最新 IT 词汇

英汉详解手册

编 著

编著 张静

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3G

3G is an ITU specification for the third generation (analog cellular was the first generation, digital PCS the second) of mobile communications technology. 3G promises increased bandwidth, up to 384 kb/s when a device is stationary or moving at pedestrian speed, 128 kb/s in a car, and 2 Mb/s in fixed applications. 3G will work over wireless air interfaces such as GSM, TDMA, and CDMA. The new EDGE (Enhanced Data rates for Global Evolution) air interface has been developed specifically to meet the bandwidth needs of 3G.

    3G   (,   PCS
)   。3G
                                      ,   384 kb/s,
        128 kb/s,   2 Mb/s。3G
        GSM、TDMA   CDMA   。
EDGE(   )   3G

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📁:Mobile Computing

1⃣:2000.5.5

🔧:CDMA GSM PCS

802. 11

802. 11 refers to a family of specifications developed by the IEEE for wireless LAN technology. 802. 11 specifies an over-the-air interface between a wireless client and a base station or between two wireless clients. The IEEE accepted the specification in 1997.

There are three specifications in the 802. 11 family：

802. 11 -- applies to wireless LANs and provides 1 or 2 Mbps transmission in the 2. 4 GHz band using either frequency hopping spread spectrum（FHSS）or direct sequence spread spectrum（DSSS）.

802. 11a -- an extension to 802. 11 that applies to wireless LANs and provides up to 54 Mbps in the 5GHz band. 802. 11a uses an orthogonal frequency division multiplexing encoding scheme rather than FHSS or DSSS.

802. 11b（also referred to as 802. 11 High Rate or Wi-Fi）-- an extension to 802. 11 that applies to wireless LANS and provides 11 Mbps transmission（with a fallback to 5. 5，2 and 1 Mbps）in the 2. 4 GHz band. 802. 11b uses onlyi DSSS. 802. 11b was a 1999 ratification to the or ginal 802. 11 standard，allowing wireless functionality comparable to Ethernet.

802. 11   IEEE   。802. 11

                                        。IEEE   1997

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        802. 11   :

        802. 11——

（FHSS）   （DSSS）   2. 4 GHz

            1   2 Mb/s   。

        802. 11a——802. 11   ，

        5 GHz   54Mb/s   。802.

11a   （OFDM）

FHSS　DSSS。

　　802. 11b(　　　　　802. 11　　　　　　　Wi-Fi)——802. 11

　　　　　　，　　　　　　　　　　　　2. 4 GHz

　11Mb/s　　　　　　(　　5. 5Mb/s,2　1Mb/s

　　)。802. 11b　　DSSS。802. 11b

802. 11　　　　　　　　，

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　📁:communication

　1️⃣:2001. 5. 3

　🖱:HiperLAN　Wi-Fi　WLAN

. Net

A Microsoft operating system platform that incorporates applications, a suite of tools and services and a change in the infrastructure of the company's Web strategy. The objective of . NET is to bring users into the second generation of the Internet by conquering the deficiencies of the first generation and giving users a more enriched experience in using the Web for both personal and business applications. This is Microsoft's most ambitious undertaking since the release of Windows 3. 0.

There are four main principles of . NET from the perspective of the user:

It erases the boundaries between applications and the Internet. Instead of interacting with an application or a single Web site, . NET will connect the user to an array of computers and services that will exchange and combine objects and data.

Software will be rented as a hosted service over the Internet instead of purchased on a store shelf. Essentially, the Internet will be housing all your applications and data.

Users will have access to their information on the Internet from any device, anytime, anywhere.

There will be new ways to interact with application data, such as speech and handwriting recognition.

. NET depends on four Internet standards:

HTTP

XML

SOAP

UDDI

The first Windows . NET operating system is expected to be released in 2001. Microsoft views this new technology as revolutionary, enabling Internet users to do things that were never before possible, such as integrate fax, e-mail

and phone services, centralize data storage and synchronize all of a users computing devices to be automatically updated.

。. NET

Windows 3. 0

. NET :

。. NET

Internet

. NET :
HTTP
XML
SOAP
UDDI

Windows . NET 2001 。

、e-mail ，

📁:operating system

1️⃣:2001. 3. 16

☞:

Kernel multiprocessing multitasking multithreading MVS Windows CE XML

AAF

Short for Advanced Authoring Format，a multimedia file format introduced by Microsoft in 1998. The goal of AAF is to provide a common file format that multimedia authoring applications can use so that it's possible to develop a multimedia presentation in one application and then edit it in a second application. This will allow designers to use a variety of tools when creating multimedia content without worry about converting files from one format to another. Whether AAF ultimately achieves this goal will depend on whether the software companies that develop authoring tools adopt AAF.

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。AAF   ，

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。AAF

AAF。

▭ : Multimedia

🗓 : 1998. 4. 5

Abandonware

Software that is no longer being sold or supported by its publisher. Most abandonware is still considered illegal unless the publisher has re-released the software as free ware.

U. S. copyright laws state that copyrights owned by corporations are valid for 75 years from the date the software was first published. So the current availability of a product is irrelevant to its copyrighted status. Unlike trademarks，copyrights are not considered abandoned if they are no longer enforced. Copyrights do not enter the public domain just because they are no longer commercially exploited or widely available.

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:software

:2001. 3. 27

:Shareware warez

absolute cell reference

In spreadsheet applications, a reference to a particular cell or group of cells that does not change, even if you change the shape or size of the spreadsheet, or copy the reference to another cell. For example, in Lotus 1-2-3 and other spreadsheet programs, the cell reference "＄A＄3" is an absolute cell reference that always points to the cell in the first column and third row. In contrast, the reference "A3" is a relative cell reference that initially points to the cell in the first column and third row, but may change if you copy the reference to another cell or change the shape and size of the spreadsheet in some other way. Absolute cell references are particularly useful for referencing constant values (i. e., values that never change).

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。   ，   Lotus 1-2-3   ，

"＄A＄3"   、

。   ，   "A3"   、

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📁:Software

1️⃣:2001. 1. 8

abstraction

The process of picking out (abstracting) common features of objects and procedures. A programmer would use abstraction, for example, to note that two functions perform almost the same task and can be combined into a single function. Abstraction is one of the most important techniques in software engineering and is closely related to two other important techniques – encapsulation and information hiding. All three techniques are used to reduce complexity.

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:Programming

1 :1998. 4. 14

accelerator board　　　　／

(1) Short for graphics accelerator.

(2) A type of expansion board that makes a computer faster by adding a faster CPU or FPU. Most modern computers are designed to accept simpler upgrades. It is usually possible simply to remove the CPU and replace it with a faster model. This is particularly easy if the socket is a zero insertion force (ZIF) socket.

　　　　　　　　　。

　　　　　　　　CPU　　　FPU

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　　　　　　　　　　　CPU

　　　　　　　　　。　　　　　　（ZIF）　　，

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📁：Hardware

1️⃣：1998.5.12

ACPI

Short for Advanced Configuration and Power Interface, a power management specification developed by Intel, Microsoft, and Toshiba. ACPI, which will be part of the next version of Windows, enables the operating system to control the amount of power given to each device attached to the computer. With ACPI, the operating system can turn off peripheral devices, such as a CD-ROM players, when they're not in use. As another example, ACPI will enable manufacturers to produce computers that automatically power up as soon as you touch the keyboard.

Intel、Microsoft

Windows

ACPI

ACPI，

CD-ROM。

ACPI

📁:Mobile Computing

1️⃣:APM

ActiveMovie

A new multimedia streaming technology developed by Microsoft. ActiveMovie is already built into the Internet Explorer browser will be part of future versions of the Windows operating system. Supporting most multimedia formats，including MPEG，ActiveMovie enables users to view multimedia content distributed over the Internet，an intranet，or CD-ROM.

ActiveMovie's main competition is the QuickTime standard developed by Apple Computer.

　　　　　　　　　　　　　　　　　　。ActiveMovie
　　　　IE　　　　　，　　　　　　Windows
　　　　　　　。ActiveMovie　　　　　　　　　　，
　MPEG，　　　　　　　　　　　、　　　　　CD-
ROM　　　　　　　　。

　　ActiveMovie　　　　　　　　　Apple
QuickTime　　。

　　📁:Online Service

　　1️⃣:1997.9.1

ActiveX

A loosely defined set of technologies developed by Microsoft. ActiveX is an outgrowth of two other Microsoft technologies called OLE (Object Linking and Embedding) and COM (Component Object Model). As a moniker，ActiveX can be very confusing because it applies to a whole set of COM-based technologies. Most people，however，think only of ActiveX controls，which represent a specific way of implementing ActiveX technologies.

。ActiveX

OLE( ) COM

( )。 ，ActiveX ，

COM 。

ActiveX ， Active

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📁:Software

1️⃣:1997.9.1

add-in   ／

（1）A component you can add to a computer or other device to increase its capabilities. Add-ins can increase memory or add graphics or communications capabilities to a computer. They can come in the form of expansion boards，cartridges，or chips. The term add-in is often used instead of add-on for chips you add to a board that is already installed in a computer. In contrast，add-on almost always refers to an entire circuit board.

（2）A software program that extends the capabilities of larger programs. For example，there are many Excel add-ins designed to complement the basic functionality offered by Excel. In the Windows environment，add-ins are becoming increasingly common thanks to OLE 2. 0.

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　　　　　　　　　　`　　　　　　　　　　　　　　。

add-in　　　　　　　　　。　，add-on
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　　　Excel add-in　　　　　　　　　Excel　　　　　。
　　Windows　　　　　　，　　OLE2. 0 add-in
　　。

📁：Software
1️⃣：1997. 9. 1

add-on

Refers to a product designed to complement another product. For example, there are numerous add-on boards available that you can plug into a personal computer to give it additional capabilities. Another term for add-on board is expansion board.

Add-on products are also available for software applications. For example, there are add-on report generation programs that attach to popular database products such as dBASE, giving them additional report-generation and graphics capabilities.

The terms add-on and add-in are often, but not always, used synonymously. The term add-in can refer to individual chips you can insert into boards that are already installed in your computer. Add-on, on the other hand, almost always refers to an entire circuit board, cartridge, or program.

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add-on　　　　　　　　　　　　　　　　　　。

　　Add-on　　　　　　　　　　　　　　。　　　　，

　　　　　　　　　　　dBASE　　add-on

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　　　　　add-on　　　add-in　　　　　　　　　　　。

　　add-in

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📁:Software

📅:1997. 11. 25

ADO ActiveX

　　Short for ActiveX Data Objects，Microsoft's newest high-level interface for data objects. ADO is designed to eventually replace Data Access Objects (DAO) and Remote Data Objects (RDO). Unlike RDO and DAO，which are designed only for accessing relational databases，ADO is more general and can be used to access all sorts of different types of data，including web pages，spreadsheets，and other types of documents.

　　Together with OLE DB and ODBC，ADO is one of the main components of Microsoft's Universal Data Access (UDA) specification，which is designed to provide a consistent way of accessing data regardless of how the data is structured.

　　ActiveX　　　　　　　　，
　　　　　。 ADO　　　　　　　　　　　(DAO)
　　　　(RDO)。　　　　　　　　　　　　　RDO
DAO　　，ADO
　　　　，　　　　、　　　　　　　　　　　。
　　　OLE DB　 ODBC　　，ADO
(UDA)　　　　　　，

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　　📁:Programming

　　1️⃣:1998.3.6

ADPCM

Short for Adaptive Differential Pulse Code Modulation，a form of pulse code modulation (PCM) that produces a digital signal with a lower bit rate than standard PCM. ADPCM produces a lower bit rate by recording only the difference between samples and adjusting the coding scale dynamically to accommodate large and small differences. Some applications use ADPCM to digitize a voice signal so voice and data can be transmitted simultaneously over a digital facility normally used only for one or the other.

（Adaptive Differential Pulse Code Modulation）　　　，　　　　　　　（PCM）　　，　　　　　　PCM　　　　　　。AD-PCM

ADPCM

:Communication

$\boxed{1}$:1998.5.12

AGP

Short for Accelerated Graphics Port, a new interface specification developed by Intel Corporation. AGP is based on, but is designed especially for the thruoughput demands of 3-D. graphics. Rather than using the PCI bus for graphics data, AGP introduces a dedicated point-to-point to point channel so that the graphics controller can directly access main memory. The AGP channel is 32 bits wide and runs at 66 MHz. This translates into a total bandwidth of 266 Mb/s, as opposed to the PCI bandwidth of 133 Mb/s. AGP also supports two optional faster modes, with throughputs of 533 Mb/s and 1. 07 Gb/s. In addition, AGP allows 3-D textures to be stored in main memory rather than video memory.

AGP has a couple important system requirements:

The chipset must support AGP.

The motherboard must be equipped with an AGP bus slot or must have an integrated AGP graphics system.

The operating system must be the OSR 2. 1 version of Windows 95, Windows 98 or Windows NT 4. 0. And currently, many professional Macintoshes suport AGP.

AGP-enabled computers and graphics accelerators hit the market in August, 1997. However, there are several different levels of AGP compliance. The following features are considered optional:

Texturing: Also called Direct Memory Execute mode, allows textures to be stored in main memory.

Throughput: Various levels of throughput are offered: 1X is 266 Mb/s, 2X is 533 Mb/s; and 4X provides 1. 07 Gb/s.

Sideband Addressing: Speeds up data transfers by sending command instructions in a separate, parallel channel.

Pipelining: Enables the graphics card to send several instructions together instead of sending one at a time.

，　　　　Intel

。AGP　　　PCI　，　　　　　3-D

。AGP　　　　PCI

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。AGP　　　32　　　　　　66

MHz　　　　　。　　　　　　266 Mb/s

，　PCI　　133 Mb/s。AGP

，　　　533 Mb/s　1.07 Gb/s。　　　，

AGP　3-D　　　　　　　　　　　　　。

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AGP。

AGP

AGP　　　。

Windows 95　　OSR 2.1　，Windows 98　　Windows NT 4.0。

Macintosh　　AGP。

AGP　　　　　　　　1997　8

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：　　　　　。1X　　266 Mb/s，2X

533 Mb/s，4X　　1.07 Gb/s。

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📁:Hardware

1️⃣:1996.11.18

🖇:PCI

AIFF

Short for Audio Interchange File Format，a common format for storing and transmitting sampled sound. The format was developed by Apple Computer and is the standard audio format for Macintosh computers. It is also used by Silicon Graphics Incorporated (SGI).

The format encodes audio data in 8-bit mono or stereo waveforms. AIFF files generally end with a . AIF or . IEF extension.

The AIFF format does not support data compression so AIFF files tend to be large. However，there is another format called AIIF-Compressed (AIFF-C or AIFC) that supports compression rations as high as 6：1.

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Macintosh   。   SGI
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。AIFF   . AIF   . IEF。
AIFF   AIFF
。   AIFF   (AIFF-C
AIFC)，   6：1。

:Multimedia

:2001. 2. 2

Alan Turing　　　•

1912(b)-1954(d). English mathematician，logician and philosopher who made important advancements in the field of computer theory and who contributed important logical analyses of computer processes. During WWII，Turing served in the cryptanalytic headquarters at the Government Code and Cypher School at Bletchley Park，Buckinghamshire，where he was largely responsible for breaking the German Enigma military codes. In 1936，he introduced the Universal Turing Machine，a hypothetical machine used for computability theory proofs. The Universal Turing Machine is regarded as the first digital computer.

