

## List of abbreviations

## A

ACLU	American Civil Liberties Union	1-1-3		
ADSL	Asymmetric Digital Subscriber Line	2-3-3		
AM	Amplitude Modulation	2-2-2-(1)	2-5-1	
APC	Asia Pacific Cable	2-3-1		
APCN	Asia Pacific Cable Network	2-3-1		
APEC	Asia-Pacific Economic Cooperation	1-1-2	1-5-2-(3)	3-7-1-(1)
APII	Asia-Pacific Information Infrastructure	3-7-1-(1)		
APT	Asia-Pacific Telecommunity	3-7-3-(1)		
ARIB	Association of Radio Industries and Businesses	2-8-3-(1)		
ARPA	Advanced Research Project Agency	1-Column 1		
ART	Autorité de Régulation des Télécommunications	2-11-1-(2)		
ASTAP	APT Standardization Program	2-8-3-(1)	3-7-3-(1)	
ATM	Asynchronous Transfer Mode	2-3-2		
ATM	Automated Teller Machine	3-8-2-(1)		

## B

B to B	Business to Business	1-2-1		
B to C	Business to Consumer	1-2-1		
BBC	British Broadcasting Corporation	2-11-2		
BCF	Backup Control Facility	2-4-10		
BS	Broadcasting Satellite	2-2-2-(1)	2-5-1	
BSAT	Broadcasting Satellite System Corporation	2-3-5	3-3-3-(4)	
BT	British Telecom	2-11-3		
BTO	Build To Order	1-2-3-(3)		

## C

CAP	Competitive Access Provider	2-11-1-(1)		
CATV	Community Antenna Television	1-2-4-(2)		
CBS	Columbia Broadcasting System Inc.	1-1-3		
ccTLD	country code Top Level Domain	1-1-1		
CD	Cash Dispenser	3-8-2-(1)		
CDMA	Code Division Multiple Access	2-4-13	3-3-1-(3)	
CEMA	Consumer Electronics Manufactures Association	2-11-2		
CERN	Conseil Européen pour la Recherche Nucléaire	1-Column 1		
CG	Computer Graphics	1-3-2-(5)		
CLAD	Cell Assembly and Disassembly	2-3-2		
COPA	Child On-line Protection Act	1-1-3		
CS	Communications Satellite	2-2-2-(1)	2-5-1	
CSJ	CyberSpace Japan, Inc.	1-3-1-(1)		
CTIA	Cellular Telecommunications Industry Association	2-Column 3		

## D

DARPA	Defense Advanced Research Projects Agency	1-1-1	1-1-3	1-Column 1
DB	Data Base	1-1-1		
DDI	DDI Corporation	2-2-4	2-7-1-(2)	
DNS	Domain Name System	1-1-1		
DoE	Department of Energy	1-1-3		
DSL	Digital Subscriber Line	1-5-2-(4)	2-3-3	
DSRC	Dedicated Short Range Communication	3-6-4		
DSU	Digital Service Unit	2-3-3		
DT	Deutsche Telekom	2-11-3		
DTI	Department of Trade and Industry	2-11-1-(2)		
DVD	Digital Versatile Disk	2-10-1-(5)		
DWDM	Dense Wavelength Division Multiplexing	2-Column 2		

## E

EDI	Electronic Data Interchange	2-9-1-(1)		
EHF	Extremely High Frequency	2-Column 4		
ETC	Electronic Toll Collection System	3-6-4		
ETSI	European Telecommunications Standards Institute	2-8-3-(1)		
EU	European Union	1-1-4		

