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Telecom Dictionary

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Baud (Bd)

two opposite unidirectional signal flows in the switch or trunk transmission system vis-à-vis the two-wire analog subscriber lines.

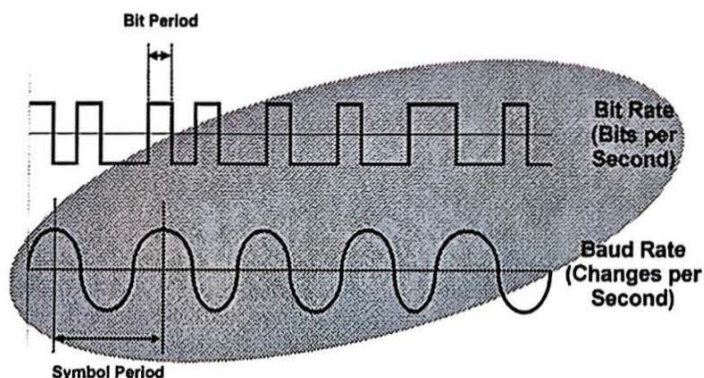
T: Test.

BORSCHT is a group of functions provided to an analog line from a line circuit of a digital central office switch. An analog electronic switch can omit C and possibly H. A line circuit on a switch with metallic matrix (SXS, Xbar, 1,2,3ESS) only detects call origination and disconnects itself. The term BORSCHT is attributed to John W. Iwerson of AT&T Bell Laboratories in the 1960s.

Baud (Bd)-Name for the unit of data symbols per second. This name is taken from the name of the 19th century French teletypewriter machine innovator Emiel Baudot. For a method of modulation or encoding in which there is a choice of only two symbol values per symbol interval, or one bit per symbol (such as two-level pulse voltages) the baud rate is equal to the bit rate (bits per second). For a method of modulation or encoding in which there are more than two symbol values per symbol interval (and thus 2 or more bits per symbol) the bit rate is higher than the baud rate. For example, QPSK phase modulation and 2B4Q pulse coding both have 4 symbol values per symbol interval and thus the bit rate (bits per second) is twice the symbol (baud) rate. (Please do not make the error of writing "baud per second.")

Baud Rate-The number of signaling elements (symbols) per second on a transmission medium. For some line codes, such as bipolar, baud rate is the same as bit rate. However, in many applications, the baud rate is below the bit rate. For example, in 2B1Q coding, each quaternary signaling element conveys 2 bits of information, so the baud rate is one-half the bit rate. The spectral characteristics of a line signal depend on the baud rate, not the bit rate. For high-speed digital communications systems, one state change can be made to represent more than one data bit.

This diagram shows that the baud rate is not always the same as the bit rate as each baud (symbol) can have several states that represent multiple binary bits.



Baud Rate

Baud Rate Equalizers-A signal processing circuit or system that removes unwanted components (delayed repeated signals) from the received signal. Baud rate equalizers operate at the baud rate (symbol rate) of the communications circuit.

Baudot Code-A Baudot code is a seven bit code of which five bits carry information.

Baudot-Murray Code-Baudot-Murray (ITU alphabet No. 2) is a 5-bit character code used by older teletype-writers and telex machines, and also by most teletype-writers for the deaf. Frequently called Baudot code. It is typically transmitted with an added start bit and a lengthened stop bit (7 bits total) in an asynchronous sequence.

Bay-An equipment casing that can hold electronic assemblies such as transmission or call processing assemblies. Commonly called an "Equipment Bay."

Bayonet Neill Concelman (BNC)-Bayonet Neill Concelman is a set of BNC connectors that are used to transfer component video signals.

BB-Baseband

B-Band Cellular-A band of frequencies in the 800 MHz range that are assigned to a cellular service provider. In the America's, B band frequencies are assigned to an incumbent local telephone service provider that have decided to offer cellular telephone service.

BBS-Bulletin Board System

BC-Billing Center

BCC-Billing and Customer Care

BCC-Blind Carbon Copy

BCF-Bandwidth Confirm

BCH) Code-Bose, Chaudhuri, And Hocquenhem

BCI-Billing Correlation Identifier

BCP-Best Current Practice

BCS-Block Check Sequence

Bd-Baud

BE-Best Effort Service

Beacon-A beacon is a radio or electrical signal that is used as a system indicator (e.g. broadcast channel) or directional guide (localizer beacon).

Beacon Channel-A channel used in the Bluetooth system to support parked slaves where the master establishes a beacon channel when one or more slaves are parked. The beacon channel consists of one beacon slot or a train of equidistant beacon slots, and is transmitted periodically with a constant time interval. When parked, the slave will receive the beacon parameters through a Link Management Protocol (LMP) command. See also Park Mode.