In 1950，Turing introduced the Turing Test to prove his theory that computers eventually would be constructed that would be capable of human thought. His papers on the subject provide a foundation for modern research in artificial intelligence.

In his later years，Turing worked on the application of mathematical theory to biological forms. In 1952 he published the first part of his theoretical study of morphogenesis，the development of pattern and form in living organisms.

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:Computer Science

1 :2000.12.18

Aliasing   /

(1) In computer graphics，the process by which smooth curves and other lines become jagged because the resolution of the graphics device or file is not high enough to represent a smooth curve. Smoothing and antialiasing techniques can reduce the effect of aliasing.

(2) In digital sound，aliasing is a static distortion resulting from a low sampling rate-below 40 kilohertz (kHz).

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，   40 kHz

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:Graphics

1,1998.5.19

Aloha

1. A protocol for satellite and terrestrial radio transmissions. In pure Aloha, a user can transmit at any time but risks collisions with other users' messages. "Slotted Aloha" reduces the chance of collisions by dividing the channel into time slots and requiring that the user send only at the beginning of a time slot. Aloha was the basis for Ethernet, a local area network protocol.

2. Aloha Networks, Inc. -- A San Francisco-based company specializing in providing satellite-based Internet access to large Internet Service Providers. Founded by the inventor of the Aloha system, Norman Abramson.

3. @ loha @ home -- software from Media Synergy (www. mediasyn. com) that allows a user to add graphics, animation, and sound to e-mail messages.

1.   。

Aloha   ,

。 "   Aloha"

。 Aloha   。

2. Aloha   ——

。   Aloha   Norman Abramson   。

3. @ loha @ home——Media Synergy (www. mediasyn. com,   ,   e-mail   、

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📁:Software

1️⃣:1998. 9. 10

alpha version α

A very early version of a software product that may not contain all of the features that are planned for the final version. Typically，software goes through two stages of testingabefore it is considered finished. The first st ge，called alpha testing，is often performed only by users within the organization developing the software. The second stage，called beta testing ，generally involves a limited number of external users.

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。 alpha ，

。 beta ，

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:Programming

1 :2001.1.31

:Beta test

Amiga

A family of personal computers originally produced by Commodore Business Machines. Amigas are powerful personal computers that have extra microprocessors to handle graphics and sound generation. The Amiga operating system has had preemptive multitasking since its inception in 1985，10 years before this feature found its way into Microsoft Windows.

Like older Apple Macintosh computers，the Amiga line of compfiters is built around the Motorola 680x0 line o microprocessors. Although the Amiga operating system is not compatible with other PC operating systems，such as DOS and Windows，there are emulation programs that enable an Amiga to run PC，Macintosh，and even UNIX programs.

Faced with financial hardships，Commodore sold the Amiga to a German company called Escom AG. Escom，in turn，also went bankrupt. In March，1997，Gateway 2000 purchased the Amiga design.

Commodore
。Amiga   ，
。Amiga
1985   。
Windows   。
Apple Macintosh   ，Amiga
Motorola 680x0   。   Amiga
PC   DOS   Windows
，   Amiga   PC，Macintosh
UNIX   。
，Commodore   Amiga
Escom AG Escom，   。1997
3   ，Gateway 2000   Amiga   。

📁:Type of Computer

1️⃣:1998.5.12

AMR

Audio Modem Riser is an Intel specification that defines a new architecture for the design of motherboards.

AMR lets manufacturers create motherboards without analog I/O functions. Instead, these functions are placed on a separate card--with the codec chip—which plugs in perpendicular to the motherboard so that the motherboard and "riser" card form a right angle.

Separating the analog I/O functions from the motherboard means higher audio quality and reduced production delays. Prior to the AMR specification, motherboard analog I/O functions went through a lengthy FCC and international telecom certification process.

Intel 。
AMR I/O
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I/O
。 AMR ,
I/O FCC
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:Standard
1 :1999. 10. 15

ANI

　　（automatic number identification）A service that provides the telephone number of an incoming call. ANI is used for a variety of functions—by receiving the incoming telephone number，telephone companies can direct a call to the proper long distance carrier's equipment; it can help identify the caller's address to speed response time to 911 calls; and it can route an 800 call to the nearest vendor. ISDN，the standards for transmissions on telephone lines，supports ANI.

　　（　　　　　）　　　　　　　　　　。ANI

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　　　　　　　　911　　　　　　　，

　800　　　　　　　　　　。ISDN、

　　　ANI。

　　　□:Hardware

　　　1 :1998. 10. 15

animated GIF　　GIF

A type of GIF image that can be animated by combining several images into a single GIF file. Applications that support the animated GIF standard，GIF89A，cycle through each image. GIF animation doesn't give the same level of control and flexibility as other animation formats but it has become extremely popular because it is supported by nearly all Web browsers. In addition，animated GIF files tend to be quite a bit smaller than other animation files，such as Java applets.

　　　　　　　　　　　　　　　　　　GIF
　　　　GIF　　　。　　　　GIF　　　GIF89A
　　　　　。GIF

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　　　Java applet　　　。

📁:WWW

1️⃣:1998.5.12

ANNA   **Ada**

    Acronym for annotated Ada. ANNA is a high-level programming language that extends Ada with various kinds of specification constructs. The language includes special annotating constructs, or semantic assertions, that lay down axioms about the procedures and other facilities of the Ada program. ANNA is based on first-order logic and includes generalized type constraints, virtual checking functions and behavior specification constructs, from simple assertions to complex algebraic specifications.

          Ada   。ANNA

           Ada   。

            ，   Ada

        。ANNA

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📁:Programming

1️⃣:2000. 12. 28

☞:modular architecture

Antialiasing

In computer graphics，antialiasing is a software technique for diminishing jaggies-stairstep-like lines that should be smooth. Jaggies occur because the output device，the monitor or printer，doesn't have a high enough resolution to represent a smooth line. Antialiasing reduces the prominence of jaggies by surrounding the stairsteps with intermediate shades of gray (for gray-scaling devices) or color (for color devices). Although this reduces the jagged appearance of the lines，it also makes them fuzzier.

Another method for reducing jaggies is called smoothing，in which the printer changes the size and horizontal alignment of dots to make curves smoother.

Antialiasing is sometimes called oversampling.

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:Graphics

:1998. 5. 12

antistatic mat

A mat on which you can stand while repairing a computer or adding expansion cards. The mat absorbs static electricity which might otherwise damage electronic components. Another way to eliminate damage caused by static electricity is to wear an antistatic wristband.

:Hardware

:2001. 1. 10

APM

　　Short for Advanced Power Management，an API developed by Intel and Microsoft that allows developers to include power management in BIOSes. APM defines a layer between the hardware and the operating system that effectively shields the programmer from hardware details.

　　APM is expected to be gradually replaced by ACPI.

　　　　　　　　　　，　　　　　Interl、

　　　　　BIOS　　　　　　　　　　API。APM

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　　APM　　　　　　　ACPI　　。

　:Mobile Computing

　:1997. 9. 1

　:ACPI

Apple Computer

A personal computer company founded in 1976 by Steven Jobs and Steve Wozniak. Throughout the history of personal computing, Apple has been one of the most innovative influences. In fact, some analysts say that the entire evolution of the PC can be viewed as an effort to catch up with the Apple Macintosh.

In addition to inventing new technologies, Apple also has often been the first to bring sophisticated technologies to the personal computer. Apple's innovations include:

Graphical user interface (GUI). First introduced in 1983 on its Lisa computer. Many components of the Macintosh GUI have become de facto standards and can be found in other operating systems, such as Microsoft Windows.

Color. The Apple II, introduced in 1977, was the first personal computer to offer color monitors.

Built-in networking . In 1985, Apple released a new version of the Macintosh with built-in support for networking (LocalTalk).

Plug & play expansion. In 1987, the Mac II introduced a new expansion bus called NuBus that made it possible to add devices and configure them entirely with software.

QuickTime. In 1991, Apple introduced QuickTime, a multi-platform standard for video, sound, and other multimedia applications.

Integrated television. In 1993, Apple released the Macintosh TV, the first personal computer with built-in television and stereo CD.

RISC. In 1994, Apple introduced the Power Mac, based on the PowerPC RISC microprocessor.

Steven Jobs   Steve Wozniak   1976

，Apple

PC   Apple Macintosh

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，Apple

。 Apple   :

(GUI)：1983   Lisa

。 Macinosh GUI

，Microsoft Windows。

：1977   Apple Ⅱ

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：1985   Apple

(LocalTalk) Macintosh   。

：1987   ，Mac Ⅱ

NuBus，

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QuickTime：1991   ，Apple   Quick-Time，   ，

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：1993   ，Apple   Macintosh TV，

CD   。

RISC：1994   Apple   Power PC RISC

Power Mac。

📁：Type of Computer

1️⃣：1997.9.1

Application Service Provider

    Application Service Providers are third-party entities that manage and distribute software-based services and solutions to customers across a wide area network from a central data center.

    In essence，ASPs are a way for companies to outsource some or almost all aspects of their information technology needs.

    According to ASPnews. com，ASPs are broken down into five subcategories：

    • Enterprise ASPs -- deliver high-end business applications.

    • Local/Regional ASPs -- supply wide variety of application services for smaller businesses in a local area.

    • Specialist ASPs -- provide applications for a specific need，such as Web site services or human resources.

    • Vertical Market ASPs -- provide support to a specific industry such as healthcare

    • Volume Business ASPs -- supply general small/medium-sized businesses with prepackaged application services in volume.

    ASPs may be commercial ventures that cater to customers，or not-for-profit or government organizations，providing service and support to end users.

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      ASPnews. com，ASP   ：

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●   /   ASP——   。

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ASP 、

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📁：Network

1️⃣：1999. 10. 4

Architecture

A design. The term architecture can refer to either hardware or software，or to a combination of hardware and software. The architecture of a system always defines its broad outlines，and may define precise mechanisms as well.

An open architecture allows the system to be connected easily to devices and programs made by other manufacturers. Open architectures use off-the-shelf components and conform to approved standards. A system with a closed architecture，on the other hand，is one whose design is proprietary，making it difficult to connect the system to other systems.

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📁：Hardware

1️⃣：1997.9.1

ASF

Short for Advanced Streaming Format，a streaming multimedia file format developed by Microsoft. ASF has been submitted to ISO and IETF for standardization. It is expected to be an integral part of Windows 98 and eventually replace the older AVI format.

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。 ASF   ISO   IETF   。

Windows 98   AVI   。

:Multimedia

1 :1998.4.5

Attenuation

Reduction of signal strength during transmission. Attenuation is the opposite of amplification，and is normal when a signal is sent from one point to another. If the signal attenuates too much，it becomes unintelligible，which is why most networks require repeaters at regular intervals. Attenuation is measured in decibels.

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:Network

:1998.5.4

attenuation crosstalk ratio

Also known as headroom, attenuation crosstalk ratio (ACR) is the difference between attenuation and crosstalk at a given frequency along a cable. Measured in decibels, ACR is a calculation used in networking transmission to assure that a signal transmitted across a twisted-pair cable is stronger at the receiving end than any interference signals imposed on that same pair by crosstalk from adjacent pairs.

（ACR），   　,

。   ACR

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:network

1 :2001.3.29

:Attenuationlocal-area network

attribute /

(1) A characteristic. In a word processing application，an underlined word would be said to have the underline attribute. In database systems，a field can have various attributes. For example，if it contains numeric data，it has the numeric attribute.

(2) In database management systems，the term attribute is sometimes used as a synonym for field.

(3) In DOS systems，every file has file attributes that indicate several properties of the file. For example，they indicate whether the file is read-only，whether it needs to be backed up，and whether it is visible or hidden.

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    DOS   ，

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  ：Data

  ；1998.5.12

AUP

Acceptable Use Policy. Also known as TOS (Terms of Service). A contract specifying what a subscriber can and cannot do while using an ISP's service. Contains things like liability disclaimers，lists of actions or behavior that will result in the termination of a customers account，definition of terms such as "unlimited use"，etc.

　　　　　　　　　　　　。　　　　TOS(　　　　　)。

　　　　　　　　　　ISP

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📁:Online Service

1️⃣:1999.5.19

authoring tool

    Also known as authorware, a program that helps you write hypertext or multimedia applications. Authoring tools usually enable you to create a final application merely by linking together objects, such as a paragraph of text, an illustration, or a song. By defining the objects' relationships to each other, and by sequencing them in an appropriate order, authors (those who use authoring tools) can produce attractive and useful graphics applications.

    The distinction between authoring tools and programming tools is not clear-cut. Typically, though, authoring tools require less technical knowledge to master and are used exclusively for applications that present a mixture of textual, graphical, and audio data.

           authorware，

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    📁:Graphics

    1️⃣:1997.9.1

Baby AT

The form factor used by most PC motherboards prior to 1998. The original motherboard for the PC-AT measured 12"x13". Baby AT motherboards are a little smaller，8.5"x13" usually. The Baby AT is being replaced by the new ATX form factor.

1998   PC   。

PC-AT   12   ×13   。 Baby AT

,   8.5   ×13   。 Baby AT

ATX   。

:Standard

1 :2000. 9. 29

Backdoor

Also called a trapdoor. An undocumented way of gaining access to a program，online service or an entire computer system. The backdoor is written by the programmer who creates the code for the program. It is often only known by the programmer. A backdoor is a potential security risk.

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:computer scinece

1 :2001. 4. 30

Backplane

A circuit board containing sockets into which other circuit boards can be plugged in. In the context of PCs, the term backplane refers to the large circuit board that contains sockets for expansion cards.

Backplanes are often described as being either active or passive. Active backplanes contain, in addition to the sockets, logical circuitry that performs computing functions. In contrast, passive backplanes contain almost no computing circuitry.

Traditionally, most PCs have used active backplanes. Indeed, the terms motherboard and backplane have been synonymous. Recently, though, there has been a move toward passive backplanes, with the active components such as the CPU inserted on an additional card. Passive backplanes make it easier to repair faulty components and to upgrade to new components.

PC

CPU。

:Hardware

1 .1998.5.14

:CNR

background /

(1) Multitasking computers are capable of executing several tasks，or programs，at the same time. In some multitasking systems，one of the processes is called the foreground process，and the others are called background processes.

The foreground process is the one that accepts input from the keyboard，mouse，or other input device. Background processes cannot accept interactive input from a user，but they can access data stored on a disk and write data to the video display. For example，some word processors print files in the background，enabling you to continue editing while files are being printed. This is called print spooling. In addition，many communications programs are designed to run in the background. Background processes generally have a lower priority than foreground processes so that they do not interfere with interactive applications.

Even though DOS is not a multitasking operating system，it can perform some specialized tasks，such as printing，in the background. Operating environments，such as Microsoft Windows and the Macintosh operating system，provide a more general multitasking environment.

