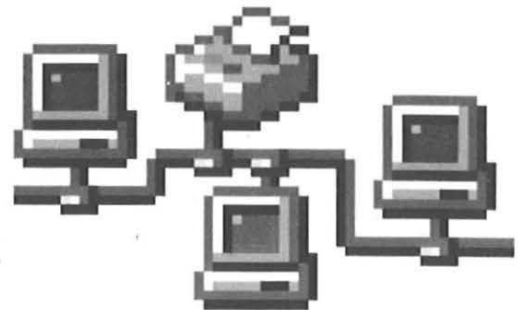
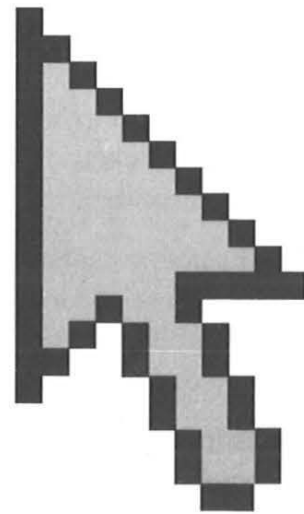


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Dictionary



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Acquisitions Editor: Alex Blanton

Project Editor: Sandra Haynes

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digital communications *n.* Exchange of communications in which all information is transmitted in binary-encoded (digital) form.

digital data service *n.* *See* DDS.

digital data transmission *n.* The transfer of information encoded as a series of bits rather than as a fluctuating (analog) signal in a communications channel.

digital fingerprinting *n.* *See* digital watermark.

digital home *n.* *See* smart home.

digital DNA *n.* **1.** Broadly, a reference to the bits that comprise digital information. **2.** In the gaming world, a technology called “Cyberlife” that mimics biological DNA in the creation and development of trainable creatures known as Norns. Like real DNA, digital DNA is passed from parent to offspring and determines the artificial creature’s characteristics and adaptability.

digital modem *n.* **1.** A communications device that acts as the intermediary between a digital device such as a computer or terminal and a digital communications channel, such as a high-speed network line, an ISDN circuit, or a cable TV system. Although a digital modem supports standard (analog) modem protocols, it is not a “typical” modem in the sense of being a device whose primary function is to modulate (convert digital to analog) before transmission and demodulate (convert analog to digital) after transmission. It uses advanced digital modulation techniques for changing data frames into a format suitable for transmission over a digital line. *See also* terminal adapter. *Compare* modem. **2.** A 56 Kbps modem. Such a modem is not purely digital but does eliminate the traditional digital-to-analog conversion for downstream transmissions—that is, transmissions moving from the Internet to the end user. A 56 Kbps modem is also digital in that it requires a digital connection, such as T1, between the telephone company and the user’s Internet Service Provider (ISP) in order to achieve its highest speed. *See also* 56-Kbps modem. **3.** A term used to distinguish all-digital communications devices, such as ISDN and cable “modems” from the more traditional analog-to-digital, phone-based modems.

Digital Network Architecture *n.* A multilayered architecture and set of protocol specifications for networks. Designed by the Digital Equipment Corporation, Digital Network Architecture is implemented in the set of products known by the name *DECnet*. *Acronym:* DNA. *See also* DECnet.

Digital Rights Management *n.* *See* DRM.

digital satellite system *n.* A high-powered satellite system with the capability to deliver high-quality transmissions of hundreds of channels directly to television receivers. A DSS broadcast begins as a digital signal sent from a service provider’s station to a satellite. From there, it is directed to a satellite dish (typically 18 inches) at the user’s premises. The dish next transmits the signal to a converter box, which changes it to an analog signal before sending it to the television set. *Acronym:* DSS.