Beaconing-In a token-ring network, a process used by all nodes on a faulting ring to isolate the failure. When a node determines that it cannot transmit and receive reliably, the device will "beacon". This involves transmitting a special Beacon MAC frame every few milliseconds. Any station receiving a Beacon MAC frame must repeat the

frame. Within a few seconds, the exact location of a cable fault can be isolated and the MAC addresses of the network interface cards between the fault discovered.

When a ring is beaconing, user communication cannot take place.

Beam Forming-Beam forming is a process of directing the energy of a transmitted signal to specific areas. Some beam forming systems allow for the dynamic creation of beam patterns to maximize the performance to specific end points (receivers) and to minimize the effects of interference to and from other devices.

Beam Splitter-A beam splitter is an optical device or assembly that is used to divide an optical signal beam into two (or more) directions.

Beam Width (Beamwidth)-Beamwidth is the width of the main transmission pattern (main lobe) of antenna pattern. The beamwidth of an antenna's main lobe is usually measured from the peak of the lobe to the 3 dB point. Beamwidth is commonly described by the angle of signal coverage such as 15 degrees or 90 degrees. In general, as the gain of the antenna is increased, the beamwidth is decreased.

Beamsplitter-An assembly or device that receives an input light wave and divides it into two or more separate beams.

Beamwidth-Beam Width

Bearer Independent Call Control (BICC)-Bearer independent call control is the processes associated with establishing, maintaining, and releasing voice or data calls without using a specific type of bearer channel. Bearer independent call control is defined in ITU-T document Q.1901.

Bearer Services (BS)-Bearer services are telecommunication services that are used to transfer user data and control signals between two pieces of equipment. Bearer services can range from the transfer of low speed messages (300 bps) to very high-speed data signals (10+ Gbps).

Bearer services are typically categorized by their information transfer characteristics, methods of accessing the service, inter-working requirements (to other networks) and other general attributes. Information characteristics include data transfer rate, direction(s) of data flow, type of data transfer (circuit or packet) and other physical characteristics. The access methods determine what parts of the system control could be affected by the bearer service. Some bearer services must cross different types of networks (e.g. wireless and wired) and the data and control information may need to be adjusted depending on the type of network. Other general attributes might specify a minimum quality level for the service or special conditional procedures such as automatic re-establishment of a bearer service after the service has been disconnected due to interference. Some categories of bearer services available via the telephone system include synchronous and asynchronous data, packet data and alternate speech and data.

BEC-Backward Error Correction

BECN-Backward Explicit Congestion Notification

BEF-Band Elimination Filter

Behavioral Score-A measure of a customer's credit worthiness that is based on past payment history. Sometimes termed "Internal Score", or "Payment Behavior Score".

Bel-A unit of power measurement where each positive unit represents a tenfold (10x) increase in power and each negative unit represents a tenfold decrease in power ratio (1/10th). This unit of measurement is named in honor of Alexander Graham Bell.

The commonly used version of the Bel unit is one tenth of a bell, or a decibel (dB). One bell equals 10 db. The Bel unit is a logarithmic value. If an amplifier increases the power of a signal by 100 times, the power gain of the amplifier is equal to 2 Bel, or 20 dB.

Bellcore-A telecommunications research and development consortium that was developed by the seven regional companies that resulted from AT&T's divestiture of the Bell Operating Companies. These were Ameritech, Bell Atlantic Corporation, BellSouth, NYNEX, Pacific Telesis, Southwestern Bell Corporation, and US West. Bellcore was sold in the late 1990s to Science Associates, and is now called Telcordia.

Benchmark-Benchmarking is a process of establishing targets or objectives as compared to (benchmark to) existing systems or performance standards.

Bend Loss-Bend loss is the attenuation of an optical signal that results from the bending of an optical fiber. The bending causes the traversing pattern (transmission path) to change so that some of the light energy is reflected outward from the cable instead of being reflected and channeled through the center core of the fiber.

Bend Radius-Bend radius is the maximum degree an optical fiber cable can be bent before significant or specific signal attenuation or cable breakage occurs. The typical bend radius is approximately 5 to 10 times the outside diameter of the cable.

Bent Pipe-Bent pipe satellite transmission is a process of transferring radio signals through a satellite by redirecting the signal (bending) to a new direction rather than receiving, processing, and re-transmitting the signal. The bent pipe method reduces the complexity of the transferring device as it is only retransmits the original signal in a new direction without analyzing or altering its information content.

BER-Bit Error Rate

BER) Threshold-Bit Error Rate

Berkeley Internet Name Domain (BIND)-A Domain Name Server (DNS) implementation available for server operating systems. BIND is a widely deployed DNS implementation on the Internet.

BERT-Bit Error Rate Test

BES-Back End Server

Bessel Filter-A Bessel filter has a frequency response that is described by Bessel functions.

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