F				
FCC	Federal Communications Commission	2-11-1-(1)		
FLAG	Fiberoptic Link Around the Globe	2-3-1		
FM	Frequency Modulation	2-2-2-(1)	2-3-7	2-5-1
FSK	Frequency Shift Keying	3-3-1-(2)		
FT	France Telecom	2-11-3		
FTTH	Fiber To The Home	2-3-3	3-2-3	
G				
GDP	Gross Domestic Product	2-9-1-(2)		
GE	General Electric Co.	1-2-3-(2)		
GF	Gap Filler	3-3-3-(5)		
GIS	Geographic Information Systems	3-9-1		
GMSK	Gaussian filtered Minimum Shift Keying	3-3-1-(2)		
GPS	Global Positioning System	3-6-4		
gTLD	generic Top Level Domain	1-1-1		
H				
HCA	Hutchison Corporate Access	Appendix 10		
HDSL	High-bit-rate Digital Subscriber Line	3-7-3-(1)		
HDTV	High Definition Television	3-3-3-(4)		
HF	High Frequency	2-Column 4		
HFC	Hybrid Fiber/Coax	2-3-3		
H-J-K	Hong Kong-Japan-Korea	2-3-1		
HTML	Hyper Text Markup Language	1-Column 3		
I				
IAA-DB	"I am alive" Data Base	1-4-6		
IANA	Internet Assigned Numbers Authority	1-1-1		
IC	Integrated Circuit	2-4-5	3-8-2-(2)	
ICANN	Internet Corporation for Assigned Names and Numbers	1-1-1		
ICC	Internet Content Coalition	1-1-3		
ID	Identification	1-2-5-(4)	1-5-1-(3)	
IDC	International Digital Communications Inc.	2-2-4		
IDO	IDO Corporation	2-2-4		
IEC	International Electrotechnical Commission	2-8-3-(1)		
IETF	Internet Engineering Task Force	3-7-3-(1)		
IFWP	International Forum on the White Paper	1-1-1		
IMT-2000	International Mobile Telecommunications-2000	1-5-3-(2)	3-3-1-(3)	
INGECEP	Integrated Next Generation Electronic Commerce Environment Project	1-5-2-(3)		
Inmarsat	International Mobile Satellite Organization	3-7-1-(2)		
INTELSAT	International Telecommunications Satellite Organization	3-7-1-(2)		
IP	Internet Protocol	2-3-2	2-11-1-(1)	
ISDB	Integrated Service Digital Broadcasting	3-7-3(1)		
ISDN	Integrated Services Digital Network	2-4-4		
ISO	International Organization for Standardization	2-8-3-(1)		
ISP	Internet Service Provider	1-2-4-(1)	1-2-4-(3)	
ISU	Iridium Subscriber Unit	2-4-10		
ITA	International Trade Administration	2-11-1-(1)		
ITJ	International Telecom Japan, Inc.	2-2-4		
ITS	Intelligent Transport Systems	3-6-4	3-7-3-(1)	
ITU	International Telecommunication Union	1-1-2	3-3-1-(3)	3-7-1-(1) 3-7-3-(1)
ITU-R	ITU-Radiocommunication Bureau	3-3-1-(3)	3-7-3-(1)	
ITU-T	ITU-Telecommunication Standardization Bureau	3-3-1-(3)	3-7-3-(1)	
IX	Internet Exchange	1-5-3-(1)		
J				
JETTV	Japan Entertainment Television	2-5-7	Appendix 25	
JGN	Japan Gigabit Network	3-4-1(1)		
JIH	Japan Information Highway	2-3-1		
JPCERT/CC	Japan Computer Emergency Response Team Coordination Center	1-5-1-(3)		
JPIX	Japan Internet Exchange Co., Ltd.	1-5-3-(1)		
JPNIC	Japan Network Information Center	1-Introduction-2		1-4-4
JSAT	Japan Satellite Systems Inc.	2-3-5		

JT	Japan Telecom Co., Ltd.	2-3-1		
JTC1	Joint Technical Committee 1	2-8-3-(1)		
JUNET	Japan University/Unix Network	1-Column 1		
<b>K</b>				
KDD	KDD Corporation	2-2-4		
<b>L</b>				
LAN	Local Area Network	2-9-1-(1)	2-9-4-(1)	
LF	Low Frequency	2-Column 4		
<b>M</b>				
MF	Medium Frequency	2-Column 4		
MMAC	Multimedia Mobile Access Communication Systems	3-4-1-(4)		
MoU	Memorandum of Understanding	1-1-1		
MRA	Mutual Recognition Arrangement	3-7-1-(1)		
MRO	Maintenance, Repair and Operation	1-2-2-(4)		
MSC	Multimedia Super Corridor	2-11-1-(3)		
MSO	Multiple System Operator	2-5-4		
<b>N</b>				
NASA	National Aeronautics and Space Administration	1-1-3		
NCC	New Common Carrier	2-4-1		
NCSA	National Center for Supercomputing Applications	1-Column 1		
NGI	Next Generation Internet	1-1-3	1-5-3-(3)	
NHK	(Japan Broadcasting Corporation)	2-5-5		
NIC	Network Information Center	1-1-1		
NPC	North Pacific Cable	2-3-1		
NRI	Nomura Research Institute, Ltd.	1-2-2-(1)		
NRZ	Non Return to Zero	2-Column 2		
NSF	National Science Foundation	1-1-1	1-1-3	1-Column 1
NSI	Network Solutions Inc.	1-1-1		
NSPIXP	Network Service Provider Internet Exchange Point	1-5-3-(1)		
NTIA	National Telecommunications and Information Administration	1-1-1		
NTT	Nippon Telegraph and Telephone Corporation	2-2-1-(1)	2-2-4	
NTT DoCoMo	NTT Mobile Communications Network, Inc.	2-2-1-(1)	2-4-7	2-4-9
<b>O</b>				
OA	Office Automation	1-3-2-(6)	2-9-4-(2)	
OECD	Organization for Economic Co-operation and Development	1-1-2	1-5-2-(3)	
ONU	Optical Network Unit	2-3-3		
<b>P</b>				
P-SAT	Post office Satellite Communications Network	3-9-1		
PBX	Private Branch Exchange	2-3-3		
PCS	Personal Communication Service	2-11-1-(1)		
PCM	Pulse Code Modulation	2-5-3		
PDF	Portable Document Format	1-Column 3		
PDS	Passive Double Star	2-3-3		
PHS	Personal Handy phone System	2-4-8	2-4-13	
PII	Postal Information Infrastructure	3-8-1-(2)	3-9-1	
PNET	Postal Advanced Network System	3-9-1		
PSK	Phase Shift Keying	3-3-1-(2)		
PSTN	Public Switched Telephone Network	2-4-10		
<b>Q</b>				
QAM	Quadrature Amplitude Modulation	3-3-1-(2)		
<b>R</b>				
RBOC	Regional Bell Operating Company	2-11-1-(1)		
RegTP	Regulierungsbehörde für telekommunikation und Post	2-11-1-(2)		
R-J-K	Russia-Japan-Korea	2-3-1		
<b>S</b>				
SCC	Space Communications Corporation	2-3-5		
SCS	Space Collaboration System	2-9-4-(3)		
SDH	Synchronous Digital Hierarchy	2-3-2		
SDSL	Symmetric Digital Subscriber Line	2-3-3		
SDTV	Standard Definition Television	3-3-3-(4)		
SEA-ME-WE3	South East Asia-Middle East-Western Europe 3	2-3-1		

