

"An essential resource" —PC Magazine

★★★★★
RATING

OVER 725,000 SOLD



NEWTON'S TELECOM DICTIONARY

Telecommunications • Networking • Information Technologies
Wired, Wireless, Satellite, Fiber and the Internet
WANs, MANs, LANs, SANs and PONs • WiFi and WiMAX
DSL, Cable and BPL • VoIP and IPTV • Ethernet and VPNS
and everything voice, data and video — moving or still

MORE THAN 22,950 TERMS DEFINED

CMPBooks **22nd** Updated and Expanded Edition
by Harry Newton

NEWTON'S TELECOM DICTIONARY

22nd Edition

STAY INFORMED

To be alerted by email to news, updates and corrections
send a blank email to newton@news.cmpbooks.com
or go to www.cmpbooks.com/newton

COOLEY GODWARD LLP
LIBRARY

JUN 20 2006

CMPBooks
San Francisco

11951FreedomDrSte1500
Reston, VA 20190

NEWTON'S TELECOM DICTIONARY

Copyright © 2006 Harry Newton
email: Harry@HarryNewton.com
personal web site: www.HarryNewton.com
business web site: www.InSearchOfThePerfectInvestment.com

All rights reserved under International and Pan-American Copyright conventions,
including the right to reproduce this book or portions thereof in any form whatsoever.

Published in the United States by
CMP Books
An imprint of CMP Media Inc.
600 Harrison Street, San Francisco, CA 94107
Phone 415-947-6615 and Fax 415-947-6015
email: bookorders@cmp.com
www.cmpbooks.com



CMP

United Business Media

For individual or quantity orders
CMP Books
6600 Silacci Way Gilroy, CA 95020
Tel: 1-800-500-6875 or 1-800-LIBRARY or 1-408-848-5296

This book is also sold through www.Amazon.com, www.Fatbrain.com,
www.BarnesAndNoble.com and all fine booksellers worldwide.

Distributed to the book trade in the U.S. and Canada by
Publishers Group West
1700 Fourth St., Berkeley, CA 94710
Fax: 408-848-5784 cmp@rushorder.com

ISBN Number 1-57820-319-8
February 2006
Twenty Second Edition
Steven Schoen, Contributing Editor
Valerie Pippin, Publisher
Gail Saari, Managing Editor
Sachie Jones, Marketing Manager
Saul Roldan and Damien Casteneda, Cover design
Brad Greene, Greene Design, Text layout

the maximum length of time a customer's call should wait in queue, how long an agent should spend on each call, and how many accepting the overflow.

3. In England in the 1500s, the poor had dirt floors (hence "dirt poor"), the wealthy had slate floors that would get slippery in the winter when wet, so they spread thresh (straw) on the floor to help keep their footing. As the winter wore on, they kept adding more thresh until, when you opened the door, it would all start slipping outside. A piece of wood was placed in the entranceway—hence, a "thresh hold."

threshold of pain 1. The present price of local telephone service.

2. Unbearable noise.

throttling What happens when your Internet service provider decides you're getting too much bandwidth (aka speed) on your connection to the Internet. He cuts down the speed of your connection. He does this because he has other people or other services (e.g. email) he wants to provide higher speed service to. Or because he's simply short of a speedy connection to the Internet himself.

through dialing Allows the attendant on a phone system to select a trunk and pass dial tone to a restricted phone user so that user may directly dial an outside call.

throughput The actual amount of useful and non-redundant information which is transmitted or processed. Throughput is the end result of a data call. It may only be a small part of what was pumped in at the other end. The relationship of what went in one end and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. See also Goodput.

throw As in "throw a cable". To cut over. See Cutover.

thumb-typing How we "type" on our Blackberrys and other small wireless devices—those with tiny keyboards.

thumbing How we "type" on our Blackberrys and other small wireless devices—those with tiny keyboards. See Blackberry and predictive text.

Thumb, Rule of The Rule of Thumb of is derived from an old English law that stated a man could not beat his wife with anything wider than a thumb.

thumbnail Describes the size of an image you frequently find on Web pages. Usually photo or picture archives will present a thumbnail version of its contents (makes the page load quicker) and when a user clicks on the small image a larger version will appear. Sometimes these links will be to a new page containing the larger graphic and other times right to the image directly.

thunking A Microsoft Windows term for the transformation between 16-bit and 32-bit formats, which is carried out by a separate layer in the VM. The fundamental idea is to make older 16-bit programs work better in newer 32-bit operating systems.

