

WEBSTER'S NEW WORLD™

Telecom Dictionary

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BBS (Bulletin Board System) A computer system running software that enables one to connect over the Internet to what is essentially an electronic bulletin board. BBSs generally are focused on specific topics such as a rock band, a software application, or unusual computer or network technical issues. Generally, anyone can access the BBS to post messages, reply to messages, post software applications for downloading by others, play games, and otherwise communicate and share with others. See also *Internet*.

B_c Maximum Burst Size (MBS) See *MBS*.

B Carrier See *wireline carrier*.

BCC (Block Check Character) 1. The checksum comprising one or two bytes appended to a data block prior to transmission. See also *byte*, *block*, and *checksum*. 2. The checksum comprising one or two bytes appended specifically to a Binary Synchronous Communications (BSC) data block prior to transmission. See also *byte*, *block*, *BSC*, and *checksum*.

BCH (Bose, Chaudhuri, and Hocquengham) A multi-level, variable-length, cyclic, error-correcting code used in forward error correction (FEC) applications. BCH has the ability to detect random error patterns involving up to approximately 25 percent of the total number of digits in a block. BCH is not limited to use with binary codes, but also can be used with multi-level phase-shift keying (PSK) modulation whenever the number of levels is a prime number or a power of a prime number. See also *binary*, *error control*, *FEC*, and *PSK*.

B channel (Bearer channel) In the integrated service digital network (ISDN), a 64-kbps channel that bears the end user data, or payload. Standard ISDN interfaces include multiple B channels and a D channel (Delta channel or Data channel) for signaling and control purposes. Basic rate interface (BRI) comprises two B channels and one D channel, and is often referred to as 2B+D. Primary rate interface (PRI) comprises 23 B channels, plus a D channel, is compatible with North American T1 and Japanese J-1 standards, and is often referred to as 23B+D. Primary rate access (PRA) comprises 30 B channels, plus a D channel, is compatible with European E-1 standards, and is often referred to as 30B+D. (Note: A 32nd channel is added for overhead and alarms.) See also *BRI*, *D channel*, *E-1*, *ISDN*, *J-1*, *payload*, *PRA*, *PRI*, and *T1*.

BCM (Bit Compression Multiplexer) A conversion device used to convert between voice signals encoded using adaptive differential pulse code modulation (ADPCM) and those encoded using pulse code modulation (PCM). As an ADPCM-encoded voice transmission generally is encoded at 32 kbps, two such signals can fit into a channel designed to support 64 kbps PCM-encoded voice. A BCM performs the necessary processing to pack two 4-bit ADPCM samples into a single 8-bit PCM time slot. Alternatively, a BCM can perform the necessary signal processing to convert an 8-bit PCM sample so that it will fit into a 4-bit ADPCM time slot. Such conversions are necessary when an E-carrier circuit supporting ADPCM channels connects to a central office (CO) exchange based on PCM, for example. A BCM generally is in the form of a printed circuit board (PCB) that fits into a standard time division multiplexer (TDM). See also *ADPCM*, *encode*, *PCM*, *TDM*, and *time slot*.

B_e Excess Burst Size See *Excess Burst Size*.

beaconing 1. In wireless networks the transmission by a base station of precisely timed signals as a clear-to-send indicator, essentially advertising the presence of the base station and the availability of a time slot for use by a sender, or source. Beaconing is a contention method used in some wireless protocols, including slotted Aloha. See *slotted Aloha*, *clear to send*, *signal*, and *time slot*. 2. In a Token Ring local area network (LAN), the continuous transmission of small frames if a network failure is detected. A beacon frame identifies the transmitting station, the nearest active upstream neighbor, and everything in between. This triggers a process of autoreconfiguration, in which nodes within the failure domain automatically initiate diagnostic measures in an attempt to identify, isolate, and bypass the point of failure. See also *LAN*, *node*, and *Token Ring*.