SET	Secure Electronic Transaction	1-2-5-(4)		
SG	Study Group	3-3-1-(3)		
SHF	Super High Frequency	2-Column 4		
SLD	Second Level Domain	1-Column 3		
SNOC	Satellite Network Operations Center	2-4-10		
SOHO	Small Office Home Office	1-3-2-(5)		
SONET	Synchronous Optical Network	2-3-2		
SSL	Secure Sockets Layer	1-2-5-(4)		
STM	Synchronous Transfer Mode	2-3-2		
<b>T</b>				
TCP/IP	Transmission Control Protocol / Internet Protocol	1-2-1	1-2-3-(2)	
TDM	Time Division Multiplexer	2-3-2		
TDMA	Time Division Multiple Access	3-3-1-(3)		
TFP	Total Factor Productive	2-1-3		
TG	Task Group	3-3-1-(3)		
TIA	Telecommunications Industry Association	2-8-3-(1)		
TICS	Transport Information and Control System	3-7-3-(1)		
TLD	Top Level Domain	1-1-1	1-Column 3	
TOPIX	Tokyo Stock Price Index and Average	2-2-1-(4)		
TPC-4	Transpacific Cable No. 4	2-3-1		
TPC-5CN	Transpacific Cable No. 5 Cable Network	2-3-1		
TPN	Trading Process Network	1-2-3-(2)		
TTAC	Telemetry, Tracking and Command	2-4-10		
TTC	The Telecommunication Technology Committee	2-8-3-(1)		
TTNet	Tokyo Telecommunication Network Co., Inc.	2-4-3		
<b>U</b>				
UHF	Ultra High Frequency	2-Column 4		
UNCITRAL	United Nations Commission on International Trade Law	1-1-2		
UPU	Universal Postal Union	2-6-1		
<b>V</b>				
VCON	Virus Consulting Center	1-5-1-(4)		
VDSL	Very high-bit-rate Digital Subscriber Line	3-7-3-(1)		
VHF	Very High Frequency	2-Column 4		
VICS	Vehicle Information and Communication Systems	3-6-4	3-7-3-(1)	
VLF	Very Low Frequency	2-Column 4		
VoIP	Voice over Internet Protocol	2-3-2		
VPN	Virtual Private Network	2-4-6		
VSAT	Very Small Aperture Terminal	2-9-4-(3)		
<b>W</b>				
W-CDMA	Wideband Code Division Multiple Access	3-3-1-(3)		
WAN	Wide Area Network	1-4-1		
WARC	World Administrative Radiocommunication Conference	3-3-3-(5)		
WBT	Web Based Training	1-2-5-(7)		
WDM	Wavelength Division Multiplexing	2-3-2	2-11-1-(1)	
WIDE	Widely Integrated Distributed Environments	1-4-6	1-Column 1	
WIPO	World Intellectual Property Organization	1-1-3		
WLL	Wireless Local Loop	2-3-3		
WOWOW	World Wide Watching	2-5-3		
WRC	World Radiocommunication Conference	3-3-3-(5)		
WTO	World Trade Organization	1-1-2		
WWW	World Wide Web	1-Introduction-2	1-Column 1	1-Column 3
		1-3-1-(2)	1-3-2-(1)	

