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NEWTON'S TELECOM DICTIONARY

**The Official Dictionary
of Telecommunications
Networking and
the Internet**

**16th
EXPANDED
& UPDATED
EDITION**

BY HARRY NEWTON

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Published by Telecom Books
An imprint of CMP Media Inc.
12 West 21 Street
New York, NY 10010

ISBN # 1-57820-053-9

Sixteenth Edition, Expanded and Updated, February 2000

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Distributed to the book trade in the U.S. and Canada by
Publishers Group West
1700 Fourth St., Berkeley, CA 94710

Manufactured in the United States of America

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for efficiently using a network to reduce transmission costs. See Systems Network Architecture.

VTC Video TeleConference, a term invented by the U.S. Air Force.

VTG Virtual Tributary Group

VTM Vendor Technical Management.

VTN Vendor Type Number.

VTNS Virtual Telecommunications Network Services.

VToA Voice Traffic (or Transport) over ATM.

VTOH Virtual Tributary Overhead.

VTP Virtual Terminal Protocol. An International Standards Organization (ISO) standard for virtual terminal service.

VTHH Video To The Home. The general ability to provide interactive multimedia services to people in their homes.

VU Meter VU is the unit of measurement for electrical speech power in communications work. VUs are measured in decibels above 1 milliwatt. The measuring device is called a VU meter, which is an abbreviation of volume-unit meter, a type of meter used to indicate average audio amplitude.

VUI First came the CLI (Command-Line Interface). Then came the GUI (Graphical User Interface). Get ready for the VUI: the Video User Interface. Actually, you don't need to get ready for it any time soon, but you might start wondering how to use it.

Vulkan Nerve Pinch The taxing hand positions required to reach all the appropriate keys for certain commands. For instance, the warm re-boot for a Mac II computer involves simultaneously pressing the Control Key, the Command key, the Return key and the Power On key. See also Three Finger Salute.

VXML Voice Extensible Markup Language (VXML) is a new markup language (like HTML and XML) that will allow vendors to incorporate voice into their Web pages. VXML provides voice-activated telephone access to Web services, such as electronic commerce and news. Once accepted and standardized, it should help to bolster the growth of the voice activated dialing market. In a bid to win industry-wide acceptance of the proposed VXML standard for voice-enabled Internet applications, AT&T, Lucent Technologies and Motorola have unveiled a forum on VXML.

VxWorks VxWorks was developed by Wind River Systems and is a development and execution environment for real-time and embedded applications on a wide variety of target microprocessors (i.e. single chip computers).

VW-1 A test used by Underwriters Laboratories to classify wires and cables by their resistance to burning. (Formerly designated as FR-1.)

W

W-1 Abbreviation for WATT.

The Hayes AT Command Set describes a standard language for sending commands to asynchronous modems. One of the commands is "W." If you embed a W in your dialing string, 212-691-8215-W-10045, the modem will dial 212-691-8215 and wait until it hears dial tone. When it hears dial tone, it will dial out 10045. That is the standard Hayes command interpretation of W. There is another. When using some of the communications software products from Crosstalk (now a subsidiary of DCA) you can place a [W] in your dialing string. If you do, your modem will dial the number until it encounters a [W]. It will then wait until you hit any button on your keyboard. The purpose of W commands is to allow you to dial through private networks (your own), through public networks (MCI, Sprint, etc.), through fax/modem/telephone switches and through any other device or network.

W-CDMA Wideband Code Division Multiple Access. A proposal for a 3G (Third Generation) wireless system based on CDMA technology. W-CDMA would offer bandwidth in excess of narrowband, which is commonly considered to be voice-grade bandwidth, i.e., 56/64 Kbps. W-CDMA proposes a support data rates of up to 384 Kbps initially, and up to 2 Mbps eventually. See also 3G, CDMA, and IMT-2000.

W-DCS Wideband Digital Cross-connect System. W-DCS is an electronic digital cross-connect system capable of cross-connecting signals below the DS3 rate.

