community Broadcasting Satellite Service. Direct broadcasting via satellite to small ground stations at remote properties and communities around Australia.[1]

HALF DUPLEX : (data transmission); Transmission in both directions, but not at the same time.[7]

HANDSHAKING : (data transmission); Exchange of predetermined signals when a connection is established between two data-set devices.

HARD COPY : (videotex); A printed record of information.[7]

HARD-WIRED : (electronics); Interconnected by electric wiring.

HARDWARE : (computers); The physical equipment or devices forming a computer and peripheral equipment.[1]

HASH : (videotex); A standard videotex keypad character #, preferred name "Square".[7]

HC & F : (telephony); Heat coil and fuse. A protector device used in telephony.[1]

HCC-11 : (telephony); A telephone handset, jointly designed by Telecom and STC Pty Ltd, and fitted to CT3(I)s.

HCMTS : (telephony); High Velocity Mobile Telephone Systems.[2]

HCR : (traffic management); High Calling Rate.[1]

HDC : (cables); Hard Drawn Copper.[2]

HDLC : (data transmission); High-level data-link control. ISO version of bit-oriented data-link control. Functionally identical to ASCCP.

HDPE : High density polyethylene.

HDX : (data transmission); Half-duplex.

HEADER : (data transmission); The control information prefixed in a message text, e.g., source or destination code, priority or message type. Also called heading or leader.

HECTO : SI prefix for 100 (10^2). Abbreviated as h. Rarely used, except in hectare.

HERTZ (HZ) : The SI unit for measuring frequency of alternating current or transmissions (= 1 cycle per second - see CPS).[1]

HEXADECIMAL NUMBER SYSTEM : (computers); The number system with the base of 16. In hexadecimal notation the first ten values are represented by the digits 0 through 9 and the last six by the letters A through F. Each hex number represents a 4-bit binary number.

HF : High Frequency. See Frequency.[1]

HICAP : (abbr.); High Capacity.[1]

HIT, LINE : (transmission); An electric interference of very short duration causing the introduction of unwanted signals on a circuit. Also called a spike.

HJ : (fibre optics); Heterojunction laser.

HOD : (electronics); High Ohmic Distribution.[2]

HOLDING TIME : (transmission); The length of time a communication channel is in use for each transmission. Includes both message time and operating time.

HP : 1. High Pressure. 2. (transmission); High Pass - when applied to a filter usually used with carrier equipment, the HP applies to a particular frequency of signals above which the filter allows signals to pass but rejects all below. 3. Horsepower.[1]

HTES : (satellites); Homestead Telecommunications Earth Station. Now known as Customer Earth Station (CES).[1]

HUE : (television); The characteristics of a source of transmitted or reflected light which determine whether it is seen as red, green, blue or any combination of these three. The correct term for what is normally referred to as "colour".[12]

HWA : (cables); Heavy Wire Armoured.[1]

HYBRID CIRCUIT : (electronics); Any circuit made using a combination of the following component manufacturing technologies; monolithic IC, thin-film, and discrete-component.

I

I/C : (telephony); In-coming Circuit.[1]

I/D : (abbr.); Indialling.[2]

I/H : (abbr.); In Hand.[2]

I/O : (computers); Input/Output.

IC : (electronics); see Integrated Circuit.

ICD : (electronics); Integrated Circuit Device - sub-miniaturised electronic circuit on a single 'chip' of substrate.[1]

ICM : (traffic management); Individual Circuit Monitor - a device that, when attached to individual ingoing or outgoing exchange circuits, provides data on traffic handling, and exchange performance.[1]

ICN : (electronics); Input Capacitance Neutralised preamp detector.

ICONOSCOPE : (television); A television camera phototube having a photo-active mosaic element which is capable of electrical storage, is activated by the viewing scene, and discharged by being regularly scanned by a high-velocity electron beam.[12]

ICUP : (traffic management); Individual Circuit Usage and Peg-Count.[1]

ID : (abbr.); Identification.[3]

IDF : see Intermediate Distributing Frame.

IDN : Integrated Digital Network - a telecommunication network in which both switching and transmission methods are in digital form.[1]

IEC : see International Electrotechnical Commission

IEC/Q : International Electrotechnical Commission Quality Assessment System for Electronic Components.

IEOS : Integrated Electronic Office Systems.[4]

IF : (transmission); Intermediate Frequency.

IFRB : International Frequency Regulation Board - an international body (organ of the ITU) which manages the allocation of radio frequencies throughout the world.[1]

IFU : (data transmission); Interface Unit.[2]

IGX : see International Gateway Exchange.[4]

ILD : (fibre optics); Injection laser diode.

IM : (fibre optics); Intensity Modulation.

IME : International Manual Exchange.[1]

IMPEDANCE : (electronics); The apparent resistance of a circuit to the flow of alternating current. It is the vector sum of the resistance and reactance which can be expressed in ohms at an angle.[1]

IMPULSE NOISE : (transmission); A noise characterized by nonoverlapping transient disturbances.

IND : (abbr.); 1. Indeterminate.[2] 2. Indicator.[3]

INDEX OF REFRACTION : (fibre optics); The ratio of the velocity of light in a vacuum to the velocity of light in a specified medium. Also known as refractive index.

INDEX PAGE : (videotex); A frame used to route the user towards the information.[7]

INDOOR EXTENSION : (telephony); An extension located on the same premises as the main answering or switching point without requiring a different point of entry.[1]

INDUCTION : (electronics); That condition where a change in current in one circuit causes an equivalent change in an adjacent one because of magnetic coupling.[1]

INFORMATION PROVIDER : (videotex); A user who supplies and maintains a section of information on the database.[7] This term is now being replaced in Australian use by the term "Service Provider".[9]

INFOSWITCH : (packet switching); A Canadian public packet and circuit switched hybrid data network, operational since 1978.

INFRARED : (fibre optics); The electromagnetic-wavelength region between approximately 0.75 and 1000 um. For fibre-optic transmission the near-infrared region between 0.75 and 1.3 um is the most relevant because glass, light sources, and detector techniques are most nearly matched in this wavelength region.

INITIALISE : (computers); The procedure for setting various parts of a stored program to starting values so that the program will behave the same way each time it is repeated.

INJECTION LASER DIODE : (fibre optics); A semiconductor device in which lasing takes place within the pn junction. Light is emitted from the diode edge.

INS : (satellites); Telecom's Iterra Network Service. See Iterra.[9]

INSTLN : (abbr.); Installation.[3]

INSULATOR : (electronics); A substance in which all the electrons are so firmly fixed in the atomic structure that they cannot be induced to move freely from atom to atom and so set up an electrical current. See also Conductor and Semi-conductor.[1]

INT : (abbr.); International.

INTEGRATED CIRCUIT : (electronics); Micro-miniature circuits, formed by diffusion processes in semi-conductor materials, which look like chips of extremely small size and yet with suitable external connections can comprise significant circuit elements. Development of these techniques was accelerated by space technology.[1]

INTEGRATED DIGITAL NETWORK : (data transmission); A network in which connections established by digital switching are used for the transmission of digital signals.

INTEGRATED SERVICES DIGITAL NETWORK : The planned hierarchy of digital switching and transmission methods towards which our present telecommunications network is moving. In such a network, the system would be synchronised so that all digital elements speak the same "language" at the same speed. The ISDN would provide voice, data and video transmission in a unified manner.[9]

INTEGRATED WORK STATION : (Telecom); A desk-top unit which combines telephone and data terminal.

INTELLIGENT TERMINAL : (computers); Generally, a terminal that provides the user with a cetain amount of computer processing locally rather than remotely. This requires memory and logic capability. For example, an intelligent CRT terminal features insertion or deletion of lines and individual characters to occur in the remote terminal. Also called a Smart Terminal.

INTELSAT : The International Telecommunications Satellite Consortium, of which Australia was a foundation member. The consortium formed in August 1964, which through an intergovernmental agreement and an operating agreement established the interim arrangements for the initial global commercial communications satellite system.

INTELSAT-I : see Early Bird.

INTELSAT-II THROUGH V : (satellites); Series of communication satellites, launched by INTELSAT, beginning in October 1966. Each series consisted of a trio of satellites positioned above the Pacific and Atlantic Oceans.

INTERACTIVE SYSTEM : (computers); A system in which it is possible for the human user or the device serviced by the computer to communicate directly with the operating program. For human users, this arrangement is termed a conversational system. The opposite is a non-interactive system.

INTERACTIVE VIDEOTEX : (videotex); The generic name for videotex systems employing two-way communication. The user is able to communicate with the system to specify his requirements. Most systems at present are using the public telephone network.[11]

INTERFACE : (computers); A common boundary between automatic data processing systems or parts of a single system. In communications and data systems, may involve code, format, speed or other changes as required.

INTERFACE : The point at which two pieces of equipment are inter-connected.[1]

INTERLEAVE : 1. (data transmission); To send blocks of data alternately to two or more stations on a multipoint system. 2. (data transmission); To put bits or characters alternatively into the time slots in a TDM. 3. (computers); To insert segments of one program into another program so that they can be executed simultaneously.

INTERMEDIATE DISTRIBUTING FRAME : (switching); Supplementary to a Main Distributing Frame in an exchange or large office building for termination and cross-connection of wires and cables between switching and terminal equipment.

INTERNAL CABLE : (cables); Used in exchanges to connect the MDF to the switching or transmission equipment, and to connect between racks of equipment. It is also used to cable customers' premises for switchboards, telephones and other services (see also External cable). Most internal cables have copper conductors, PVC insulation and a PVC sheath, although smaller quantities of several specialised types are used.

INTERNAL PLANT : (Telecom); Used to describe all telecommunications equipment housed in buildings. The repeaters on some broadband bearer routes are actually housed in a type of manhole, but they are still regarded as internal plant items.[1]

INTERNAT : (abbr.); International.[3]

INTERNATIONAL ELECTROTECHNICAL COMMISSION : Formed in 1906 with the task of co-ordinating and unifying electrotechnical standards, which at that time existed only in a variety of national forms. Today it has more than 70 Technical Committees, creating specifications dealing with a very wide range of electrotechnical equipment, materials and components, as well as safety aspects, specialised test methods, terms and definitions. Affiliated with the International Organisation for Standardisation, its headquarters, too, are in Geneva (Switzerland), with some 40 member countries, including Australia.

INTERNATIONAL GATEWAY EXCHANGE : (OTC); Located at Paddington, NSW for national - international interworking.[1]

INTERNATIONAL ORGANISATION FOR STANDARDISATION : A major international standardisation body, with headquarters in Geneva (Switzerland), dealing with all products of a non-electrical nature. There are some 70 member countries.

INTERNATIONAL SUBSCRIBER DIALLING : (telephony); A service whereby the customer can dial direct to originate an international call without the assistance of an international operator.[1]

INTERNATIONAL TELEPHONE CIRCUIT : (OTC); Circuits which are connected directly to OTC (radio, switching centres or carrier equipment) for transmission overseas and to ships at sea.[1]

INTERPLEX : (OTC); International Private Line Exchange.[4]

INTERPRETER : (computers); A program which converts another program written in a high-level language (the source code) into machine instructions (the object code). It does this one line at a time, each time the line must be executed. Compare with Compiler.[9]

INTERV : (abbr.); Interval.[3]

INWATS : (telephony); Inward Wide Area Telephone Service - a service which a company can provide to customers so that they may trunk call for one local call fee from any location in a special trunk switching area - eg. a state or nationally. Now referred to as the 008 Service.[1]

IOG : (switching); Similar to IOT facility, but for AXE exchanges.[1]

IOS : (AXE); Input/Ouput Subsystem in APZ 210.[2]

IOSS : (telephony); Integrated Office Switching Systems - which offer both voice and data communications and complement the existing range of PABXs.[9]

IOT : (switching); Input/Output Transfer, a sub-system in ARE-11 exchanges to provide an input/output function for normal man-machine communication, and to provide the means to interwork with a data link. This link is used to transmit call charging and subscribers' metering data to selected locations as part of the STD/CCR facility.

IP : (videotex); see Information Provider.[7]

IP TERMINAL : (videotex); Generally a device by which an IP is able to enter and amend frames on his database. The simplest type of IP Terminal is a videotex receiver connected to an alphanumeric keyboard.[7]

IPC : (AXE); Interprocessor Connection.[2]

IPM : (Telecom); Internal Plant Manager.[2]

IPS : Integrated Power Suite.

IPSS : (packet switching); International Packet Switching System.[4]

IPWAS : (Telecom); Internal Plant Work Assessment Scheme - a system developed for the assessment of work performance and productivity in the Internal Plant area.[1]

IR : (fibre optics); InfraRed.

IRC : (videotex); see Retrieval Centre.[7]

IS : International Standard.

ISAP : (Telecom); Information System Activities Programme.[2]

ISC : (Telecom); Interception Service Centre.[1]

ISD : 1. (telephony); see International Subscriber Dialling. 2. (Telecom) Information Systems Department.

ISD-AMA : (telephony); International Subscriber Dialling, Automatic Message Accounting.

ISDN : see Integrated Services Digital Network.

ISEP : International Standard Equipment Practice [1]

ISF : (electronics); Improved Shunt Feedback.

ISO : see International Organisation for Standardisation

ISOCHRONOUS : (transmission); A signal is isochronous if the time interval separating any two significant instants is theoretically equal to the unit interval or to a multiple of the unit interval.

ISOCHRONOUS DISTORTION : (transmission); For synchronous signaling, the ratio of the unit interval to the maximum measured difference between the actual and theoretical significant instants. The isochronous distortion is then the peak-to-peak phase jitter of the data signal expressed as a percentage of the unit interval.

ISOCHRONOUS TRANSMISSION : (transmission); Is a combination of both synchronous and asynchronous transmission. The data are clocked by a common timing base, and bytes are also framed with start-stop bits.

ISOLATED TERMINAL POLE DISTRIBUTION SYSTEM : (telephony); A system in which underground or aerial cables are provided on one side of the street and are looped through untailed cable boxes mounted on the terminal poles.[13]

ISS : 1. (abbr.); Issue.[2] 2. (satellites) Telecom's Iterra Satellite Service. see Iterra.[9]

IST : (switching and transmission); Integrated Switching and Transmission system (same as IDN).[1]

ISX : (US telephony); Integrated Digital PABX.[4]

IT : (AXE); Incoming Trunk.[2]

ITB : (data transmission); Intermediate text block. In binary synchronous communications, a control character used to terminate an intermediate block of characters. The block-check character is sent immediately following the ITB, but no line turnaround occurs. The response following ETB or ETX also applies to all the ITB checks immediately preceding the block terminated by ETB or ETX.

ITC : 1. International Teletraffic Congress. 2. Incoming Termination Circuit in AXE exchange.[1]

ITDS : International Traffic Dispersion Study.[1]

ITERRA : (Telecom); Overall name for services provided by Telecom via the Australian Domestic Satellite. The word comes from the Aboriginal for "be quick". The first such service to be introduced is the Iterra Network Service (INS), which is a telecommunications service provided to remote areas. Provides full PABX, STD, ISD, Telex and Data access facilities. Somewhat later will be the Iterra Satellite Service (ISS), which will provide a serices of special services expoiting the capabilities of the satellite.[9]

ITJ : (AXE); Incoming Trunk Junctor.[2]

ITP : see Isolated Terminal Pole Distribution System.[13]

ITT : International Telephone and Telegraph Corporation (USA).[1]

ITU : International Telecommunication Union - United Nations body which controls matters of international telecommunication concern, eg, charges, long term network development, etc. The CCIR, CCITT and IFRB are organs of this body.[1]

IWS : see Integrated Work Station.

J

JACK : (telephony); A spring-connector socket in which two or more contacts are made by an inserted plug. Three contacts are often used in manual telephone equipment, ie tip, ring and sleeve, which connect to corresponding parts of the plug. A similar, commonly used device is that for connecting stereo headphones to domestic sound equipment.[1]

JELLY-FILLED : See 'Filled Cable'.[1]

JH : (switching); Junction Hunter.[2]

JITTER : (data transmission); Short-term variations of the significant instants of a digital signal from their ideal position in time.

JOBCOST : (Telecom computers); Job Costing system for Workshops.[2]

JOINT : (cables); A union of two conductors is called a 'joint'. However, the term is most commonly used to describe the process of joining two lengths of cable when it then embraces the individual conductor joints and the connection of the cable sheath.[1]

JOINT USE CONSTRUCTION : (Telecom); Applies to agreements between Power Authorities and Telecom for the joint accommodation of telephone wires and power wires either aerially, or underground in common trenches.[1]

JS : (switching); Junction Schedule.[2]

JT : (switching); Junction Traffic.[2]

JTC : (AXE); Junctor Circuit.[2]

JUMPER : (telephony); Cross-connecting wires used to link any incoming circuit to any outgoing one (or vice versa). Used on Distributing Frames (MDF, IDF) Distributing Blocks, Cabinets and Pillars for example.[1]

JUNCTION LINE : (telephony); Is a line or cable connecting two or more telephone exchanges in the same charging zone or in adjacent zones. See also Trunk Line.[1]

K

K : (computers); A shorthand notation meaning 1024 bits, bytes, or words of digital data. A 64K memory, for example, contains 65,536 bits.

k : (abbr.); see Kilo.

KAN : (switching); Category Analyser.[2]

KDD : Kokusai Deushin Denwa Co. (Japan's International Telecommunications Service).[1]

KEYBOARD : (videotex); A desk-top device having a number of keys based roughly on the standard typewriter layout and additional keys for special character and control functions.[7]

KEYPAD : (videotex); Usually, a hand-held device having a limited number of keys such as the digits 0-9 and * and #. Used to communicate with a videotex terminal. More advanced keypads might include alphabetical keys.[7]

KILO : SI prefix denoting 1 000 (10^3). Abbreviated as k.

KM : (switching); Code Receiver.[2]

KMR : (switching); MFC Code Receiver.[2]

KR : (AXE); Key-set Code Reception.[2]

KRD : (AXE); Key-set Code Receiver.[2]

KS : (switching); Code Sender.[2]

KSR : (switching); Code Sender Relay.[2]

KWOC : (Telecom computers); Key Words Out of Context.[2]

L

L & HP : (transmission); Low and High Pass. A combination of filters which separates a signal into two parts, the separation occurring at a specified frequency.[1]

LADT : see Local Area Data Transport.[5]

LAE : (switching); Automatic Terminal Exchange. See Terminal Exchange.[1]

LAMA : (telephony); Local Automatic Message Accounting. See CCR.[1]

LAMBERTIAN EMITTER : (fibre optics); An optical source which has a radiance distribution that is uniform in all directions of observation.

LAN : see Local Area Network.[9]

LANGUAGE : A set of symbols and rules for representing and communicating information (data) among people or between people and machines.

LAPB : (packet switching); Link-access procedure, balanced. Point-to-point subset of HDLC for packet switching.

LASER : (fibre optics); Light Amplification by Stimulated Emission of Radiation. A source of coherent intense light in a finely focused beam with an application as a broadband bearer for carrier systems, using optical fibres as the bearer.[1] See also Maser.

LAT : (abbr.); Latitude.[3]

LC : 1. (cables); Lead Covered.[1] 2. (switching); Last Choice Route.[2]

LCD : (electronics); Liquid Crystal Display.[4]

LCT : (AXE); Line and Circuit Test.[2]

LCU : (transmission); Line Concentrator Unit.[2]

LDR : 1. (electronics); Light Dependent Resistor. 2. Long Distance Base.[2] 3. Local Distribution Radio.

LEA : Local (Terminal) Exchange Area.[1]

LEASED COIN ATTACHMENT : (telephony); A coin operated telephone leased by Telecom to customers.[13]

LED : (electronics); Light-Emitting Diode. A solid-state light source that emits visible light or invisible infrared radiation.

LEN : (abbr.); Length.[3]

LEOPARD : (Telecom); Local Engineering Operations Processing and Analysis of Recorded Data. An on-line, computer-based system which supports day to day operations associated with the telephone repair service provided to customers.[1]

LF : (radio); Low frequency. Radio frequencies between 30 kHz and 300 kHz - see Frequency.[1]

LH : Left Hand.[1]

LI : (AXE); Subscriber Line.[2]

LIBFA : (transmission); Line Bearer Fault Analysis.[1]

LIC : (AXE); Subscriber Line Circuit.[2]

LID : (Telecom); Line Installation Depot.[2]

LII : (AXE); Subscriber Line Interface.[2]

LINE : (transmission); A line normally consists of a pair of conductors or wires forming a telecommunications circuit. In country areas, single-wire part-privately erected lines were common but the earth return constitutes the second conductor. A 'straight' line is a normal subscribers line with only a telephone or small interswitch at the subscribers end, as different from a PBX line which terminates in a switchboard at the subscribers end. A tie line directly connects two subscribers switchboards so that traffic between them need not pass through the switched network. See also Trunk Lines and Junction Lines.[1]

LINE CONCENTRATOR : (telephony); A cost reducing device used in a telephone network for reducing the number of lines feeding into an exchange by, at some point remote from the exchange, concentrating a number of subscribers on to a fewer number of lines than would normally be required for exchange access. The same principle applies in a radio concentrator.[1]

LINEAR CIRCUIT : (electronics); A circuit whose output is a continuous amplified version of its input. That is, the output is a predetermined variation of its input.