## Terms and definitions

Term	Definition
access	Reading and writing data onto a computer memory or memory device. It also means gaining access from one computer to another through a network or telecommunications circuit.
access point	An access point set up by an Internet service provider (ISP), where the ISP's registered users' personal computers are connected to the ISP's host computer.
amount of domestic production	Amount of domestic production is the total production of sales of services of and products of industries in Japan during a certain time-period.
APEC	Asia-Pacific Economic Cooperation. It aims to promote free and sound trade and investment, as well as economic and technological cooperation, for the continuing growth and development of the Asia-Pacific region.
ASTAP	Asia-Pacific Telecommunity Standardization Program. It aims to support activities for the standardization of telecommunications systems in the Asia-Pacific region, in order to contribute to the establishment of international standards.
ATM	Asynchronous Transfer Mode. A type of communications method used to transfer multimedia information, including images, sound and data, in an efficient way at high speed. The information is cut into blocks of fixed size, called cells. A header that helps distinguish the type of information is attached to each cell before the information is sent.
B to B	Business to Business. It generally refers to business trade between companies.
B to C	Business to Consumer. It generally refers to business trade between companies and consumers. B to C, or B to B (Business to Business) are often used when categorizing electronic commerce and Internet commerce.
backbone	Main telecommunications trunk line
banner advertisement	Advertisement consisting of texts and images that may appear on pages of websites, usually horizontally like a banner.
BTO	Build to Order. Production of a product begins only after receiving an order. This means the purchaser can obtain the desired product while the producer can avoid the risk of excess production.
ccTLD	country code Top Level Domain. TLDs such as "jp" are formed according to the definition for "2-letter country codes" specified in ISO-3166 and are under the management of the relevant country. Exceptions are the U.K. and the Russian Federation, which each have two TLDs: ".uk" and ".gb," and ".ru" and ".su" respectively.
chat room	Internet site where online "conversations" take place between visitors, who input text messages via their computers.
Churn phenomenon	The tendency of subscribers to telecommunications services to frequently shift between carriers to get better rates or other advantages.
circuit switching system	When requested, the system connects more than one terminal device through a circuit to allow dedicated usage of that particular circuit.
CLAD	Cell Assembly and Disassembly. A device used to assemble or disassemble ATM cells in order to re-establish the original signals.
clearing system	A system that confirms the universal resource location of some particular information on the Internet by using a keyword to conduct a search.
client server	A computer (server) that unites a distributed processing system consisting of multiple terminals.
code division multiple access system	A kind of modulation system using spread spectrum (frequency hopping) technology. It distinguishes different channels by spreading all signals across the same frequency band allocated, and assigning a code to each signal. It effectively protects secrecy of communications and was developed as a military satellite communications technology. It is now in general use as a standard for digital cellular telephones in the U.S. and is expected to be used worldwide in the near future.
Communications Research Laboratory (CRL)	Operating under the Ministry of Posts and Telecommunications, CRL conducts research relating to fundamental and the most up-to-date info-communications technologies and radiowave usage technologies.
community broadcasting	The system was approved on January 10, 1992 for part of cities, towns and villages throughout Japan as a means of providing detailed information of local interest in a particular area. Because it uses FM radiowaves, it can easily be received anywhere, including outdoors.
community site	An Internet site where users with common interests come together. It consists of bulletin boards, chat rooms, mailinglists and individual homepages, all of which can be used to exchange information between users.
current profit ratio of total liabilities and net worth	An index that measures the profitability of a company's activities. Current