Thuraya Thuraya is the name of a commercial satellite service which delivers phone calls and other mobile communications services in parts of the Middle East, Asia, Africa and Europe. It started in May 2001. It achieved a degree of fame when, in December, 2003, it was revealed that American intelligence penetrated Saddam Hussein's inner entourage before the 2003 Iraq war, finding one of his security aides who used a Thuraya satellite telephone, of the kind that American commanders favored. According to accounts circulating in Baghdad, Mr. Hussein personally executed the security man after the second of two pinpoint bombing strikes that nearly killed him, on March 20 and April 7, 2003. After that the use of satellite telephones by his entourage virtually stopped. Mr. Hussein was captured in December, 2003. Thuraya phones offer most of the features of normal cell phones, except that they use a constellation of satellites to provide service. Like all satellite phones, Thuraya's only work outdoors. Thuraya's "country" dialing code is +88216. Each Thuraya subscriber has an eight digit number. Thuraya phones have GPS. You can access the GPS features from the "GPS manager" submenu. After you figure where you are, you can send your coordinates to them via SMS (short message service) which the phone supports. Thuraya's carrier modulation is QPSK.

THz Terahertz (10 to the 12th power hertz). See also Spectrum Designation of Frequency.

THW Thermoplastic vinyl insulated building wire. Flame retardant, moisture and heat resistant, 75°C, for use in wet or dry locations.

THWN Same as THW but with nylon jacket overall.

TI Terrestrial Interference.

TIA 1. Telecommunications Industry Association. TIA represents the telecommunications industry in association with the EIA (Electronics Industry Association). TIA represents companies, which provide communications materials, products, systems, distribution services and professional services in the U.S. and around the world. Activities include government

relations, market support activities such as trade shows and trade missions, and standards development. TIA began as a group of equipment suppliers in the form of a committee of the USTA (United States Telephone Association, now known as the United States Telecom Association), splitting off in 1979 to form the USTSA (United States Telecommunications Suppliers Association). In 1988, the USTSA merged with the EIA/ITG (Information and Telecommunications Technologies Group of the Electronic Industries Association). TIA now operates under the umbrella of the EIA as the TIA/EIA, and works in conjunction with the USTA. TIA is accredited by ANSI (American National Standards Institute), and contributes voluntary standards to that body. In the Fall of 2000, the MultiMedia Telecommunications Association (MMTA), the successor organization to NATA, was fully integrated into the Telecommunications Industry Association.

More recently and in connection with the privatization of its Part 68 responsibilities, the FCC selected TIA and ATIS (Alliance for Telecommunications Industry Solutions) as joint sponsors of the Administrative Council for Terminal Attachments (ACTA). ACTA responsibilities include adopting and publishing technical criteria for terminal equipment submitted by ANSI-accredited standards development organizations, and operating and maintaining a database of approved terminal equipment. See also ACTA, ACTAS, NATA, and Part 68. www.eia.org and www.tiaonline.org.

2. Thanks In Advance.

TIA 568 Commercial Building Telecommunications Wiring Standard, July 91

TIA 568A Commercial Building Telecommunications Cabling Standard, October 1995

TIA 569 Commercial Building Standard for Telecommunications Pathways and Spaces, Oct 90

TIA 569A Commercial Building Standard for Telecommunications Pathways and Spaces, Aug 97

TIA 570 Residential and Light Commercial Telecommunications Wiring Standard, May 91

TIA 606 Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.

TIA 607 Commercial Building Grounding and Bonding Requirements for Telecommunications.

TIA/EIA The US Telecommunications Industries Association and Electronics Industries Association, which have merged. Now just called the Telecommunications Industry Association. See TIA for a full explanation.

TIA/EIA IS-95 See TIA/EIA IS-96.

TIA/EIA IS-96 IS-96 is the Speech Service Option Standard for Wideband Spread Spectrum Digital Cellular System, a new vocoder standard. The standard supports IS-95, the North American spread spectrum digital standard based on Code Division Multiple Access (CDMA), which was published in July, 1993. The engineering effort to produce IS-96 was done in TIA Technical Subcommittee TR-45.5, Wideband Spread Spectrum Digital Technologies Standards. The specific vocoder described in IS-96 is a variable rate implementation, chosen because of its combination of high voice quality and low average transmission rate. The IS-96 vocoder provides variable vocoder rates depending on voice activity. This variability typically results in an average transmission rate of under 4 Kbps and yet provides for reasonably quality voice transmission. The IS-96 also provides a variable noise threshold which tracks and eliminates much of the background noise from the speaker's environment. You can get copies of both standards from Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112.

TIA PN-2416 Backbone Cabling Systems for Residential and Commercial Buildings

Tiananmen Square The largest public space in the world. It is five times the size of Moscow's Red Square. See 1949.

TIC 1. An AT&T term for a digital carrier facility used to transmit a DS-1 formatted digital signal at 3.152 Mbps.

2. Token-Ring Interface Coupler. An IBM device that allows a controller or processor to attach directly to a Token-Ring network. This is an optional part of several IBM terminal cluster controllers and front-end processors. See TIC CARD.

3. See Telephony Interface Control.

TIC Card Token Ring Interface Coupler is the IBM name for a variety of token ring adapter cards used to connect IBM controllers to token ring LANs. See TIC.

TICE TICE was the mantra of PC Magazine and others in 1999 and 2000. It was the great sound echoing from the (very hollow) drums of Silicon Valley: "The Internet Changes Everything"

tick 1. A tick is an increment of time, as measured by a clock. The term refers to the