LINEAR DELTA MODULATION : see Delta Modulation

LINK COMMUNICATION : (transmission); 1. The means of connecting one location to another for the purpose of transmitting and receiving information. 2. A channel or circuit intended to connect other channels or circuits.

LIR : (cables); Low Insulation Resistance - a fault condition found in cable.[1]

LIT : (Telecom); Lineman-in-Training (now obsolete).[1]

LITRE : Non-SI but metric unit of volume (often for liquids) equal to 1000 cubic centimetres of water.[1]

LJ : (telephony); Listening Jack.[2]

LL : (transmission); Long Line.[2]

LLE : (transmission); Long Line Equipment.[2]

LM : Luminous flux, a measure of the total light emitted by a lamp.

LMCS : Local Monitoring and Control System.[1]

LME : LM Ericsson Pty. Ltd. (Sweden) - see also EPA.[1]

LMP : (abbr.); Lamp.[2]

LMT : (abbr.); Limit.[3]

LOADING : (transmission); Refers to the insertion (by means of loading coils at intervals) of additional inductance into a symmetric pair transmission line to improve its attenuation distortion characteristics.[1]

LOC : (fibre optics); Large Optical Cavity laser.

LOCAL AREA DATA TRANSPORT : (data transmission); AT&I system by which customers can send and receive digital data over existing customer loop wiring.[5]

LOCAL AREA NETWORK : (data transmission); A localised data transmission network, often within a single building, which can carry data for an automated office between microcomputers, terminals, word processors, printers and so on. LANs are usually categorised as being baseband or broadband systems, depending on how they carry information. In a baseband system, only one communication channel is provided between the various devices on the network, analogous to a telephone party line. A broadband system allows many devices to transmit at the same time.[9]

LOCAL CALL : (telephony); A telephone call set up within a unit fee charging zone (not a trunk call).[1]

LOCAL EXCHANGE : See Terminal Exchange.[1]

LOCAL FEE : (telephony); Unit charge appropriate for an effective connection in a local telephone network.[13]

LOCAL NUMBER : (telephony); The digits to be dialled from a telephone to gain access to a particular subscriber in the same numbering area.[13]

LOCAL SERVICE AREA : (telephony); The area in which a customer may originate calls to other services and be charged at the local call rate.[1]

LOCN : (abbr.); Location.[3]

LONG : (abbr.); Longitude.[3]

LONG LINE EQUIPMENT : (transmission); Initially, equipment required to provide a long distance telecommunication link.[13] Now it can refer to any circuit derivation or "pair gain" equipment, which is being used to an increasing extent on junction lines and even subscribers lines in rural areas - see Carrier Equipment.[1]

LOOP : (telephony); Describes the completion of the circuit between a customer's telephone and the exchange when the customer's handset is lifted.[1]

LOOP CIRCUIT : (telephony); The resistance of the pair of wires which connect the subscriber's telephone to the equipment in his parent telephone exchange.[13]

LOW-SATURATION COLOUR : (television); A colour having a large white component, or an almost white surface with a tinge of a particular colour.[12]

LP : (transmission); Low Pass when applied to a filter usually used with carrier equipment. The LP applies to a particular frequency below which the filter will let signals pass and will reject all frequencies above, eg, 5.6 KHz LP Filter. See also HP.[1]

LPE : (fibre optics); Liquid Phase Epitaxy.

LPR : (switching); Last Party Release.[2]

LR/BR : (switching); Subscriber's Line and Cut Off relays.[2]

LRD : (Telecom transmission); Link and Route Detail application. Part of HQ Planning Division's "Automation of Trunk Records" project, LRD is a computer system which will maintain and distribute Engineering records of the existing and pending details regarding provision and utilisation of interexchange transmission facilities on physical, radio and carrier in trunk and country junction network with the view to later extension to include metropolitan junction networks. The record supports all States in their planning, installation and maintenance activities.[1]

LRI : (electronics); Leakage Resistance Indicator.[2]

LS : 1. Lead sheathed - see Cable 2. Lamp Signalling - a form of signalling used on switchboards 3. Line Switch - a telephony switching device[1]

LSA : (Telecom); Local Service Assessment.[2]

LSCP : (computers); Low Speed Computer Port.[4]

LSI : (electronics); Large-Scale Integration. The accumulation of a large number of circuits (say, 500 or more) on a single chip of a semiconductor. Characteristic of many CPU circuits and memories introduced since 1970.

LSM : (AXE); Line Switch Mode.[2]

LSS : (switching); Local Switching Stage, term used to denote a centralised Subscriber Switching Stage of an AXE exchange, (as opposed to Remote Switching Stage (RSS). The digital version is denoted LSS-D.[1]

LT : (traffic management); Local Traffic.[2]

LTE : (transmission); Line Terminal Equipment[1]

LTS : Local Telephone Switching (an annual Newsletter prepared by the HQ Planning Division).[1]

LUMEN : (television); The unit used to denote luminous flux. see also Candlepower.[12]

LUMINANCE : (television); The luminous intensity of any surface, whether emitted, transmitted or reflected, per unit of area, and as viewed from a particular direction. See Brightness.[12]

LV : (abbr.); Low Voltage.[2]

LWA : (cables); Light Wire Armoured - see Cable.[1]

M

M : 1. (abbr.); see Mega. 2. (switching); Make - a telephony term in which a wire or circuit is connected to another. 3. (switching); Make before break - a telephony term in which a connection is made with a second circuit before breaking from the first.[1]

m : 1. Metre. The basic SI Unit of length (approx. 39.37 inches). 2. (abbr.); see milli.

M/M : (telephony); Multimetering.[2]

MA : (AXE); Maintenance Administration.[2]

MAC : (telephony); see Manual Assistance Centre.[13]

MACBIS : (Telecom); Major Business Customer Billing Information System.[4]

MAFIA : (Telecom computers); Maintenance And Fleet Information Analysis.[2]

MAGENTA : (television); A colour which is a mixture of equal parts of blue and red illumination. The complementary colour of green. Radiation of the wavelength of 415 millimicrons.[12]

MAGOS : (Telecom computers); Maximum Allowable Grade of Service.[2]

MAIN DISTRIBUTION FRAME : (switching); the point in an exchange where incoming subscriber, trunk and junction lines are terminated for distribution (by jumper wires) to equipment within the exchange.[1]

MAIN SWITCHING AREA : (switching); A main switching area (MTA) contains a number of approved secondary and primary switching areas (PTA, STA) that have been grouped together on a community of interest and geographical basis for switching and charging purposes. A MTA usually has associated with it a single Main Trunk Exchange (MTE).[1]

MAJ : (abbr.); Major.[3]

MAJOR WORK : (Telecom); Any construction work where estimated costs exceed $15,500.[1]

MAN : (abbr.); Manual.[2]

MANHOLE : (cables); Underground cable-jointing chamber, large enough for a person to work in.[1]

MANUAL ASSISTANCE CENTRE : (telephony); A manual telephone exchange providing assistance and information to subscribers connected to automatic exchanges in a specific area.[13]

MANUALS : (Telecom computers); Manuals distribution and engineering system.[2]

MAP : (telephony); Manual Assistance Position - the work-station from which a telephonist operates.[1]

MARC : (Telecom computers); Micro Analysis of Reserve Capacity.[2]

MARS : Microfische Auto Retrieval System.[4]

MAS : (AXE); Maintenance Subsystem in APZ 210.[2]

MASER : (radio); Microwave Amplification by Stimulated Emission of Radiation.[4]

MASTER CLOCK : (electronics); A clock which generates accurate timing signals for the control of other clocks and possibly other equipment.

MASTER GROUP : (transmission); An assembly of 5 supergroups, equal to 300 speech or telephone channels. Not generally used in Australia.[1]

MAU : (AXE); Maintenance Unit.[2]

MB : 1. (LEOPARD); Minor Business.[2] 2. (cables); Moisture Barrier.[2]

MBC : (Telecom); Major Business Customer.[4]

MBE : see Molecular Beam Epitaxy.[9]

MBS : (Telecom computers); Material Budget Summaries.[2]

MC : (telephony); Multi Coin - refers to a type of Public Telephone Call Box which accepts more than one type of coin.[1]

MCC : (telephony); Mobile Control Centre, part of the Mobile Telephone Service (MTS).[1]

MCR : (Telecom computers); Management Control Reports.[2]

MCS : see Multifrequency Code Signalling

MCVD : (fibre optics); Modified Chemical Vapour Deposition.

MD : (LEOPARD); Minor Domestic.[2]

MDF : (switching); see Main Distribution Frame.

MDPE : Medium density polyethylene.

MEDIUM CAPACITY SYSTEMS : (transmission); Carry up to 300 speech channels in analog form, or digital information at a rate between 2 and 34 Megabits per second.[1]

MEDIUM-SCALE INTEGRATION (MSI) : (electronics); The accumulation of several circuits (usually less than 100) on a single chip of a simiconductor.

MEGA : The SI prefix for 1 000 000 (10^6). Abbreviated as M.

MEGABYTE : (computers); One million bytes or characters. Equivalent to about 160,000 English words.[9]

MELD : (Telecom); Metropolitan Exchange Line Development.[2]

MEMO : (Telecom); Metropolitan Exchange Maintenance Organisation.[2] Includes SSC, DSC, EMG's.

MEMORY : (computers); The capacity of a machine to store information subject to recall, or the component of the computer system in which such information is stored.

MEMORY CAPACITY : (computers); The number of bits that a memory can hold; a 1-kb semiconductor memory can store 1000 bits (actually 1024 bits).

MENDAP : (Telecom); Metropolitan Exchange Network Development Analysis Program.[2]

MENU PAGE : (videotex); A page providing a list of topics with associated numeric options to route the user towards information.

MES : (satellites); Main Earth Station (in a Satellite relay system). Telecom's is at Bendigo, Victoria, for the ITERRA service.[1]

METER : A variety of meters are used in telecommunications, generally as testing or measuring instruments, eg, Voltmeter, Modulation Meter, Ammeter, etc. The term when used alone usually refers to the call counting device used in Exchanges and possibly at customers' premises. This variety is usually termed an Exchange Meter or Customer Meter (previously called a Register).[1]

METERED CALLS : (telephony); Telephone and telex calls for which the number of unit fees equivalent to the call charge is registered on a meter in the telephone or telex exchange associated with the calling subscriber's service.[13]

MF : (transmission); Medium Frequency - signals in the range 300kHz to 3MHz.[1]

MFC : (switching); Multi-Frequency Code signalling. Consists of a series of musical tones of differing frequencies used in varying combinations designed to trigger pre-set relays or switches.[1]

MGR : (abbr.); Manager.[3]

MHC : (Telecom); Maintenance Holding Centre. [EngServ]

MHO : The old (GES) term for a unit of electrical conductance, the reciprocal of resistance. Hence the spelling- Ohm spelled backwards. In SI units, known as "Siemens".[1]

MHZ : Mega Hertz. One million cycles per second.[1]

MIC : Manual Interception Centre [1]

MICRO : SI prefix denoting 1 millionth (10^{-6}).[1] Abbreviated by the Greek letter mu (u).

MICROCOMPUTER : A class of computer having all major central processor functions contained on a single printed circuit board constituting a stand-alone module. Generally refers to microprocessor systems including memory and I/O circuits.

MICRON : Usual name for the micrometre in S.I. Units. 1 millionth of a metre.[1]

MICROPROCESSOR : (electronics); A single LSI circuit that performs the functions of a CPU. Some characteristics of a microprocessor include small size, inclusion of a single integrated circuit or a set of integrated circuits, and low cost.

MICROWAVES : (transmission); A term applied to highly-directional radio waves above 1.5 GHz frequency, 1 500 000 000 cycles per second, or 0.1 metres wave length. Require clear line of sight path between transmitting and receiving antennas to get good signals. Extensively used in Australia to carry trunk telephone and telegraph traffic as well as television relays.[13]

MIDAS : (OTC); Multimode International Data Acquisition Service. A facility enabling Australian computer users to access overseas databanks.[9]

MILLI : SI prefix denoting one thousandth (10^{-3}).[1] Abbreviated as m.

MINICOMPUTER : A class of small main-frame-type digital process control computers sized generally around a 16-bit word, with stored programs and various memory options for data acquisition and monitoring, supervisory, or direct digital control in systems having no more than 20 or 30 control loops.

MINOR EXCHANGE : (switching); (MSE Automatic MME Manual). Consists of switching stage equipment located at the one site that performs the minor switching function for all or part of a minor switching area (MSA). A MSE switches inter-exchange calls for its dependent local terminal exchanges to adjacent minor switching centres. MSE's are generally 2 wire exchanges but may also be 4 wire exchanges.[1]

MINOR SERVICE PROVIDER : (videotex); Suppliers of information on a videotex system who do not have the full facilities available to Service Providers. They deal direct with Telecom but cannot resell pages to sub-Service Providers.

MINOR SWITCHING AREA : (switching); Consists of a number of terminal exchange areas that have been grouped together on a geographical or community basis for switching and charging purposes.[1]

MINOR WORK : (Telecom); Any work where estimated costs are less than $15,500, excluding Service Orders and Recoverable Works (R.W.).[1]

MIS : Management Information System. A communication process in which data are collected, recorded, processed, and distributed for operational purposes.

MISC : (abbr.); Miscellaneous.[3]

MIV : (telephony); Multiple Interface Unit.[2]

MJD : (AXE); Multi-Junctor Device.[2]

MJE : (switching); Multipoint Junction Equipment.[4]

MJR : (Telecom computers); Metropolitan Junction Records.[2]

MJU : (cables); Multipoint Junction Unit.[1]

MM : (fibre optics); Multimode.

MMCS : (switching); Multimetering Code Selector.[2]

MME : (switching); Manual Minor Exchange.[1]

MML : (computers); Man Machine Language, is the CCITT command and response type of computer language used for communication between the operators of a modern switching system and the system itself.

MMOF : (fibre optics); Multi-Mode Optical Fibre.[2]

MMR : (telephony); Multimetering Repeater.[2]

MNE : (switching); Minor Notional Exchange.[1]

MOD : 1. (abbr.); Either "modification" or "modulated".[1] 2. (abbr.); Modem.[2]

MODE : (fibre optics); see Multimode Fibre and Single Mode Fibre.[9]

MODEM : A contraction of modulator-demodulator. 1. (transmission); A device for shifting a given frequency band from one place in the spectrum to another for transmission in analogue form.[13] 2. (data transmission); A data set that both transmits and receives data and control and clock signals; utilizes modulation-demodulation process.

MODULATION : (radio); The way in which the flow of information is impressed on radio waves. Common types; Frequency Modulation (FM); Amplitude Modulation (AM); Pulse Code Modulation (PCM).[13] See Appendix 5.[1]

MODULE : (electronics); A method of construction used in many areas particularly where there are many similar requirements. Just as a brick is a module from which large buildings are constructed, the advent of solid state electronic devices, printed circuits and integrated circuitry has led to the development of complex circuit modules which can be built up into very elaborate electronic structures. Desk top electronic calculators and very large electronic computers are designed to be as modular in construction as possible and much telecommunication equipment is so constructed.[1]

MOIRE PATTERN : (television); A term used to describe two different phenomena in television reception. The first is the regular pattern seen on the screen. This is caused by interference between two of the frequencies occurring in the system, or between one of these frequencies and an external source. The second is a pattern similar to a water-mark, of irregular outline and caused by faulty focusing adjustment at too low a value of beam current.[12]

MOLECULAR BEAM EPITAXY : (electronics); A way of producing crystals or other materials by irradiating a substrate with beams of atoms, so growing successive, single atomic layers on it.[9]

MOLECULE : Is the smallest portion to which matter can theoretically be divided without altering its chemical properties.[1]

MONOCHROME : (television); Standard black and white television transmission.[12]

MOPAX : (switching); An SPC exchange for Autofone/Pager services.[1]

MOS : (electronics); Metal-Oxide Semiconductor. A class of insulated-gate field-effect transistors (FETs). The gate is insulated from semiconductor substrate material by using an oxide (or Nitride) deilectric to form a unipolar device.

MOSAIC : (videotex); On Prestel or Viatel, each character position may display up to 6 joined or separated rectangles in a 2 x 3 matrix that are used to construct diagrams and pictures.

MOSFET : (electronics); Metal-Oxide Semiconductor Field-Effect Transistor.

MOSS : (Telecom computers); Miscellaneous Orders Statistical System.[2]

MOTS : (telephony); Mains Operated Tone Source.[2]

MP : 1. (AXE); Metering Pulse Generation.[2] 2. (LEOPARD); Minor Public Telephone.[2]

MP1 : Motorola Metro Pager 1.[1]

MP2 : Motorola Metro Pager 2.[1]

MPC : (electronics); see Multi-Project Chip.

MPSC : (Telecom); Market Planning Steering Committee.[2]

MR : (telephony); 1. Meter Reading. 2. Meter Reversal.[2] 3. (abbr.); Meter Record.[3] 4. (switching); The relay set used in exchanges to provide facilities for connection of Coin Telephones. (Version MR-P is currently under development as at 1984).[1]

MRD : (telephony); Meter Rate Detector.[2]

MRT : (telephony); Microprocessor Robot Tester (part of SULTAN facility).[1]

MS-DOS : (computers); A popular operating system developed by Microsoft for 16 bit microcomputers.[9]

MSA : 1. (Telecom); Main Stores Accounting System. 2. (switching); see Minor Switching Area.[4]

MSC : (switching); Minor Switching Centre.[1]

MSDS : (data transmission); The Message-Switched Data System, operational since 1968, of the TCTS.

MSE : see Minor Exchange.

MSI : See Medium-Scale Integration.

MTA : see Main Switching Area.

MTBF : Mean Time between Failures (of plant).[1] The average time that a system is operational before a failure occurs.

MTBR : Mean time before repair. The average time required to repair a system failure.

MTE : (switching); Main Trunk Exchange.[1]

MTG : (abbr.); Meeting.[3]

MTR : (abbr.); Meter.[3]

MTRG : (abbr.); Metering.[3]

MTS : 1. (AXE); Mobile Telephone Subsystem.[2] 2. (telephony); Mobile Telephone Service.[1]

MTTF : Mean Time to Failure (of plant).[1]

MUFAX : Fascimile transmission equipment manufactured by Muirhead U.K.[1]

MULDEX : (data transmission); A device which combines a Multiplexer and a Demultiplexer in one unit which combines a number of digital input signals into a single digital signal at a higher bit rate for transmission in digital form and which includes the reverse function.[1]

MULTI-METERING : (telephony); Successive operations of the calling subscriber's meter at a prescribed rate to record a charge for an STD trunk call.[13]

MULTI-PROJECT CHIP : (electronics); A silicon chip which has a number of integrated circuits of different function fabricated on it as a means of reducing the cost per circuit. CSIRO has been responsible for coordinating the fabrication of such chips, which have included circuits designed by Telecom.

MULTICOM : (telephony); A small business system offering multiple answer, executive, secretarial and centralised answering facilities. Now superceded by Commander systems.[1]

MULTIDROP LINE : (transmission); Line or circuit interconnecting several stations; also called a multipoint line.

MULTIFREQUENCY CODE SIGNALLING : (switching); A method of forward and revertive, compelled sequence signalling used for calls handled by crossbar and SPC exchanges.

MULTIMETERING : (telephony); The process of accumulating call-meter registrations per unit of time on trunk (STD) or international (ISD) calls. The charges are included with local calls on the customers' account, and no separate record is given, as it is with CCR.[1]

MULTIMODE FIBRE : (fibre optics); A fibre that supports the propagation of more than one mode of a given wavelength.

MULTIPLE : The appearance of circuit terminals in a number of places for convenient access, eg, switchboard multipling means that line terminals appear on more than one switchboard. Multiple appearance is also a common practice in cable cabinets and pillars, located in urban distribution networks, allowing greater flexibility for the connection of new services within the distribution area, eg, electrical house wiring presents simple examples of multipling, whereby a number of lights or power points are connected to the one fixed circuit. These power outlets constitute multiple appearances of the basic circuit.[1]

MULTIPLE TWIN QUAD : (cables); A type of telephone cable, a development of the Twin, comprising two units of Twin twisted together and using in all three different lays - two for the pairs and a third for the quad.