	profit ratio of total liabilities and net worth = (current profit ÷ total liabilities and net worth) x 100.
current ratio	An index that measures the short-term payment ability of a company. Current ratio = (current assets ÷ current liabilities) x 100
cyber-terrorism	Illegal entry into a computer system through the Internet or other means, and destruction or disruption of the system, or threats to do so.
debit card	Plastic card that records financial transactions and allows funds to be instantly debited from a user's bank account. The cards make it possible for "cashless" purchases to be made instantly at retail outlets.
dial-up access	A system for gaining access to the Internet and other networks from a computer through telephone circuits.
digital signature	Security technology used when exchanging messages on the Internet. It is used to confirm the sender's identity and reveal any alteration to the message. Various types of encryption are used, as described in chapter 1 column 4.
DNS	Domain Name System. A distributed database system used to convert the domain name to the corresponding IP address.
domain name	Name used to identify Internet addresses. In place of the numerals in IP addresses, it uses alphanumeric characters to make it easier to understand and remember. Domain names usually consist of the server's name, followed by a sequence of names (levels) separated by dots, including a top level domain code or a country code. For example, "www.mpt.go.jp" is the website address of the Ministry of Posts and Telecommunications. It means "World Wide Web server (WWW) of the Ministry of Posts and Telecommunications (mpt) of the Government (go) of Japan (jp)."
download	To transfer and save onto a computer data received from another computer via a network, such as the Internet.
DSL	Digital Subscriber Line. A general term that refers to any method that allows high-speed digital data transmission by connecting an exclusive modem onto a metallic telephone cable.
electronic mail (e-mail)	A system that allows the exchange of texts and images between computer terminals through various computer networks such as LANs and the Internet. Electronic mail has a storage function and is especially useful for communicating between foreign countries where there is difference in time zones. It also allows messages to be sent to many people simultaneously.
electronic money	Electronic cash is transferable (money can be transferred to another person); anonymous (when and by whom it is used need not be revealed); and negotiable (money transfers need not go through a third party).
extranet	A type of info-communications network created by using Internet-related technologies such as WWW and TCP/IP. It is a network formed by connecting more than one intranet, which are small, private networks formed within groups, e.g., companies.
fixed ratio	An index that shows the fixed level of capital. Fixed ratio = (fixed assets ÷ equity capital) x 100
freeware	Software distributed free of charge, usually via the Internet
FDMA	frequency division multiple access system A multiple access system in which the frequency band is divided into individual frequency slots to allocate different channels to different users. The caller would then transmit signals through an unoccupied channel.
gateway	In the field of telecommunications, it refers to a device or function used when connecting networks that use different protocols.
gTLD	generic Top Level Domain. ".com," ".net," and ".org" are all gTLDs. A kind of TLD that allows anyone to obtain an SLD regardless of where they live.
HFC	Hybrid Fiber/Coaxial. A cable TV network that has replaced its trunk line system with optical fiber cable.
HTML	Hyper Text Markup Language. Language used to markup an Internet webpage. Internet webpages around the world are basically written by HTML. Though these are nothing more than ordinary text files, a certain character string called a "tag" that helps define the attributed format is inserted into the text in order to mark up positions for returns, images and others. Its biggest feature is that it uses hyperlink to enable users to easily move on to a different webpage simply by clicking on the link (button or part of screen).
IC card	A plastic card that has a built-in integrated circuit (IC) used to store information
IETF	Internet Engineering Task Force. An organization that operates under the Internet Society, based in the U.S. It has established many Internet-related standards (RFC standards).
information literacy	The ability to use info-communications devices and software.
information barrier-free environment	A kind of environment that ensures everyone, including the elderly and people with disabilities, to send out and receive information, then understand, organize, create and send them out.
Institute for Posts and Telecommunications Policy	A research institute that conducts basic research on telecommunications

and postal services which are under the jurisdiction of the Ministry of Posts and Telecommunications