(2) The area of a display screen not covered by characters and graphics. The background is like a canvas on top of which characters and graphics are placed. Some monitors allow you to control the color or shading of the background.

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DOS   ，

。   Windows

Macintosh   。

（2）   。

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:Operation System

1 ,1998. 5. 14

:multitasking spooling

backward compatible

Compatible with earlier models or versions of the same product. A new version of a program is said to be backward compatible if it can use files and data created with an older version of the same program. A computer is said to be backward compatible if it can run the same software as the previous model of the computer.

Backward compatibility is important because it eliminates the need to start over when you upgrade to a newer product. A backward-compatible word processor，for instance，allows you to edit documents created with a previous version of the program. In general，manufacturers try to keep all their products backward compatible. Sometimes，however，it is necessary to sacrifice backward compatibility to take advantage of a new technology.

The flip side of backward compatibility is upward compatibility. Upward compatible is the same as backward compatible，except that it is from the point of view of the older model.

Another term for backward compatible is downward compatible.

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📁:Software

1 :2001. 1. 12

☞:upward compatible

bandwidth

The amount of data that can be transmitted in a fixed amount of time. For digital devices, the bandwidth is usually expressed in bits per second(bps) or bytes per second. For analog devices, the bandwidth is expressed in cycles per second, or Hertz (Hz).

The bandwidth is particularly important for I/O devices. For example, a fast disk drive can be hampered by a bus with a low bandwidth. This is the main reason that new buses, such as AGP, have been developed for the PC.

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,   (Hz)   。

I/O   。   ，

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                          AGP

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 📁 :Communication

 1️⃣ :19985. 14

 👉 :Bottleneck

base address

An address that serves as a reference point for other addresses. For example，a base address could indicate the beginning of a program. The address of every instruction in the program could then be specified by adding an offset to the base address. For example，the address of the fifth instruction would be the base address plus 5.

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📁:Programming

1️⃣:1997.9.1

bastion host

A bastion host is a gateway between an inside network and an outside network. Used as a security measure, the bastion host is designed to defend against attacks aimed at the inside network.

Depending on a network's complexity and configuration, a single bastion host may stand guard by itself, or be part of a larger security system with different layers of protection.

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:Netwrok

:1999.11.22

battery pack

A rechargeable battery used in portable computer devices, such as notebook computers. The most common substances used in computer battery packs are nickel cadmium (Nicad), nickel metal hydride (NiMH), and Lithium Ion.

A new type of battery, called a smart battery, provides the computer with information about its power status so that the computer can conserve power intelligently. With a normal battery, the computer makes estimates about the battery's condition that are not always correct.

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(NiMH)   。

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📁:Mobile Computing

1️⃣:19986.24

BEDO DRAM　　EDO DRAM

　　Short for Burst EDO DRAM，a new type of EDO DRAM that can process four memory addresses in one burst. Unlike SDRAM，however，BEDO DRAM can only stay synchronized with the CPU clock for short periods (bursts). Also，it can't keep up with processors whose buses run faster than 66 MHz.

　　　　EDO DRAM　　　　，

　　　　　　　　　　EDO DRAM。

SDRAM，BEDO DRAM　　　　（　）　CPU

　　　。　　　　　　　66 MHz

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　　📁:Hardware

　　1⃣:2000.9.22

　　🖱:burst mode

Benchmark

A test used to compare performance of hardware and/ or software. Many trade magazines have developed their own benchmark tests，which they use when reviewing a class of products. When comparing benchmark results，it is important to know exactly what the benchmarks are designed to test. A benchmark that tests graphics speed，for example，may be irrelevant to you if the type of graphical applications you use are different from those used in the test.

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:Programming

1 :1997. 9. 1

BeOS

An operating system developed by Be, Inc. that runs on the PowerPC platform and Intel x86 processors. Despite being smaller than other modern operating systems, such as the Mac OS and Windows, BeOS nevertheless supports a modern graphical user interface (GUI), preemptive multitasking, multithreading, and built-in support for symmetric multiprocessing (SMP).

由　　　Be　　　　　　　　PowerPC　　　　Intel
x86　　　　　　　　。　　　　　　Mac OS　　Win-
dows　　　　　　　　，　　　BeOS

　　（GUI）、　　　　、

　　（SMP）。

📁:Operation System

1️⃣:1998.4.26

🖥:SMP

beta test β

A test for a computer product prior to commercial release. Beta testing is the last stage of testing, and normally involves sending the product to beta test sites outside the company for real-world exposure. Beta testing is often precede by a round of testing called alpha testing.

。 Beta

, beta

。 Beta alpha

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:Programming

:2001.1.31

:alpha version

big-endian

Refers to which bytes are most significant in multi-byte data types. In big-endian architectures, the leftmost bytes (those with a lower address) are most significant. In little-endian architectures, the rightmost bytes are most significant. For example, consider the number 1025 (2 to the tenth power plus one) stored in a 4-byte integer

00000000   00000000   00000100   00000001

Address	Big-Endian representation of 1025	Little-Endian representation of 1025
00	00000000	00000001
01	00000000	00000100
02	00000100	00000000
03	00000001	00000000

Many mainframe computers, particularly IBM mainframes, use a big-endian architecture. Most modern computers, including PCs, use the little-endian system. The PowerPC system is big-endian because it can understand both systems.

Converting data between the two systems is sometimes referred to as the NUXI problem. Imagine the word UNIX stored in two 2-byte words. In a Big-Endian systems, it would be stored as UNIX. In a little-endian system, it would be stored as NUXI.

Note that the example above shows only big- and little-endian byte orders. The bit ordering within each byte can also be big- or little-endian, and some architectures actually use big-endian ordering for bits and little-endian ordering for bytes, or vice versa.

The terms big-endian and little-endian are derived from the Lilliputians of Gulliver's Travels, whose major political issue was whether soft-boiled eggs should be opened on the

big side or the little side. Likewise，the big-/little-endian computer debate has much more to do with political issues than technological merits.

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　little-endian　　　，　　　　　　　　　　　。　，
　　1025(2　　　　1)　　　　　4　　　：
　00000000　00000000　00000100　00000001
　　　　　　　Big-Endian　　　　Little-Endian
　　　　　　　1025　　　　　　　1025
　00　　　00000000　　　　　00000001
　01　　　00000000　　　　　00000100
　02　　　00000100　　　　　00000000
　03　　　00000001　　　　　00000000

　　　　　　　，　　　IBM　　　　　big-endi-
an　。　　　　　　　　，　　PC　　　little-endi-
an　。PowerPC　　　big-endian　　
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　UNIX　　　　　　　　　。　　big-endian
，　　　UNIX。　　　little-endian，
　NUXI。

　　　　　　　big　little-endian
　。　　　　　　big- little-endi-
an，　　　　　　big-endian
　little-endian　　。
big-endian　little-endian　《　　　　　》
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　　　　　　　。　，big/little-endian
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📁:Programming

1️⃣:1998.5.7

BinHex

An encoding scheme that converts binary data into ASCII characters. Any file，whether it be a graphics file，a text file，or a binary executable file，can be converted to BinHex. This format is particularly valuable for transferring files from one platform to another because nearly all computers can handle ASCII files. In fact，many e-mail programs include a BinHex encoder and decoder for sending and receiving attachments. BinHex is an especially common format for Macintosh files. Encoded files usually have a . HQX extension.

An alternative algorithm for converting binary files to ASCII is Uuencode.

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　　　　　　　　　　　　BinHex。

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　　　　ASCII　　　。　　　，　　e-mail

　　　BinHex　　　　　　　　　　　　　　。

BinHex　　Macintosh　　　　　　　　　　。

　　　　　　. HQX　　　。

　　　　　　　　　ASCⅡ　　　　　　Un-
encode。

　　🗀：Data

　　1️⃣：2001. 1. 19

　　🖘：MIME Uuencode

Bioinformatics

The application of computer technology to the management of biological information. Specifically，it is the science of developing computer databases and algorithms to facilitate and expedite biological research. Bioinformatics is being used largely in the field of human genome research by the Human Genome Project that has been determining the sequence of the entire human genome (about 3 billion base pairs) and is essential in using genomic information to understand diseases. It is also used largely for the identification of new molecular targets for drug discovery.

Many universities have recognized the importance of this endeavor and have instituted academic and training programs in bioinformatics that combine backgrounds in molecular biology with a strong foundation in computer science. Specialists in the field are referred to as computational biologists or bioinformatics computer scientists.

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:Computer Science

:2001. 1. 11

BIOS /

Pronounced "bye-ose", an acronym for basic input/output system. The BIOS is built-in software that determines what a computer can do without accessing programs from a disk. On PCs, the BIOS contains all the code required to control the keyboard, display screen, disk drives, serial communications, and a number of miscellaneous functions.

The BIOS is typically placed in a ROM chip that comes with the computer (it is often called a ROM BIOS). This ensures that the BIOS will always be available and will not be damaged by disk failures. It also makes it possible for a computer to boot itself. Because RAM is faster than ROM, though, many computer manufacturers design systems so that the BIOS is copied from ROM to RAM each time the computer is booted. This is known as shadowing.

Many modern PCs have a flash BIOS, which means that the BIOS has been recorded on a flash memory chip, which can be updated if necessary.

The PC BIOS is fairly standardized, so all PCs are similar at this level (although there are different BIOS versions). Additional DOS functions are usually added through software modules. This means you can upgrade to a newer version of DOS without changing the BIOS.

PC BIOSes that can handle Plug-and-Play (PnP) devices are known as PnP BIOSes, or PnP-aware BIOSes. These BIOSes are always implemented with flash memory rather than ROM.

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。　PC　　，BIOS　　　　　　　　　　　、

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　　BIOS　　　　　　　　ROM　　（　　　ROM

BIOS) 。   BIOS

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    ,BIOS   ROM

RAM。   。

            PC   BIOS，   BIOS

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    PC   BIOS   ,   PC

        (BIOS   )   。

DOS   。

    BIOS   DOS   。

            (PnP)   PCBIOS   PnP

BIOS   PnP-ware BIOS。   BIOS

ROM   。

📁:Operation System

1️⃣:1998.5.18

🔧:CMOS CNR Phoenix BIOS PnP POST

Bisync

Short for binary synchronous, a type of synchronous communications used primarily in mainframe networks. The de facto bisync standard is Binary Synchronous Communications (BSC) developed by IBM. The binary part of the name signifies that the data is binary-coded. The synchronous part means that both the sender and receiver mus be synchronized before the data transfer can begin.

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。   IBM
   （BSC）。

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📁 :Communication
1️⃣ :2000. 11. 9
👉 :synchronous

bit block transfer

A transformation of a rectangular block of pixels. Typical transformations include changing the color or shade of all pixels or rotating the entire rectangle. Many modern video adapters include hardwired bit block transformations，which execute much faster than they do when executed by software routines.

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:Graphics

:1997.11.25

:pixel

bit stuffing

The practice of adding bits to a stream of data. Bit stuffing is required by many network and communications protocols for the following reasons:

To prevent data being interpreted as control information. For example, many frame-based protocols, such as X. 25, signal the beginning and end of a frame with six consecutive 1 bits. Therefore, if the actual data being transmitted has six 1 bits in a row, a zero is inserted after the first 5 so that the data is not interpreted as a frame delimiter. Of course, on the receiving end, the stuffed bits must be discarded.

For protocols that require a fixed-size frame, bits are sometimes inserted to make the frame size equal to this set size.

For protocols that required a continuous stream of data, zero bits are sometimes inserted to ensure that the stream is not broken.

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X . 25 6 1

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:Communication

:1998. 6. 25

BLOB

Short for binary large object，a collection of binary data stored as a single entity in a database management systems（DBMS）．BLOBs are used primarily to hold multimedia objects such as images，videos，and sound，though they can also be used to store programs or even fragments of code．Not all DBMSs support BLOBs．

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（DBMS）   。

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BLOB
DBMS   BLOB。

📁：Multimedia

1️⃣：1997．9．1

blue screen of death

An error that can appear on computers running in a Windows' environment. This includes even the earliest versions of Windows such as Windows 3.0 and 3.1, and still occurs in later versions such as Microsoft Windows 95, Windows 98, Windows NT, and Windows 2000. Jokingly called the blue screen of death because when the error occurs, the screen turns blue, and the computer almost always freezes and requires rebooting.

Windows   。

Windows   Windows 3.0   3.1,

Windows 95、Windows 98、Windows NT

Windows 2000   。

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:Operation System

1 :1998.8.6

:Bug

BluetoothMobile

Bluetooth refers to a short-range radio technology aimed at simplifying communications among Net devices and between devices and the Internet. It also aims to simplify data synchronization between Net devices and other computers.

Products with Bluetooth technology must be qualified and pass interoperability testing by the Bluetooth Special Interest Group prior to release.

The Bluetooth 1. 0 specification consists of two documents：the Foundation Core，which provides design specifications，and the Foundation Profile，which provides interoperability guidelines.

Bluetooth's founding members include Ericsson，IBM，Intel，Nokia and Toshiba.

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Ericsson、IBM、Intel、Nokia

Toshiba。

📁：Mobile Computing

1️⃣：1999. 8. 3

🖳：hand-held computer HPNA WAP WTLS

Boot

　　（v）To load the first piece of software that starts a computer. Because the operating system is essential for running all other programs, it is usually the first piece of software loaded during the boot process.

　　Boot is short for bootstrap, which in olden days was a strap attached to the top of your boot that you could pull to help get your boot on. Hence, the expression "pull oneself up by the bootstraps." Similarly, bootstrap utilities help the computer get started.

　　（n）Short for bootstrap, the starting-up of a computer, which involves loading the operating system and other basic software. A cold boot is when you turn the computer on from an off position. A warm boot is when you reset a computer that is already on.

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🗀:Operation System

1⃣:1997. 9. 1

bootable diskette

A diskette from which you can boot your computer. Normally，your computer boots from a hard disk，but if the hard disk is damaged（for example，by a virus），you can boot the computer from a bootable diskette．For this reason，it's a good idea to make sure you always have a bootable diskette on hand．In Windows 95，you can create a bootable diskette by following these steps：

1. Insert a blank，formatted diskette in the floppy drive

2. Select Start->Settings->Control Panel

3. Open Add/Remove Programs

4. Select the Startup Disk tab and press the Create Disk…button.

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　　　　。　　Windows 95　　，
　　　　：
1.　　　　　　　　　　　、　　　　　　　。
2.　　　"　　"->"　　"->"　　　"。
3.　　　"　/　　"。
4.　　　"　　"　　　"　　　"　　。
▢:Operation System
1:1998. 3. 19

Bottleneck

A bottleneck refers to the delay in transmission of data through the circuits of a computer's microprocessor or over a TCP/IP network. The delay typically occurs when a system's bandwidth cannot support the amount of information being relayed at the speed it is being processed. There are, however, many factors that can create a bottleneck in a system.

Bottlenecks affect microprocessor performance by slowing down the flow of information back and forth from the CPU and the memory. If all of the components of a system are not able to feed the same amount of data at the same speed, a delay is created. For example, a 2 GB processor will be severely bottlenecked by an 800 MB memory bandwidth.