MULTIPLEX : (transmission); The process of transmitting multiple signals from different sources over a common cable or transmission line. See Carrier.[1]

MUTUALLY SYNCHRONISED NETWORK : (transmission); Each synchronizing clock in the network exerts a degree of control on all others.

MUX : (transmission); Multiplexer.

MUXLINK : (Telecom computers); National Record of Multiplex Links.[2]

N

n : (abbr.); see Nano.[2]

N-BUS : (abbr.); Non-Business.[3]

NA : (fibre optics); Numerical aperture. Measure of light acceptance of a fibre cable.

NACD : (telephony); Network Automatic Call Distributor, a device which queues and distributes customer inquiry calls to manual operators.[1]

NAMTS : (telephony); NEC's Advanced Mobile Telephone System.

NANO : SI prefix meaning 0.000 000 001 (10^{-9}). Abbreviated as n.

NAPLPS : (videotex); North American Videotex/Teletext Presentation Level Protocol Syntax. The videotex standard adopted in the United States, based on the Canadian Telidon system.[9]

NASA : National Aeronautics and Space Administration (United States).[1]

NASCOM : National Aeronautics and Space Communications authority.[1]

NAT : (abbr.); National.[3]

NATA : National Association of Testing Authorities - a statutory body established to register and monitor laboratory testing standards.[1]

NATIONAL BEAM : (satellites); The satellite beam from the Australian domestic satellite designed to cover the whole of Australia.[6]

NATIONAL NUMBERING : (telephony); A system of telephone numbers which allows a subscriber to call any other subscriber connected to the national telephone network.[13]

NB : (telephony); No Break.[2]

NBS : (radio); National Broadcasting Service - the ABC radio service whose transmitters are supplied and operated by Telecom.[1]

NCC : (packet switching); Network Control Centre.[4]

NCFS : (Telecom); Network Call Failure Supervision.[1]

NDACS : (Telecom); Network Diagnostic And Control Systems. Equipment which monitors the performance of a digital network and provides facilities to diagnose and correct faults. [EngServ]

NDC : (Telecom); National Design Co-ordinator[1]

NDRO : (computers); Non-destructive read out.

NDT : (fault despatch); No Dial Tone.[2]

NDYAG : (fibre optics); Neodynium-doped Yttrium Aluminium Garnet laser.

NEC : The (Japanese) Nippon Electric Company.

NEP : (transmission); Noise Equivalent Power.

NET PROGRAM : (Telecom); National Engineering Training Program.

NETANAL : (Telecom computers); Program for Network Analysis[1]

NETPLEX : (Telecom data transmission); Part of Telecom's DDS allowing customers to multiplex data from a number of different terminal stations into a single data network for flexibility of control by the customer.[1]

NETSTREAM : (Telecom data transmission); A DDS service providing economies for bulk usage by aggregating slower data services into one faster stream.[1]

NETWORK : Telecom's infrastructure or complex of switching centres (exchanges) and connecting links to which customer's communication services are connected.[1]

NETWORK PERFORMANCE : Assessment of overall performance of the telecommunication network in relation to both technical performance and customer satisfaction standards set for it. Achieved by monitoring, observation, sampling and recording/analysis techniques.[1]

NETWORK PERFORMANCE AND ANALYSIS CENTRE : (telephony); An operational centre which gathers, records, analyses and distributes information about the performance of a telecommunications network.

NETWORK TRAFFIC MANAGEMENT : (traffic); The function of supervising the performance of the network and taking action to control the flow of traffic, when necessary, to ensure the maximum utilisation of network capacity in all situations.

NEWTON (N) : SI unit of force, = mass x acceleration (= 1kg.m/sec2).[1]

NEX : (switching); Non Exchange Service, or special service.[4]

NEXT : (transmission); Near-end crosstalk.[1]

NFA : (fault despatch); No Further Action.[2]

NI : Non-inductive[1]

NIR : (electronics); Negative Impedance Repeater.[2]

NMC : (Telecom); Network Management Centre.[2]

NMDP : (paging); Numeric Message Display Paging.[1]

NO BREAK : Applied to power supply plant. In the event of normal power supply failure it implies a changeover to stand-by power without any break in supply to the equipment being energised.[1]

NOC : (Telecom); Network Operations Centres.[2]

NODE : 1. (transmission); Also called junction point, branch point, or vertex. A terminal of any branch of a network, or a terminal common to two or more branches. 2. (computers); Provide data entry-exit points in computers and terminals and switch or process data. Smart terminals and smart programmable controllers - the ones based on microprocessors - also have true processing capability and qualify as nodes. Each node is potentially capable of performing application-oriented tasks. 3. (switching); An autonomous digital (AXE) switching point in a network.[1] 4. (videotex); A set of digits allocated to a service provider to act as the parent page for his data base. For major service providers, usually a three-digit node such as 345 is allocated.

NODAL KEYWORD : (videotex); A keyword that refers to or may be used in a particular section of the database.

NOES : see Non Outage Error Seconds

NOISE : (transmission); Any condition that interferes with the desired signal to be detected by the control. Commonly understood to be electric noise, it can also be an interfering optical condition caused by ambient light.

NOMINAL BANDWIDTH : (transmission); The maximum range of frequencies, including guard bands, assigned to a channel.

NON OUTAGE ERROR SECONDS : (data transmission); These are events of less than 10 consecutive error seconds.

NON VALID TIME : (data transmission); Time over which no measurement was made or the recorded data is invalid (15 minutes minimum). This may be caused by planned withdrawals of transmission bearers, local loopback tests, or test set malfunctions.

NOP : (fault despatch); No Progress.[2]

NORDIC : (packet switching); The public circuit-switched data network of Denmark, Finland, Norway and Sweden.

NOS : (Telecom computers); Control Data Network Operating System.[2]

NOSHIP : (Telecom); National Occupational Safety and Health Implementation Program.

NP : 1. (Telecom); Network Performance. 2. No Pairs.[2] 3. Nickel Plated. 4. (switching); No Progress - refers to a fault condition in automatic switching where at the completion of dialling no tone of any sort is received.[1]

NPA : (traffic management); Network Performance Analysis.[2]

NPAC : see Network Performance Analysis Centre.[4]

NPCD : (switching); No Progress Call Detector, which, in ARF crossbar exchanges, monitors the progress (through the signalling sequence) of calls set up, and classifies call failures into categories to obtain an indication of the grade of service being experienced on local and trunk calls.

NPL : National Physical Laboratory (United Kingdom).

NPN : (electronics); A transistor consisting of two n-type regions separated by a p-type region.

NPR : (Telecom); National Project Register - a register of all Design and Practices projects being undertaken by any State or HQ.[1]

NR : (abbr.); Number.[3]

NRC : (fault despatch); Not Returning Coins.[2]

NRD : (data transmission); A non-switched public data network run by the Italian telecommunications authority.

NRR : (fault despatch); Not Receiving Ring.[2]

NRZ : (fibre optics); Non-Return to Zero.

NS : (abbr.); Normally Stationary.[2]

NSC : 1. (telephony); New Service Connection 2. (Telecom); National Support Centre - a model exchange and software centre responsible for the production, testing and providing of software packages for inclusion in SPC exchanges (local and trunk) in the national network. Interfaces with State Support Centres (SSC's).[1]

NSU : (telephony); Non-switching Unit. A multi-line unit on which a number of telephone services and/or extensions may terminate without provision for the interconnection between any of these services or extensions.[1]

NTA : Norwegian Telecommunications Administration.[1]

NTS : National Television Service.[1]

NTSC SYSTEM : (television); A colour television transmission system originated in the USA by the National Television System Committee.[12]

NTT : Nippon Telegraph and Telephone Corporation. Japan's Telecom Administration.[1]

NTU : (data transmission); Network Terminating Unit. Where the access line from Telecom's DDS terminates in a customer's office.[1]

NTWK : (abbr.); Network.[3]

NU : (switching); Number Unobtainable.[1]

NUMIS : (Telecom computers); Network Utilisation Management Info. System.[1]

NUT : (fault despatch); Number Unobtainable Tone.[2]

NUVA : (fault despatch); Number Unobtainable, Voice Announcement.[2]

NVT : see Non Valid Time

NWC : (traffic management); Network Congestion.[2]

NXT : (abbr.); Next.[3]

O

O & M : 1. Organisation & Methods 2. Operations & Maintenance[1]

O/C : (abbr.); Open Circuit.[2]

O/E : (fibre optics); Optical-to-Electronic.

O/G : (switching); Outgoing.[1]

OAC : (Telecom); Operations Analysis Cell.[2]

OBJECT CODE : (computers); see Compiler.[9]

OC : (fibre optics); Optical Cavity laser.

OCC : 1. (telephony); Operator's Control Centre - the '1100' operator's control point in the SULTAN system.[1] 2. (traffic management); Occupancy. 3. (Telecom); Operator Communications Controller.[2]

OCCUPANCY : (traffic management); The mean traffic intensity, over a period of time, on a circuit or group of circuits. The ratio of the number of working pairs at a given point in a cable, exchange, or other system to the total number of pairs in the system at this point. One circuit in continual use represents one erlang of traffic, or 36 hundred call seconds.

OCD : (Telecom); Order Clearance Desk.[2]

OCR : see Optical Character Recognition.

OD : (fibre optics); Outside Diameter.

OD-REP : (abbr.); Outdoor Representative.[3]

ODLR : (fibre optics); Optical Digital Line Repeater.[2]

ODR : (abbr.); Order.[3]

ODX : see Outdoor Extension.

OF : (AXE); Optional Facilities.[2]

OFF-LINE : (transmission); Describes equipment or devices which are not connected to the communications line.

OHM : (electronics); The unit of electrical resistance, impedance or reactance. In Direct Current (DC) circuits, a resistance of one Ohm is required to produce a potential difference of one volt when a current of one ampere is flowing. With Alternating Current (AC) due to the effects of capacitance and inductance, a more complex formula applies as the frequency of the current determines the impedance/reactance which is also expressed in Ohms.[1]

OLT : (fibre optics); Optical Line Terminal.[2]

OM : (Telecom); Operations and Maintenance.[2]

OMP : (switching); Operations & Maintenance Processor.[1]

OMPOS : (switching); Operations and Maintenance Processor Operating System - part of the ANA processor system associated with ARE 11 exchanges.[1]

OMS : (Telecom); Operations and Maintenance Subsystem.[2]

ON-LINE : (transmission); Equipment or operations that are in direct contact with other points on a circuit. An on-line teleprocessing system eliminates the need for human intervention between information input at the source and ultimate processing by a computer. Contrast with off-line.

ONI : (telephony); Operator Number Identification - a directory assistance operations term.[1]

ONTYME : (data transmission); A message-switched data network, operational since July 1977, and run by the (American) Tymnet Inc.

OOE : (Telecom); Out of Equipment.[2]

OOO : (fault despatch); Out of Order.[2]

OPAS : (Telecom computers); Operations Performance Analysis System.[2]

OPC : (AXE); Operator's Control Equipment.[2]

OPERATING SYSTEM : (computers); A set of programs that controls the hardware and software that make up a computer system.[9]

OPR : (AXE); Operator Circuit.[2]

OPS : (AXE); Operator's Position Subsystem.[2]

OPTICAL CAVITY : (fibre optics); Part of a laser which amplifies light by continued reflections between mirrors.[9]

OPTICAL CHARACTER RECOGNITION : (computers); A technique of reading already- printed text, say from a page of a book, into a computer.[13]

OPTICAL COUPLER : (electronics); A device that couples signals from one electric circuit to another by means of light, usually infrared or visible, as LED and phototransistor.

OPTICAL FIBRE : A fine hair-like fibre of silicon along which coherent light waves can be transmitted as a carrier for many communications channels. See Bearer, Carrier.[1]

OPTOELECTRONICS : (electronics); Technology dealing with the coupling of functional electronic blocks by light beams.

OR : (Telecom); Operational Review.[2]

ORACLE : (videotex); A form of broadcast videotex produced by I.T.V. in Britain.[7]

ORBIT : (satellites); The path, relative to a specified frame of reference, described by the center of mass of a satellite or other object in space, subjected solely to natural forces, mainly gravitational attraction.

ORD : (LEOPARD); Ordinary.[2]

ORIG : (abbr.); Original.[3]

ORTHICON : (television); A particular form of camera tube which employs a photo-sensitive, storage-type mosaic element which is scanned by a low-velocity electron beam. The tube has a much higher sensitivity than the iconoscope and a lower gamma correction factor.[12]

ORTHOGONAL TRANSMISSION : (radio); A system of MF radio transmission which minimises sky wave radiation and thus permits closer location of broadcast stations sharing the same frequency (wave length).[1]

OSCILLATOR : (electronics); Electronic device for generating alternating current of a selected frequency.[1]

OSI : (computers); Open Systems Interconnection. A set of standards on data transfer which is intended to ensure that many different kinds of computer can interconnect simply.

OSS : (Telecom); Operational Support Systems.[1]

OT : (AXE); Outgoing Trunk in TSS.[2]

OTC : 1. Overseas Telecommunications Commission - Australia's International telecommunications operating authority. 2. (switching); Outgoing Trunk Circuit in AXE exchanges. See also Appendix 11.[1]

OTD : (fault despatch); Other Technical Defects.[2]

OTDR : (fibre optics); Optical Time-Domain Reflectometer. Measuring system for characteristics of optical fibre.

OTJ : (switching); Outgoing Trunk Junctor.[2]

OTR : (Telecom); Official Telephone Register.[2]

OTS : (Telecom); Official Telephone Service.[2]

OTT : (switching); Outgoing Trunk Tandem.[2]

OUTDOOR EXTENSION : (telephony); An extension located in different premises from the main answering or switching position. In some cases, the outdoor extension may be located in the same premises as the main telephone etc., but connected from a different point of entry of the lead-in from that servicing the main telephone.[2]

OUTWATS : (telephony); Outward Wide Area Telephone Service. See also INWATS.[1]

P

P : (abbr.); see Peta.

p : (abbr.); see pico.

P&P : (Telecom); Planning and Programming.[2]

P/L : (telephony); Private Line.[2]

PA : 1. (switching); Primary Allotter.[2] 2. Public Address amplifying system.[1]

PAB : (Telecom); Promotions Appeal Board.[9]

PABX : see Private Automatic Branch Exchange.[13]

PACKET : (data transmission); A group of 1024 bits which is routed through a packet switching network as a discrete unit. see Packet Switching.[4]

PACKET SWITCHING : (data transmission); The technique of data communication by transmitting the information between source and destination in segments of a convenient size, called packets, without reserving a physical circuit. It is a special case of message switching, with the aim of reducing the time taken to transport the message segments from source to destination to 1/3 of a second or less. Thus, to the user, the connection has the appearance of a direct one. The twin objectives of a short transport time and appearance of a direct connection are dictated by the need to make the network suitable for interactive working.

PACKING FRACTION : (fibre optics); The ratio of the active core area of a fibre bundle to the total area at its light-emitting or receiving end.

PAD : (packet switching); Packet assembly-disassembly facility. Applies to exchange of serial data streams with the character-mode terminal and the packetizing-depacketizing or the corresponding data exchanged with the CCITT X.25 terminal.

PAGE : (videotex); The unit of information in the database. A page may be accessed by explicit addressing or implicitly by the use of single key choices through a series of indexing pages. A page may comprise a number of frames.[7]

PAGING : A combination network/radio system providing the facility of signalling a person to telephone his base station by means of a pocket "bleeper" device which is activated by the calling party dialling a particular code number.[1]

PAIR CABLE : (cables); Assemblies of pairs of insulated wires under a common sheath.[13]

PAIR KILOMETRE CABLE : (cables); A convenient unit for expressing quantities of cable for statistical, programming, purchasing and manufacturing purposes.[13]

PAL : (LEOPARD); Prime Service of Associated Line.[2]

PAL SYSTEM : (television); Phase Alternation Line system. A television transmission system originated in Europe and based substantially on the NTSC system. By the adoption of the system of reversing the phase of each alternate line transmitted, it has been possible to eliminate drifts in colour which are a feature of the NTSC system.[12]

PAM : (transmission); Pulse Amplitude Modulation.[1]

PAMA : (satellites); see Permanently Assigned Multiple Access.

PAMSS : (LEOPARD); PABX Maintenance Support System.

PAMTS (NOW MTS) : (telephony); Public Automatic Mobile Telephone Service - also known as AUTOFONE, or MTS.[1]

PARALLEL : (electronics); A means of connection of cells, equipment circuits etc, in a side by side arrangement so that a current or signal flows through all concurrently. As opposed to series' where the items would be connected in sequence so that the flow is one after the other. For example, household power and lighting circuits are wired in parallel; Christmas tree light strings are wired in series.[1]

PARENT PAGE : (videotex); A page with numerically descendent or filial pages. For example, page 20 is the parent of page 201.

PARIS : (Telecom computers); Product Accounting and Reporting Information System.[2]

PARITY CHECK : (data transmission); Addition of noninformation bits to data, making the number of 1s in a grouping of bits either always even or always odd. This permits detection of bit groupings that contain single errors. It may be applied to characters, blocks, or any convenient bit grouping.

PART-PRIVATELY ERECTED LINE : (telephony); A telephone line to a subscriber, of which part of the line has been erected by and is maintained by the subscriber.[13]

PASCAL (PA) : SI Unit of Pressure = 1 Newton/sq. metre (1N/m2).[1]

PASCAL : (computers); A high level programming language derived from ALGOL and developed intensively by a group at the University of California at San Diego (thus, UCSD pascal).

PASS : (Telecom computers); Product Accounting for Special Services.[2]

PAX : see Private Automatic Exchange.[1]

PAY TV : (television); A system where television programs are paid for directly by the subscriber to the system, possibly on a per-program basis, rather than indirectly through advertising. see Cable TV, RSTV.

PB : (LEOPARD); Prompt Business.[2]

PBA : (electronics); Printed Board Assembly.[2]

PBT : (telephony); Push Button Telephone (see Touchfone) A telephone handset with a ten (decadic) or twelve (VF) push-button key pad instead of a rotary dial for originating call set-up.[1]

PBX : see Private Branch Exchange.[13]

PC : 1. (AXE); PCM terminal in GSS-D. 2. Plant Congestion Tone.[2] 3. Personal Computer.

PCB : (electronics); Printed Circuit Board.[1]

PCC : (traffic management); PCE - Control and Check.[2]

PCD : (AXE); PCM Terminal.[2] - Analog to Digital converter in AXE exchanges.[1]

PCE : (Telecom computers); Processor Controlled Exchange.[2]

PCE : (traffic management); Processor Controlled Exchange.[2]

PCM : (transmission); see Pulse-Code Modulation.

PCM-CCI : (transmission); Pulse Code Modulation Cable Characterisation Instrument.[1]

PCMME : (transmission); Pulse Code Modulation Multiplex Equipment.[2]

PCP : (telephony); Privately Constructed Plant - formally known as PPE (Part Privately Erected) - refers to those lines in country areas which are erected and maintained by the customer. To be progressively abolished under new policies of automating all rural exchanges.[1]

PCP : see Privately Constructed Plant.[13]

PCSH : (LEOPARD); Previous Customer's Service History.[2]

PCVD : (fibre optics); Plasma-activated Chemical Vapour Deposition.

PCXB : (switching); Pentaconta Crossbar.[2]

PD : 1. (Telecom transmission); Provisioning Document. Authorises additions, cancellations and re-arrangements of traffic circuits, special services and multiplex links.[9] 2. (LEOPARD); Prompt Domestic.[2]

PDD : (fault despatch); Post-Dialling Delay.[2]

PDM : (transmission); Pulse Duration Modulation.[1]

PEAK-TO-PEAK : (transmission); The amplitude difference between the most positive and the most negative excursions of a signal.

PEAS : (Telecom computers); Personnel Establishment Administration System.[2]

PED : (electronics); Plastic encapsulated device.

PEF : (cables); Polyethylene foam insulator for cables.[1]

PEIQC : (cables); Polyethylene Insulated Quad Carrier.[2]

PEIUQ : (cables); Polythene Insulated Unit Quad.[2]

PEIUT : (cables); Polythene Insulated Unit Twin.[2]

PERD : (abbr.); Period.[3]

PERF : (abbr.); Performance.[3]

PERIGEE : (satellites); The point in the orbit of a satellite where it is closest to the body around which it orbits. See also Apogee.[9]

PERIPHERAL EQUIPMENT : (computers); Auxiliary machines which may be placed under the control of the central computer, such as card readers, disk drives, tape feeds, plotters and high-speed printers.[13]

PERMANENTLY ASSIGNED MULTIPLE ACCESS : (satellites); A scheme whereby a large number of subscribers utilise a single satellite transponder via one SCPC channel for each telephone.[1]

PERMEABILITY : (electronics); The ratio of the magnetic flux density produced in a material, to the magnetic flux density that would be produced in air by the same magnetising force - usually refers to inductors etc.[1]

PERMITTED ATTACHMENT : (telephony); Telephone equipment, usually of an auxilliary nature which is privately owned and maintained, but which has been approved for connection to the Telecom telephone network.[13] See Private Attachment.[1]

PERSONAL PASSWORD : (videotex); A password which can be set, altered or deleted by the videotex user, and which gives the user further security against unauthorised access in addition to the automatic identification contained in the videotex terminal.[7]

PERT : Program Evaluation Review Technique - a process of charting the elements of jobs so that the minimum of time for completion and the elements affecting this may be clearly established.[1]

PET : (transmission); Pulse Echo Testing.[2]

PETA : SI prefix for 1 000 000 000 000 000 (10^{15}). Abbreviated as P.