integrated services digital broadcasting	A digital broadcasting that combines TV, radio, and data broadcasting and transmits them by using digital signals.
inter-industry relations table	A table that shows the interdependency relationship in a country's national economy by especially focusing on how industrial technology of different industries are related to each other. It describes the production structure in the form of a table that includes the demand/supply structure related to output, and the different income categories related to distribution. The amount of production during a fixed period is shown in a matrix where the vertical columns indicate the amount of input (costs) and the horizontal columns indicate the amount of output (sales). It is also called the input-output table (I-O table) or Leontief table. In Japan, these tables are compiled every 5 years. In addition, an integrated inter-industry relations table is compiled, making a comparison between different time periods.
international TV broadcasting	General term for TV broadcasting beyond the border to foreign countries. In Japan, NHK started TV broadcasting to North America and Europe in April 1995 after the revision of the Broadcast Law in 1994. In fiscal 1998, the service coverages expanded even further starting with Asia and spreading to almost the entire world except for a certain portion of Africa. On receiving TV broadcasting from overseas, only those which have been announced by MPT as "broadcasting" among the overseas broadcasting services can be shown to the public. This is in order to enable receipt of the service more smoothly.
Internet commerce	All commercial transactions for the goods and services via the Internet. In this White Paper on Communications, the term refers to all commercial transactions over computer networks that use the basic Internet technology TCP/IP.
Internet Content Coalition	A non-profit organization formed by Internet content producers in the U.S.
Internet host	Refers to computers that are connected to the Internet and have IP addresses. A U.S. company Network Wizards conducts an "Internet Domain Survey" every 6 months to find out the number of Internet hosts around the world.
Internet protocol (IP)	A set of technical rules that allow data to be transmitted across various networks for communications on the Internet. The version currently being used is IPv4.
Internet service provider (ISP)	Business that provides an Internet access service. Access services provided by ISPs come in three types: UUCP access, dial-up access, and leased circuit IP access.
Internet	A global computer network. It makes possible access to LANs and other networks around the world by using a common protocol (TCP/IP) and is said to be "the network of networks." It first began when ARPAnet was established by the US Department of Defense in 1969. In 1990, a commercial Internet for unlimited purposes was created. Since then, the number of users around the world has skyrocketed, reaching an estimated 160 million in March 1999.
intranet	A private computer communications network created by using the Internet-related technology TCP/IP. Each is open only to a relatively small group of users, such as people in a company or a school.
IP address	Identification code for computers connected to the Internet TCP/IP environment. An organization called InterNIC manages all IP addresses and allocates them to its branches in different countries and regions (JPNIC for Japan). An IP address consists of 32-bit (4B) electronic information, described by four sets of numbers (0 to 255), each set being worth 8 bits (e.g., 123.2.46.155).
IP	See Internet Protocol.
ISP	See Internet service provider.
ITU	International Telecommunication Union. A specialized agency of the United Nations that works to harmonize world telecommunications systems, to allocate radiowave resources and prevent interference thereof, and to promote telecommunications development worldwide through providing technological support to developing countries.
IX	Internet Exchange. An access point where Internet service providers (ISPs) connect with each other. By going through this access point, computers connected to different providers can exchange information with one another.
Japan HEIB (Home Economists In Business) Conference	A voluntary group established in 1978 for female employees working in consumer-related sections of various companies.
.jp domain	Domain that has ".jp" as the top level domain. ".jp" is a ccTLD and the country code for Japan. Allotment of the ".jp" domain is conducted by JPNIC.
JPNIC	Japan Network Information Center. The sole Japanese entity responsible for the allotment of IP addresses and Internet domains in Japan, and for providing information on that allotment.
Kasumigaseki WAN	Wide Area Network formed by linking the LANs in each of the ministries and agencies in the Kasumigaseki administrative district of central Tokyo. The network was launched in January 1997.
key station	A central broadcasting station among the different broadcasting systems in a particular region



Konet Plan	A project that supports the use of multimedia and the Internet within Japanese schools. It is carried out by the Konet Plan Promotion Conference formed by companies, various groups and organizations and individuals, under the support of the Ministry of Education and the Ministry of Posts and Telecommunications. The project was launched in 1996 with about 1,000 participating schools, and is working to promote educational projects that make use of the Internet.
link	On World Wide Web, it refers to the point where the URL of another server is set up within the HTML text. By using the link, one can jump to other webpages.
local emergency communications network technology	A disaster-proof radio system that supports relief measures and communications following a natural disaster in Japan. It controls the flow of communications traffic, and transmits moving pictures and other information in an efficient manner.
log	Record of computer usage
mail magazine	A "magazine" covering special or general interests that is distributed by e-mail. In Japan, some require paid subscriptions, but most are sponsored by advertisers, whose advertisements are carried in the magazines.
mailinglist	An online system resembling a bulletin board that simultaneously transmits information to the individual addresses of members of a group.
medium frequency (AM) broadcasting	Broadcasting at a frequency range of 526.5 - 1,606.5 kHz. It is generally called AM (amplitude modulation) broadcasting.
MSO	Multiple System Operator. It refers to an operator that owns and operates more than one cable TV system. MSOs began to appear in the U.S. in 1965. In Japan, deregulation of the cable TV business by the Ministry of Posts and Telecommunications in 1993 has allowed companies, such as large trading firms, to enter the business, assisting the development of this market.
multicast	To send information to specified multiple addresses
network security	The prevention of illegal access, protection of secrecy and maintenance of stable operations of a computer network
news group	On the electronic bulletin board system that functions like the "public space," news information is separated into groups under different categories. Each of these groups are called "news group." Users will select the desired news group, read it and provide information.
NRZ	Non-Return to Zero. It is a binary encoding technique that "0s" are represented by changes and "1s" by no change in signals without going back to zero (the reference level) between encoded bits.
OECD	Organization for Economic Co-operation and Development. An international organization established by industrialized countries to help the world's economic development, support developing countries and promote diversified free trade.
one-stop administrative service	It provides access to various administrative services through computer networks, thus improving the level of convenience for users. MPT is conducting a trial "one-stop administrative service" through terminals installed at certain post offices and linked to local government offices.
optical local loop	A fiber-optic network linking a telecommunications carrier and a subscriber's home. In the case of a telecommunications facility, it refers to the network between the optical terminating unit (a device on the carrier's side that converts optical signals to electrical signals for connection to a switch) at the carrier's central office (end office) and the optical terminal circuit unit (a device that converts the optical signals received from the optical terminating unit to electrical signals and sends them to telephones and personal computers) at the customer's premises. It is different from the optical toll network formed among a carrier's local central offices.
packet switching system	A system in which information is divided into blocks called packets, and sent to the address written on each of the packets.
PCM audio broadcasting	A audio broadcasting system in which analog audio signals are converted into digital signals (pulse code modulation). This conversion enables broadcasting at a higher quality than FM broadcasts. Currently, PCM audio broadcasting is being operated by one broadcasting satellite (BS) operator and one communications satellite (CS) broadcaster. For BS broadcasting, there are two different modes: Mode A has 4 channels and offers better quality than FM broadcasts; Mode B has 2 channels and offers quality equivalent to that of a compact disk.
PDF	Portable Document Format. A form of document file developed by Adobe Systems of the U.S. It allows documents to appear on computer screens in their original form without having to depend on certain types of computers or font sets. The number of PDF files presented on the Internet has increased recently, due to the development of the computer network and the increasing need to exchange information between different types of computers.
protocol	(Communications protocol). A protocol is a set of procedural rules to enable communications between computers, communications equipment, terminals and networks. A protocol stipulates and defines formats, timing and other procedures necessary for establishing communications between