Bottlenecks affect network performance by slowing down the flow of information transmitted across networks. TCP/IP connections were originally designed to transmit only text files, and the proliferation of bandwidth-intensive transmissions such as high-resolution graphics has caused bottlenecks in the process; therefore, the data moves more slowly across networks.

TCP/IP   。

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                          CPU

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    ，   2 GB   800 MB

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  。 TCP/IP   ，

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:Communication

1 :2001. 12. 5

:bandwidth data migration DWDM

BPDU

Acronym for bridge protocol data unit. BPDUs are data messages that are exchanged across the switches within an extended LAN that uses a spanning tree protocol topology. BPDU packets contain information on ports, addresses, priorities and costs and ensure that the data ends up where it was intended to go. BPDU messages are exchanged across bridges to detect loops in a network topology. The loops are then removed by shutting down selected bridge interfaces and placing redundant switch ports in a backup, or blocked, state.

。BPDU

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BPDU 、 、

。BPDU

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:Porgramming

1 :2000. 12. 11

:branch STP switch

broadcast storm

A state in which a message that has been broadcast across a network results in even more responses，and each response results in still more responses in a snownall effect. A severe broadcast storm can block all other network traffic，resulting in a network meltdown. Broadcast storms can usually be prevented by carefully configuring a network to block illegal broadcast messages.

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:Network
:1998.7.7
:network meltdown

brute force

Refers to a programming style that does not include any shortcuts to improve performance，but instead relies on sheer computing power to try all possibilities until the solution to a problem is found. A classic example is the traveling salesman problem（TSP）. Suppose a salesman needs to visit 10 cities across the country. How does one determine the order in which cities should be visited such that the total distance traveled is minimized The brute force solution is simply to calculate the total distance for every possible route and then select the shortest one. This is not particularly efficient because it is possible to eliminate many possible routes through clever algorithms.

Although brute force programming is not particularly elegant，it does have a legitimate place in software engineering. Since brute force methods always return the correct result -- albeit slowly -- they are useful for testing the accuracy of faster algorithms. In addition，sometimes a particular problem can be solved so quickly with a brute force method that it doesn't make sense to waste time devising a more elegant solution.

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:Programming

:1998. 3. 20

bubble sort

A simple but popular sorting algorithm. Bubble sorting is used frequently as a programming exercise because it is relatively easy to understand. It is not, however, particularly efficient. Other sorting algorithms, such as heap sorts, merge sorts and quicksorts, are used more often in real applications.

:Programming

1 :1997. 9. 1

bug

　　An error or defect in software or hardware that causes a program to malfunction. According to folklore，the first computer bug was an actual bug. Discovered by Lieutenant Grace Hopper in 1945 at Harvard，a moth trapped between two electrical relays of the Mark II Aiken Relay Calculator caused the whole machine to shut down.

　　　　　　　。　　　　　　　，　　　　　　　bug
　　　　　　　。Grace Hopper　　　　1945
　　　　　　　Mark Ⅱ Aiken

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📁:Programming

1️⃣:2000. 2. 18

bulletin board system

An electronic message center. Most bulletin boards serve specific interest groups. They allow you to dial in with a modem, review messages left by others, and leave your own message if you want. Bulletin boards are a particularly good place to find free or inexpensive software products. In the United States alone, there are tens of thousands of BBSs.

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。   BBS。

📁:Cnline Service

1️⃣:1997.9.1

bundled software

Software that is sold with a computer or other hardware component as part of a package. As competition between computer manufacturers has intensified, bundling software has become a key strategy for attracting consumers. In some cases, the bundled software is even more valuable than the hardware.

Bundled software can also be part of a software package. For example, Microsoft Windows comes with many bundled software tools.

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Windows   。

📁:Software

1️⃣:1997.9.1

burn in

    To run a system or device for a period of time to ensure that all components are working properly. Most computer equipment undergoes a burn-in test at the factory before being released for sale.

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📁: Hardware

1️⃣: 1998. 5. 21

burst mode

A data transmission mode in which data is sent faster than normal. There are a number of techniques for implementing burst modes. In a data bus，for example，a burst mode is usually implemented by allowing a device to seize control of the bus and not permitting other devices to interrupt. In RAM，burst modes are implemented by automatically fetching the next memory contents before they are requested. This is essentially the same technique used by disk caches.

The one characteristic that all burst modes have in common is that they are temporary and unsustainable. They allow faster data transfer rates than normal，but only for a limited period of time and only under special conditions.

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📁:Communication

1️⃣:2000. 10. 24

Bytecode

The compiled format for Java programs. Once a Java program has been converted to bytecode，it can be transferred across a network and executed by Java Virtual Machine (VM). Bytecode files generally have a . class extension.

Java　　　　　　　　　。　　　　　　Java
　　　　，　　　　　　　　　　　　　　　　Java
(VM)　　。　　　　　　　　　　. class　　　　　。

:Programming

1 :1997. 11. 25

cache coherence

A protocol for managing the caches of a multiprocessor system so that no data is lost or overwritten before the data is transferred from a cache to the target memory. When two or more computer processors work together on a single program, known as multiprocessing, each processor may have its own memory cache that is separate from the larger RAM that the individual processors will access. A memory cache, sometimes called a cache store or RAM cache, is a portion of memory made of high-speed static RAM (SRAM) instead of the slower and cheaper dynamic RAM (DRAM) used for main memory. Memory caching is effective because most programs access the same data or instructions over and over. By keeping as much of this information as possible in SRAM, the computer avoids accessing the slower DRAM.

When multiple processors with separate caches share a common memory, it is necessary to keep the caches in a state of coherence by ensuring that any shared operand that is changed in any cache is changed throughout the entire system. This is done in either of two ways: through a directory-based or a snooping system. In a directory-based system, the data being shared is placed in a common directory that maintains the coherence between caches. The directory acts as a filter through which the processor must ask permission to load an entry from the primary memory to its cache. When an entry is changed the directory either updates or invalidates the other caches with that entry. In a snooping system, all caches on the bus monitor (or snoop) the bus to determine if they have a copy of the block of data that is requested on the bus. Every cache has a copy of the sharing status of every block of physical memory it has.

Cache misses and memory traffic due to shared data

blocks limit the performance of parallel computing in multi-processor computers or systems. Cache coherence aims to solve the problems associated with sharing data.

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RAM

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RAM　　　　　，

RAM(SRAM)　　　　　，

RAM(DRAM)

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DRAM。

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□:hadware

⬚1⬚:2001. 1. 24

⬚:CNR Ethernet topology USB

CAN

Acronym for campus-area network. An interconnection of local-area networks within a limited geographical space，such as a school campus or a military base.

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📁:network

1️⃣:2001.4.3

🔧:Ethernet HPNA local-area network network operating system network-attached storageserver farm SNMPtopology

CAPI / **ISDN**

（1）(computer assisted personal interviewing) Survey-
ing using a computer-based questionnaire. As an alternative
to paper questionnaires，CAPI allows the interviewer to
customize the survey，so that respondents answer questions
only about subjects they're familiar with and receive ques-
tions in a random order to avoid biases. CAPI also seeks to
improve accessibility to data and to make the interviewing
process more entertaining. Although traditionally used on
individual PCs，CAPI is now also being administered on the
Web.

（2）(common ISDN application programming inter-
face) An application programming interface (API) standard
used to access ISDN equipment (equipment that use the
integrated services digital network [ISDN] standard for the
transfer of data over telephone lines). When an application
wants to communicate with an ISDN card it sends a stand-
ard series of commands to the card. These commands form
the CAPI standard and give developers and users a chance
to use a well-defined mechanism for communications over
ISDN lines without being forced to adjust to hardware idio-
syncrasies.

（Computer Assisted Personal In-
teviewing)

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ISDN （Common ISDN Application
Programming Interface) ISDN
（API） （ ISDN

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ISDN   。

　　　　　　　CAPI   ，

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　　📁:Communication

　　1️⃣:1998.9.28

capture

To save a particular state of a program. The term capture often refers to saving the information currently displayed on a display screen. You can capture the screen to a printer or to a file. The act of saving a display screen is called a screen capture. Video capture refers to storing video images in a computer.

The term capture is also used to describe the recording of keystrokes during the definition of a macro.

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📁:Graphics

1:1998. 5. 14

CardBus

The 32-bit version of the PCMCIA PC Card standard. In addition to supporting a wider bus (32 bits instead of 16 bits), CardBus also supports bus mastering and operation speeds up to 33 MHz.

32　　　　　PCMCIA　　　　　。

（32　　　　16　），CardBus　　　　　　33 MHz　　　　。

📁：Mobile Computing

1️⃣：1997.7.21

☞：PCMCIA

castanet

Software from Marimba, Inc. of Mountain View, CA (www. marimba. com) that helps administrators install and update applications and information across a network. For example, if a number of users on a network use a version of Microsoft Word that's been recently updated, the administrator can use Castanet to update the users' versions without physically installing each new package. Castanet will examine the old and the new versions, identify differences (a process called differencing), and send the changes to each user. Castanet uses channels, usually containing one kind of application, to send information to users, who receive them with a desktop application called a tuner.

Mountain View　　　Marimba

(www. marimba. com)　　　,

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Word　　　,

Castanet

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📁:Software

1️⃣:1998. 10. 30

CBT

Acronym for computer-based training, a type of education in which the student learns by executing special training programs on a computer. CBT is especially effective for training people to use computer applications because the CBT program can be integrated with the applications so that students can practice using the application as they learn.

Historically, CBTs growth has been hampered by the enormous resources required: human resources to create a CBT program. and hardware resources needed to run it. However, the increase in PC computing power, and especially the growing prevalence of computers equipped with CD-ROMs, is making CBT a more viable option for corporations and individuals alike. Many PC applications now come with some modest form of CBT, often called a tutorial.

CBT is also called computer-assisted instruction (CAI).

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, CBT   CBT

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PC   ,   CD-ROM

,   CBT

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CBT   (CAI)。

:Online Service

1 :1998. 5. 12

CDF

Short for channel definition format, a specification developed by Microsoft that allows Web publishers to push content at users. Once a user subscribes to a CDF channel, any software that supports the CDF format will automatically receive new content posted on the channel's Web server.

Announced in March, 1997, CDF has received wide backing from the Internet community, with the notable exception of Netscape Communications. Microsoft has announced that Version 4.0 of its Internet Explorer browser will support CDF, and PointCast has also announced that it will support the CDF format. Microsoft has sent the specification to the World Wide Web Consortium (W3C) for standardization.

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CDF ， CDF

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CDF 1997 3 ，

， Netscape 。

IE 4.0 CDF 。 PointCast

CDF 。 (W3C)

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:WWW

1 :1997.4.12

:PointCast

CDMA

Short for Code-Division Multiple Access，a digital cellular technology that uses spread-spectrum techniques. Unlike competing systems，such as GSM，that use time-division multiplexing（TDM），CDMA does not assign a specific frequency to each user. Instead，every channel uses the full available spectrum. Individual conversations are encoded with a pseudo-random digital sequence.

CDMA is a military technology first used during World War II by the English allies to foil German attempts at jamming transmissions. The allies decided to transmit over several frequencies，instead of one，making it difficult for the Germans to pick up the complete signal.

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GSM   （TDM）   ，CDMA

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CDMA

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📁：Mobile Computing

1️⃣：1997. 12. 3

⌨：3G demultiplex GSM multiplex TDM TDMA

Cells in Frames

A specification that enables ATM cells to be carried in Ethernet packets. This makes it possible to implement the ATM protocol while using existing Ethernet equipment, especially network interface cards (NICs). CIF provides the advantages of ATM, such as Quality of Service (QoS), without the usual hardware expense.

ATM

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(NIC)， ATM 。CIF

ATM , (QoS)。

📁:Network

1️⃣:1998.1.9

CERN

　　Pronounced sern, and short for European Laboratory for Particle Physics (Conseil Europeen pour le Recherche Nucleaire in French), a research laboratory headquartered in Geneva, Switzerland, and funded by many different countries. While most work deals with nuclear physics, the CERN is known for pioneering work in developing the World Wide Web portion of the Internet. The laboratory completed this work to improve the way scientists share information.

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　　　　，CERN　　　　　　　　　　　　WWW

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📁:WWW

🔢:1997.5.22

🖙:Web server World Wide Web

CERT/CC

Short for the Computer Emergency Response Team Coordination Center. CERT was started in December 1988 by the Defense Advanced Research Projects Agency，which was part of the U. S. Department of Defense，after the Morris Worm disabled about 10％ of all computers connected to the Internet. CERT/CC is located at the Software Engineering Institute，a federally funded research center operated by Carnegie Mellon University.

Cert/CC studies Internet security vulnerabilities，provides services to Web sites that have been attacked and publishes security alerts. CERT/CC's research activities include the area of WAN computing and developing improved Internet security. The organization also provides training to incident response professionals.

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1988   ，

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10％   。CERT/CC
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CERT/CC   ，

。CERT/CC
WAN   。

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📁：network

📅：2001. 2. 14

🖱️：bootable diskette hacker

character set

A defined list of characters recognized by the computer hardware and software. Each character is represented by a number. The ASCII character set，for example，uses the numbers 0 through 127 to represent all English characters as well as special control characters. European ISO character sets are similar to ASCII，but they contain additional characters for European languages.

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。 ，ASCII 0
127 。
ISO ASCII ，
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:Software
:1996.9.1
:Unicode

chassis

Also called case，a metal frame that serves as the structural support for electronic components. Every computer system requires at least one chassis to house the circuit boards and wiring. The chassis also contains slots for expansion boards. If you want to insert more boards than there are slots，you will need an expansion chassis，which provides additional slots.

There are two basic flavors of chassis designs-desktop models and tower models -but there are many variations on these two basic types.

:Hardware

:1998.5.14

: desktop model computer expansion board slot
     tower model

CICS

Short for Customer Information Control System, a TP monitor from IBM that was originally developed to provide transaction processing for IBM mainframes. It controls the interaction between applications and users and lets programmers develop screen displays without detailed knowledge of the terminals being used.

CICS is also available on non-mainframe platforms including the RS/6000, AS/400 and OS/2 -based PCs.

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IBM   TP   。

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，   RS/6000、AS/400   PC

OS/2，CICS   。

📁:Programming

1️⃣:1998. 1. 11

☞:transaction processing

CIFS

Common Internet File System protocol defines a standard for remote file access using millions of computers at a time. With CIFS, users with different platforms and computers can share files without having to install new software.

CIFS runs over TCP/IP, but uses the SMB (Server Message Block) protocol found in Microsoft Windows for file and printer access; therefore, CIFS will allow all applications, not just Web browsers, to open and share files across the Internet.

With CIFS, changes made to a file are simultaneously saved on both the client and server side.

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　　CIFS　TCP/IP　　　，　　　　　　　　　Windows　　　　　　　SMB(　　　　)　。

　,CIFS　　　　　　　，　　　　　，

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　　CIFS，

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:Standard

:1999. 8. 9

:Content Vectoring Protocol

clean boot

Starting（booting）a computer as minimalistically as possible. Typically when you start your computer，it loads many files and programs to customize your environment. A clean boot eliminates these optional features and loads only those files and programs that are absolutely required by the operating system.