PETRA : (telephony); PBX Extension Traffic Recorder and Analyser. Equipment used in a subscriber's premises in association with a switchboard to sample telephone calls from extensions and print out details of the numbers dialled, the time (and duration if desired) and the calling extension number.[13]

PEXT : (LEOPARD); Prime Service of Extension Group.[2]

PFM : (transmission); Pulse Frequency Modulation - see Modulation.[1]

PFX : (switching); Terminal Exchange Prefix.[1]

PG : (switching); Permanent Glow - alarm light on a step-by-step final selector switch.[1]

PGS : (switching); Platinum - Gold - Silver - a corrosion resisting alloy used in switch contacts.[1]

PHASE : (electronics); The position of a point on the waveform of an alternating or other periodic quantity with respect to the start of the cycle, usually expressed in degrees.

PHASE MODULATION : (transmission); A method of transmission whereby the angle of phase of the carrier wave is varied in accordance with the signal.

PHC : (AXE); Program Handling Check.[2]

PHOTODETECTOR : (fibre optics); A device used to detect and measure the intensity of light. It converts photons to electrons.[9]

PHOTOTRANSISTOR : (electronics); A transistor whose electric output current is proportional to the intensity and wavelength of a beam applied to its input.

PICO : SI prefix for 0.000 000 000 001 (10^{-12}). Abbreviated as p.

PIES : (Telecom computers); Personnel Information and Establishment System - a computer management system for the control of manpower and establishments.[1]

PILC : (cables); Paper Insulated Lead Covered.[2]

PILLAR (CROSS CONNECTING) : See Cabinet (and Pillar).[1]

PIQJ : (cables); Paper Insulated Lead Sheathed Quad Junction.[2] see Appendix 1.

PIQL : (cables); Paper Insulated Lead Sheathed Quad Local.[2] see Appendix 1.

PIT : (cables); A small box sunk into the ground which contains underground cable joints.[1]

PIUT : (cables); Paper Insulated Unit Twin.[2] see Appendix 1.

PJ : 1. (cables); Plastic Jacketed.[2] 2. Petroleum jelly.

PKM : see Pair kilometre.[1]

PL : (telephony); Private Line.

PL-1 : (computers); Programming Language 1. A common programming language that looks and behaves like an extension of FORTRAN but is simpler than FORTRAN.

PLANT ACCOUNTS : (Telecom); Sub-divisions of Engineering Accounting to which items of Plant, Labour, Materials and Incidentals are charged, depending on their intended usage. (Similar to Responsibility Codes).[1]

PLATE HEAT EXCHANGER : A low energy cooling and heat recovery system developed by the CSIRO. It uses water as a refrigerant and saves substantial amounts of energy by utilising the latent heat of vaporisation of water, and exhausting the vapour to the outside atmosphere, whereas other systems must recycle the refrigerant vapour by compression or absorption. The first commercial installations were in the Caulfield (Vic) and Balranald (NSW) telephone exchanges.

PLATO : (Telecom); Programmed Evaluation Review Technique. A computer-aided instruction system, developed in the USA.

PLEX : (computers); Programming language for SPC Exchanges.[2]

PLF : (switching); Primary Line Finder.[2]

PLM : (transmission); Pulse Length Monitor.[2]

PM : (transmission); Primary Level Multiplexer (Data and PCM).[1]

PMBX : see Private Manual Branch Exchange.[13]

PMCS : (Telecom computers); Project Management and Control System.[2]

PMG : Postmaster General's Department (a precursor to Telecom Australia)

PMOS : (electronics); Metal Oxide Semiconductor (integrated circuit).

PNE : (switching); Primary Notional Exchange.[1]

POA : Professional Officers Association.[1] Telecom Australia employs about 1500 members of this association.

POCSAG CODE : (paging); (British) Post Office Code Standard Advisory Group. The Code used in Telecom's Telefinder high capacity digital paging system.[1]

POD : (fibre optics); Plasma Outside Diffusion.

POLAR : (data transmission); A situation in which a binary 1 is represented by current flow in one direction and a binary 0 by current flow in the opposite direction.

POLLING : (computers); A process in which a number of peripheral devices, remote stations, or nodes in a computer network are interrogated one at a time to determine if service is required.

POLLING : (data transmission); In a Local Area Network, this is a technique where only one station is able to transmit at a time, either by being specifically enabled by a master network controller, or by virtue of holding a token (q.v.).[9]

POLMERS : Privately Operated (or Owned) Land Based Mobile Radio Service.[1]

POLYMER : A product of polymerisation in which the chemical union of two or more molecules of the same compound form larger molecules. Many important products used in Telecommunications are polymeric compounds either natural, (eg. cellulose) or synthetic, (eg. rayon).[1]

PORT : (computers); An access point to a computer.[7]

POS : Point of Sale. see EFTPOS.

POSN : (abbr.); Position.[3]

PP : 1. (LEOPARD); Prompt Public Telephone.[2] 2. Polypropylene insulation.

PPE LINE : see Part-Privately Erected Line.[13]

PPM : (transmission); Pulse Position Modulation[1]

PR : (LEOPARD); Previously Reported.[2]

PR : (abbr.); Pair.[3]

PR : 1. (Telecom); Public Relations. 2. (electronics); Partial Response.

PREF : (abbr.); Preferred.[3]

PREMIUM TELEPHONE : (Telecom); A telephone instrument offering convenient facilities beyond the usual 10-digit standard dial/push-button.[1]

PRESS RATE : (telegraphy); A telegraph tariff that existed for use of the press, and was discontinued on 1 October 1973.

PRESSURE, GAS : (cables); A system of preventing cable failure from dampness because of the ingress of moisture through a sheath defect whereby they are filled with a dry gas, usually air under pressure.[1]

PRESTEL : (videotex); The trade mark of the British Telecom public videotex service.[7]

PREV : (abbr.); Previous.[3]

PREVENTIVE MAINTENANCE : (Telecom); A program of regular inspection and adjustment of plant or equipment to prevent it failing in service. Because of its high cost it is generally abandoned in favour of qualitative maintenance in which, with reservations, equipment operates until it fails to give satisfactory service before maintenance attention is given to it.[1]

PRF : (transmission); Pulse Repetition Frequency.[2]

PRIMARY WORKS : (Telecom); A term used to describe the larger external plant projects on which a high degree of labour specialisation is used, eg, laying large nests of conduits, coaxial cable or the installation of large size cables.[1]

PRIVATE ATTACHMENT : (telephony); Telephone equipment, usually of an auxiliary nature which is privately owned and maintained, and is permitted to be connected to the telephone network.[1]

PRIVATE AUTOMATIC BRANCH EXCHANGE : (telephony); An automatic PBX. Generally these provide for automatic calls between extension telephones and to the exchange lines, but incoming calls from the exchange are answered by a switchboard operator.[13]

PRIVATE BRANCH EXCHANGE : (telephony); A general term used to describe any switchboard installed in subscribers' premises.[13]

PRIVATE LINE : (telephony); A line provided by Telecom directly between two points independently of the switching equipment in telephone exchanges. These are widely used for fire alarms, burglar alarms, data transmission, between private radio bases, transmitting and receiving stations, telemetering and telecontrol systems for all types of utilities.[13]

PRIVATE MANUAL BRANCH EXCHANGE : (telephony); A manually-operated PBX. Very few of these are now left in existence.[13]

PRIVATE METER : See Telemeter.[1]

PRIVATELY CONSTRUCTED PLANT : (telephony); Describes that part of a rural telephone line which is erected by the subscriber.[13]

PROD : (abbr.); Product.[3]

PROG : (abbr.); Progress.[3]

PROGRAM : (computers); A set of instructions that determines the series of steps to be followed by a computer system or other devices.

PROGRAM CHANNEL : (transmission); A telecommunication channel used to carry sound or vision programs for TV or broadcasting purposes.[1]

PROGRAM MODEM : (transmission); A device used to provide monophonic or stereophonic high quality sound channels for radio and television services by means of analog or digital multiplexers and associated equipment and systems.[1]

PROM : (electronics); Programmable read-only memory. Type of memory that is not recorded during its fabrication but which requires a physical operation to program it. Some PROMs can be erased and reprogrammed through special physical processes. (EPROMs).

PROPAGATION : (radio); The way in which radio waves travel through the atmosphere. Varies in a highly complex and variable manner depending on meteorological and seasonal conditions.[13]

PROSEL : Project Selection Module.[1]

PROTOCOL : (data transmission); A formal set of conventions governing the format and relative timing of message exchange between two communicating processes.

PRT : (transmission); Pulse Repartition Time.[2]

PRX : (switching); Processor Controlled Reed Exchange.[2]

PS : (AXE); Program Store.[2]

PSA : 1. Prices Surveillance Authority, to which Telecom must submit its reasons for increasing charges.[9] 2. (switching); Primary Switching Area - a primary switching area contains a number of approved secondary switching areas (STA) that have been grouped together on a community of interest or geographical basis for switching and charging purposes. Usually associated with a single Primary Trunk Exchange (PTE).[1]

PSC : (switching); Primary Switching Centre.[1]

PSE : (packet switching); Packet Switching Exchange.[4]

PSIO : (Telecom); Potential Services In Operation.[4]

PSLM : (transmission); Programmable Selective Level Meters - part of a system of automated broadband bearer transmission performance surveillance using Automated Baseband Monitor.[1]

PSN : (packet switching); Packet Switching Node[1]

PSS : Packet Switching Service (AUSTPAC). See Packet Switching.[1]

PSSU : (switching); Power Supply and Switching Unit.[2]

PSTN : (telephony); Public Switched Telephone Network, (ie, telephony portion only).[1]

PSU : Preformed Spacer Unit.[2]

PT : 1. (AXE); Processor Test.[2] 2. (abbr.); Public Telephone.[1]

PTB : (AXE); Processor Test Bus.[2]

PTD : (AXE); Processor Traffic Data.[2]

PTE : (switching); Primary Trunk Exchange.[1]

PTM : 1. (telephony); Public Telephone Monitor.[2] 2. (transmission); Pulse Time Modulation - see Modulation.[1]

PTR : (radio); Program Transmission Room.[1]

PTS : (abbr.); Public Telegram Service.[1]

PTSS : (transmission); Proceed to Send Signal.[2]

PTT : 1. (traffic management); Processor Traffic Interface.[2] 2. Usual abbreviation for a Public Telephone & Telegraph Government administration.[1]

PTU : (AXE); Processor Test Unit.[2]

PULSE : (electronics); A momentary sharp change in a current, voltage, or other electric quantity that is normally constant. A pulse is characterized by a rise and fall and has a finite duration.

PULSE CODE : (transmission); A code giving the equivalence between the quantized value of a sample and the corresponding character signal.

PULSE CODE MODULATION : (transmission); A process in which a signal is sampled and the magnitude of each sample with respect to a fixed reference is quantized and converted by coding to a digital signal. see Appendix 5.

PULSE SPREADING : (fibre optics); The increase in pulse width in a given length of fibre due to the cumulative effect of material and modal dispersion.

PURGE : (computers); The regular process of removing outdated files from a hard disk or other memory storage device.[9]

PURITY : (television); The term used in colour television reception to denote the attainment of adjustment of the "deflection centres" for all three electron beams of the picture tube so that each beam only activates the particular coloured phosphor dots associated with it.[12]

PVC : 1. (packet switching); Permanent Virtual Call.[4] 2. Poly Vinyl Chloride.[9]

PWIU : (television); Pilot Waveform Insertion Unit - a TV picture monitoring device.[1]

PWM : (telephony); Pulse Width Modulation.[1]

Q

QAM : see Quadrature Amplitude Modulation.[12]

QTY : (abbr.); Quantity.[3]

QUAD : (cables); Group of four wires in "star" formation used in cable lay-up. See Cable.[1]

QUADRATURE AMPLITUDE MODULATION : (television); The method used in NTSC and PAL systems to carry two sets of colour information signals by a single sub-carrier source.[12]

QUALITATIVE : See Preventive Maintenance.[1]

QUANTISING : (data transmission); A process in which samples are classified into a number of adjacent intervals, each interval being represented by a single value called the quantized value.

QUANTISING DISTORTION : (data transmission); The distortion resulting from the process of quantising.

QUANTISING NOISE : (data transmission); Noise introduced when analog signals are encoded into digital form and reconverted into analog form.

QWERTY : Australian standard for layout of typebar typewriter keyboards (AS 2287-1979).

R

R/A : (abbr.); Refer Again.[2]

R/S : 1. (switching); Relay Set.[2] 2. (abbr.); Re-submit.

R/T : (abbr.); Radio-telephone.[1]

RA : 1. (AXE); Route Analysis in TCS.[2] 2. Recorded Announcement 3. (Telecom); Refer Again (at some nominated future date).[1]

RAB : (switching); Type of relay; general purpose.[2]

RADIO BEARER : See Bearer.[1]

RADIO BROADCASTING : (radio); The use of radio waves to spread sound or vision programs for general reception.[13]

RADIO RELAY SYSTEM : (transmission); A number of transmitters and receivers which relay signals from one to another in a chain configuration so as to provide long distance communication.[1]

RADIO SUBSCRIBER : (telephony); A telephone service where the link between subscriber and exchange is by radio link; usually only occurs in remote, sparsely settled areas. See also DRCS.[1]

RAE : (switching); Type of relay; polarised.[2]

RAF : (switching); Type of relay; general purpose.[2]

RAG : (switching); Type of relay; polarised.[2]

RAH : (switching); Type of relay; three separate coils, common yoke.[2]

RAM : 1. (computers); Random-access memory. A data storage device that can retain and produce on demand any data placed in it. 2. (switching); Type of relay; multi-coil relay.[2]

RANDOM NOISE : (electronics); Thermal noise generated from electron motion within resistive elements of electronic equipment.

RASS : (Telecom); Records Automation for Special Services. A Data Base system to provide a Service Order type system for customers' Special Services, eg, private lines, data services, ODX's, Tie-lines, telex services, etc).[1]

RATES : (Telecom); Remote Access Test Equipment System.[4]

RATV : (television); Remote Area TV - a TV service to outback communities using the Intelsat 4 Satellite to relay a signal to small community ground stations where it is re-broadcast to viewers.[1]

RAX : (switching); Rural Automatic Exchange - now obsolete.

RAY : (fibre optics); A geometric representation of a light path through an optical device; a line normal to the wavefront indicating the direction of radiant energy flow.

RBP : (telephony); Ring Back Price.[1]

RCC : (traffic management); Record Control Centre.[2]

RCM : (transmission); Reference Clock Module.[2]

RCPT : (abbr.); Receipt.[3]

RD : 1. (LEOPARD); Repair District.[2] 2. (Telecom); Recoverable Docket - a (State) authorisation to do work at someone else's cost, up to $3500 (ie, move or repair damaged plant, etc) - see also RW.[1]

RDG : (abbr.); Reading.[3]

RDI : Research, Development and Innovation.[1]

RE : (AXE); Register Functions in TCS.[2]

REA : Rural Electrification Authority, USA.[1]

REAL TIME : (computers); 1. Pertaining to the actual time during which a physical process transpires. 2. Pertaining to the performance of a computation during the actual time that the related physical process transpires in order that results of the computations can be used in guiding the physical process.

REF : (abbr.); Reference.[3]

REFEQ : (Telecom computers); Determination of the Reference Equivalent of Subscriber Lines.[1]

REFERENCE BLACK LEVEL : (television); The carrier level selected by the Broadcasting Control Board to specify the limit of maximum excursion of the video signal in the black direction. The Australasian PAL system standard is 77% of peak carrier level.[12]

REFERENCE CLOCK : (transmission); A clock of high stability and accuracy which is used to govern the frequency of a network of mutually synchronizing clocks of lower stability. Failure of such a clock does not cause loss of synchronism.

REFERENCE WHITE LEVEL : (television); The carrier level selected by the Broadcasting Control Board to specify the limit of maximum excursion of the video signal in the white direction. The Australasian PAL system standard is 20% of peak carrier level.[12]

REFRACTIVE INDEX : (fibre optics); The ratio of light velocity in a vacuum to its velocity in the medium of interest.

REG : see Register.[1]

REG-I : (switching); Incoming Register.[2]

REG-L : (switching); Local Register.[2]

REGENERATOR : (fibre optics); A term used for fibre optic systems which corresponds to "Repeater" in electronic transmission systems. It picks up the weakening light pulse and sends an identical but stronger pulse along the next part of the communications system.[9]

REGIONAL NETWORK PLAN : (switching); An element of the State switching equipment.[1]

REGIONAL STUDIOS : (television); A studio in a country centre which Telecom maintains for the Australian Broadcasting Commission. The ABC maintain metropolitan studios.[1]

REGISTER : 1. (switching); A device which stores a number temporarily. Types of registers used in Crossbar switching are; D, LM, LP, ELP, H4, U.[1] 2. (computers); A device that stores one word of data; often consists of several flip-flops.

RELAY : 1. (radio); "Splitting" of a program etc, so that it can be transmitted to more than one point for broadcasting. 2. (electronics); A basic device used in telecommunications mainly for the switching in crossbar switch gear of circuits. See Appendix 6.[1]

RELIEF CABLE : (cables); Provision of new cable in an areas where there is a shortage of spare cable pairs.[13]

REMO : (Telecom); Register Modification Program (Crossbar Modification Program) - a program of modifying crossbar registers to provide additional network supervision and customer facilities.[1]

REP : (abbr.); Representative.[3]

REPEATER : (transmission); A unit of voice frequency or carrier frequency equipment used to amplify and equalise an analog communication signal that has been weakened and distorted through a long circuit. In digital systems, a Regenerator performs a similar function.[1]

REPEATER SECTION : (transmission); The bearer path between two consecutive repeaters.[13]

REQD : (abbr.); Required.[3]

RESISTANCE : See Ohm.[1]

RESISTOR : (electronics); Component used frequently in electronic circuits to provide specified circuit resistance values. They are manufactured from alloy wires or carbon compounds.[1]

RESPONSE FRAME : (videotex); A frame with which a user can send a message to the IP who created it.[7]

RETD : (packet switching); A Spanish public packet switched network.

RETRIEVAL CENTRE : (videotex); A videotex centre available for access to users, which receives updates to its database from the Update Centre (q.v.).[7]

REVERSE CHANNEL : (transmission); A channel used for transmission of supervisory or error-control signals. The direction of flow of these signals is in the direction opposite to that in which information is being transferred. The bandwidth of this channel is usually less than that of the forward channel.

RF : (transmission); Radio Frequency.

RFDS : Royal Flying Doctor Service.[1]

RFI : (transmission); Radio Frequency Interference.

RGI : (telephony); Ring Current.[2]

RH : Right Hand.[1]

RIS : (telephony); Recorded Information Service.[2]

RMS : Root Mean Square. Usually applies to an alternating current or signal and is the effective voltage or signal power which is .707 of the peak voltage or signal strength of the wave, where the wave is a simple sinusoidal one.[1]

RNF : (fault despatch); Reception Faint, noisy, or intermittent.[2]

RO STATION : (satellites); Receive Only [Earth] Station. See Earth Station.[9]

ROM : (electronics); Read-only memory. A device that has data permanently entered into it to be outputted on demand.

RP : (AXE); Regional Processor.[2]

RPB : (AXE); Regional Processor Bus.[2]

RPM : Revolutions per minute.[1]

RPR : (switching); Automatic Register Tester.[2]

RPS : (AXE); Regional Processor Subsystem.[2]

RPT : (MOPAX); Radio Paging Terminal.[2]

RPT : (abbr.); Report.[3]

RRAP : (Telecom); see Rural and Remote Areas Program.

RRL : (transmission); Relative Return Loss.[2]

RS 232C : (data transmission); Interface between data terminal equipment and data communication equipment employing serial binary data interchange.