	devices of different parties.
public application	The effective usage of info-communications technology in fields such as government administration, education and welfare
ratio of net worth to total capital	An index that measures the financial health of a company. Ratio of net worth to total capital = $(\text{equity capital} \div \text{total capital}) \times 100$
ratio of profit to net sales	An index that measures the profitability of a firm's business activities. Ratio of current profit to net sales = $(\text{current profit} \div \text{net sales}) \times 100$
ratio of total liabilities to net worth	An index for measuring the financial health of a company. Ratio of total liabilities to net worth = $(\text{total liabilities} \div \text{equity capital}) \times 100$ .
rights-of-way	The rights to use land, utility poles, ducts, roads and rivers obtained by a communications carrier for laying transmission lines. It is also called the right to lay transmission lines.
route server	A DNS server that stores all information relating to TLDs
router	A relay device used to connect different networks. From the transfer address, it judges and selects the most efficient route for sending the information.
satellite office	An office set up for company employees who use the telework system. It is located near employees' homes and is equipped with various types of info-communications equipment.
SDH	Synchronous Digital Hierarchy. An international standard for the optical synchronous multiplexing system, which transmits digital signals of different transmission speeds by gathering them into one and sending them at a single transmission speed through optical fiber. 155.52 Mbps is the base rate.
search engine	An application used on the Internet that uses keywords to search for and retrieve the desired website from the vast amount of information on the network. It is usually free of charge.
second level domain (SLD)	The second section from the right of a domain name, also called the No. 2 level domain. For example, in the Internet address "www.mpt.go.jp," ".go" is the second level domain. In Japan, JPNIC controls all SLDs and third level domains, which in the example is ".mpt." The fourth level domain and beyond are controlled by each organization. See also sections on Domain Name and Top Level Domain.
server	Computer that provides services and information on networks. On the Internet, there are WWW servers; DNS servers (name server); SMTP/POP servers (mail server); and NNTP servers (news servers). These focus on certain types of operation. The WWW server stores website contents and provides information; the DNS server converts IP addresses and domain names; the SMTP/POP server sends and receives e-mail; and the NNTP server transmits and provides Net News.
site	In case of the Internet, it refers to the place where content such as a homepage is located.
SLD	See Second Level Domain.
SOHO	Small Office Home Office. It is a kind of independent workstyle where individual entrepreneurs and workers who do not belong to any particular company work at home or small office through use of the telecommunications network and equipment. It can be conceived as a form of "telework," or telecommuting, which is a distant workstyle that makes use of the telecommunications systems.
SONET	Synchronous Optical NETwork. The US standard for optical synchronous multiplexing systems, which transmit digital signals of different transmission speeds by gathering them into one and sending them at a single transmission speed through optical fiber cables. 51.84 Mbps is the base rate.
tariff	List of a telecommunications carrier's charges, provision or clause on fees, conditions and terms, and other rules for usage.
TCP/IP	Transmission Control Protocol/Internet Protocol. Protocol used to exchange data through telecommunications networks such as the Internet. Although actually two different protocols, TCP and IP, they are both referred to under the combined term TCP/IP.
TDM	Time Division Multiplexer. A device that interleaves different signals simultaneously over a single transmission facility to send them one after another at regular intervals.
TDMA	See Time Division Multiple Access System.
Telecommunications Advancement Organization of Japan (TAO)	A corporation established in 1979 under the approval of the Minister of Posts and Telecommunications for the purpose of contributing to the development of telecommunications in Japan. Its responsibilities include 1) operation and management of communications satellites and broadcasting satellites; 2) R&D for the development of communications and broadcasting technologies; and, 3) policy support (financial, personnel) for communications and broadcasting businesses.
telelearning system	A distance learning system made possible through the usage of info-communications technologies.
Telework	Use of info-communications systems to work at home or other locations away from the normal