A clean boot is a troubleshooting technique that allows you to get the computer up and running so that you can perform diagnostic tests to determine which elements of th normal boot process are causing problems.

:Operation System

:1997. 10. 22

:Boot

Clickstream

A virtual trail that a user leaves behind while surfing the Internet. A clickstream is a record of a user's activity on the Internet，including every Web site and every page of every Web site that the user visits，how long the user was on a page or site，in what order the pages were visited，any newsgroups that the user participates in and even the e-mail addresses of mail that the user sends and receives. Both ISPs and individual Web sites are capable of tracking a user's clickstream.

Clickstream data is becoming increasingly valuable to Internet marketers and advertisers.

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e-mail 。 ISP

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📁:communication

1️⃣:2001.4.10

🖥:Surf World Wide Web

client/server architecture　　　　　/

A network architecture in which each computer or process on the network is either a client or a server. Servers are powerful computers or processes dedicated to managing disk drives (file servers), printers (print servers), or network traffic (network servers). Clients are PCs or workstations on which users run applications. Clients rely on servers for resources, such as files, devices, and even processing power.

Another type of network architecture is known as a peer-to-peer architecture because each node has equivalent responsibilities. Both client/server and peer-to-peer architectures are widely used, and each has unique advantages and disadvantages.

Client-server architectures are sometimes called two-tier architectures.

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🗀:Computer Science

1️⃣:2000. 10. 26

🔜:local-area network

Cloud

Also referred to as a network cloud. In telecommunications, a cloud refers to a public or semi-public space on transmission lines (such as T1 or T3) that exists between the end points of a transmission. Data that is transmitted across a WAN enters the network from one end point using a standard protocol suite such as Frame Relay and then enters the network cloud where it shares space with other data transmissions. The data emerges from the cloud-where it may be encapsulated, translated and transported in myriad ways-in the same format as when it entered the cloud. A network cloud exists because when data is transmitted across a packet-switched network in a packet, no two packets will necessarily follow the same physical path. The unpredictable area that the data enters before it is received is the cloud.

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(T1   T3)

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📁:network

1️⃣:2001. 5. 4

🖲:packet switching

clustering

Connecting two or more computers together in such a way that they behave like a single computer. Clustering is used for parallel processing, for load balancing and for fault tolerance.

Clustering is a popular strategy for implementing parallel processing applications because it enables companies to leverage the investment already made in PCs and workstations. In addition, it's relatively easy to add new CPUs simply by adding a new PC to the network.

Microsoft's clustering solution for Windows NT systems is called MSCS.

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                                    ,

PC

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CPU。
Windows NT

MSCS。

📁:Network

1️⃣:1998. 4. 9

🖥:fault tolerance MSCS parallel processing Wolfpack

CMOS

Abbreviation of complementary metal oxide semiconductor. Pronounced see-moss, CMOS is a widely used type of semiconductor. CMOS semiconductors use both NMOS (negative polarity) and PMOS (positive polarity) circuits. Since only one of the circuit types is on at any given time, CMOS chips require less power than chips using just one type of transistor. This makes them particularly attractive for use in battery-powered devices, such as portable computers. Personal computers also contain a small amount of battery-powered CMOS memory to hold the date, time, and system setup parameters.

。CMOS

。CMOS   N-
NMOS(   ) P-   PMOS(   )
。   ,
CMOS   。

。   CMOS

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📁:Hardware

1️⃣:2001.11.2

📇:portable

CNR **Riser**

Acronym for Communication and Networking Riser. Developed by Intel, CNR is a riser card for ATX family motherboards that was developed in order to reduce the cost to OEMs of implementing LAN, home networking, audio and modem subsystems widely used in modern connected PCs. The CNR Specification is an open industry specification that defines a scalable motherboard riser card and interface that support the audio, modem, and network interfaces of core logic chipsets. The specification is supported by OEMs, Microsoft and silicon suppliers. The specification defines the CNR architecture for both standard and low-profile risers and includes electrical, mechanical, and thermal requirements of the riser interface. In addition to supporting current technologies such as Ethernet and analog modems, the specification can be expanded for developing technologies, such as DSL.

Riser 。CNR Intel , ATX riser , OEM LAN、 、 PC 。CNR riser 。

OEM、 。 riser CNR , riser 、 。 , DSL。

📁:Hardware

1️⃣:2001.1.4

🔧: add-on AMR backplane BIOS cache coherence expansion board heat sink

codec /

(1) Short for compressor/decompressor，a codec is any technology for compressing and decompressing data. Codecs can be implemented in software，hardware，or a combination of both. Some popular codecs for computer video include MPEG，Indeo and Cinepak.

(2) In telecommunications，(short for coder/decoder) a device that encodes or decodes a signal. For example，telephone companies use codecs to convert binary signals transmitted on their digital networks to analog signals converted on their analog networks.

(3) The translation of a binary value into a voltage that can be transmitted over a wire.

(1) / （compressor/decompressor）
，codec 。 Codecs
、 。
codecs MPEG，Indeo Cinepak。

(2) （coder/decoder ）
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(3)

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📁:Communication

1️⃣:1999.6.3

ColdFusion

A product created by Allaire Corporation of Cambridge，Mass. that includes a server and a development toolset designed to integrate databases and Web pages. With Cold Fusion，a user could enter a zip code on a Web page，and the server would query a database for information on the nearest movie theaters and present the results in HTML form. Cold Fusion Web pages include tags written in Cold Fusion Markup Language（CFML）that simplify integration with databases and avoid the use of more complex languages like C++ to create translating programs.

Allaire 公司 ，

ColdFusion，

HTML 。 ColdFusion ColdFu-
sion （CFML） ，

C++

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📁:Software

1️⃣:1998.9.23

💠:network-attached storage server farm

collapsed backbone

Network backbone that consists of the backplane of a single switch，rather than multiple switches connected together.

From the ports of the single switch，cables connect to the hubs of individual LAN segments.

Collapsed backbones are typically used for mid-sized LAN networks. The architecture is easier to manage and easier to keep secure，not to mention less costly.

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　　　　　　　　　　　　　，　　　　　　　　LAN

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　📁:Network

　1️⃣:2000.3.3

　🔁:backplane HPNA local-area network topology

co-location

A server, usually a Web server, that is located at a dedicated facility designed with resources which include a secured cage or cabinet, regulated power, dedicated internet connection, security and support.

These co-location facilities offer the customer a secure place to physically house their hardware and equipment as opposed to locating it in their offices or warehouse where the potential for fire, theft or vandalism is much greater.

Most co-location facilities offer high-security, including cameras, fire detection and extinguishing devices, multiple connection feeds, filtered power, backup power generators and other items to ensure high-availability which is mandatory for all Web-based, virtual businesses.

The term co-location is also known as colo.

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colo。

📁:Online Service

1️⃣:2000.4.19

🖙:Web server World Wide Web

color depth

　　The number of distinct colors that can be represented by a piece of hardware or software. Color depth is sometimes referred to as bit depth because it is directly related to the number of bits used for each pixel. A 24-bit video adapter，for example，has a color depth of 2 to the 24th power (about 16. 7 million) colors. One would say that its color depth is 24 bits.

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　📁:Graphics

　1️⃣,1998. 5. 14

comma-delimited

A data format in which each piece of data is separated by a comma. This is a popular format for transferring data from one application to another, because most database systems are able to import and export comma-delimited data.

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:Data

1 :1998. 5. 14

command buffer

A temporary storage area where commands are kept. (In DOS environments, the command buffer is called a template.) DOS and UNIX support several operations for manipulating the command buffer. For example, you can use the F3 function key in DOS to copy the template 's contents to the display screen. This is useful for repeating a command or for correcting a mistake.

（　　DOS

　　）。DOS　　UNIX

　　。　　，　　　　F3　　　DOS

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📁:Operation System

1️⃣:1998. 5. 14

configuration

The way a system is set up, or the assortment of components that make up the system. Configuration can refer to either hardware or software, or the combination of both. For instance, a typical configuration for a PC consists of 32MB (megabytes) main memory, a floppy drive, a hard disk, a modem, a CD-ROM drive, a VGA monitor, and the Windows operating system.

Many software products require that the computer have a certain minimum configuration. For example, the software might require a graphics display monitor and a video adapter, a particular microprocessor, and a minimum amount of main memory.

When you install a new device or program, you sometimes need to configure it, which means to set various switches and jumpers (for hardware) and to define values of parameters (for software). For example, the device or program may need to know what type of video adapter you have and what type of printer is connected to the computer. Thanks to new technologies, such as Plug-and-Play, much of this configuration is performed automatically.

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PC   32 MB   、   、

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Windows   。

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📁:Hardware

🗓:1998. 5. 14

👉:configuration file jumper

configuration file

   A file that contains configuration information for a particular program. When the program is executed, it consults the configuration file to see what parameters are in effect. The configuration file for DOS is called CONFIG. SYS. Older versions of the Windows operating system stores configuration information in files with a. INI extension. The two most important configuration files are WIN. INI and SYS. INI. Starting with Windows 95, most configuration information is stored in MIF files and in the Registry.

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   ,   。 DOS
       CONFIG. SYS。   Windows
 . INI   。
            WIN. INI   SYS. INI。   Windows 95
 ,   MIF   。
   📁:Operation System
   1️⃣:1998. 5. 14
   ☞:Configuration

Content Vectoring Protocol

First developed by Check Point Software in 1996 as a protocol specification for integration with anti-virus servers. Check Point first utilized its Content Vectoring Protocol (CVP) in its FireWall-1 Version 3.0 and then developed CVP into an API specification.

The CVP API defines an asynchronous interface to server applications that perform file content validation. An important feature of this is scanning files for viruses or harmful applets as they pass through firewalls. The CVP defines a client/server relationship that enables different firewall systems to share a common content validation server. In essence，the one content validation server collects from multiple firewalls the incoming files that have been flagged for inspection.

Check Point   1996

。Check Point

FireWall-1 3.0   (CVP)

CVP   API   。

CVP API

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applet。CVP

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:communication

:2001.2.15

:PPPoE

continuous tone

Refers to images that have a virtually unlimited range of color or shades of grays. Photographs and television images，for example，are continuous-tone images. In contrast，computer hardware and software is digital，which means that they can represent only a limited number of colors and gray levels. Converting a black-and-white continuous-tone image into a computer image is known as gray scaling.

Continuous-tone printers can print each dot at many different shades of lightness and darkness. Though this isn't true continuous-tone because the level of shades is limited，there are enough shades（256 or more）so that the difference between one shade and the next is imperceptible to the human eye.

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📁:Graphics

📄:1998. 5. 14

📠:gray scaling

cooperative multitasking

A type of multitasking in which the process currently controlling the CPU must offer control to other processes. It is called cooperative because all programs must cooperate for it to work. If one program does not cooperate, it can hog the CPU. In contrast, preemptive multitasking forces applications to share the CPU whether they want to or not. Both the Macintosh and Windows 3. x operating systems are based on cooperative multitasking, whereas UNIX, Windows 95, Windows NT, and OS/2 are based on preemptive multitasking.

               ，   CPU

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   CPU。   ，   CPU、

        。Macintosh   Windows 3. x

         ， UNIX、Windows 95、Windows NT

OS/2   。

   🗀:Operation System

   1️⃣:1997. 3. 10

   ☞:multitasking

CORBA

Short for Common Object Request Broker Architecture, an architecture that enables pieces of programs, called objects, to communicate with one another regardless of what programming language they were written in or what operating system they're running on. CORBA was developed by an industry consortium known as the Object Management Group (OMG).

There are several implementations of CORBA, the most widely used being IBM's SOM and DSOM architectures. CORBA has also been embraced by Netscape as part of its Netscape ONE (Open Network Environment) platform. Two competing models are Microsoft's COM and DCOM and Sun Microsystems' RMI.

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。 CORBA

(OMG) 。

CORBA ,

IBM SOM DSOM 。 CORBA

Netscape Netscape1 ( )

。 COM DCOM Sun

RMI。

:Software

1 :1996. 12. 5

:DCOM IIOP ORB RMI SOM

CP/M

Abbreviation of Control Program for Microprocessors. Created by Digital Research Corporation, CP/M was one of the first operating systems for personal computers. However, Digital Research Corporation made a critical strategic error by not agreeing to produce an operating system for the first IBM PC. According to the folklore, the president of Digital Research was flying his airplane when IBM came to call. IBM marched out and never looked back.

Instead, IBM turned to Microsoft Corporation, which developed MS-DOS. By the mid 1980s, MS-DOS had become the standard operating system for IBM-compatible personal computers. CP/M is now obsolete.

。CP/M

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IBM   PC

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IBM   。IBM

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,IBM   DOS   。   20

80   ,MS-DOS   IBM   。

CP/M   。

:Operation System

:1998.5.14

CRM

Acronym for customer relationship management. CRM entails all aspects of interaction a company has with its customer，whether it be sales or service related. Computerization has changed the way companies are approaching their CRM strategies because it has also changed consumer buying behavior. With each new advance in technology，especially the proliferation of self-service channels like the Web and WAP phones，more of the relationship is being managed electronically. Organizations are therefore looking for ways to personalize online experiences (a process also referred to as mass customization) through tools such as help-desk software，e-mail organizers and Web development apps.

。CRM

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CRM ，

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WAP ，

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，e-mail

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:WWW

:2000. 11. 30

:EAI EBPP IVR

crosstalk

A disturbance，caused by electromagnetic interference，along a circuit or a cable pair. A telecommunication signal disrupts a signal in an adjacent circuit and can cause the signals to become confused and cross over each other.

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📁:network

1️⃣:2001.3.29

📠:Attenuation attenuation crosstalk ratio

CSS

Short for Cascading Style Sheets, a new feature being added to HTML that gives both Web site developers and users more control over how pages are displayed. With CSS, designers and users can create style sheets that define how different elements, such as headers and links, appear. These style sheets can then be applied to any Web page.

The term cascading derives from the fact that multiple style sheets can be applied to the same Web page. CSS was developed by the W3C. The specification is still evolving and is not fully supported by any current Web browsers.

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　。 CSS   W3C   。   ，

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□:WWW

1 :2000. 11. 30

customer support

Service that computer and software manufacturers, and third-party service companies, offer to customers. For personal computer products, the following are common customer-support options:

mail-in service: The manufacturer will repair your equipment if you mail it in. Typical turnaround time is about four days. In some service plans, the manufacturer charges you for shipping expenses.

carry-in service: The manufacturer will repair your equipment, but you must deliver it to a local service site. This is sometimes called depot service.

on-site contract: For a monthly or annual fee, a repair person will come to your site to fix problems. (The fee is included in the purchase price of some machines.) Most on-site contracts guarantee that the service will be rendered within a fixed number of hours from when you report a problem.

hot lines: Many software manufacturers provide a phone number that you can call for advice and trouble-shooting. Often the number is toll-free. The quality of this type of support varies considerably from one company to another. Some hot lines are so good that they enable you to solve most problems yourself. Others are so bad that you are unable even to get through.

bulletin board system : Some companies maintain electronic bulletin boards (or forums within online services) staffed by service engineers. If you have a modem, you can report a problem to the bulletin board and a technician will respond. This can be convenient because bulletin boards are usually open 24 hours a day. Also, bulletin boards enable you to download software updates that correct known bugs.