RS : 1. (AXE); Reference Store. 2. (LEOPARD); Resubmitted for test.[2]

RSF : (fault despatch); Revertive Signal Failure.[2]

RSM : 1. (switching); Register Finder Marker.[2] 2. (telephony); Remote Subscriber Multiplexer.[2]

RSR : (switching); Relay Set Repeater.[2]

RSS : (switching); Remote Subscriber Switching Stage; an outposted local switching sub-system of the AXE electronic switching system. RSS-D = Digital Version.[1]

RSS-D : (AXE); Digital Remote Subscriber Stage.[2]

RSTV : (television); Radiated Subscription Television - Subscription or Pay-TV, where the program signal is broadcast and decoded at the receiver, rather than transmitted by cable (see also CTV).[1]

RSV : (switching); Register Finder Switch.[2]

RT : 1. (AXE); Remote Terminal. 2. Ring Tone.[2] 3. (telex); Reperforator-transmitter. A teletypewriter unit which perforates received data on a tape and retransmits it; consists of two separate units, reperforator and transmitter. 4. Radio Terminal[1]

RTE : (abbr.); Rate.[3]

RTM : (traffic management); Remote Traffic Monitors (for electro-mechanical exchanges). See also TDAS.[1]

RTSS : (satellites); Remote Telecommunications Satellite Service. Now known as ITERRA (q.v.)[1]

RTY : (switching); Rotary - a term usually applying to bimotional switches.[1]

RURAL AND REMOTE AREAS PROGRAM : (Telecom); This has the objective of extending access to telecommunications services to all Australians by 1990.[9]

RV : (telephony); Recorded Voice.[2]

RVA : (telephony); Recorded Voice Announcement.[1]

RW (OR RWO) : (Telecom); Recoverable Works Order - Telecom work done for another party who will pay costs (exceeding $3500) - see also RD.[1]

RWT : (LEOPARD); Right When Tested.[2]

RX : (abbr.); Receiver or Reception.[1]

RZ : (fibre optics); Return to Zero.

S

S-S : (switching); Step-by-step to Step-by-step.[2]

S-X : (switching); Step-by-step to Crossbar.[2]

S-XS : (switching); Step-by-step to Hybrid.[2]

S/N : (transmission); Signal to Noise ratio.

SA/MAC : (telephony); Service Assistance/Manual Assistance Centre.[4]

SAA : Standards Association of Australia.[1]

SAC : (Telecom); Service Assistance Centre.[1]

SALT : (telephony); Subscribers' Automatic Line Tester.[1]

SAM : Systematic Air Monitor[1]

SAP : (Telecom); Service Assessment Position.[2]

SAS : Supervisory Alarm System[1]

SASBRL : Switched and Answered Stability Balance Return Loss.[2]

SATELLITE : A body which revolves around another body of preponderant mass and which has a motion primarily and permanently determined by the force of attraction of this body.

SATNET : South Australian Telecommunication Network, established for educational purposes. It consists of the Telecom switched network, plus the PBX exchange of the Public Service Exchange of South Australia, plus several dedicated lines. The network is used by the State Education Department's Educational Technology Centre.[2]

SATURATION : (television); A term denoting the amount of colour possessed in a particular hue. In a colour television system 100% saturation denotes the strongest colour, that is, the maximum amplitude of camera signals of that colour.[12]

SBE : see Screen Based Equipment.

SBS : (Telecom); Small Business Systems (Aust), also Satellite Business Systems (USA).[1]

SBS/SNA/SDLC : (data transmission); IBM's Satellite Business Systems/Systems Network Architecture/Synchronous Data Link Control, a computer communications system encompassing transmission facilities, network building principles and interchange protocols.

SC : (AXE); Subscriber Category Analysis in TCS.[2]

SCAT : (traffic management); Sydney Co-ordinated Adaptive Traffic System, a system of over 1000 traffic controllers grouped into eleven zones. Each zone is controlled by a regional minicomputer linked directly to the controllers in its zone and itself linked to a central processor. Each of these levels is linked to the adjacent by a serial communications network using leased Telecom telephone lines.

SCATTERING : (fibre optics); Losses of light in a fibre caused by impurities in the fibre.[9]

SCAX : (switching); Small Country Automatic Exchange, up to 200 lines.[1]

SCC : (fault despatch); Service Control Centre.[2]

SCCP : (transmission); Signalling Connection Control Part.[2]

SCH : (fibre optics); Separate Confinement Heterostructure laser.

SCHOTTKY DIODE : (electronics); Schottky diodes are used to eliminate charge storage in the base region of transistors. A sunstantial portion of the propagation delay in a logic gate results from the stored charge caused by saturation of the transistor; when base input current is interrupted, the transistor continues to conduct until the charge dissipates.

SCPC : (transmission); Single Channel Per Carrier. Radio circuits usually providing one speech channel for each radio carrier wave. (Term used in connection with satellite communications).[1]

SCR : 1. (switching); Service Control Rack. 2. (electronics); Silicon Controlled Rectifier.[2] 3. Software Change Requests, part of SDSS activity.

SCRAMBLING : (data transmission); A coding technique applied to digital signals that produces a random data pattern. In this way a more nearly constant transmitted power level is maintained which makes receiver timing recovery insensitive to the data pattern.

SCREEN BASED EQUIPMENT : (computers); A generic title for all forms of data processing equipment that employ keyboards and VDU's.

SCRP : (telephony); Subscriber's Call Record Printer.[2]

SCRTY : (abbr.); Security.[3]

SDC : (LEOPARD); Subscriber (Fault) Despatch Centre, equivalent of FDC.[1]

SDL : The CCITT Specification and Description Language, a graphical language based upon state transition diagrams, and intended to improve a telephone company's ability to specify its requirements to manufacturers of modern switching systems and to improve the manufacturer's ability to document the behaviour of the completed systems.

SDR : (switching); 1. System Disturbance Report - a design fault reporting procedure for SPC switching systems. 2. Small Digital Rural (Exchange).[1]

SDSS : (switching); Software Develolpment Support System - an IBM-compatible (FACOM) series of utility programs used at the NSC to produce IOC exchange operating system tapes.[1]

SE : (AXE); Special Subscriber Equipment in SSS.[2]

SEACOM : (cables); Planned in 1961, it is an undersea telecommunications cable, linking Australia via New Guinea, Guam, Hong Kong, North Borneo, to Singapore and on by microwave to Malaysia, the continent and Britain, and opened in 1967.

SECAM : (television); A French developed system of colour television, 'Sequence a Memoire'.[1]

SECONDARY CHANNEL : (data transmission); The channel having a lower signalling rate capability than the primary channel in a system in which two channels share a common interface connector.

SECTN : (abbr.); Section.[3]

SECURITEL : (Telecom); A network which provides for the cost-efficient transmission of security and other alarms. Charges are distance-independent. As a normal check routine, premises monitored by Securitel are polled at least every 30 seconds by the telephone-exchange-based scanning equipment.[9]

SEG : (abbr.); Segment.[3]

SELECTIVE CALLING : (transmission); The ability of the transmitting station to specify which of several stations on the same line is to receive a message.

SELECTOR : (switching); Switch used in the step-by-step system - see Switching.[1]

SEMICONDUCTORS : (electronics); Forms of matter, both elements and compounds, midway between insulators and conductors of electrical energy. Whereas conductors have a small number of electrons (up to three) loosely bound in their outer shell which can be easily moved to produce current flow, and insulators have about five to eight immovable electrons in the outer shell, the semi-conductors have four other electrons which under certain treatment and conditions, flow and can become conductors; germanium and silicon are the most common and are the usual basis for transistors of various types.[1]

SEQ : (abbr.); Sequence.[2]

SERIAL TRANSMISSION : (data transmission); A system in which the bits of a character occur serially in time.

SERIAL, SERIALISED : (Telecom); A Stores or Supply term to readily identify items of material commonly used.[1]

SERIES : (electronics); An order of connecting cells, equipment, etc, in a sequence so that the signal or current flows through each in turn as opposed to parallel connection where the flow would be through all together.[1]

SERV : (abbr.); Service.[3]

SERVICE CO-ORDINATION CENTRE : (Telecom switching); Refers to automatic switching. A centre including CARGO (q.v.) for the general compilation and distribution of statistics.[1]

SERVICE COMPLAINTS CENTRE : (Telecom switching); Refers to Automatic switching and is a point for receiving complaints of service difficulties from subscriber (eg, 1100).[1]

SERVICE ORDER : (Telecom); Formal advice to field staff authorising the provision or alteration of some aspect of a customers service or facility, up to a maximum cost of $15,500.[1]

SERVICE PERFORMANCE : (Telecom); The actual performance given by Telecom. This is constantly under assessment.[1]

SERVICE PROVIDER : (videotex); A user who supplies and maintains a section of information on the database or otherwise provides a service on videotex. This term is now replacing the term "Information Provider" in Australian use.[9]

SERVICE STANDARDS : (Telecom); The set standard of performance to be provided to Telecom customers.[1]

SFA : (switching); Switching Fault Analyser.[2]

SFS : (transmission); Seize Forward Signal.[2]

SG : (transmission); Supergroup.[2]

SGOS : (telephony); Standard Grade of Service.[2]

SH : (fibre optics); Single Heterojunction laser.

SHF : (transmission); Super High Frequency. Microwave frequencies between 3GHz and 30GHz - see Frequency.[1]

SHS : (fault despatch); Switch Hook Sticking.[2]

SI : 1. Systeme Internationale, a regularised system of metric units used in science and technology around the world. 2. (fibre optics); Step Index. 3. (LEOPARD); Special Inspection.[2]

SID : (fault despatch); Special Inspection Docket.[2]

SIDEBAND : (transmission); The frequency band on either the upper or lower side of the carrier frequency within which fall the frequencies produced by the process of modulation.

SIGNAL-TO-NOISE RATIO : (transmission); Relative power of the signal to the noise in a channel, usually measured in decibels.

SIGNALLING : (transmission); The exchange of electrical information (other than by speech) specifically concerned with the establishment and control of connections and management in a communication network.

SIGNALLING LIMIT : (transmission); The maximum resistance of a loop circuit permitting satisfactory signalling. Various types of telephone exchanges and subscribers equipment have different signalling limits.[13]

SIGNIFICANT DIGIT : A digit that contributes to the precision of a number. The number of significant digits is counted beginning with the digit contributing the most value, called the most significant digit, and ending with the one contributing the least value, called the least significant digit.

SILICON : (electronics); A dark gray, hard, crystalline solid. It is the basic material for most integrated circuits and semiconductor devices.[9]

SINE WAVE : (electronics); Represents an alternating current or voltage in its purest form, ie, no distortion or modulation. "Sine" is applied because the wave has a definite relationship to the sine of an angle.[1]

SINGLE-MODE FIBRE : (fibre optics); A fibre that permits only one mode to propagate.

SIP : (electronics); Single In-line Package of electric components that is suited for automated assembly into printed-circuit boards. The SIP is characterized by a single row of external connecting terminals or pins which are inserted into the holes of the printed circuit board.

SIR : (Telecom); Standard Issue Rate.[2]

SITA : (data tranmission); Data network of IATA, the International Association of Travel Agencies.

SKEW : (transmission); Refers to time delay or offset between any two signals in relation to each other.

SKM : (cables); Sheath Kilometres.[2]

SL : (switching); 1. Subscriber's Line (or Loop). 2. Switching Loss.[2] 3. see Signalling Limit.[13]

SLAC : (electronics); Subscriber Line Audio-Processing Circuit, an integrated circuit which performs the codec and filtering functions necessary to interface analog subscriber lines with digital exchanges.

SLC : (switching); Second Last Choice route.[2]

SLC-96 : (data transmission); This AT&T system uses electronics to provide digital transmission to serve up to 96 customers on as few as three pairs of wires.[5]

SLD : (fibre optics); Superluminescent diode.

SLEMS : (telephony); Sensitive Level Measuring Set.[2]

SLEW RATE : (data transmission); Voltage-changing speed of a digital signal; expressed in volts per microsecond

SLIC/SLAC : (telephony); Subscriber's Line Interface Circuit / Subscriber's Line Audio Circuit.[1]

SLF : (switching); Secondary Line Finder.[2]

SLM : (switching); Subscriber's Line Marker.[2]

SLS : (switching); Minor Distribution Fuse.[2]

SM : (fibre optics); Single Mode.

SMALL CAPACITY SYSTEMS : (transmission); Systems carrying up to 24 speech or telephone channels.[1]

SMART TERMINAL : (computers); A terminal equipped with capabilities to edit and store data. However, capabilities are limited in comparison to an intelligent terminal. See also Intelligent Terminal.

SMB : (Telecom); Special Major Building - a classification assigned to a buildings project in excess of $2M.[1]

SMOF : (fibre optics); Single Mode Optic Fibre Cable (currently being trialled for long-distance applications).[1]

SNA : 1. (data transmission); Switched Network Adaptor.[4] 2. (computers); Systems Network Architecture. An IBM communications standard.[1]

SNE : (switching); Secondary Notional Exchange.[1]

SNR : see Signal-to-Noise Ratio.[1]

SNRP : (switching); Remote Test Relay Set.[2]

SOB : (telephony); Stop On Busy.[2]

SOC : (fault despatch); Service Order Cell.[2]

SOFTWARE : (computers); Generally, the instructions needed by a computer to carry out various functions or tasks.[7]

SOH : 1. (data transmission); Start of header. A communication control character used at the beginning of a sequence of characters which constitute a machine-sensible address or routing information. Such a sequence is referred to as the header. 2. (telegraphy); A control character in the VDU/TRESS system.

SOLID STATE DEVICE : (electronics); A cold-operating semi-conductor device performing an electronic function such as amplifier, rectifier, transistor, photocell, thermistor, etc.[1]

SOM : (telegraphy); Start of Message, a control character in the VDU/TRESS system.

SORA : (transmission); Surveillance of Radio Alarms. A computerised fault monitoring system for the microwave radio network, first introduced in New South Wales in 1984.[9] see COSRA.[1]

SOS : 1. (Telecom); Service Order System (see "Service Orders" and SPAN).[1] 2. (electronics); Silicon On Sapphire.[2]

SOURCE CODE : (computers); see Compiler.[9]

SP : 1. (electronics); Single Pole - applies to a switching device having a single path.[1] 2. (transmission); Signalling Point.[2] 3. (videotex); see Service Provider.

SPAN : (Telecom); Service Provision Advice Network. A computerised system to facilitate rapid transfer of Service Orders, completion advices, etc, in connection with provision of service to customers.[1]

SPASM : (Telecom); Standard Priority and Sequencing Module.[2]

SPC : (switching); Stored Program Control. Solid state computer controller for electronic telephone and telex exchanges (see Switching).[1]

SPCC : (telephony); Semi-Permanent Cross Connection.[2]

SPD : (transmission); Supervisory Pulse Distributor.[2]

SPECIAL SERVICES : (Telecom); Typical of the non-exchange or Special Services provided by Telecom are ; (a) Emergency services lines, eg, fire, ambulance, disaster, etc; (b) Security services and Alarms; (c) Department of Defence private lines; (d) Facsimile lines; (e) Piped Music Lines; (f) PABX Alarms, Outdoor Extensions and Tie-Lines and (g) Telemetering Lines and Control Circuits[1]

SPECL : (abbr.); Special.[3]

SPECN. : (abbr.); Specification.[1]

SPECTRUM : In general, a continuous range of frequencies, usually wide in extent, within which waves have some specific common characteristic. . It usually refers to the electromagnetic spectrum, and in particular to light. In this case, it is the image obtained when a source of white light passes through a device such as a prism which refracts the radiation of different wavelengths at different angles. This results in a linear arrangment of the different colours contained in light, in the order of their wavelengths.[12]

SPG : (transmission); Supervisory Pulse Generator.[2]

SPIN STABILISATION : (satellites); A method of keeping a satellite oriented in the same direction in space (so as to keep solar cells at maximum illumination, for example), by spinning it. This spinning motion provides gyroscopic stability but the communications antennas are de-spun and remain pointed towards the coverage zones unique to each.

SPM : 1. (AXE); Space Switching Module.[2] 2. (telephony); Subscribers' (Customers') Private Meter.[1]

SPN : (Telecom); Service Provision Network.[2]

SPOT BEAM : (satellites); The satellite beam from the Australian domestic satellite designed to cover a particular region of Australia.[6]

SPSS : (computers); Statistical Package for the Social Sciences.[4]

SQC : (cables); Single Quad Carrier Cable[1]

SQUARE : (videotex); A standard videotex keypad character, #.[7]

SR : (switching); Selector - a telephony switching device (step-by-step).[1]

SRA : see COSRA.[1]

SRTCC : (Telecom); Service Restoration and Traffic Control Centre[1]

SRTRS : (transmission); Satellite Remote and Thick Route Services.[1]

SS : 1. (AXE); Subscriber Switching in SSS.[2] 2. (switching); Code Sender Finder.[2]

SSA : 1. (switching); Secondary Switching Area - consists of a number of minor switching areas (MSA) that have been grouped together on a community of interest and geographical basis for switching and charging purposes. An STA usually has associated with it a single main (MTE) or primary trunk exchange (PTE).[1] 2. (AXE); Incoming Speech Store.

SSB : 1. (AXE); Outgoing Speech Store.[2] 2. (transmission); Single Side Band.

SSBFM : (transmission); Single Sideband, Frequency Modulation.[1]

SSC : 1. State Support Centre - a centralised point in each State which provides high level system expertise, as well as support and co-ordination functions within the State for SPC (electronic) exchanges. It also interfaces the NSC (National Support Centre), and DSCs (District Support Centre). 2. Secondary Switching Centre, or secondary trunk exchange (STE) is a group of exchange equipment located at the one site performing the secondary switching function for all or part of a secondary switching area. It is usually associated with a dependent minor exchange having the same location name. A secondary trunk exchange is a 4 wire switching exchange.[1]

SSD : (Telecom); Self-Scan Display (for 10C exchanges). [EngServ]

SSE : (Telecom); Solid State Electronics (Section, Telecom Research Laboratories).

SSF : (fibre optics); Standard Shunt Feedback.

SSI : 1. (AXE); Subscriber Switch Interface. 2. (electronics); Small Scale Integration.[2]

SSM : (AXE); Subscriber Switching Module.[2]

SSN : 1. (Telecom); Special Services Network - a dedicated network for "Special Services" (see definition above). 2. (switching); Subscribers' Switching Network (concentrator in an AXE exchange). See also Appendix 11.[1]

SSR : (switching); Selector Switching Repeater - a step-by-step telephony switching device.[1]

SSRC : (Telecom); Special Services Restoration Centre.[4]

SSS : (AXE); Subscriber Switching Subsystem.[2]

SSS-A : (AXE); Subscriber Switching Stage - Analog.[2]

SSS-D : (AXE); Subscriber Switching Stage - Digital.[2]

SSU : (switching); Selector Setting Unit.[2]

ST : 1. (AXE); Signal Terminal.[2] 2. (electronics); Schmitt Trigger.[2]

ST : (abbr.); Street.[3]

STA : (cables); Steel Tape Armoured - see Cable.[1]

STANDARD STRAIGHT LINE SERVICE : (telephony); A single telephone instrument located in a customer's premises.[13]

STANDBY EQUIPMENT : Duplicate equipment which can take over should a fault or interruption occur in the main equipment.[1]

STAR : (videotex); A standard videotex keypad character, *.[7]

STAR QUAD : (cables); A type of telephone cable, where four insulated wires are twisted symmetrically with the desired lay round a paper centralising string of accurately chosen size. The two pairs of diagonally opposite wires form the transmitting circuits.

START ELEMENT : (transmission); In start-stop transmission, the first element in each character, which serves to prepare the receiving equipment for the reception and registration of the character.

START-STOP TRANSMISSION : (transmission); Asynchronous transmission in which a group of code elements corresponding to a character signal is preceded by a start element and followed by one or more stop elements.

STATIONARY SATELLITE : A synchronous satellite with a equatorial, circular, and direct orbit. A stationary satellite remains fixed in relation to the surface of the primary body.

STC : Standard Telephones and Cables Pty. Ltd. (an ITT subsidiary company)[1]

STD : see Subscriber Trunk Dialling.[13]

STD/CCR : An optional customer facility providing a detailed record of call charges on STD calls - commenced 1984.[1] see Call Charge Recorder.

STE : (switching); Secondary Trunk Exchange - see Secondary Switching Centre.[1]

STEP-BY-STEP EQUIPMENT : (switching); An earlier type of automatic switching equipment (also termed Strowger equipment). Superseded by crossbar and now SPC switching equipment. see[13] Appendix 6.

STEP-INDEX FIBRE : (fibre optics); A fibre whose index of refraction changes sharply at the interface of its core and cladding. The core material has a high uniform refractive index, while the cladding material's is low.

STND : (abbr.); Standards.[3]

STOP ELEMENT : (transmission); In start-stop transmission, the last element in each character to which is assigned a minimum duration, during which the receiving equipment is returned to its rest condition in preparation for the reception of the next character.

STORAGE : (computers); A device to which data can be transferred and from which they can be obtained at a later time.

