

Glossary of Technical Terms

2G is the second generation of telecommunication technology for mobile networking.

3G is the third generation of telecommunication technology for mobile networking.

4G is the fourth generation of telecommunication technology for mobile networking.

403 (*403 Forbidden*) is the standard HTTP error code that occurs when a server will not allow a Web browser to access the file being requested.

404 (*404 Not Found*) is the standard HTTP error code that occurs when a server cannot find the file being requested.

ADSL (*asymmetric digital subscriber line*) is a technology that allows data to be sent over existing copper telephone lines.

Bandwidth is the amount of data that can flow in a given time.

Block page is the page delivered to the user when a request for a Web site is filtered, or blocked. Block pages take many forms and may be disguised as benign error pages or may bear the ISP's logo and further explanation of the block.

CCTV (*closed circuit television*) is the use of video cameras to transmit video from a specific place to a limited set of monitors. Signals for CCTV are not openly transmitted.

Circumvention refers to the general concept of using proxies and other tools to bypass Internet filtering.

DDoS attack (*distributed denial of service attack*) is an attempt to prevent users from accessing a specific computer resource, such as a Web site. DDoS attacks (sometimes called DoS, or denial of service, attacks) usually involve overwhelming the targeted computer with requests so that it is no longer able to communicate with its intended users.

Deep packet inspection is a form of computer network packet filtering that examines the data part (and possibly also the header) of a packet as it passes an inspection point, searching for protocol noncompliance, viruses, spam, intrusions, or predefined criteria to decide if the packet can pass or if it needs to be routed to a different destination, or for the purpose of collecting statistical information.

DNS (*domain name system*) is a hierarchical naming system for computers, services, or any resource participating in the Internet.

DNS tampering (*domain name system tampering*) is a method of blocking communication by preventing the conversion of domain names into IP addresses, effectively blocking access to the Web site.

Domain name is a label identifying a specific computer, service, or resource on the Internet.

DSL (*digital subscriber line*) is a family of technologies that provides digital data transmission over existing telephone wires.

EDGE (*Enhanced Data rates for GSM Evolution*), also known as EGPRS or Enhanced GPRS, is a GSM extension that improves data transmission rates by up to three times their original speed.

EVDO (*evolution-data optimized or evolution-data only*) is a telecommunications standard for the wireless transmission of data through radio.

GB (*gigabyte*) is a unit of digital information storage equal to 10^9 (1,000,000,000) bytes. However, this term is also often used to mean $1,024^3$ (1,073,741,824 bytes).

GPRS (*general packet radio service*) is service for mobile devices that divides data into packets for transmission purposes. It can be used with 2G and 3G wireless telephone technology operating on the GSM standard.

GPS (*Global Positioning System*) is a free global navigation satellite system that is used for both military and civilian purposes.

GSM (*Global System for Mobile Communications*) is a digital mobile phone standard used by as much as 80 percent of the global market. Its widespread use enables international roaming among different mobile phone operators.

HTTP (*Hypertext Transfer Protocol*) is a set of standards for exchanging text, images, sound, and video by means of the Internet.

HTTP proxy filtering blocks communication on the basis of the specific HTTP address or URL being requested.

ICP (*Internet Cache Protocol*) is a set of rules used to coordinate Web caches (places where duplications of online data are temporarily stored, enabling faster access and reducing bandwidth).

ICP (*Internet content provider*) is an online service provider that creates or provides informational, educational, or entertainment content.

ICT (*information and communication technology*) is an umbrella term that includes all technologies intended for the manipulation and communication of information.

IP address (*Internet Protocol address*) is a numerical identification assigned to devices participating in a computer network utilizing the Internet Protocol.

IRC (*Internet relay chat*) is a form of real-time Internet messaging.

ISP (*Internet service provider*) is a company that provides users with access to the Internet.

IT (*Information technology*) describes the use of computers, computer software, and other communications technologies to create and manage information.

IXP (*Internet exchange point*) is a shared facility that allows ISPs to exchange traffic with one another through free, mutual peering agreements.

KB (*kilobyte*) is a unit of digital information storage equal to either 1,000 bytes (10^3) or 1,024 bytes (2^{10}), depending on context.

Kbps (*kilobits per second*) is a measure of bandwidth on a data transmission medium.

LGBT is an acronym that refers to the lesbian, gay, bisexual, and transgender community. Sometime used to refer to anyone who is nonheterosexual.

MB (*megabyte*) is a unit of digital information storage equal to 10^6 (1,000,000) bytes.

Mbps (*megabits per second*) is a measure of bandwidth on a data transmission medium that is equal to 1,000,000 kilobits per second.

MP3 (*MPEG-1 Audio Layer 3*) is a digital audio encoding format that compresses audio data by a factor of 12 without losing noticeable sound quality.

P2P (*peer-to-peer*) is a computer network that uses diverse connectivity between participants in a network and the cumulative bandwidth of network participants rather than conventional centralized resources where a relatively low number of servers provide the core value to a service or application.

Portal If Web portal: is an online interface that allows Internet users to collect and view information (e-mail, weather, stock prices, etc.) from various sources in a visually unified way. If Intranet portal: is a single network-specific hub that provides unified access to information and applications, often for a private company or organization.

Proxy (also *Proxy server*) is a server that acts as a go-between for clients (such as Web browsers or other applications) and other servers. Proxy servers enable anonymous online activity and increase access speed through caching.

Reverse filtering (also called *geolocational filtering*) is a practice that occurs on the Web server hosting the content, as opposed to at a point along the way of the traffic flow, and is based on restricting requests based on geographical location of the originating Internet Protocol address. Copyright holders who want to restrict access to their content in certain markets often use reverse filtering. Examples include hulu.com, BBC.com, and other sites that syndicate commercial video and audio content that is subject to licensing.

SMS (*short message service*), also known as text message, is a communication service standardized in the GSM mobile communication system, allowing the exchange of short text messages between mobile devices.

Social networking sites are Web services that focus on communities of users with shared interests. Popular examples include Facebook, Twitter, MySpace, and Orkut.

TB (*terabyte*) is a unit of digital information storage equal to 1 trillion (10^{12}) bytes, or 1,000 gigabytes.

TCP/IP (*Transmission Control Protocol/Internet Protocol*) is the set of standards governing data transmission over the Internet.

TCP/IP content filtering blocks communication on the basis of where packets of data are going to or coming from, and not on what they contain.

TCP/IP header filtering blocks communication on the basis of the IP address and/or the port number (which gives clues as to the type of Web service being accessed) contained in the header of the data packet being sent.

Top-level domain is the group of letters (usually two or three, but can include more) that follow the final dot in a domain name. Example: in *opennet.net*, the top-level domain is *.net*.

URL (*Uniform Resource Locator*) is a string of characters that specify where a particular resource is located online and how to retrieve it. Also known as a Web address.

User ID (*User Identification*) is a unique string of characters that identifies users of password-protected online services, such as e-mail or social networking sites.

VCD (*Video Compact Disc*) is a digital compression standard that enables the storage of video on a compact disc.

VoIP (*Voice over Internet Protocol*) is a technology that allows for voice communication over the Internet.

WAP (*Wireless Application Protocol*) is a global standard for the transfer of information without using electrical conduits (wires). It allows for access to the Internet using mobile devices.

Warez (derived from the plural of “ware,” as in software) refers to copyrighted material that is distributed in violation of copyright law.

WiMAX (*Worldwide Interoperability for Microwave Access*) is a wireless digital communications system that is meant to provide fixed and mobile Internet access for metropolitan area networks.

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Edited by: Ronald Deibert, John Palfrey, Rafal Rohozinski,
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