Customer support is also called technical support.

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bug 。

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:Software

:1998. 5. 14

:bulletin board system

cyber

A prefix used in a growing number of terms to describe new things that are being made possible by the spread of computers. Cyberphobia，for example，is an irrational fear of computers. Cyberpunk is a genre of science fiction that draws heavily on computer science ideas. Cyberspace is the non-physical terrain created by computer systems. Anything related to the Internet also falls under the cyber category.

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　　　。　　　　　　　　　　　　　　　　cyber

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📁:Online Service

1️⃣:1998. 5. 14

🖱:Cyberspace

cyberspace

A metaphor for describing the non-physical terrain created by computer systems. Online systems, for example, create a cyberspace within which people can communicate with one another (via e-mail), do research, or simply window shop. Like physical space, cyberspace contains objects (files, mail messages, graphics, etc.) and different modes of transportation and delivery. Unlike real space, though, exploring cyberspace does not require any physical movement other than pressing keys on a keyboard or moving a mouse.

Some programs, particularly computer games, are designed to create a special cyberspace, one that resembles physical reality in some ways but defies it in others. In its extreme form, called virtual reality, users are presented with visual, auditory, and even tactile feedback that makes cyberspace feel real.

The term was coined by author William Gibson in his sci-fi novel Neuromancer (1984).

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mail）、 。

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Neuromancer (1984)

William Gibson 。

:Online Service

:1998. 8. 25

:information highway MUD VRML

DAO

Short for data access objects，objects that work with the Jet database engine. DAO objects are generally created with Visual Basic. Once created，a DAO object can be accessed and manipulated by any application that can use the Jet engine. This includes all of the applications in Microsoft Office，such as MS-Word，MS-Access，and Excel.

，　　Jet

。DAO　　　　　Visual Basic　　，　　　　　，

DAO　　　　　　　Jet

。　　　　　　　　　Office　　　Word、

Access　　Excel。

🗀:Software

1:1997.9.5

☞:ADO

dark fiber

Dark fiber refers to unused fiber-optic cable. Often times companies lay more lines than what's needed in order to curb costs of having to do it again and again. The dark strands can be leased to individuals or other companies who want to establish optical connections among their own locations.

In this case, the fiber is neither controlled by nor connected to the phone company. Instead, the company or individual provides the necessary components to make it functional.

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📁：Communication

1️⃣：1999. 12. 20

data independence

The separation of data from the programs that use the data. Nearly all modern applications are based on the principle of data independence. In fact，the whole concept of a database management system (DBMS) supports the notion of data independence since it represents a system for managing data separately from the programs that use the data. In contrast，it is possible to write applications in which the data being processed is actually represented in the program's source code. This data-dependent approach is very inflexible because it makes it difficult to modify the data and it also makes the data inaccessible to other programs.

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▭：Data

1️⃣：1998. 5. 19

data integrity

Refers to the validity of data. Data integrity can be compromised in a number of ways:

Human errors when data is entered

Errors that occur when data is transmitted from one computer to another

Software bugs or viruses

Hardware malfunctions, such as disk crashes

Natural disasters, such as fires and floods

There are many ways to minimize these threats to data integrity. These include:

Backing up data regularly

Controlling access to data via security mechanisms

Designing user interfaces that prevent the input of invalid data

Using error detection and correction software when transmitting data

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　📁:Data

　1️⃣:1998.5.14

data processing

(1) Refers to a class of programs that organize and manipulate data, usually large amounts of numeric data. Accounting programs are the prototypical examples of data processing applications. In contrast, word processors, which manipulate text rather than numbers, are not usually referred to as data processing applications.

(2) Same as Information Technology (IT), refers to all computing functions within an enterprise.

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(2)   (IT)   ,

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📁:Data

1️⃣:1998.5.14

data warehouse

A collection of data designed to support management decision making. Data warehouses contain a wide variety of data that present a coherent picture of business conditions at a single point in time.

Development of a data warehouse includes development of systems to extract data from operating systems plus installation of a warehouse database system that provides managers flexible access to the data.

The term data warehousing generally refers to combine many different databases across an entire enterprise.

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🗀:Software

1️⃣:1996.12.17

☞:meta data

DCC

Short for Direct Cable Connection, a Windows 95 feature that enables two computers to be connected via a serial or parallel cable. Once connected, the two computers function as if they were on a local-area network (LAN). Either computer can access files on the other computer. But because DCC does not require network interface cards (NICs), it is less expensive and simpler. The limitations are that it can connect only two PCs, and the data transfer rate is slower than with a true LAN.

(Direct Cable Connection) ，

Windows 95 ，

。 ，

(LAN) 。

DCC

(NICs)。 、 。

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LAN 。

📁: Communication

1️⃣: 1998. 5. 14

☞: local-area network

DDR

Short for Dial-on-Demand Routing. DDR is a routing technique developed by Cisco that allows a user to utilize existing telephone lines，or public circuit-switched networks，to form a WAN instead of lines that are dedicated specifically to the WAN. DDR is typically implemented by users that do not need permanent，continuous links between sites on the WAN because the volume of traffic over the WAN is low and the transmissions are periodic as opposed to continuous. The connection only becomes active when data is sent to the remote site. When no data has been sent over the link for a specified amount of time，the link is disconnected.

Using DDR，a connection between sites is only established when a specific type of traffic initiates the call or when you a backup link is needed for redundancy or load sharing.

DDR is used in order to save on the costs of a dedicated WAN line for organizations that do not need permanent continuous connection and as a back-up by organizations that use the dedicated line for critical applications.

。DDR　　　　　Cisco

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　　　　　　　WAN　　　　　WAN　　　　。
DDR　　　　　　　WAN
　，　WAN

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　DDR，

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　DDR
　WAN　　　，

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:network

$\boxed{1}$:2001.4.11

: Enhanced Interior Gateway Routing Protocol
   Interior Gateway Routing Protocol VRRP

de facto standard

A format，language，or protocol that has become a standard not because it has been approved by a standards organization but because it is widely used and recognized by the industry as being standard．Some examples of de facto standards include：

Hayes command set for controlling modems

Kermit Communications Protocol

Xmodem Communications Protocol

Hewlett-Packard Printer Control Language（PCL）for laser printers．

PostScript page description language for laser printers

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Hayes :

Kermit

Xmodem

（PCL）

PostScript

📁:Standard

1️⃣:1997.4.17

🐭:standard

demultiplex

To separate two or more channels previously multi-plexed. Demultiplexing is the reverse of multiplexing.

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📁:communication

1️⃣:2001.2.27

☞:DMA

device manager

Device Manager is an OS feature that lets you view and change the properties of all devices attached to your computer.

To get to the device manager in Windows, right click on the My computer icon, choose properties, then click on the device manager tab. From there you can select a variety of management options.

The device manager is found in both Windows (95 and higher) and Macintosh PC platforms. Windows2000 contains an improved device manager that detects plug-and-play hardware and displays a large list of supported hardware.

OS　　　，

　　Windows　　　　　．　"
"　　　"　"，　　"　　　"　。

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　　　Windows(95　　　) Macin-
tosh　　　。Windows 2000

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:Hardware

:1999. 10. 21

dial-up access

Refers to connecting a device to a network via a modem and a public telephone network. Dial-up access is really just like a phone connection, except that the parties at the two ends are computer devices rather than people. Because dial-up access uses normal telephone lines, the quality of the connection is not always good and data rates are limited. In the past, the maximum data rate with dial-up access was 56 Kb/s (56,000 bits per second), but new technologies such as ISDN are providing faster rates.

An alternative way to connect two computers is through a leased line, which is a permanent connection between two devices. Leased lines provide faster throughput and better quality connections, but they are also more expensive.

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   。   ,   56 Kb/s(56,
000bits per second),   ISDN

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   📁:Network
   1️⃣:1999.5.11
   🖇:ISP L2TP leased line

DASC

A digital switching device in telecommunications for routing T1 lines. The DACS can cross-connect any T1 line in the system with any other T1 line also in the system. DACS can also connect any DS-0 channel or group of channels on a T1 line to any DS-0 time slots of any other line.

。DACS

T1   T1

DACS   T1   DS-0

DS-0   。

📁:communication

1️⃣:2001.3.14

☞:BPDU

digital wallet

Encryption software that works like a physical wallet during electronic commerce transactions. A wallet can hold a user's payment information, a digital certificate to identify the user, and shipping information to speed transactions. The consumer benefits because his or her information is encrypted against piracy and because some wallets will automatically input shipping information at the merchant's site and will give the consumer the option of paying by digital cash or check. Merchants benefit by receiving protection against fraud.

Most wallets reside on the user's PC, but recent versions, called "thin" wallets, are placed on the credit card issuer's server. Netscape and Microsoft now support wallet technology on their browsers.

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    。   PC   ，   ，
" "   。 Netscape
                              。

:Software
1:1998. 9. 10
:SASL SSL

digital watermark

A pattern of bits inserted into a digital image, audio or video file that identifies the file's copyright information (author, rights, etc.). The name comes from the faintly visible watermarks imprinted on stationery that identify the manufacturer of the stationery. The purpose of digital watermarks is to provide copyright protection for intellectual property that's in digital format.

Unlike printed watermarks, which are intended to be somewhat visible, digital watermarks are designed to be completely invisible, or in the case of audio clips, inaudible. Moreover, the actual bits representing the watermark must be scattered throughout the file in such a way that they cannot be identified and manipulated. And finally, the digital watermark must be robust enough so that it can withstand normal changes to the file, such as reductions from lossy compression algorithms.

Satisfying all these requirements is no easy feat, but there are a number of companies offering competing technologies. All of them work by making the watermark appear as noise - that is, random data that exists in most digital files anyway. To view a watermark, you need a special program that knows how to extract the watermark data.

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📁:Multimedia

1️⃣:1998. 1. 25

🖱:software piracy

digitize

To translate into a digital form. For example, optical scanners digitize images by translating them into bit maps. It is also possible to digitize sound, video, and any type of movement. In all these cases, digitization is performed by sampling at discrete intervals. To digitize sound, for example, a device measures a sound wave's amplitude many times per second. These numeric values can then be recorded digitally.

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:Data

:1998. 6. 17

:sampling

diskless workstation

A workstation or PC on a local-area network（LAN）that does not have its own disk. Instead, it stores files on a network file server. Diskless workstations can reduce the overall cost of a LAN because one large-capacity disk drive is usually less expensive than several low-capacity drives. In addition, diskless workstations can simplify backups and security because all files are in one place -- on the file server. Also, accessing data from a large remote file server is often faster than accessing data from a small local storage device.

One disadvantage of diskless workstations, however, is that they are useless if the network fails.

When the workstation is a PC, it is often called a diskless PC or a Net PC.

（LAN）

PC 。   。

LAN

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PC   ,

PC   PC。

:Network

1 :1998. 5. 15

:local-area network Net PC network computer

DLSw

Short for Data-Link Switching. DLSw is a means of tunneling Systems Network Architecture (SNA) and Net-BIOS traffic over an IP network. Before the development of DLSw, SNA and NetBIOS traffic was transported via Source-Route Bridging (SRB), a protocol for transporting in token ring environments. DLSw uses Switch to Switch protocol instead of SRB between routers to create DLSw peer connections, locate resources, forward data, handle flow control and error recovery. The routers are called data link switches.

Initially a proprietary solution developed by IBM in 1992, DLSw was submitted to the IETF as RFC 1434 in 1993. DLSw is now documented in detail by RFC 1795, submitted in April 1995.

。DLSw   IP
           (SNA)   。

    DLSw   ,SNA   NetBIOS
(SRB)   ,SRB

        。DLSw

      SRB   DLSw   、   、

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    DLSw   1992   IBM   ,

   1993   IETF   RFC 1434。 DLSw   RFC
1795   ,   1995   4   。

  📁:communication

  1️⃣:2001. 3. 8

  ☞:L2TP

DNS /

(1) Short for Domain Name System (or Service), an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name www. example. com might translate to 198. 105. 232. 4.

The DNS system is, in fact, its own network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

(2) Short for digital nervous system, a term coined by Bill Gates to describe a network of personal computers that make it easier to obtain and understand information.

(1)   (   )   ,
  IP   。   ,
            。   IP   。
            ,   DNS
    IP   。   ,   www. example. com
  ;198. 105. 232. 4。
  DNS   。
DNS   ,
        ,   IP   。
  (2)   ,   Bill Gates
    ,

        。
📁:WWW

1️⃣;1996. 10. 1

⌨:domain name IAHC

DoCoMo

DoCoMo (meaning "anywhere" in Japanese) is a NTT subsidiary and Japan's biggest mobile service provider, with over 31 million subscribers as of June, 2000.

In February, 2000 NTT DoCoMo launched its i-mode service. With over 7 million subscribers, it has overtaken traditional Japanese Internet service providers to become Japan's biggest Internet access platform.

DoCoMo's i-mode is the only network in the world that now allows subscribers continuous access to the Internet via mobile telephone. The service lets users send and receive e-mail, exchange photographs, do online shopping and banking, download personalized ringing melodies for their phones, and navigate among more than 7,000 specially formatted Web sites.

The current i-mode data transmission speed is just 9. 6Kb/s, but in spring 2001 NTT DoCoMo will introduce its next-generation mobile system, based on wideband CD-MA (W-CDMA), that can support speeds of 384Kb/s or faster, making mobile multimedia possible.

DoCoMo(　　　　　　"　　　　")
(NTT)　　　　　　　　，
　　，　2000　7　　　3 100　　　　。
　　2000　2　NTT　DoCoMo　　　　　　i-mode
。　　　　　　700　　　　　，
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DoCoMo　i-mode

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e-mail、　　　　、　　　　　　　　、
　　　、　7 000
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　　i-mode　　　　　　　　9. 6 Kb/s，
2001　　NTT　DoCoMo　　　　　　CDMA(W-

CDMA)   ,   384 Kb/s

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　　　:cor

　　　:2000.10.4

　　　:CDMA ISP

DOCSIS

Developed by CableLabs and approved by the ITU in March 1998, Data Over Cable Service interface Specification defines interface standards for cable modems and supporting equipment.

With certification from CableLabs, manufacturers will be able to produce cable modems for retail, so consumers no longer have to depend on leased cable modems from their cable providers.

Other devices that recognize and support the DOCSIS standard include HDTVs and Web enabled set-top boxes for regular televisions.

DOCSIS specifies downstream traffic tranfer rates between 27 and 36 Mb/s over a radio frequency (RF) path in the 50 MHz to 750+ MHz range, and upstream traffic tranfer rates between 320 Kb/s and 10 Mb/s over a RF path between 5 and 42 MHz. But, because data over cable travels on a shared loop, individuals will see tranfer rates drop as more users gain access.

In 1998, there were 1.2 million cable modems installed across the United States with an average price of $245 per unit, and by 2004, research reports predict there will be 24.3 million units installed across the US with an average price of $50 per unit.