STP : (transmission); Signal Transfer Point[1]

STRAP : (traffic management); Secondary Traffic Processing.[1]

STRICT CHOICE : (videotex); Routing from a page which follows a strict logical filial-parent relationship. If, for example, choice 0 on page 20 leads to 200, choice 1 leads to 201, through to choice 9 leading to page 209, then the routing is strict.

STROWGER EQUIPMENT : (switching); Named for its inventor, Almon B. Strowger. See Step-by-step Equipment.[13]

STRT : (abbr.); Start.[3]

STS : 1. (telephony); Subscribers' Transmission Standards. 2. (data transmission); Subscriber Test System (part of DDN)[1]

STU : 1. (switching); ARE Signalling Transfer Unit.[2] 2. (switching); Secondary Trunk Exchange (Terminating)[1]

STX : 1. (switching); Secondary Trunk Exchange (Originating)[1] 2. (transmission); Start of text. A communication control character which precedes a sequence of characters that is to be treated as an entity and entirely transmitted through to the ultimate destination. Such a sequence is referred to as text. STX may be used to terminate a sequence of characters (heading) started by SOH.

SUB : (abbr.); Subscriber.[2]

SUBOPT : (Telecom computers); Determination of Customer Transmission Opinion for Traffic Generated at a Local Exchange.[1]

SUBSCRIBER : A person who rents a service, including a telephone, telex, datel, private line or other like service from Telecom Australia. The preferred term is now "customer".[13]

SUBSCRIBER TRUNK DIALLING : (telephony); The dialling of trunk calls by subscribers.[13]

SUBSCRIBER'S PRIVATE METER : (telephony); A facility available to subscribers whereby the meter pulses recorded on their meter in the telephone exchange can be recorded on a special meter located at the telephone instrument.[13] Also known as Telemeter (q.v.).

SUBSTRATE : (electronics); The base material on which layers are deposited during the manufacture of microchips.[9]

SULTAN : (Telecom); Subscribers' Line Testing Access Network. A computerised system of remotely checking reported faults on a national basis.[1]

SUPERGROUP : (transmission); An internationally agreed type of assembly of 5 groups, equal to 60 speech or telephone channels.[13]

SUPERGROUP ASSEMBLY : (transmission); An assembly of Supergroups (usually 15) which provides 900 voice telephone channels, but using a different carrier frequency range to that of a Supermastergroup.[1]

SUPERGROUP MODEM : (transmission); Device used to place the supergroup in the desired position in the overall transmission band.[13]

SUPERMASTERGROUP : (transmission); An assembly of either 3 mastergroups or 15 supergroups, equal to 900 speech or telephone channels in either case.[13]

SUPPORT : Supply Operations and Report System[1]

SUPV'Y : (abbr.); Supervisory - a telephony term.[1]

SUS : (AXE); Subscriber Services Subsystem in APT 210.[2]

SVC : (packet switching); Switched Virtual Call.[4]

SW : (telephony); Single Wound - usually applies to wire-wound coils used in telephony equipment.[1]

SWF : (fault despatch); Switchboard Failure.[2]

SWG : Standard Wire Gauge, the British standard for wire sizes. B&S (Brown and Sharp) is the American standard, whilst Australia now uses metric diameters.[1]

SWIFT : Society for World Interbank Financial Telecommunications.

SWITCHING : The process of connecting telecommunications lines together as the users require. See Appendix 6.[1]

SWITCHING LOSS : (switching); The proportion of calls in a network, or a part of it, which are unsuccessful due to faulty performance of the switching equipment.

SWITCHING NETWORK : (switching); Network comprising a hierarchy of switching exchanges linked to each other by trunk and junction circuits for the purpose of connecting calls from telephones, telex machines and other terminal equipment.[1]

SWITCHNET : (Telecom computers); Switched Network Dimensioning - Exchange Network Dimensioning Computer Model.[1]

SWR : (computers); Software Release - software packages developed and released for use in operating exchanges.[1]

SXS : (switching); Step-by-step.[1]

SYNCHRONOUS : (transmission); Two signals are synchronous if their corresponding significant instants have a desired phase relationship.

SYNCHRONOUS NETWORK : (data transmission); A network in which the clocks are controlled to run at identical rates or at the same mean rate with limited relative phase displacement.

SYNCHRONOUS SATELLITE : A satellite which revolves in its orbit in exactly the same time as the period of rotation of the body around which it is orbiting. A stationary satellite (q.v.) is a special case of a synchronous satellite.

T

T : (abbr.); see Tera.

T/P : (abbr.); Teleprinter.[2]

TA : 1. (Telecom); Travelling Allowance. 2. (telephony); Request for Technical Assistance from a user whose call attempt has been unsuccessful. 3.. Technicians Assistant. (now an obsolete Designation).[1]

TA TONE : (telephony); Try Again Tone - the Busy Signal.[1]

TAB : (telephony); Trunk Access Barred.[2]

TAC : Telecommunications Advisory Committee (see AIDTAC).[1]

TACONET : (Telecom); Telecom Australia Computer Network. It involves a number of different computers, including Honeywell Level 66 computers, and FACOM computers.[1]

TADMAR : (traffic management); Traffic Data Management, Analysis and Forecasting Reports. See also TDAS.[1]

TADMIR : (telegraphy); Telegraphs and Data Management Report.[4]

TAE : Test Access Equipment.[1]

TAIL : (satellites); A "tail" is a terrestrial link used to connect a main earth station with customer's premises.[9]

TAMS : (telephony); Telephone Apparatus Measuring System.[1]

TANDEM EXCHANGE : (switching); An automatic transit exchange which performs only junction line or trunk line switching for part of an approved minor switching area within urban networks ie, it does not switch to subscribers. see Appendix 8.[1]

TANDEM EXCHANGE AREAS : (switching); A tandem exchange area (TSA) consists of more than one defined terminal exchange area and is part only of an existing minor exchange area.[1]

TARS : (telephony); Tone Answer Relay Sets.[1]

TART : (Telecom computers); TACONET Availability and Response Time monitoring.[2]

TAS : (telegraphy); Telegraph Answering Service.[2]

TASI : (transmission); Time Assignment Speech Interpolation. A system to utilize idle voice-transmission periods. Switching equipment connects party to an idle channel and disconnects when speech stops.

TAT : (Telecom); Telecommunication Apprentice Technician.[1]

TAT-1 : (cables); Laid in 1956, it was the first transatlantic and transoceanic coaxial cable link between Britain, Canada and America. Its success led to the first all-Commonwealth coaxial cable link, CANTAT-1 (q.v.).

TBO : (Telecom); Telecom Business Office.

TBR : (Telecom); Tender Board Recommendation (to place a Contract).[1]

TC : (switching); Triple Connection - refers to automatic switching - a crossed line.[1]

TCA : (Telecom); Telegraphic Code Addresses (Directory).[2]

TCA : (telephony); Trunk Circuit Alteration.[2]

TCARS : (telephony); Test Call Answer Relay Set.[1]

TCBH : (traffic management); Time Consistent Busy Hour.[2]

TCC : 1. (Telecom); Telecom Consultative Council. 2. (telephony); Test Communication Controller. 3. Telephone Circuit Commissioning.[2] 4. (Telecom); Test Control Centre - the 'SULTAN' system control centre located at FDC's.[1]

TCD : (switching); Test Call Director used in crossbar exchanges.[1]

TCF : (switching); Transfer Connecting Frame or Trunk Connecting Frame.[2]

TCP : (switching); Traffic Call-handling (Control) Processor - part of the ANA processor in ARE-11 exchanges.[1]

TCPS : (switching); Tape Controlled Program Switch.[2]

TCS : (AXE); Traffic Routing and Control Subsystem.[2]

TCTS : Trans-Canada Telephone System.

TD : (telephony); Temporarily Disconnected.[2]

TDAS : Traffic Data Acquisition Systems. The collection of automated systems now being developed for gathering and processing telephone traffic data. see Appendix 8.[1]

TDE : see Traffic Data Equipment

TDF : (switching); Trunk Distributing Frame.[2]

TDM : (transmission); Time-Division Multiplex. A means of multiplexing channels over a single path by time-dividing the path into a number of time slots and assigning each channel its own slot.

TDMA : (transmission); Time-Division Multiple Access. Communication devices at different geographical locations share a multipoint or broadcast channel by means of a technique which allocates different time slots to different users in a satellite system.

TDMS : (telegraphy); Telegraph Distortion Measuring Set.[2]

TDN : (transmission); Time Division Network.[2]

TDP : (traffic management); Traffic Data Pool.[1]

TDR : (fibre optics); Time Domain Reflectometry.

TDSR : (telephony); Temporary Disconnection, Subscriber's Request.[2]

TE : Test Equipment.[1]

TEBS : (radio); Transportable Emergency Broadcasting Station.[1]

TEC : 1. (Telecom); Telecommunication Engineering Centre.[1] 2. (Telecom); Traffic Engineering Centre.[2]

TEI : Telephone and Electrical Industries (Company).[1]

TEL : (abbr.); Telephone.[3]

TEL/DRS : (Telecom computers); Telephone/Debtors - is an alternative name for Automatic Telephone Accounting derived from the names of the two main computer files involved. Now Customer Accounts and Billing System (CABS).[1]

TELBILL : (telephony); Old name for Customer Accounts and Billing System (CABS). See also Tel/Drs.[1]

TELCAM : (Telecom); Telecom Computer Aided Marketing.[4]

TELCO : Abbreviation for Telephone Company, sometimes extended to Government Administrations which provide telecom. services.[1]

TELECOM 2000 : A Corporate Planning Report on the future prospects for telecommunications in Australia.[1]

TELECOM AUSTRALIA : The trading name of the Australian Telecommunications Commission, which has responsibility for all of Australia's internal telecommunications system.

TELECOMMUNICATIONS JOURNAL OF AUSTRALIA : Journal published three times a year by the Telecommunications Society of Australia.

TELEFINDER : (paging); Telecom's radio paging service, which provides a means of contacting each customer of the service at any time, while allowing him or her freedom to move about within the service area. To contact a paging customer, a call from any telephone to his number is redirected to a paging terminal which encodes the calls and transmits them via a number of radio transmitters located throughout the required service area. Each paging customer carries a pocket-sized radio receiver which receives and decodes all of the transmitted calls, but responds only to its exclusive code by generating an audible, visual or tactile alerting signal.

TELEGRAPHY : The manual transmission of telegrams by morse code has practically disappeared from the service as it is superseded by an automatic machine operated system using teletypewriters at the terminal and automatic switching equipment operated from codes transmitted from the teletype. See also TELEX, TRESS and Channels.[1]

TELEMEMO : (Telecom); Electronic mail service offered by Telecom Australia.[9]

TELEMETER : (telephony); A meter in the customer's premises connected directly to the customer's telephone service. It operates simultaneously with the exchange telephone service meter and provides an immediate visual record of each meter registration to the customer.[1]

TELEMETRY : 1. The science of sensing and measuring information at some remote location and transmitting the data to a convenient location to be read and recorded. 2. The transmission of measurements obtained by automatic sensors and the like over the communications channels. 3.. The practice of transmitting and receiving and measurement of a variable for readout or other uses. The term is most commonly applied to electric signal systems.

TELEMISS : (Telecom computers); Telephone Marketing Inventory and Sales Statistics - a data base system of demand, unsatisfied demand, connections, number in operation, and provision performance for telephone service and facilities, including customer equipment, for marketing and operational management.[1]

TELENET : (packet switching); An American public packet switched network.

TELEPHONE NETWORK : (telephony); A wholly integrated assembly of telephone switching and transmission systems which permit interconnection of telephone subscribers.[13]

TELEPHONE SERVICE : (telephony); The line connecting the local telephone exchange to the customer's premises and the one or more telephone instruments or other equipment connected to it.[1]

TELEPOWER : (Telecom); A term used within Telecom to describe power plant associated with telecommunication equipment.[13]

TELESOFTWARE : (videotex); A means of storing and distributing computer programs through a videotex or teletext system.[7]

TELETEL : (videotex); The experimental interactive videotex service of France offered by the French PTT.[11]

TELETEX : (Telecom); High-speed telex-type service between communicating word processors offered by Telecom Australia.[4] Terminals provide high-quality output, permit simultaneous preparation and receipt, and offer transmission rates up to 300 characters per second. (Do not confuse with "Teletext")

TELETEXT : (videotex); A technique of transmitting frames of text via the conventional TV broadcast system. This is achieved by encoding binary digits in the lines normally used for blanking. The display and coding techniques for teletext are compatible with videotex so that the two services may be combined in an adapted TV set. (Do not confuse with "Teletex")[7]

TELETYPE : Trademark of Teletype Corporation, usually referring to a series of different types of teleprinter equipment such as tape punches, reperforators, page printers, etc., utilized for communication systems.

TELEVERKET : The State-owned telecommunications administration in Sweden.

TELEX : Teleprinter Exchange Network. The acronym given to the customer-owned teleprinter system. It is now switched automatically and any customer from a teletype in his premises can call any other customer in Australia and in many overseas countries.[1]

TELIDON : (videotex); The Canadian system of interactive videotex, which uses alphageometric graphics.[11]

TEN-C : see IOC.[1]

TER : 1. (Telecom); Traffic Engineering Report.[2] 2. (Telecom); Transmission Equipment Register.

TERA : SI prefix for 1 000 000 000 000 (10^{12}). Abbreviated as T.

TERMINAL (LOCAL) EXCHANGE : (switching); A local terminal exchange (LAE - Automatic and LME - Manual) switches the originating and terminating traffic for subscribers connected to it but does not perform any through connection of calls on inter-exchange circuits. See also Tandem and Trunk Exchanges.[1]

TERMINAL : 1. (data transmission); A point in a system or communication network at which data can either enter or leave. 2. (computers); An input-output device capable of transmitting entries to and obtaining output from the system of which it is a part.

TERMINAL EXCHANGE AREA : (telephony); A terminal exchange area (LEA) is an area that has had its boundaries set after careful considerations of transmission limits, cable and line distribution costs, telephone subscriber concentration, the number or potential number of subscribers, and the community of interest of the telephone subscribers. A LEA usually contains a single Terminal Exchange.[1]

TERMINAL IDENTITY : (videotex); A sequence of characters transmitted by the videotex terminal in order to establish the identity of that terminal and therefore the validity of the connection to the system.[7]

TERMINAL MAINTENANCE REGISTER : (Telecom computers); On TACONET, used to record service calls for computer terminal equipment, and to produce reports for User Services Section and Headquarters.[9]

TERRESTRIAL (LINK) SERVICES : (satellites); Radio services utilising radiowave propagation close to the surface of the earth as distinguished from Satellite Services.[1]

TET : (telephony); Telephone Efficiency Tester.[1]

TG : (telephony); Tone Generator.[2]

TGPH : (abbr.); Telegraph.[1]

TGT : (abbr.); Target.[3]

TIAS : Travel Industry Automated System.[4]

TIC : (Telecom); Telephone Installation Centre.[2]

TIE LINE : (telephony); A direct line between telephone subscribers' switchboards at two locations. Calls may be made between extension telephones without going through the telephone network.[13]

TIMESHARING : (computers); A specific method of operation in which a computer facility is shared by several users for different purposes at the same time. Although the computer actually services each user in sequence, the high speed of the computer makes it appear that the users are all handled simultaneously.

TIMS : (telephony); Telephone Information Management System.[4]

TIT : (Telecom); Technician-in-Training.[1]

TIWAS : (Telecom computers); Telephone Installation Work Assessment Scheme (a computer-based management system).[1]

TJA : see Telecommunications Journal of Australia

TL : (telephony); Tie Line.[2]

TLC : (transmission); Transmission Level Checker.[2]

TLD : (telephony); Telephone Line Doubler (see DASI).[1]

TMC : Telecommunications Manufacturing Company.[1]

TMS : (transmission); Transmission Measuring Set.[2]

TMR : (computers); see Terminal Maintenance Register.[9]

TNEP : (transmission); Total Noise Equivalent Power.

TNF : (fault despatch); Transmission Faint, Noisy or Intermittent.[2]

TNPIS : Telephone Network Performance Information System.[1]

TOC : 1. (Telecom); Telephone Order Cell.[2] 2. (television); Television Operating Centre - the point at which TV programs being sent by bearer are connected and switched. Each Capital City has a main TOC.[1]

TOD : (Telecom); Telecom Operations Depot.[1]

TOLDATA : (Telecom computers); Trunk On Line Data - computer system.[1]

TOT : (abbr.); Total.[3]

TOUCHAMATIC MEMORY : (Telecom); A modern touch-pad telephone available for purchase or rental from Telecom Australia. It can store up to 11 frequently-called numbers.[9]

TOUCHFONE 10 : (Telecom); A decadic signalling telephone with a numeric keypad instead of a dial.]DG]

TOUCHFONE 12 : (Telecom); A tone signalling (DTMF) telephone, used on exchange or PABX lines equipped to receive tone signals, and companion to the decadic pulsing Touchfone 10. It has two extra keys, * (star) and # (hash), used for control functions.

TP : (telephony); Test Point.[2]

TP SYSTEM : (Telecom); Technical Publication (System) - a system introduced in 1982 for indexing and recording all widely distributed Technical Publications (which replace EI's, etc).[1]

TPT : (telephony); Transmission Performance Tester.[1]

TR : 1. (fault despatch); Trouble Report.[2] 2. (traffic management); Traffic Recording (TRA - TR Analysis, TRAXE-TR, AXE exchanges, TRIOC - TR IOC exchanges).[1]

TRA : (traffic management); Traffic Recording Analysis. A project to establish a computerised system to provide planners with information needed to design and dimension the future telephone network. See also TDAS.[1]

TRAFDATA : (traffic management); A computer support aid for determining essential site-dependent operating data (eg. subscriber details, traffic data, supervision, etc) for each individual AXE exchange being constructed.[1]

TRAFFIC DATA EQUIPMENT : (traffic management); The standard measuring equipment used in most crossbar and step and telex exchanges, and designed to permit the most commonly required measurements to be performed for a complete exchange at the one time.

TRAFFIC DISPERSION : (traffic management); The spread of an exchange's originating or incoming traffic offered to the different destinations.

TRAFNET : (traffic management); Network Traffic Forecasting (computer system).[1]

TRANSCEIVER : (transmission); A terminal that can transmit and receive traffic.

TRANSDUCER : (electronics); An energy converter that converts one form of energy to another. The energy may be in any form, such as electric, mechanical, acoustical, etc. This term is often restricted to a device in which the magnitude of an applied stimulus is converted into an electric signal proportionate to the quantity of the stimulus.

TRANSFIT : (Telecom computers); Determination of Transmission Rating (AT&T Scale).[1]

TRANSISTOR : (electronics); A tiny chip of crystalline material, usually silicon, that amplifies or switches electric current. It is a three-terminal semiconductor device, where the output function (current) is determined by the input function (current or voltage). It acts as an amplifier in analog circuits or as a switch in digital circuits. They are key components in integrated circuits.[1].

TRANSIT CONFERENCE +10 : (Telecom); A modern touch-pad telephone available for rental from Telecom Australia. It has a loudspeaker, and can store up to 10 frequently-called numbers.[9]

TRANSIT EXCHANGE : (switching); Higher order exchanges in the switching network which interconnect circuits from terminal exchanges and other equal or higher order transit exchanges. They include minor, tandem, secondary, primary and main exchanges.[1]

TRANSIT SWITCHING : (switching); The automatic switching of telephone calls or other telecommunications traffic at transit points along the path of the call.[13]

TRANSLATING STATION : (television); A TV Relay Station which in difficult reception areas picks up a weak signal and re-radiates it with greater power on a different carrier frequency (channel).[1]

TRANSMISSION LINK : A transmission link is a traffic route, eg, between 2 exchanges in the switching hierarchy. The maximum number of Transmission Links that can be connected in tandem for any one call is 9, a limit imposed by transmission consideration.[1]

TRANSMULTIPLEXER : (transmission); A device which transforms signals derived from frequency division multiplex equipment to time division multiplexed signals having the same structure as those derived from multiplexed pulse code modulation equipment and vice versa.[1]

TRANSNET : (transmission); Transmission Network Dimensioning - computer aid.[1]

TRANSPAC : (packet switching); A French public packet switched network, operational since 1979.

TRANSPONDER : (satellites); This is a signalling device which is a combination of receiver, frequency down-converter and transmit amplifier. The Australian domestic satellite carries 15 operational transponders.[6]

TRAVELLING WAVE TUBE AMPLIFIER : (satellites); A kind of amplifier used in satellites because of its high reliablility and efficiency, and low weight.[9]

TRC : (fault despatch); Triple Connection.[2]

TREE STRUCTURE : (videotex); Arrangement of a database in a number of hierarchical levels, each level representing information in increasing detail and having cross-referencing between branches. Progress through levels is by numerical selection from a menu.