D

DoS *n.* Acronym for **denial of service attack**. A computerized assault, usually planned, that seeks to disrupt Web access. A denial of service attack can occur in a number of forms. The most common form of attack is to overwhelm an Internet server with connection requests that cannot be completed. This causes the server to become so busy attempting to respond to the attack that it ignores legitimate requests for connections. One example of this type of attack, known as a SYN flood, inundates the server's entry ports with false connection messages. Another, known as the Ping of Death, sends a ping command with an oversized IP packet that causes the server to freeze, crash, or restart. Other forms of denial of service attacks include the destruction or alteration of a server's configuration data, such as router information; unauthorized access to physical components of a system; and the sending of large or invalid data that causes a system to crash or freeze. *See also* packet, Ping of Death, SYN flood.

dot *n.* **1.** In the UNIX, MS-DOS, OS/2, and other operating systems, the character that separates a file name from an extension as in TEXT.DOC (pronounced "text-dot-doc"). **2.** In computer graphics and printing, a small spot combined with others in a matrix of rows and columns to form a character or a graphic element in a drawing or design. The dots forming an image on the screen are called pixels. The resolution of a display or printing device is often expressed in dots per inch (dpi). Dots are not the same as spots, which are groups of dots used in the halftoning process. **3.** In an Internet address, the character that separates the different parts of the domain name, such as the entity name from the domain. *See also* domain (definition 3), domain name.

dot address *n.* An IP address in dotted quad form. *See also* IP address.

dot-bomb *n.* An Internet-based company or organization that has failed or downsized significantly. *See also* dot-commed.

dot-com *n.* A company doing business primarily or entirely on the Internet. The term is derived from the top-level domain, .com, at the end of the Web addresses of commercial Web sites.

dot-commed *adj.* Losing a job because of the downsizing or failure of an Internet-based company or organization. *See also* dot-bomb.

double posting *n.* In newsgroup discussions, the practice of replying to one's own posts. Because it may be seen as the digital equivalent to talking to one's self, double posting is considered an undesirable practice.

down *adj.* Not functioning, in reference to computers, printers, communications lines on networks, and other such hardware.

downlink *n.* The transmission of data from a communications satellite to an earth station.

download *vb.* In communications, to transfer a copy of a file from a remote computer to the requesting computer by means of a modem or network.

D

tions. Mobile IP tracks a moving host by registering the presence of the host with a foreign agent; the home agent then forwards packets to the remote network. *See also* IP.

mobile telephone switching office *n.* Computer that controls wireless phone calls. The mobile telephone switching office controls the operation of wireless cell sites, tracks calls, and transfers signals between wireless networks and traditional wired telephone systems. *Acronym:* MTSO.

modem *n.* In telecommunications, a device that generates analog modem signals digitally. The term *modem* is a combination of the terms *modem* and *codec* (coder/decoder—or hardware that can convert audio or video signals between analog and digital forms). *See also* modem (definition 2).

modem *n.* **1.** Short for **modulator/demodulator**. A communications device that converts between digital data from a computer or terminal and analog audio signals that can pass through a standard telephone line. Because the telephone system was designed to handle voice and other audio signals and a computer processes signals as discrete units of digital information, a modem is necessary at both ends of the telephone line to exchange data between computers. At the transmit end, the modem converts from digital to analog audio; at the receiving end, a second modem converts the analog audio back to its original digital form. In order to move a high volume of data, high-speed modems rely on sophisticated methods for “loading” information onto the audio carrier—for example, they may combine frequency shift keying, phase modulation, and amplitude modulation to enable a single change in the carrier’s state to represent multiple bits of data. In addition to the basic modulation and demodulation functions, most modems also include firmware that allows them to originate and answer telephone calls. International standards for modems are specified by the International Telecommunications Union, or ITU. Despite their capabilities, modems do require communications software in order to function. *Compare* digital modem. **2.** Any communications device that acts as an interface between a computer or terminal and a communications channel. Although such a device may not actually modulate or demodulate analog signals, it may be described as a modem because a modem is perceived by many users to be a black box that connects a computer to a communications line (such as a high-speed network or a cable TV system). *See also* digital modem.

modem bank *n.* A collection of modems connected to a server maintained by an ISP or the operator of a BBS or remote-access LAN. Most modem banks are configured to allow a remote user to dial a single phone number that routes calls to an available phone number on the bank. *See also* BBS (definition 1), ISP, LAN.

modem eliminator *n.* A device that enables two computers to communicate without modems. *See also* null modem.

modem ready *n.* *See* MR.

M

moderated *adj.* Subjected to review by a moderator, who may remove irrelevant or inflammatory articles or messages before redistributing them through a newsgroup, mailing list, or other messaging system.