CableLabs 1998

3 ITU ，

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CableLabs ，

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DOCSIS HDTV

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DOCSIS 50～750+ MHz

27～36 Mb/s，

5～42MHz   320 Kb/s

10 Mb/s。

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1998   ，   120   ，

        245   。 2004   ，

    243   ，   50   。

📁:Standard

1️⃣:1999. 11. 10

🖦:standard

DOM

　　Short for Document Object Model, the specification for how objects in a Web page (text, images, headers, links, etc.) are represented. The DOM defines what attributes are associated with each object, and how the objects and attributes can be manipulated. Dynamic HTML (DHTML) relies on the DOM to dynamically change the appearance of Web pages after they have been downloaded to a user's browser.

　　Unfortunately, the two leading browsers -- Netscape Navigator and Microsoft Internet Explorer -- use different DOMs. This is one reason why their respective implementations of DHTML are so different. Both companies have submitted their DOMs to the World Wide Web Consortium (W3C) for standardization, which now has the daunting task of specifying a standard DOM without alienating either of the browser giants. The W3C's DOM specification will support both HTML and XML.

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(　　、　　、　　、　　　　) 　　　　　　。DOM

　　。　　　　　　　　　　　　　　　　　　HTML
　　DOM 　　　　　　　　　　　　。
　　　　　　　　　　　　　　——Netscape
Navigator 　　　　　Internet Explorer——
DOM。　　　　　　　　　DHTML
　　。　　　　　　　　(W3C)
DOM 　　　　　　　，
　　　　　DOM 　　　　　　　　。W3C
　DOM 　　　　HTML　XML。

　　📁:DOM
　　1️⃣:2000.4.19
　　☞:XML

domain name

A name that identifies one or more IP addresses. For example, the domain name microsoft. com represents about a dozen IP addresses. Domain names are used in URLs to identify particular Web pages. For example, in the URL http://www. company. com/index. html, the domain name is company. com.

Every domain name has a suffix that indicates which top level domain (TLD) it belongs to. There are only a limited number of such domains. For example:

gov - Government agencies

edu - Educational institutions

org - Organizations (nonprofit)

mil - Military

com - commercial business

net - Network organizations

ca - Canada

th - Thailand

Because the Internet is based on IP addresses, not domain names, every Web server requires a Domain Name System (DNS) server to translate domain names into IP addresses.

IP 。 ，

microsoft. com IP 。 URL

。 URL http://www. commpany.

com/index. html， company. com。

(TLD)。 ， :

gov ——

edu ——

org ——

mil ——

com ——

net ——

ca ——

th ——

IP　　　　　　　　　　　，

Web　　　　　　　　　　(DNS)

　IP　　。

📁:Network

1️⃣:2001.1.4

🖥️:DNS FQDN TLD whois

dongle

A device that attaches to a computer to control access to a particular application. Dongles provide the most effective means of copy protection. Typically, the dongle attaches to a PC's parallel port. On Macintoshes, the dongle sometimes attaches to the ADB port. The dongle passes through all data coming through the port so it does not prevent the port from being used for other purposes. In fact, it's possible to attach several dongles to the same port.

。Dongle   。   ，
dongle   PC   。 Macintosh ，dongle
          ADB   。Dongle

                    。   ，

                dongle。

📁:Hardware

1️⃣:1997.4.12

DMPI DOS

Created for Windows version 3. 0, DPMI is an indus-
try standard for an interface that allows DOS applications
to access extended memory of the 80286-, 80386-, and
80486-based PC architecture while maintaining system pro-
tection.

Windows 3. 0　　　　　DPMI

，　　　DOS

80286，80386　　80486PC　　　　　　　　　。

📁:operating system

1️⃣:2001. 3. 14

dribbleware

Software characterized by frequent updates，fixes，and patches．The term is somewhat derogatory，indicating software that was released without sufficient testing or before all features could be added．With the intense market pressure to release software products as soon as possible，and with the increased ease of updating software via Internet downloads，dribbleware is becoming the norm rather than the exception．

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　　　，　　　　dribbleware

　。

：Software

：1998. 5. 28

：vaporware

driver

A program that controls a device. Every device，whether it be a printer，disk drive，or keyboard，must have a driver program. Many drivers，such as the keyboard driver，come with the operating system. For other devices，you may need to load a new driver when you connect the device to your computer. In DOS systems，drivers are files with a. SYS extension. In Windows environments，drivers often have a. DRV extension.

A driver acts like a translator between the device and programs that use the device. Each device has its own set of specialized commands that only its driver knows. In contrast，most programs access devices by using generic commands. The driver，therefore，accepts generic commands from a program and then translates them into specialized commands for the device.

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DOS   ，   . SYS   。   Windows

，   . DRV   。

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:Operation System

1 :1998. 5. 15

DTE

Short for Data Terminal Equipment, a device that controls data flowing to or from a computer. The term is most often used in reference to serial communications defined by the RS-232C standard. This standard defines the two ends of the communications channel as being a DTE and Data Communications Equipment (DCE) device. In practical terms, the DCE is usually a modem and the DTE is the computer itself, or more precisely, the computer's UART chip. For internal modems, the DCE and DTE are part of the same device.

(Data Terminal Equipment) ，

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RS-232C 。

：DTE

(DCE)。 ，DCE ， DTE

， ，

(UART) 。 ，DCE DTE

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:Communication

1 :1998. 5. 15

Dvorak keyboard Dvorak

A keyboard designed for speed typing. The Dvorak keyboard was designed in the 1930s by August Dvorak, a professor of education, and his brother-in-law, William Dealy. Unlike the traditional QWERTY keyboard, the Dvorak keyboard is designed so that the middle row of keys includes the most common letters. In addition, common letter combinations are positioned in such a way that they can be typed quickly.

It has been estimated that in an average eight-hour day, a typist's hands travel 16 miles on a QWERTY keyboard, but only 1 mile on a Dvorak keyboard.

In addition to the standard Dvorak keyboard, there are two additional Dvorak keyboards, a left-handed and right-handed keyboard. These keyboards are designed for people who have only one hand for typing.

　　　　　　　　　　。Dvorak　　　　　19
30　　　　August Dvorak，　　　　，　　　　（　）Wil-
liam Dealy　　　　。　　　　　　　　　　，Dvorak

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　　　　　16　　，　　　　Dvorak

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　　　　Dvorak　　，　　　　Dvorak　　，

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📁:Hardware

1️⃣:2000.11.3

DWDM

Dense Wavelength Division Multiplexing is an optical technology used to increase bandwidth over existing fiber optic backbones.

DWDM works by combining and transmitting multiple signals simultaneously at different wavelengths on the same fiber. In effect, one fiber is transformed into multiple virtual fibers. So, if you were to multiplex eight OC -48 signals into one fiber, you would increase the carrying capacity of that fiber from 2. 5 Gb/s to 20 Gb/s. Currently, because of DWDM, single fibers have been able to transmit data at speeds up to 400Gb/s. And, as vendors add more channels to each fiber, terabit capacity is on its way.

A key advantage to DWDM is that it's protocol and bit-rate independent. DWDM-based networks can transmit data in IP, ATM, SONET /SDH, and Ethernet, and handle bit-rates between 100 Mb/s and 2. 5 Gb/s. Therefore, DWDM-based networks can carry different types of traffic at different speeds over an optical channel.

From a QoS (Quality of Service) stand point, DWDM-based networks create a lower cost way to quickly respond to customers' bandwidth demands and protocol changes.

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　　DWDM

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　，　　　　　　8　　OC-48　　　　　　　　　　　　　　，

　　　　　　　　　　2. 5 Gb/s　　20 Gb/s。

DWDM　　　　，　　　　　　　　　　　　400Gb/s

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　　DWDM　　　　　　　　　　　　　　　　　　。

　　　　DWDM　　　　　　IP、ATM、SONET/SDH

Ethernet ; 100 Mb/s 2.5 Gb/s

。 , DWDM

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QoS( ) , DWDM

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☐:Network

1:1999.10.13

☐:bottleneck

EAI

Acronym for enterprise application integration. EAI is the unrestricted sharing of data and business processes throughout the networked applications or data sources in an organization. Early software programs in areas such as inventory control, human resources, sales automation and database management were designed to run independently, with no interaction between the systems. They were custom built in the technology of the day for a specific need being addressed and were often proprietary systems. As enterprises grow and recognize the need for their information and applications to have the ability to be transferred across and shared between systems, companies are investing in EAI in order to streamline processes and keep all the elements of the enterprise interconnected.

There are four major categories of EAI:

Database linking: databases share information and duplicate information as needed.

Application linking: the enterprise shares business processes and data between two or more applications.

Data warehousing: data is extracted from a variety of data sources and channeled into a specific database for analysis.

Common virtual system: the pinnacle of EAI; all aspects of enterprise computing are tied together so that they appear as a unified application.

EAI   。EAI

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　　　　EAI：

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　　　　　：EAI　　　　　。

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:Computer Science

:2001. 1. 18

:CRM

EBPP

Short for electronic bill presentment and payment，the process by which companies bill customers and receive payments electronically over the Internet.

There are two types of presentment models：

direct model：a biller delivers the bill to customers via its own Web site，or via a third-party's site.

consolidator model：bills from multiple billers are delivered to a single Web site，to be presented in aggregate to the consumer for viewing and payment.

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📁：WWW
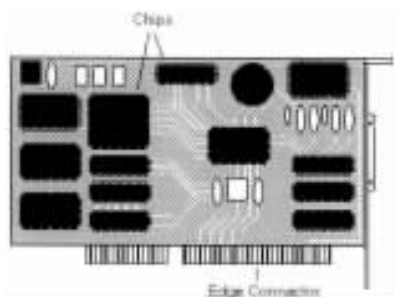
1️⃣：2001.2.21

🖰：CRM EAI IVR

edge connector (1)

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The part of a printed circuit board that plugs into a computer or device. The edge connector generally has a row of broad metallic tracks that provide the electrical connection.

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:Hardware

1:1996.9.1

EDID

Extended Display Identification Data is a VESA standard data format that contains basic information about a monitor and its capabilities，including vendor information，maximum image size，color characteristics，factory pre-set timings，frequency range limits，and character strings for the monitor name and serial number.

The information is stored in the display and is used to communicate with the system through a Display Data Channel（DDC），which sites between the monitor and the PC graphics adapter. The system uses this information for configuration purposes，so the monitor and system can work together.

The latest version of EDID（version 1.3）can be used in CRT displays，LCD displays，and future display types because EDID offers general descriptions of almost all display parameters.

VESA   ，

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                                   。

（DDC）   ，   PC
                  。   ，

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    EDID   （   1.3）   CRT   `
LCD   ，   EDID

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🗀:Standard

1️⃣:1999.9.30

🖳:Configuration VESA

Eiffel

An advanced programming language created by Bertrand Meyer and developed by his company, Interactive Software Engineering (ISE). The language was introduced in 1986 and a basic Windows compiler is available at no charge.

Eiffel encourages object-oriented program development and supports a systematic approach to software development. The Eiffel compiler generates C code, which you can then modify and re-compile with a C compiler.

Bertrand Meyer ，

(ISE)， 。 1986

Windows 。

Eiffel

。 Eiffel C ，

C 。

📁:Programming

1️⃣:2001.1.24

electronic book

An electronic version of a book. Currently there are two e-book products available, the Rocket eBook, from Nuvomedia (www. nuvomedia. com) and the SoftBook from SoftBook Press (www. softbook. com). Both are small computers -- the size of a paperback and a legal notepad -- with backlighted screens that allow a user to read, save, highlight, bookmark, and annotate text. Both can download books from a Web site, such as barnesandnoble. com (although the Rocket eBook requires another PC).

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：Nuvomedia(www. nuvomedia. com)   Rocket eBook
SoftBook   (www. softbook. com)   SoftBook。

——   ,   、   、
    、   。
，   barnesandnoble. com(Rocket eBook
PC)。

📁：Hardware

1️⃣：1998. 10. 30

📠：palmtop

embedded system

A specialized computer system that is part of a larger system or machine. Typically, an embedded system is housed on a single microprocessor board with the programs stored in ROM. Virtually all appliances that have a digital interface -- watches, microwaves, VCRs, cars -- utilize embedded systems. Some embedded systems include an operating system, but many are so specialized that the entire logic can be implemented as a single program.

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ROM 　　　　　　　　　　。

　　　——、　、VCR、　——　　　　　　　　。

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□:Type of Computer

1:1997. 8. 15

EIGRP

Enhanced Interior Gateway Routing Protocol (EIGRP) is an evolved version of IGRP that addresses the demands of large-scale internetworks and the changes in network technology that have been developed since the implementation of IGRP. Routers that already use IGRP can use EIGRP because the metrics for both protocols are directly translatable，i. e. ，they are as easily comparable as if they were routes that originated in their own autonomous systems.

A router running EIGRP stores copies of all its neighbors' routing tables so that it can quickly adapt to alternate routes. If no appropriate route exists，EIGRP queries its neighbors to discover an alternate route. These queries propagate until an alternate route is found. Unlike some earlier routing protocols that would send an entire table to neighboring routers when one routing table entry changed，EIGRP notifies the neighbors of only the specific change in the table.

Unlike IGRP，EIGRP uses the Diffusing-Update Algorithm (DUAL) developed at SRI International.

（EIGRP） IGRP

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EIGRP

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EIGRP

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IGRP   ，EIGRP   SRI

(DUAL)。

□:network

[1] :2001.3.29

☞:Interior Gateway Routing Protocol OSPF VRRP

EPOC

An operating system from Psion Software，designed specifically for mobile，ROM‐based computing devices. EPOC16 is a 16-bit version of the operating system that has been available for several years and is embedded in many handheld devices. EPOC32 is a newer，32-bit operating system that supports preemptive multitasking. EPOC is competing head-to-head with Windows CE in the grow PDA market.

Psion   ，

、   ROM   。EPOC16

16   ，   ，

            。EPOC32   32

                。EPOC   PDA

Windows CE   。

📁:Operation System

1️⃣:1998.1.15

👉:hand-held computer operating system PDA Windows CE

EPS   PostScript

Abbreviation of Encapsulated PostScript. Pronounced as separate letters，EPS is the graphics file format used by the PostScript language.

EPS files can be either binary or ASCII. The term EPS usually implies that the file contains a bit-mapped representation of the graphics for display purposes. In contrast，PostScript files include only the PostScript commands for printing the graphic.

PostScript   。EPS   PostScript

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EPS   ASCII。   EPS

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，PostScriipt   PostScript

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📁：Programming

1️⃣：2000. 9. 14

ergonomics

The science concerned with designing safe and comfortable machines for humans. For example，one branch of ergonomics deals with designing furniture that avoids causing backaches and muscle cramps. In the computer field，ergonomics plays an important role in the design of monitors and keyboards.

Another term for ergonomics is human engineering.

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:Computer Science

:1997. 11. 25

ERP

Short for enterprise resource planning，a business management system that integrates all facets of the business，including planning，manufacturing，sales，and marketing. As the ERP methodology has become more popular，software applications have emerged to help business managers implement ERP.