TRESS : Telegraph Reperforater Switching System. The acronym given the public telegraph system; a message storage system. As normally only one way transmission is required for sending telegrams, the caller transmits the code for the wanted station and follows with the message. If all lines are free the message is almost instantaneously printed in the called office but should the called station or intermediate channels be engaged, the message is punched onto tape at a switching centre and automatically retransmitted when the lines or station are disengaged.[1] It originally used a paper tape store and electromechanical switching, but now incorporates modern Visual Display Units and computer technology. see VDU/TRESS.

TRFF : (abbr.); Tariff.[3]

TRMSN : (abbr.); Transmission.[3]

TROMBONE SWITCHING : See Switching.[1]

TRT : (traffic management); Traffic Route Tester.[1]

TRUNK CALL/TRAFFIC : (telephony); Term generally used to describe Intra-State and Inter-State telephone calls, ie, those between customers in non-adjoining charging zones.[1]

TRUNK EXCHANGE : (switching); A telephone switching centre which switches only trunk traffic (see also Switching and Tandem Exchange).[1]

TRUNK LINE : (telephony); A line connecting an exchange with another exchange NOT in the same charging zone nor in an adjoining charging zone - (see also Junction Line).[1]

TS : (switching); Time Switch.[2]

TSA : Tandem Switching Area - see Tandem Exchange Area.[1]

TSB : (AXE); Time Switch Bus.[2]

TSEPS : (Telecom); Transmission and Switching Equipment Provisioning Strategy.

TSM : (AXE); Time Switching Module.[2]

TSS : (AXE); Trunk and Signalling Subsystem.[2]

TSTF : (Telecom); Tandem Study Task Force.[1]

TSX : (switching); Originating Tandem Exchange - see Tandem Exchange.[1]

TSY : (switching); Terminating Tandem Exchange - see Tandem Exchange.[1]

TT : 1. (AXE); Toll Ticketing. 2. (switching); Trunk Tandem (digital).[2]

TTC&M GROUND STATIONS : (satellites); Tracking, Telemetry, Command and Monitoring stations which control the position of and monitor the satellite's performance in orbit. Two stations - one in Sydney and one in Perth - control the Australian domestic satellite, one of these being a backup station.[6]

TTL, T2L : (electronics); Transistor-Transistor Logic. A family of integrated-circuit logic in which the multiple inputs on gates are provided by multiple emitter transistors. TTL logic is characterised by high-speed, low-power dissipation, and low cost and is widely used in modern computers.

TTOA : Telecommunications Technical Officers' Association. Telecom Australia employs about 1200 members of this association.

TTP : (traffic management); Transmission Test Point.[2]

TTSOA : Telecommunications Traffic and Supervisory Officers' Association. Telecom Australia employs about 300 members of this association.

TTT : (switching); Terminating Trunk Tandem.[2]

TTY : (abbr.); Teletypewriter.[2]

TUP : (telephony); Telephone User Part.[2]

TV : (abbr.); Television.[1]

TVRO : (satellites); Television Receive-Only station - a small earth-station solely for reception of satellite-transmitted TV signals.[1]

TW : (AXE); Teletypewriter.[2]

TWIN : (cables); A type of telephone cable, the simplest form, consisting of two insulated wires twisted together with a pre-arranged lay.

TWT : (satellites); see Travelling Wave Tube Amplifier.

TX : (abbr.); Transmitter or Transmission.[1]

TYMNET : (packet switching); An American public packet switched network, operational since 1976, and run by Tymnet Inc.

U

U/S : (switching); Uniselector.[2]

UAPJ : (cables); Unarmoured Plastic Jacketed.[1]

UAT : see Unavailable Time

UBS : (Telecom); User Benefit Study.[2]

UDCU : (data transmission); Universal Data Capture Unit.

UG : (abbr.); Underground - usually applied to cable.[1]

UHF : (transmission); Ultra High Frequency. Radio Frequencies between 300MHz and 3GHz - (see Frequency).[1]

ULSI : (electronics); Ultra Large Scale Integration; an integrated circuit with more than 100,000 components on the chip.

ULTRASONICS : (acoustics); Audio (Sound) Waves above the range of human hearing (ie, about 20kHz).[1]

UNAV : (abbr.); Unavailable.[3]

UNAVAILABLE TIME : (data transmission); This corresponds to the total duration of events of 10 or more consecutive error seconds (or error second outages).

UNIT FEE : (telephony); The charge for a local telephone call which is represented by one registration of a subscriber's meter.[13]

UNIX SYSTEM : (computers); The brand name of an operating system developed in 1969 by AT&T Bell Laboratories. It can handle multiple users and programs simultaneously and can be applied to many different kinds of computers.[5]

UP LINK : (satellites); Radio link from an earth station to a satellite.[1]

UPCT : Union of Postal Clerks and Telegraphists.[1] Telecom Australia employs about 500 members of this association.

UPDATE CENTRE : (videotex); The computer centre which accepts updates to the database and broadcasts these transactions to each Retrieval Centre.[7]

UPS : Uninterrupted Power Supply.[1]

UR : (LEOPARD); Urgent.[2]

US : (abbr.); Unservicable.[2]

USO : Unsatisfied Demand.[1]

USER : (videotex); Someone who uses a videotex terminal to access a videotex database.[7]

USER ACTION FRAME : (videotex); see Response Frame.[7]

USER FILE : (videotex); The computer record of a valid user of a videotex system.[7]

USER TERMINAL : (videotex); A device, using either a keypad or a keyboard, capable of displaying videotex frames on a screen.[7]

UTA : (fault despatch); Unable to Allocate.[2]

V

VA : (telephony); Voice Announcement.[1]

VAL : (abbr.); Value.[3]

VALID TIME : (data transmission); Time over which recorded data is considered for computer analysis.

VALUE-ADDED NETWORK : (data transmission); A term which is not precisely defined as yet. It refers to a digital communications service superimposed on the basic telephone network, which adds significant value to the lines it uses, not merely providing a pathway for messages. A VAN has three participants; a sender, a receiver and an operator; no more than two of which roles are filled by groups from the same organisation.

VAMPIRE : (videotex); Videotex Access Monitoring and Priority Incident Reporting Equipment. A unit which allows remote monitoring and control of all the ports on one Information Retrieval Centre.[7]

VAN : see Value-Added Network.

VARIABLE : (computers); A quantity that can assume any set of values.

VCXO : (AXE); Voltage Controlled Crystal Oscillator.[2]

VDU : (computers); Visual Display Unit, a television type screen, usually part of a computer system..

VDU/TRESS : (telegraphy); A system using visual display units on phonogram inputs as a means of accepting telephone originated telegrams and transmitting them directly through the TRESS network.

VED : (fibre optics); Vapour-phase Epitaxial Deposition.

VERTICAL SERVICE : (telephony); Additional apparatus beyond a standard straight line service at a subscriber's premises.[13]

VESDA : Very Early Smoke Detection Apparatus.[1]

VF : (transmission); Voice frequency.

VFPBT : (telephony); Voice Frequency Push-Button Telephone.[1]

VFR : (transmission); Voice Frequency Repeater.[1]

VFT : see Voice Frequency Telegraphs System.[1]

VH : (LEOPARD); Volume Hold.[2]

VHF : (transmission); Very High Frequency - Radio Frequencies between 30MHz and 300MHz - (see Frequency).[1]

VIATEL : (videotex); The name for the videotex system established by Telecom Australia, opening for public service in February 1985. It is based on the British PRESTEL system, with several improvements.

VIDEO (TV) TRANSMISSION EQUIPMENT : (transmission); Equipment for transmission of vision signals without use of carrier equipment.[1]

VIDEO : Pertaining to electric currents and phenomena of frequencies corresponding to the variation in electrical levels of samples obtained by scanning a scene or image.

VIDEOGRAPHY : The generic term for all the systems that use telecommunications to display textual or graphical information on a visual display unit. Includes videotex, teletex, cabletex and teletext.

VIDEOTEL : (videotex); The Italian trade name for their Prestel-based videotex service.

VIDEOTEX : The internationally accepted generic name for a system which allows users to access a large database of information over the telephone lines by means of a simple terminal which might consist simply of a modified TV set and a special keypad. Digitally encoded frames are transmitted for reception by the modified TV set where a limited number of frames are stored and displayed.[7,11]

VIDEOTEXT : A now obsolete term for broadcast videotex, or teletext.

VIDICON : (television); A television camera tube.[1]

VIDITEL : (videotex); The name for the Dutch Prestel-based videotex system.

VIEWDATA : (videotex); The generic name for videotex systems currently used in Britain.[7]

VIRTUAL CIRCUIT : (data transmission); A connection between a source and a sink in a network that may be realized by different circuit configurations during transmission of a message. In a packet-switched data service, those facilities provided for transferring packets of data which emulate a physical connection.[1]

VITS : (television); Vertical Interval Test Signal - a TV picture monitoring system using PWIU - Pilot Waveform Insertion Unit.[1]

VLF : (transmission); Very Low Frequency - Radio Frequencies (not Audio) between 10kHz and 30kHz.[1]

VLSI : (electronics); Very Large Scale Integration.

VM : (switching); Route Marker.[2]

VOICE FREQUENCY EQUIPMENT : (transmission); Equipment for extending the distance over which simple speech and data signals can be carried without use of carrier equipment.[13]

VOICE FREQUENCY TELEGRAPH SYSTEM : (telegraphy); Electronic devices used to split one speech or telephone channel into many telegraph channels.[1]

VOLATILE MEMORY : (computers); A memory that loses its information if the power is removed from it.

VOLT : SI Unit of electrical force (or potential) named after Alessandro Volta, who constructed the first electrical battery. A potential difference of one Volt, when applied to a conductor having a resistance of one Ohm, produces a current of one Ampere.[1]

VON : Vertical Off Normal.[2]

VPE : (fibre optics); Vapour-Phase Epitaxy.

VRU : Voice Response Unit.[1]

VSB : (transmission); Vestigial Side Band - a form of radio transmission, usually for a TV Broadcast signal.[1]

VT : see Valid Time

VU : (acoustics); Volume Unit - a unit of loudness (as seen on VU meters on stereo tape and cassette recorders).[1]

W

WALLFONE : (telephony); The wall-mounted handset dial telephone introduced by Telecom to complement the Colorfone range.[13]

WAPJ : (cables); Wire Armoured Plastic Jacketed - see Cable.[1]

WARC : World Administrative Radio Conference - an ITU policy conference.[1]

WARCST : World Administrative Radio Conference on Satellite.[1]

WATS : (telephony); Wide-area telephone service. a service provided by telephone companies which permits a customer, by use of an access line, to make calls to telephones in a specific zone on a dial basis for a flat monthly charge. In Australia, this is known as the 008 Service.[9]

WATT (W) : (electronics); An electric unit of power, the rate of work done in joules per second. For DC circuits, electrical power in Watts is given by the product of the current in Amperes and the potential difference in Volts. 1000 watts = 1 Kilowatt (kW), 746 watts = 1 horsepower (HP).[1]

WAVELENGTH : A unit for specification of, usually, a radio frequency wave. The frequency in cycles per second (Hz) is standard for this purpose. Wavelength is inversely proportional to frequency and can be calculated by frequency in Hz divided into 300 000 000 - this being the speed in metres/second of radio (and light) waves. Thus a frequency of 1.5 MHz has a wavelength of 200 metres. Visible light waves have wavelengths as small as 400-1000 nanometres, or less than a thousandth of a millimetre (micron). See Angstrom and Frequency..[1]

WBFM : Wideband Frequency Modulation.[1]

WBY : (telephony); Wanted, Busy.[2]

WDA : (telephony); Wanted, Did Not Answer.[2]

WDM : (fibre optics); Wavelength-Division Multiplexing.

WEFC : (fault despatch); Weekend Fault Control.[2]

WELL : (cables); Area below exchange floor to house large connecting cables entering from street or tunnels.[1]

WELLNET : (Telecom); Transmission Branch Wideband Experimental Laboratory Local Network.

WIDEBAND : A wide range of frequencies. Usually denotes a carrier signal capable of carrying multiple communication data or TV channels by means of coaxial cable, optic fibre, etc. See also Bearer.[1]

WIRE : Usually a single conductor of electricity - copper or aluminium. see Appendix 9.[1]

WLN : (transmission); Wideband Local Networks.

WN : (switching); Wrong Number - a fault condition in automatic switching.[1]

WNF : (fault despatch); Wrong Number Frequently.[2]

WNS : (fault despatch); Wrong Number Switching.[2]

WORD : 1. (telegraphy); Six operations or characters (five characters plus one space). 2. (computers); A sequence of bits or characters treated as a unit and capable of being stored in one computer location.

WOT : Weather Observation Terminal.[4]

WSN : (telephony); Wideband Service Network.[2]

WT : (LEOPARD); Waiting Test.[2]

X

X : 1. Abbreviation for exchange (eg, MTX = Main Trunk Exchange) 2. Abbreviation for "across" (eg, X-talk = crosstalk, Tx = transmitter, Rx = receiver, etc). 3. Abbreviation for "by" (eg, step x step, SxS).[1] 4. (data transmission); CCITT Recommendation designation for "Data transmission over public data networks".

X-RAYS : First discovered by Roentgen in 1895, they are electromagnetic radiations occupying the gap in the electromagnetic spectrum between the extreme ultra-violet and the gamma rays given off from the nuclei of some radioactive substances.

X-S : (switching); Crossbar to Step-by-step.[2]

X-X : (switching); Crossbar to Crossbar.[2]

X-XS : (switching); Crossbar to Hybrid.[2]

X21 : (data transmission); A data protocol devised by CCITT to provide an interface for circuit switched data networks and data terminals.

X25 : (packet switching); Accepted by CCITT in 1976 and offered by most packet networks, it is an interface protocol, that is a set of rules and procedures to allow orderly, secure and error free interchange of information between the user and the network, by defining the interface between the packet mode terminals and the network.

X3 : (data transmission); A data protocol, which covers the network interfaces with asynchronous terminals which operate in character mode.

X75 : (packet switching); A data protocol which specifies the interface between packet switched networks on international circuits.

XB : (switching); Crossbar.[2]

XNG : International Marine Navigation Time Signal.

XS-S : (switching); Hybrid to Step-by-step.[2]

XS-X : (switching); Hybrid to Crossbar.[2]

Z

ZDME : (data transmission); Zero Order Digital Multiplex Equipment (part of DDN).[1]

ZM : (data transmission); Zero Level Multiplexer (Data).[1]

ZN P : Zinc Plated - a metal protective coating.[1]

ZOO : (telephony); Zone of Origin.[1]

misc.

10C : (switching); A computer-controlled trunk exchange, manufactured by Metaconta, first introduced in Australia in the 1970s.[9]

3CXT : (transmission); Third circuit crosstalk.

APPENDICES

APPENDIX 1 - CABLES

A large number of cable types and sizes is required to meet the diverse range of applications encountered in Telecom's network. There are two general classes of cable, 'internal' cable which is designed for use inside buildings and 'external' cable which is designed for use outside buildings. Internal cable is used in exchanges to connect the MDF to the switching or transmission equipment, and to connect between racks of equipment. It is also used to cable customer's premises for switchboards, telephones and other services. External cables are installed underground, underwater or on poles. They connect customers to their local exchange and provide circuits between exchanges.

Cables are made up of pairs of insulated conductors arranged in either twin, quad or coaxial configuration.

Twins and quads consist of either two or four conductors that are twisted together, whereas a coaxial pair consists of an outer copper tube with the second conductor located coaxially inside it. (See Coaxial Cable).

Up to 4200 pairs of wires may be assembled together to make up the cable core, which is enclosed in a sheath to protect it from the environment in which it is installed.

Most internal cables have copper conductors, PVC insulation and a PVC sheath, although smaller quantities of several specialised types are used.

External cable designs include copper and aluminium conductors, and paper and plastic insulation. Most utilise unit twin core construction, and some are manufactured with a waterproof filling compound in the core. A very large range of sheath options is available, these range from a plain polythylene sheath to sheaths which include layers of steel wire armouring. Coaxial cables of from 2 to 18 tubes are used with carrier equipment to provide broadband bearers for multi channel telephone, data or TV systems. (See Carrier).

Two examples of common cable types are :

PIUT, MB Paper insulated copper conductor, unit twin core construction, with a moisture barrier (polyethylene/aluminium laminate sheath).

PEIUT, PEHJ Polyethylene insulated copper conductor, unit twin core construction, with a polyethylene sheath, covered by a nylon hard jacket for protection from insect and termite attack.

Other identifying symbols related to cables, and their meanings, are

Cable Construction

A Aluminium Conductors (No "A" indicates copper conductors)
PI Paper Insulation
PIS Sealed Paper Insulation
PEI Polyethylene Insulation
PVI PVC Insulation
CPI Cellular Polythene Insulation
CPF Cellular Polythene Insulation - Jelly Filled Core (for waterproofing)
T Twin Construction, wires set up in matching pairs
Q Quad Construction, wires set in groups of 4, in "star" format
U Unit Construction, ie, pairs or quads are grouped in units
QL Quad Local generally for Voice Frequencies
QC Quad, Carrier (generally for analogue carrier systems up to 108 kHz)
QLI Quad, Lead-In
CX Coaxial Pair Construction

Typical Conductor Diameters are :

. Aluminium - .52mm, .81mm, 1.15mm
. Copper - .32mm, .40mm, .51mm (internal), .64mm
.90mm, 1.27mm.

Cable Sheath Composition

PVC PVC Sheath (internal cables)
PE Polyethylene Sheath
MB Moisture Barrier Sheath
UA Plain Lead Sheath (now obsolescent)
ST Steel Tape Armoured Sheath
PJ Polyethylene Jacket over armouring
LW Light Wire Armoured Sheath
IB Integral Bearer (reinforced bearer for aerial use)
HJ Hard Nylon Jacket (to resist insect or termite attack).

APPENDIX 2 - CARRIER EQUIPMENT

Transmission Lines (or Bearers) collectively comprise the largest component in the cost of a Telecommunication Service. The "carrier" system is a means for cost reduction whereby more than one channel can be carried over a line be it a pair of wires on poles, a pair of wires in a cable, a coaxial cable tube, a radio beam or an optic fibre, all given the general name of Bearer. In larger systems it is more practical to use two pairs (4 wires), one pair carrying the communication in one direction and the other in the reverse direction, hence "go" and "return", "send" and "receive", etc. Bearers which provide large numbers of channels, ie coaxial cable and microwave radio, are termed broadband bearers. These are the "super highways" of the network.

The sound (Acoustic) waves used for aural communication are transduced to Electro-Magnetic form for transmission through a Telecommunication System. Speech waves, for analogue transmission purposes, have frequencies of 300 Hz (Hz = Cycles per second) to 3000 Hz (3 kHz). Good quality music (not HI-FI) requires a bandwidth of from 50 Hz - 10 KHz; several telegraph channels can be accommodated in a speech bandwidth but picturegram, high speed data, and television video signals progressively require broader channels up to about 5 MHz (5,000,000 Hz) in width for the TV Channel. (See also Frequency).

Analogue Bearers are available which, with supplementary modulating and demodulating (Modem) equipment, and amplifying and equalising (Repeater) equipment, can provide carrier bandwidths greater than that required for a single communication channel. If a number of circuits or channels are each superimposed (multiplexed) on a carrier frequency within the bearer bandwidth, they can be transmitted from one terminal of the system to the other and detuned (Demodulated) at the far end and sorted (Switched) for their various destinations. In a two-way circuit the same process occurs in the reverse direction over the same pair of wires, (by allotting half the bearer bandwidth to each direction of transmission) or over another pair, hence 2 wire and 4 wire working. This process is known as Frequency Division Multiplexing (FDM).

Just as friction can impede the flow of liquid in a pipe, the complex alternating currents (AC) which transmit voice, music or picture are impeded in a conductor, be it wire or coaxial tube. This electrical impedance in an AC circuit does not merely weaken the signal over distance, but, because of the properties of capacitance and inductance which conductors present to AC flow, the higher frequencies are impeded and "attenuated" to a greater extent than the lower. As a corrective, both to amplify and equalise the transmission, repeaters are installed at intervals (down to a few kilometres in large-capacity cable installations) which restore the signal to its original form and pass it on to the next repeater - or the terminal amplifier and modem equipment of the system.

In the case of microwave radio bearers, repeaters are required for a different reason. The very short wave lengths used are close to and behave similarly to light waves and do not bend to follow the earth's curvature or projections as longer wavelengths do; this means that transmitters and receivers must be mounted on high ground and/or towers so that there is no obstruction to a line of sight path between antennae mounted on them. In practice radio repeaters are placed at intervals of about 40 to 60 Kms.

In large carrier systems the channels are arranged in parcels termed groups, supergroups, mastergroups and super-mastergroups, and at main repeater stations along a broadband route large groups of channels can be "lifted" off the bearer to meet local communication requirements.

