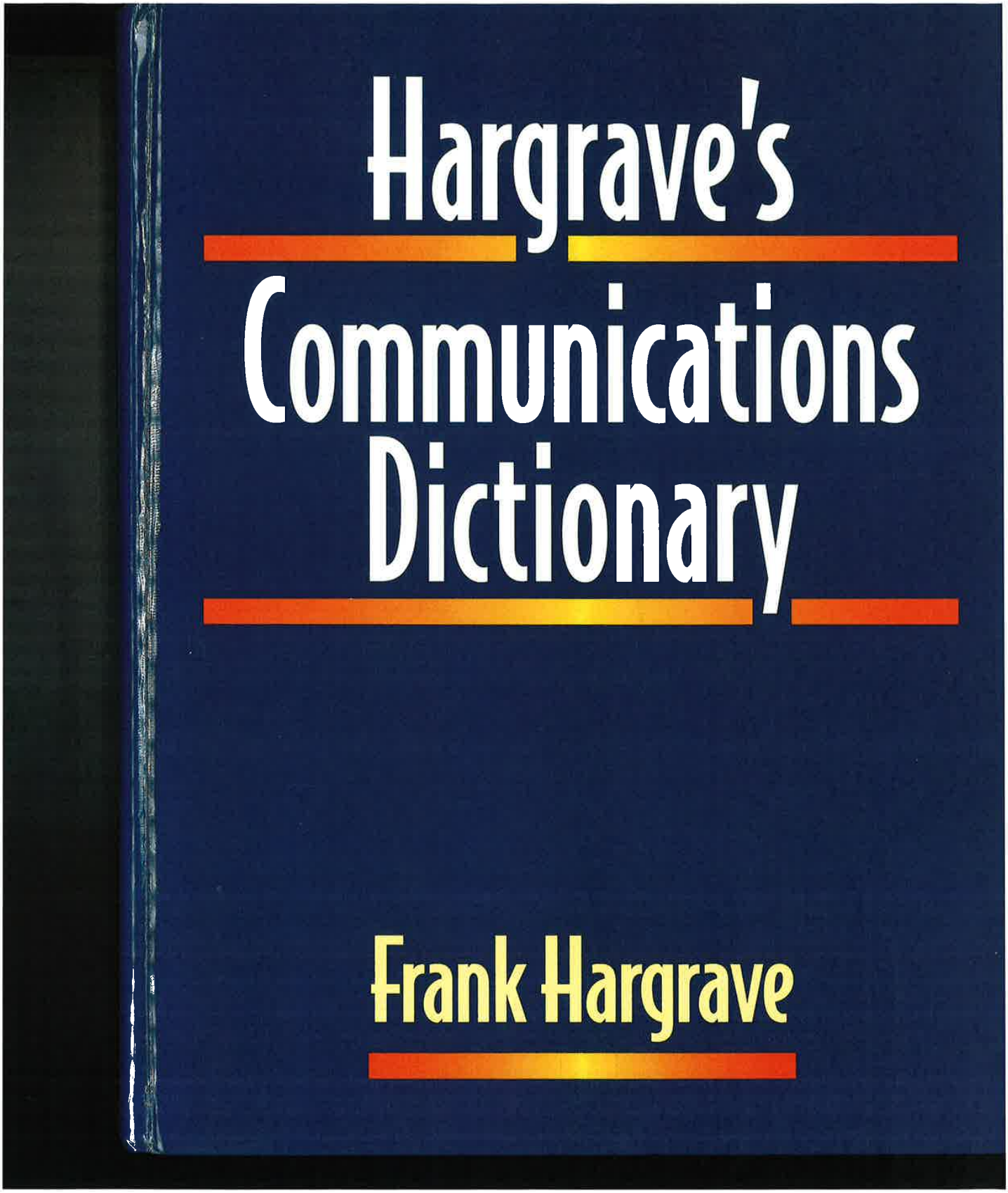

HARGRAVE'S COMMUNICATIONS DICTIONARY

Frank Hargrave

IEEE PRESS

The Institute of Electrical and Electronics Engineers, Inc., New York

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Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

ISBN 0-7803-6020-6
IEEE Order No. PC5869

Library of Congress Cataloging-in-Publication Data

Hargrave, Frank.
Hargrave's communications dictionary.
/ Frank Hargrave.
p. cm.
Includes index.
ISBN 0-7803-6020-6
1. Telecommunication—Dictionaries. I. Title.
TK5102.H37 2000
621.382'03—dc21
00-061416

apoapsis The orbital point most distant from the center of the primary attracting object. See also *apogee* and *periapsis*.

apochromatic system An optical system that is chromatically corrected for three colors simultaneously.

apogee The orbital point most distant from the gravitational center of the Earth, when the Earth is the center of attraction. See also *apoapsis* and *perigee*.

apparent power In alternating current (ac) power transmission and distribution, the product of the RMS voltage and current. Apparent power is expressed in volt-amps (VA), not watts (W).