W3 An abbreviation for the Internet's World Wide Web. See World Wide Web.

W3C World Wide Web Consortium. A consortium jointly hosted by the Massachusetts Institute of Technology (MIT), the Institut National de Recherche en Informatique et en Automatique (INRIA), and Keio University (Japan) Initially, W3C was established in collaboration with CERN, where the WWW originated, with support from DARPA and the European Commission. Tim Berners-Lee, inventor of the WWW, acts as Director. The W3C works to produce "free, interoperable specifications and sample code. Focus is on the domains of user interface, technology and society, and architecture. In some ways, its ambitions are not that different from those of the IETF (Internet Engineering Task Force), except that its members have commercial interests. The IETF's members are volunteers and tend to come from academia. W3C also focuses on the narrower Web, whereas the IETF focuses on the broader Internet. www.w3.org

Wabi Sun Microsystems software for running Microsoft Windows applications on Solaris. Runs on Intel and SPARC.

WabiServer Wabi is Sun Microsystems software for running Microsoft Windows applications on Solaris. Runs on Intel and SPARC. A WabiServer allows multiple and simultaneous users to run Wabi on Intel and SPARC.

WACK 1. Wack a T-1. Here's what it means. Imagine you're an ISP — an Internet Service Provider. Your business is answering inbound calls from customers with PCs who want to send email, surf the Internet, have fun in chat rooms, etc. You are receiving your calls on digital circuits (e.g. T-1s) from a local phone company — CLEC or ILEC. Your inbound T-1

line may have as many as 24 separate phone lines, which your customers could call on. Sometimes your phone company sends you a call over one or more of those 24 lines and it doesn't get through. Its switching equipment assumes your equipment on that particular phone line is broken. So its switching equipment automatically takes that phone line out of service. It sends no more calls over that line. Later in the day, it may run a diagnostic program — called FISO in some instances — and that software program may try sending calls over the lines that it had earlier taken out of service. But between taking the lines out of service and running that program as much as six or seven hours may elapse. With these lines out of service, an ISP's customers will now enjoy lousy service. So the ISP's people (after bombarded with customer complaint calls) calls the phone company and says "wack my T-1, please." What happens then is that a real live technician at the phone company then goes into each line and manually tests it, often with a technician from the ISP on the other end of the phone. The advantage of wacking the T-1 is that the circuits out of service are put back into service much faster than if they were left to the machine to do it automatically later on.

2. Wait before transmitting positive ACKnowledgement. In Bisynch, this DLE sequence is sent by a receiving station to indicate it is temporarily not ready to receive.

3. Do not confuse "wack" with "whack," which has now become a colloquial expression for killing someone.

Wafer A thin disk of a purified crystalline semiconductor, typically silicon, that is cut into chips after processing. Typically, a wafer is about one fiftieth of an inch thick and four or five inches in diameter.

Wafer Fabs Wafer fabs are a slang term for ultraclean factories that fabricate chips on silicon wafers.

WAIS Wide-Area Information Servers. A very powerful system for looking up information in databases (or libraries) across the Internet. WAIS allows you to perform a keyword search. WAIS is like an index, whereas Gopher, which is sometimes used as a complement to WAIS, is like a table of contents.

Wait On Busy An English term for the American term "Camp On" or "Call Waiting." A service allowing the subscriber to make a call to a busy phone line, wait until the call is over, then be connected automatically.

Wait State A period of time when the processor does nothing; it simply waits. A wait state is used to synchronize circuitry or devices operating at different speeds. Wait states are introduced into computers to compensate for the fact that the central microprocessor might be faster than the memory chips next to it. For example, wait states used in memory access slow down the CPU so that all components seem to be running at the same speed. A wait state is a "missed beat" in the cycle of information to and from the CPU that is necessary for a memory transaction to be completed.

Wake On LAN This standard allows a PC to be powered on by a network server, so the server can perform routine tasks. See WFM.

WAL WATS Access Line. A direct dial WATS line, as compared to a WATS line connected via a T-1 line.