The capacities of analogue carrier systems in two-way channels of the various bearers are as follows:

- Open Wire Lines (largely superseded) - 3 and 12 voice channels
- Carrier-Type Pair Cable - 12, 120 & 300 voice channels
- Coaxial Cable (per Pair of Tubes) Broadband (Analogue) - Up to 3600 voice, and one TV channel, (depending on spacing of repeaters)
- Small Capacity Radio (Analogue) - 6, 24 and 120 voice channels
- Microwave Radio Broadband (Analogue) - 300, 600, 960, 1800 and 2700 channels, or one TV channel

Digital carrier systems operate quite differently to their analogue cousins. In this form the electrical speech, music or video waveforms are rapidly sampled (about 8000/second) and the amplitude of each sample of waveform is then coded into an 8-bit code; thus each channel requires 64 kbits to adequately transmit it. In the case of data transmission the sampling and coding is not needed as the data is already in binary form.

The capacity of a digital bearer therefore relates directly to the speed (not the frequency) at which binary pulses can be transmitted along it. For example, 2 pairs in a local-type cable (one for each direction of transmission) operating at 2Mbit/s (2048 kbit/s) can carry 32 channels made up of 30 for customers and 2 for control purposes. Similarly, therefore :

8 Mbit/s =	120	voice channels
17 Mbit/s =	240	" "
34 Mbit/s =	480	" "
140 Mbit/s =	1920	" "

This is known as Time Division Multiplexing (TDM) and is achieved by consecutively inserting the 8-bit codes from each channel one after the other (in series), ie 1-32 then back to 1 again, and so on. At the other end of the digital system these codes are all extracted in sequence and put together in the original order. After decoding (where necessary), we have reconstructed the original electrical signal in analogue form which is then handled in the normal way on analogue equipment.

Digital carrier systems can operate over a variety of bearers including telecommunication cable, optic fibre cable, or radio bearer in the UHF/SHF spectrum.

APPENDIX 3 - EXCHANGES

An exchange is a switching centre - see Appendix 6.

A telephone or telex exchange may consist of one or more switching stages, with or without directly connected telephone or telex customers which provides a switching function for telephone or telex traffic. Where the term "exchange" is not prefaced, it is presumed to be a local or terminal exchange.

. Continuous	Is a telephone exchange which is always available for use.
. Non-continuous	Is a manual telephone exchange which is only opened for business for specified hours.
. Terminal (Local)	Those exchanges that serve directly connected services in a particular locality.
. Transit, Tandem or Trunk	Higher order exchanges in the switching network which interconnect circuits from terminal exchanges and other equal or higher order transit exchanges.

APPENDIX 4 - FREQUENCY

Frequency of a vibratory or Alternating Current is the number of vibrations or alternations per second and is expressed in Hz (Hertz) : 1Hz = one cycle per second. The prefixes K, M and G are used to denote progressively larger units: K = Kilo = 1 000; M = Mega = 1 000 000 (10^6); G = Giga = 1 000 000 000 (10^9). Frequency is the most important property of alternating currents which are the basis of telecommunications.

Normal speech (VF - Voice Frequency) creates sound (pressure) waves of between 300 to 4000 Hz, and the musical range (audio frequency) extends from about 30 Hz to 15 KHz, about the upper limit of hearing. The frequencies of carrier waves in some carrier systems over wire and coaxial bearers operate well into the medium frequency (MF) part of the spectrum, also occupied by broadcasting stations and radio beacons etc (300 KHz - 3 MHz). The High Fequency (HF) part of the spectrum extends from 3 to 30 MHz, the Very High Frequency (VHF) from 30 to 300 MHz, Ultra High Frequency (UHF) from 300 MHz to 3 GHz, Super High Frequency (SHF) from 3 - 30 GHz, and Extra High Frequency (EHF) from 30 - 300 GHz, (bordering on Infra-Red). Frequencies above about 1.5 GHz are termed 'MICROWAVES', because their 'Wavelength' (see definition) is below 20 cm.

APPENDIX 5 - MODULATION

In electronics, refers to the super-imposition of the characteristics of a signal wave onto a carrier wave as a more practical means of transmitting or radiating a signal than at its fundamental frequency. In radio broadcasting the sound waves transduced as an alternating voltage wave are superimposed, ie, they modulate, upon the carrier wave of the transmitter for electro-magnetic radiation. At the receiver, the carrier frequency is de-modulated electronically and then transduced from electrical to sound (acoustic) vibrations by the speakers. Several types of modulation are used:

- A.M. - Amplitude Modulation in which the carrier amplitude is varied by the signal wave.
- F.M. - Frequency Modulation in which the carrier frequency is varied by the signal wave. In this country this method is used mainly for high quality sound services (such as television sound, etc).
- P.C.M. - Pulse Code Modulation, (also TDM) and
- P.T.M. - Pulse Time Modulation. In these the signal wave is "sampled" by a higher frequency and the pulses are transmitted as a varying voltage reference rather than a wave. The signal is re-constructed at the receiving end.

To assist in understanding, consider a horizontal pencil line to be a visual equivalent of the carrier wave. As a horizontal line it conveys no intelligence at all and modulation may be considered analogous to the shaping of pencil strokes into letters and symbols which in fact convey intelligence. We modulate with our tongues the sound produced by our larynxes to form the words of our language.

APPENDIX 6 - SWITCHING

Switching is the means of connecting a particular subscriber (customer) to the communication service held by any other subscriber in the network, and supports both telephonic and telegraphic (Telex) mediums in Telecom. (See also Telegraphy). A switching centre is called an Exchange.

Telephone switching is achieved either manually or automatically. The earliest form of manual switching was called magneto because a ringing magneto had to be rotated to generate the current needed to attract the attention of the telephonist who performed the switching. Central Battery (CB, previously Common Battery) energisation is now used for manual and automatic services and the central battery, usually of wet accumulator cells, is located at each exchange.

Manual Switching. In manual switching, rotating the generator in LB areas, or lifting the receiver or handset in CB areas, causes an indicator or lamp to operate on the exchange switchboard. Using a system of plugs, cords and keys the telephonist can plug into a jack associated with the indicator and ascertain the number wanted. If it is connected to the local exchange, the second plug associated with the cord being used is plugged into the jack on the switchboard which is connected to the wanted number. Either automatically, or by operation of a switchboard key by the telephonist, ringing current is sent on the wanted line and, on answer, either automatically or by the telephonist operating a switch, the calling subscribers meter is operated to charge for the call. On completion of the call either a "ring off" for LB or replacing the handset on the cradle in CB gives the telephonist a signal on lamp or indicator and the call is disconnected by withdrawing the two plugs from the jacks.

If the called number was on another exchange the telephonist would order the call over an order wire from her position to a telephonist in the distant exchange; she would be told to which junction line the called number would be connected by plugging into the junction at both ends the call would be completed. It can be seen that in large networks of exchanges that several telephonists could be involved, and a telephonist can supervise up to about twenty calls at a time. This simple explanation of manual switching will assist in understanding the principles of automatic switching.

Automatic Switching. Two basic forms of automatic switching have been used in the Australian Network, step-by-step and crossbar, but introduction of a third - electronic - is now becoming a reality.

a. Step-by-Step.

This form of switching devised by an American named Strowger around 1900, was generally used from the installation of the first automatic exchange at Geelong in 1912 until the 1960's. Although no longer being installed, some of the existing step-by-step equipment will remain in service for many years. Until 1936 several manufacturers supplied their own versions of step-by-step equipment but in that year the BPO developed 2000-type equipment which was adopted as standard.

In step-by-step switching, lifting the handset or receiver is the equivalent of the telephonist answering - a connection is made to the switching equipment. Rotation of the telephone dial causes a train of DC electrical impulses, corresponding to the number dialled, being sent over the line; these impulses energise electro-magnets which can select a contact or bank of contacts numbered from one to ten on a bimotional switch - the basis of step-by-step switching. By connecting these contacts to other switches in series, ie, step-by-step, the number of outlets to which access can be obtained is multiplied by ten for each operation of the dial.

The normal maximum capacity of a large metropolitan exchange is nominally 10,000 lines so that in a number such as 63 7890 the last four digits would be the number in an exchange group, and the first two (or three in 7 digit numbering) achieve switching from exchange to exchange, possibly via a tandem switching exchange - an exchange which switches from exchange to exchange and not to subscribers (see Tandem Exchange).

In calling the above number the calling subscribers' exchange uniselector or linefinder has found a free outlet to a bimotional switch immediately the receiver or handset is lifted. On dialling the first digit '6' a vertical magnet lifts the wiper arm of the switch (selector) to the '6th' level of the selector contact bank and the ten contacts in this level are each connected by operation of the horizontal (rotary) magnet to a junction line to the wanted exchange in the network. (The eleventh contact on the level would impose a busy signal on the line if the ten junctions happened to be engaged. (Note that on a telephone dial '0' is ten)).

Assuming a free junction, dialling the next digit '3' would repeat the process as the junction line would be connected to another selector which would switch the call through to the wanted local exchange on a junction connected to a first group selector which, on its ten levels of contacts, provides access to each block of 1000 numbers in the exchange; dialling the third digit '7' would switch the call through to a second group selector in the '7000' group which in turn switches to the wanted '100' group, in this case '8' (800).

The last or final selector selects both the 'tens' and the 'units', the 'tens' on the vertical movement through the ten levels and the units on the ten contacts in the rotary (horizontal) movement. If the wanted number is engaged the rotary movement would continue to the eleventh contact on that level which would impose a busy signal on the line. Certain final selector racks in an exchange are wired so that selectors will find whichever line to a subscriber is disengaged if the subscriber has more than one line and they are consecutively numbered. By placing an extra bank of contacts on a final selector, greater flexibility and reduced cost is achieved because the switch can then switch to groups of 200 instead of 100 subscribers - hence 200 line final selectors.

The call is now connected to the wanted line and the final selector imposes the ringing signal on the line, and the meter of the calling subscriber is operated when the called number answers. At the conclusion of the call all the switches (5 in this case) are released ready for the next call.

Step-by-step switching is expensive in its use of switches and to avoid unnecessary switching steps, Discriminating Selector Repeaters (DSR's) are used where appropriate. Imagine a caller dialling a seven digit number which is connected to the originating exchange. The DSR would "sense" that the call was for the local exchange and instead of setting up switches in other exchanges which would eventually switch back to the local exchange ("trombone switching") it disconnects the outside link and connects directly to the local group selector.

b. Crossbar Switching.

Although a comparatively old invention, crossbar was only introduced to the Australian network in the 1960's to achieve the higher switching flexibility and lower costs (with higher reliability) required for the National Telephone Plan for Subscriber Trunk Dialling (STD).

The philosophy of crossbar switching, more closely than step-by-step, approaches the thinking and operations of a telephonist. It uses simple relays (see Relays) for all switching and does not use uniselectors or bimotional switches. The crossbar switch comprises an assembly of relays arranged in vertical and horizontal fashion and the armatures of the relays are arranged to cause interconnection of contacts at crosspoints between vertical and horizontal bars. The Ericsson crossbar switch can provide 200 outlets to either junction, trunk or subscriber lines but is different from the "step-by-step" in that it can provide up to ten inlets so that one switch can handle a number of calls concurrently.

In manual switching the lifting of the handset attracts the attention of a telephonist; she effectively connects the caller to her brain so that she can determine the number wanted and, from training, decide the means of completing the connection. In crossbar, a system of many relays (called markers) connect the caller to a "brain" (called a register) which absorbs the dialling impulses and determines the paths (circuits) to be used in completing the call from data built into it. Whereas a telephonist can only handle about 20 calls at once, and a set of step-by-step switches can only handle one call at a time, in crossbar usually only two markers are provided for each 1000 subscribers and, because of its high speed of operation, one register can serve a large number of subscribers. Instead of relaying the dialling impulses through the various switching steps necessary to complete a call in an exchange network, the register converts them into sound codes which are transmitted at high speed to code receivers and markers through the switching path to achieve the necessary interconnection of subscribers and junction and trunk lines. On connection of all the required links in the call, or if the called party cannot be raised, all the switching equipment detaches itself from the circuit and is ready for other calls - like the telephonist but unlike step-by-step equipment. The design of crossbar circuitry is more involved than the simple step-by-step arrangement and the main type of crossbar exchanges are :

ARF Terminal exchange, mainly switching to subscribers, usually installed in metropolitan areas.

ARK Smaller terminal exchange used in country areas, ARK 511 equipment is used in small and ARK 521 equipment in larger installations.

ARM Main Trunk Exchange. ARM 20 and ARM 50 are separate systems.

c. Electronic Switching

comes in a number of different forms but, basically, the term covers all forms of switching centres which are controlled by a central processor (computer) instead of by electromagnetic registers. These are known as Stored Program Controlled (SPC).

In the ARE 11 form, the processor (brain) replaces the electro- magnetic registers and markers, the actual switching still being done by crossbar switches.

10C trunk exchanges are a development from the late 1960's. These are fully computer-controlled (electronic - rather than electromagnetic) but use tiny reed-relays to actually switch lines. The technology involved is still current, but is being superseded by the newer-generation digital SPC exchanges.

AXE is the designation for LM Ericsson's SPC exchange equipment which is now available in both analogue and digital switching forms. Telecom has a policy to proceed with future purchases of "digital" switching equipment which electronically switches coded streams of binary digits (rather than analogue speech forms). These are, of course, decoded back to decipherable analogue form at some stage before they reach the listener.

Appendix x (at rear) contains further details of typical AXE exchanges, including block diagrams and glossary of component sub-systems.

Switching Centres.

The terms Minor Switching Centre (MSC), Secondary Switching Centre (SSC), are the general terms used to describe the hierarchical switching functions performed at a geographical location for which the area is named. The centre usually contains an exchange or exchanges in the single building complex which performs all the switching functions required at that area.

Switching Hierarchy.

A call may progress through the switching hierarchy from a terminal exchange to another terminal exchange via higher order exchanges. The next higher order exchange in the hierarchy in either the originating or terminating direction is the parent exchange of the next lower level exchange. An exchange may have different parent exchanges for the originating and terminating directions.

A call may ascend or descend the hierarchy within the prescribed limits. However, once the call has been switched between exchanges at the same hierarchical level, in the approved switching network arrangements, then it may only descend the switching hierarchy.

APPENDIX 7 - TANDEM EXCHANGES

An automatic transit exchange which performs only junction line or trunk line switching for part of an approved minor switching area within urban networks ie, it does not switch to subscribers. In large networks there are some exchanges which are exclusively tandem switching, but most perform both tandem and subscriber switching functions.

If a tandem exchange only switches calls from local terminal exchanges to other tandems, minors or higher order exchanges, it is known as an X tandem exchange (TSX) and serves an originating tandem switching area (TSA).

If a tandem exchange serves calls from tandems, minors or higher order exchanges to local terminal exchanges, it is known as a Y tandem exchange (TSY) and serves a terminating tandem switching area (TSA).

A tandem exchange is usually parented on a secondary exchange.

APPENDIX 8 - TRAFFIC DATA ACQUISITION SYSTEMS

The collection of automated systems now being developed for gathering and processing telephone traffic data. The four phases are :

i Data Extraction Systems

eg. TDE
DDR
DTR
CENTOC
RTM's

ii Primary Processing (or Data Logging)-devolved

eg. CENTOC
DETRAM
TRAXE
TRIOC

iii Secondary Processing (centralised)

eg. STRAP

iv Tertiary Processing

eg. TADMAR
BALFOR

APPENDIX 9 - WIRE

Usually a single conductor of electricity - copper or aluminium. A great variety of types of wire are used in telecommunications, many with a large variety of insulating coverings.

Jumper Wires

Usually a twisted pair of wires used to "patch" or cross-connect existing fixed circuits to each other.

Open (Line) Wires

Normally two wires (a pair) per circuit or line strung on insulators on poles. They are only insulated where protection from power voltages at crossings is required, where twigs, etc, from heavy tree growth would cause shorts, or where corrosion of bare wire would occur.

Pair Cable Wires

These are specified by the metric size of conductor and are insulated with paper or plastic.

Switchboard or Instrument Wires

A great variety of insulated coverings have been used from enamelling to lacquering and braiding, but plastic is now the basic insulation. Used for internal apparatus wiring.

Fuse Wire

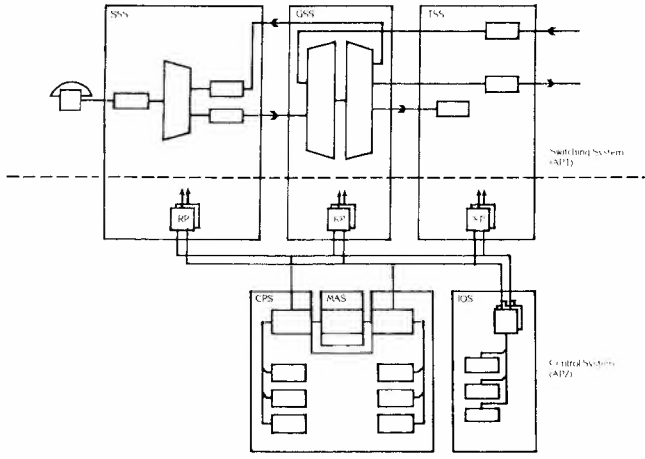
Is specified by the fusing current in amperes, eg, 15 Amp, etc. When exceeded, the wire "fuses" or breaks, thus cutting the current.

APPENDIX 10 - AXE DIGITAL EXCHANGE
(Refer also Appendix 6)

An AXE exchange consists of two systems, a data processing system APZ 210 and a telephony switching system APT 210. Both systems consist of hardware and software.

Systems APT 210 and APZ 210 each consist of a number of subsystems.

Figure 1: Simplified block diagram of the AXE system



Subsystems of switching system APT 210 are as follows:

SSS	Subscriber Switching Subsystem.
GSS	Group Switching Subsystem - Digital.
TSS	Trunk and Signalling Subsystem.
TCS	Traffic Control Subsystem.
CHS	Charging Subsystem.
OMS	Operation and Maintenance Subsystem.
SUS	Subscriber Services Subsystem.

Subsystems of control system APZ 210 are as follows:

RPS	Regional Processor Subsystem.
CPS	Central Processor Subsystem.
IOS	Input/Output Subsystem.
MAS	Maintenance Subsystem.
APT	Subsystem Functions.

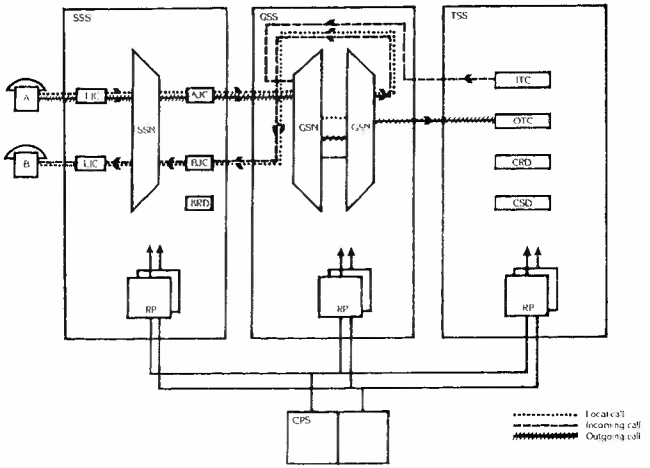
Subscriber Subsystem SSS consists of hardware and software to supervise the state of subscribers lines, set up and release connections in the subscriber network, send and receive signals to and from subscribers.

Group Switching Subsystem GSS consists of hardware and software to select and switch the group selector switching network between SSS and TSS. GSS utilises digital techniques for Time and Space Switching Modules, Pulse Code Devices (PCD) are conversion devices for analog/digital and digital/analog working.

Trunking and Signalling Subsystem TSS consists of hardware and software to supervise the state of the inter-exchange junction network, and provide inter-exchange signalling functions.

These 3 Subsystems are detailed in the diagram below:

Figure 2: Progress of a call through AXE equipment



LIC = Subscribers' Line Circuit
SSN = Subscribers' Switching Network (Concentrator)
AJC = Calling Party (A) Junctor Circuit
BJC = Called Party (B) " "
KRD = Keyset Reception Device
ETC = Exchange Terminal Circuit (see Definition - ETC)
ITC = Incoming Trunk Circuit
OTC = Outgoing Trunk Circuit
CRD = Code Receiving Device
CSD = " Sending "
PCD = Pulse Code Device

PROPOSAL FOR NEW ENTRY
IN THE TELECOM DICTIONARY

ENTRY: .....

.....

This is an: Abbreviation / Acronym / Technical Term / Jargon Phrase *
(* please circle one).

CONTEXT: (eg. computers, switching): .....

.....

MEANING or DEFINITION: .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

SUBMITTED BY:

NAME: .....

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