	place of employment, including mobile locations such as cars. Telework is expected to make life easier for workers by eliminating commuting, to increase labor productivity and to enable people to work while also caring for children or the elderly. It is also expected to increase employment opportunities for women, older people and people with disabilities, and to reduce CO <sub>2</sub> emissions by cutting down on traffic.
time division multiple access system	System that allows more than one radio station to use unoccupied radio circuits for communications. It forms more than one channel by dividing the given frequency band according to time, and information is transmitted via an open channel (time) by compressing the signals within a short time range.
TLD	See Top Level Domain.
top level domain (TLD)	The highest level of a domain name, also called the No. 1 level domain. For example, in the Internet address "www.mpt.go.jp," ".jp" is the TLD. There are different kinds of TLDs: generic (gTLD), such as ".com," ".net" and ".org"; country code (ccTLD), such as ".jp," ".fr" and ".uk"; international (iTLD) ".int," and TLDs of U.S. government organizations, such as ".gov," ".mil," ".edu." TLDs are entirely controlled by InterNIC. See also Domain Name and Second Level Domain.
transponder	A relay broadcast amplifier mounted on a satellite and used for communications and broadcasting. It catches weak radio waves sent from an earth station to the satellite, converts the frequency of the signal, amplifies it and sends it back to earth stations.
turnover ratio of total liabilities and net worth	Index that measures the efficiency level of a company's total liabilities and net worth. Turnover ratio of total liabilities and net worth = sales ÷ total liabilities and net worth.
Type I telecommunications business	Business that provides telecommunications services by establishing its own telecommunications circuits and facilities.
Type II telecommunications business	Business that provides telecommunications services without owning telecommunications circuit facilities, but by leasing them from Type I telecommunications carriers. There are two categories: the Special Type II telecommunications business, which provides either international communications services or voice transmission services by using a leased circuit that has both ends connected to public switched networks, and the General Type II telecommunications business that is other than that described for Special Type II telecommunications business.
ultra-shortwave (FM) broadcasting	Broadcasting at a frequency range of 76 - 90 MHz. Generally called FM (frequency modulation) broadcasting.
UNCITRAL	The United Nations Commission on Trade Law. An organization that operates under the United Nations General Assembly, it is a professional group that examines how a legal system relating to international business trade should be set up. Currently, there are three UNCITRAL working groups, such as one on electronic commerce. The working groups meet once a year and submit a report to the UN General Assembly.
VICS	Vehicle Information Communications System. System that provides drivers with realtime road traffic information, such as on traffic congestion, by using either radiowave beacons, optical beacons or FM multiplex broadcasting. It has been in service in Japan since April 1996.
virus	Also called a "computer virus," it is software designed to cause malfunction by attacking memory, storage or other computer programs. Similar to a living virus, it infects computers and after a latency period, begins to destroy or subvert other software.
VoIP gateway	VoIP is the abbreviation for Voice over Internet Protocol. It is a device that converts sound signals into IP packets and sends them through the IP networks. It is used for services such as the Internet telephony.
VSAT earth station	Earth station of a Very Small Aperture Terminal used in satellite communications systems
web	See WWW (World Wide Web).
WIDE project	Widely Integrated Distributed Environments. A project undertaken by academic research institutes and private companies for research and development toward the establishment of widely integrated distributed environments such as the Internet.
WIPO	World Intellectual Property Organization. It aims to promote awareness of the need to protect intellectual property rights throughout the world. It also conducts administrative work on relevant treaties and registration systems of intellectual property.
WLL	Wireless Local Loop system. A fixed wireless access system. In Japan, it is legally accepted as a subscriber local loop system for telecommunications business.
WTO	World Trade Organization. It was created based upon the agreement reached at the Uruguay Round of talks of its predecessor, the General Agreement on Tariffs and Trade (GATT). It not only deals with trade in goods, but also works on solving international trade disputes involving services and intellectual property rights, which were not considered under GATT.
WWW	World Wide Web. A data management system using Internet technology. It uses HTML to com-

bine not only text but also images, sounds and moving pictures into one set of data and stipulates the logical structure and layout of that data. It also stipulates the addresses (URLs) of other resources on the network to allow the establishment of easy links with them. Also called the Web, it is the most widely used application on the Internet.

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