When the applied voltage and the current are in phase, the *apparent power* is numerically equal to the *effective power* (the real power—expressed in watts (W)—delivered to or consumed by the load). If the current lags or leads the applied voltage, the *apparent power* is greater than the effective power. See also *effective power.*

apparent solar time A timekeeping scheme based on the Sun's crossing of the local meridian at 12:00 noon. Also called *local apparent time* and *sundial time.* See also *time* (*3*).

APPC An abbreviation of Advanced Program to Program Communications. A collection of protocols executing programs to communicate with each other as peers, that is, without the assistance of the mainframe. *APPC* is used primarily with personal computer communications to the mainframe host in IBM's Systems Network Architecture (SNA) network. *APPC* provides direct peer-to-peer workstation communications, mainframe access, compatible protocols between all types of workstations, and standard application program interfacing to the network. It is defined at a level comparable to the session layer in the ISO/OSI Reference Model. It is supported in various networking environments, including IBM's Systems Network Architecture (SNA), Ethernet, Token Ring, and X.25. Also called *LU6.2.*

APPC/PC A version of APPC developed by IBM to run on PC-based Token Ring networks.

append To attach to an end of something (a file, a data block, etc.). Often used with reference to adding information to a packet of information being transmitted (as in error detection or correction) or adding data to the end of a file.

Apple Datastream Protocol (ADSP) A transport mechanism for interprocess communications between Apple Macintosh and DEC VAX minicomputers.

Apple Desktop Bus (ADB) A high-speed serial interface used on the Macintosh computer. It is where nonperipheral devices such as the keyboard are connected. See also *EIA/RS-232, EIA/RS-422, EIA/RS-449, IEEE P1394,* and *ITU-T V.35.*

Apple Filing Protocol (AFP) A standard means of presenting the filing system of a server to the user with a consistent Apple Macintosh interface.

AppleLink A commercial online information service dedicated to the service of Apple Computer's customers. As with most online information services, a gateway to the Internet is available.

AppleShare Apple Computer's networking system. *Appleshare* runs on a Macintosh network server, providing file access and printer services. It runs on top of the AppleTalk protocols at the uppermost (application) layer and uses the protocol suite to provide services.

applet A small software application performing a specific task.

Traditionally, *applets* have referred to programs like Cardfile and Calculator in Microsoft Windows but now it is used more commonly to describe the small distributed applications created with Sun's Java programming language and are downloaded over the Internet to dress up a web page (e.g., provide motion).

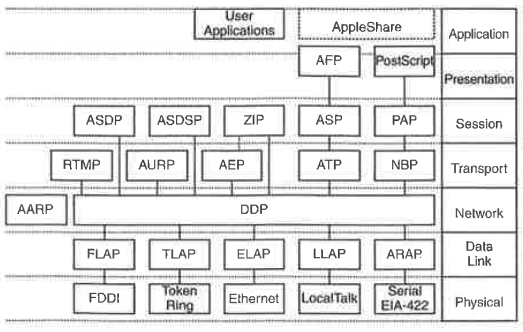
AppleTalk A network protocol suite defined by Apple Computer Inc. for interconnecting Macintosh computers. The original version (Phase 1) allowed only 254 network nodes, however. Phase 2, introduced in 1989, increased this limit to 16 million. Several physical interfaces are defined, i.e.,

- Serial EIA/RS-422 using AppleTalk Remote Access Protocol (ARAP). Apple's basic architecture available on all Macintosh computers. It is a 230.4-kbps architecture that accesses shielded twisted pair (STP) cabling via EIA/RS-422 connections. It allows nodes to be separated by as much as 305 meters (1000 feet).

  The term LocalTalk is sometimes used to refer to an AppleTalk network.
- Apple's network *LocalTalk* utilizing LocalTalk Link Access Protocol (LLAP).
- Ethernet using *EtherTalk* Link Access Protocol (ELAP). Apple's implementation of the 10 megabit per second (Mbps) Ethernet architecture. Two versions of EtherTalk exist. The first, EtherTalk Phase 1, is based on the Blue Book Ethernet 2.0 (not the IEEE 802.3 specification). Phase 1's successor, Phase 2, is modeled on the IEEE 802.3 standard. Because the packets are defined differently in Phase 1 and Phase 2, the two versions cannot communicate directly with each other. *EtherTalk* has replaced *LocalTalk* as the default networking capability in newer Macintosh models.
- Token Ring using *TokenTalk* Link Access Protocol (TLAP). Apple's implementation of the Token Ring architecture. *TokenTalk* supports both the 4-Mbps and 16-Mbps version.

  (*Note:* The Token Ring architecture is supported only in *AppleTalk* Phase 2.)
- FDDI using *FDDITalk* Link Access Protocol (FLAP). Apple's implementation of the 100-Mbps FDDI architecture.

At the network layer, AppleTalk uses the Datagram Delivery Protocol (DDP) regardless of the architecture operating at the data link layer, which makes a best effort at packet delivery, but delivery is not guaranteed. Also at the network layer is the AppleTalk Address Resolution Protocol (AARP) which maps AppleTalk network addresses to Ethernet or Token Ring physical addresses. The relationships of the various members of the protocol suite are outlined in the associated diagram. The diagram also illustrates the relationship of the elements to the ISO/OSI Reference Model.



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