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ERP ，

ERP。

:Software

1 :1997. 11. 17

ESD wrist strap

A safety device used to channel static electricity to a proper ground while handling sensitive computer equipment. Electrostatic discharge (ESD) damage occurs when a release of stored static electricity travels from something such as a person's body into a conductor of a different potential，such as a computer being repaired. The ESD wrist strap safely channels the static electricity to a proper ground，typically the computer's chassis.

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，   (ESD)   。ESD
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📁：Computer Science
1️⃣：2000. 12. 1

Ethernet

A local-area network (LAN) protocol developed by Xerox Corporation in cooperation with DEC and Intel in 1976. Ethernet uses a bus or star topology and supports data transfer rates of 10 Mb/s. The Ethernet specification served as the basis for the IEEE 802. 3 standard，which specifies the physical and lower software layers. Ethernet uses the CSMA/CD access method to handle simultaneous demands. It is one of the most widely implemented LAN standards.

A newer version of Ethernet，called 100Base-T (or Fast Ethernet)，supports data transfer rates of 100 Mb/s. And the newest version，Gigabit Ethernet supports data rates of 1 gigabit (1,000 megabits) per second.

Xerox   DEC   Intel   1976

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，   10 Mb/s   。

IEEE 802. 3   ，

。   CSMA/CD   。

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100Base-T(   )

100 Mb/s   。

1   (1000   )   。

:Network

1 :2000. 11. 6

EtherLoop

Created by Nortel spin-off Elastic Networks, Ether-Loop (a. k. a next generation DSL) is Ethernet over standard twisted pair (POTS) technology that allows for simultaneous voice and high-speed data communications. Speeds range from 125 Kbps to 6 Mbps over distances of up to 21, 000 feet.

Similar to Ethernet, Etherloop transmits data packets in bursts. Between bursts, EtherLoop looks for problems and interference in the lines and knows to steer clear and find an alternate path. Also, EtherLoop is Ethernet compliant, so it is easily adaptable to existing Ethernet systems.

EtherLoop also borrows from the best of DSL to offer point-to-point security and a non-shared medium (more users don't slow down connection speed), But unlike DSL, EtherLoop avoids impacting other services such as ISDN, T-1, ADSL, HDSL and SDSL, which are in the same cable binder group.

EtherLoop is not proprietary. Elastic Networks plans on licensing the technology to manufacturers who can design and create their own EtherLoop solutions.

Notel spin-off Elastic Networks   (

　　　DSL)

　　(POTS)   。   21 000

　　125 Kb/s   6 Mb/s   。

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DSL   ，   ，

ISDN、T-1、ADSL、HDSL   SDSL。

。Elastic Networks

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📁:Network

1️⃣:2000.4.9

📠:burst mode Ethernet POTS

expansion board

A printed circuit board that you can insert into a computer to give it added capabilities. For example, all of the following are expansion boards:

video adapters
graphics accelerators
sound cards
accelerator boards
internal modems

Expansion boards for PCs can be half-size (also half-length) or full-size (also full-length). Most PCs have slots for each type of board. A half-size board is sometimes called an 8-bit board because it can transmit only 8 bits at a time. A full-size board is called a 16-bit board. In addition, some expansion boards are designed to operate with a local bus, such as PCI.

Expansion boards are also called adapters, cards, add-ins, and add-ons.

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PC　　　　　　　　　　　　　　（　　　　　　）
（　　　　　　）。　　　　　PC
　　。　　　　　　　　　　　　　　　　8
　　8　。　　　　　　　　　　　16　　。　　　，
　　　　　　　　　　　　　　　，　PCI。
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📁:Hardware

1️⃣:1996.9.1

🖲:accelerator board CNR PCI television board

extended keyboard

A keyboard for Macintosh computers that contains up to 15 function keys above the alphanumeric keys，and a numeric keypad. It is sometimes called an enhanced keyboard because of its similarity to the PC enhanced keyboard.

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Macintosh   。   ，

PC   。

📁：Hardware

1️⃣：2000.12.8

e-zine

Short for electronic magazine，the name for a web site that is modeled after a print magazine. Some e-zines are simply electronic versions of existing print magazines，whereas others exist only in their digital format. Most e-zines are advertiser-supported but a few charge a subscription.

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▭ :WWW

1 :1997. 11. 19

FAQ

Pronounced as separate letters or as fak，and short for frequently asked questions，a FAQ is a document that answers questions about some technical topic. Frequently，FAQs are formatted as help files or hypertext documents.

，　　FAQ

。FAQ

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:Online Service

1 :1999. 5. 15

fault tolerance

　　The ability of a system to respond gracefully to an unexpected hardware or software failure. There are many levels of fault tolerance，the lowest being the ability to continue operation in the event of a power failure. Many fault-tolerant computer systems mirror all operations -- that is，every operation is performed on two or more duplicate systems，so if one fails the other can take over.

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　:Operation System

　,1997.9.28

　:Clustering RAID

FC-PGA

Acronym for flip chip pin grid array. FC-PGA packages use chips that have been turned upside down and attached to the package or the board using solder balls instead of perimeter bonding wires. The solder balls are jointed directly to a set of solder balls on the substrate (the base layer of the chip and the electrical ground for the circuit). The exposed core rests on the actual package, and the chips make direct contact with the heat sink. This allows for more efficient cooling to take place. Since the chips are placed directly on the board, FC-PGA packages have a high I/O densityr and shorter electrical connections than othe types of packaging, PPGA and PGA.

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　　　　，　　　FC-PGA　　　　　　　　　PP-
GA　　PGA　　　　　　　　　I/O　　　　　　　　。

　　　🗀: Hardware

　　　1️⃣: 2000. 12. 8

　　　🖥: PPGA socket 370

Fetch

To load an instruction or piece of data from memory into a CPU's register. All instructions must be fetched before they can be executed. The time it takes to fetch an item is known as the fetch time or fetch cycle，and is measured in clock ticks.

CPU

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:Programming

1:2000. 9. 15

FIF

(Fractal Image Format) A graphics file format from Iterated Systems, Inc. (www. iterated. com) that uses fractal geometry to compress images. (Fractals are structures possessing similar-looking forms of many different sizes. They can be used to create any real-world object, like a mountain or a cloud, provided it doesn't correspond to a simple geometric shape.) These fractals can be expressed in mathematical terms, allowing an entire image to be recorded as repeated patterns.

( ) Iterated (www. it-erated. com) , 。
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📁:Graphics

1️⃣:1998. 9. 8

file handle

A number that the operating system assigns temporarily to a file when it is opened. The operating system uses the file handle internally when accessing the file. A special area of main memory is reserved for file handles, and the size of this area determines how many files can be open at once. In DOS and Windows, you can set the maximum number of open files with the FILES= statement in CONFIG. SYS.

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                                                          。   DOS   Win-
dows   ,   CONFIG. SYS   FLES= state-
ment   。

　　▭:Operation System

　　1:1998. 7. 1

firmware

Software (programs or data) that has been written onto read-only memory (ROM). Firmware is a combination of software and hardware. ROMs，PROMs and EPROMs that have data or programs recorded on them are firmware.

（ROM） （ ）。

ROM、PROM EPROM 。

📁：Hardware

1️⃣：1998.5.15

fixed-frequency monitor

A monitor that can only accept signals in one frequency range. In contrast，multiscanning monitors automatically adjust themselves to the frequency at which data is being sent.

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:Hardware

:2000.9.25

fixed wireless

Fixed wireless refers to wireless devices or systems that are situated in fixed locations，such as an office or home，as opposed to devices that are mobile，such as cell phones and PDAs. Fixed wireless devices normally derive their electrical power from utility mains，as opposed to portable wireless devices that normally derive their power from batteries.

The point-to-point signal transmissions occur through the air over a terrestrial microwave platform rather than through copper or fiber cables；therefore，fixed wireless does not require satellite feeds or local phone service. The advantages of fixed wireless include the ability to connect with users in remote areas without the need for laying new cables and the capacity for broad bandwidth that is not impeded by fiber or cable capacities.

，   PDA

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:network

:2001.2.22

Foobar

Foobar is a universal variable understood to represent whatever is being discussed.

It's usually used in examples that illustrate concepts and ideas in computer science.

For instance, a computer science professor may be discussing different file formats. In this case, he would call the generic-example file foo or foobar, then list the extensions associated with the file formats (e. g. foobar. txt, foobar. gif, foobar. exe, foobar. tar).

When foo or foobar is used, everyone understands that these are just examples, and they don't really exist.

Programmers and administrators also use foo and foobar in a similar context. Files or program s named with foo or foobar are understood not to be permanent and will be changed or deleted at anytime.

Foo, bar, and the compound foobar were commonly used at MIT, Stanford and the Helsinki University of Technology, Finland. Other generic variables are used other places, but only these three are considered universal.

One last note: hackers never use foobar to mean fubar

Foobar ，

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。 ， foo

foobar， (：foo-bar. txt，foobar. gif，foobar. exe，foobar. tar ）。

foo foobar ，

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foo foobar。

foo foobar

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　　Foo·bar　　　　　　foobar　MIT、

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　　　　　　　：　　　　　　foobar　　　　fubar

📁:Computer Science

1️⃣:1999.10.20

FPM RAM   **RAM**

Short for Fast Page Mode RAM，a type of Dynamic RAM（DRAM）that allows faster access to data in the same row or page. Page-mode memory works by eliminating the need for a row address if data is located in the row previously accessed. It is sometimes called page mode memory.

FPM RAM is being replaced by newer types of memory，such as SDRAM.

RAM   ，

RAM   。

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:Hardware

1:2000.9.13

FQDN

A fully qualified domain name consists of a host and domain name, including top-level domain. For example, www. webopedia. com is a fully qualified domain name. www is the host, webopedia is the second-level domain, and. com is the top level domain.

A FQDN always starts with a host name and continues all the way up to the top-level domain name, so www. parc. xerox. com is also a FQDN.

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    .webopedia   ，   com   。

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            ，   www. parc. xerox. com

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📁:Network

1️⃣:2000. 4. 11

👉:domain name TLD

FRAD /

Short for Frame Relay Assembler/Disassembler，a communications device that breaks a data stream into frames for transmission over a Frame Relay network and recreates a data stream from incoming frames. A Frame Relay router serves the same purpose but provides more intelligence in avoiding congestion.

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:Network

1 :2000. 12. 13

:Networking Hardware

FreeBSD

A popular and free version of UNIX that runs on Intel microprocessors. FreeBSD is distributed in executable and source code form. The source code enables ambitious users to actually extend the operating system.

Another popular and free version of UNIX is Linux.

Intel   UNIX

。FreeBSD   。

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UNIX   Linux。

📁:Software

1️⃣:1996. 10. 24

📇:GNOME KDE open source

functional specification

A formal description of a software system that is used as a blueprint for implementing the program. At minimum, a functional specification should precisely state the purpose (e. g., the function) of the software. Depending on the software engineering methodology used, the functional specification might also provide implementation details, such as how the project is divided into modules and how the different modules interact. In addition, a functional specification often describes the software from the user's perspective -- how the user interface appears and how a user would use the program to perform specific functions.

A functional specification is often called a functional spec, or just spec.

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  📁:Software

  1️⃣:1998.1.7

GNOME GNU

Acronym for GNU Network Object Model Environment. (Pronounced guh-nome.) GNOME is part of the GNU project and part of the free software, or open source, movement. GNOME is a Windows-like desktop system that works on UNIX and UNIX-like systems and is not dependent on any one window manager. The current version runs on Linux, FreeBSD, IRIX and Solaris. The main objective of GNOME is to provide a user-friendly suite of applications and an easy-to-use desktop.

GNU   。GNOME   GNU

                                              。GNOME

          Windows   UNIX   UNIX

          ,   。

      Linux,FreeBSD,IRIX   Solaris。GNOME

                                                         。

📁:Operation System

1️⃣:2001. 1. 4

🖥:FreeBSD GNUKD Eopen source

GNU

Self-referentially，short for GNU's not UNIX，a UNIX -compatible software system developed by the Free Software Foundation (FSF). The philosophy behind GNU is to produce software that is non-proprietary. Anyone can download，modify and redistribute GNU software. The only restriction is that they cannot limit further redistribution. The GNU project was started in 1983 by Richard Stallman at the Massachusetts Institute of Technology.

Linux systems rely heavily on GNU software and in the past，GNU systems used the Linux kernel. This close connection has led some people to mistakenly equate GNU with Linux. They are actually quite separate. In fact，the FSF is developing a new kernel called HURD to replace the Linux kernel in GNU systems.

(FSF)   UNIX

。GNU

GNU

。GNU

1983 ，   Richard Stallman

Linux   GNU ，   GNU

Linux 。

GNU   Linux。

FSF   HURD   GNU

Linux 。

📁:Software

1️⃣:1997.6.25

👆:GNOME KDE open source

gopher

A system that pre-dates the World Wide Web for organizing and displaying files on Internet servers. A Gopher server presents its contents as a hierarchically structured list of files. With the ascendance of the Web, most Gopher databases are being converted to Web sites which can be more easily accessed via Web search engines.

Gopher was developed at the University of Minnesota and named after the school's mascot. Two systems, Veronica and Jughead, let you search global indices of resources stored in Gopher systems.

在 WWW

。 Gopher

。　　　　　　　　　　　　，　　　　　Gopher

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Gopher

。Veronica 和 Jughead　　　　　　　　　　　　　Gopher

。

📁:WWW

1️⃣:2001.1.5

🖱:World Wide Web

GPF

Short for General Protection Fault，a computer condition that causes a Windows application to crash. The most common cause of a GPF is two applications trying to use the same block of memory，or more specifically，one application trying to use memory assigned to another application.

The following situations can also cause GPFs.

Running an application with insufficient resources

Using improper hardware device drivers

Corrupted or missing Windows files

Applications exchanging data that cannot be read

GPFs are often preceded by an invalid page fault.

，   Windows

        。   GPF

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                    。

            GPF：

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Windows   。

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GPF   。

🗀:Operation System

1️⃣:1998. 5. 15

GPRS

General Packet Radio Service is a standard for wireless communications which runs at speeds up to 150 kilobits per second，compared with current GSM (Global System for Mobile Communications) systems' 9.6 kilobits.

GPRS，which supports a wide range of bandwidths，is an efficient use of limited bandwidth and is particularly suited for sending and receiving small bursts of data，such as e-mail and Web browsing，as well as large volumes of data.

150 Kb/s

，　　　　GSM(　　　　　　　　　)

9.6 KB　　　。

GPRS　　　　　　　　，

e-mail

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🗀:Standard

1⃣:1999.8.6

GPU

Used primarily for 3-D applications, a graphics processing unit is a single-chip processor that creates lighting effects and transforms objects every time a 3D scene is redrawn. These are mathematically-intensive tasks, which otherwise, would put quite a strain on the CPU. Lifting this burden from the CPU frees up cycles that can be used for other jobs.

The first company to develop the GPU is NVIDIA Inc. Its GeForce 256 GPU is capable of billions of calculations per second, can process a minimum of 10 million polygons per second, and has over 22 million transistors, compared to the 9 million found on the Pentium III. Its workstation version called the Quadro, designed for CAD applications, can process over 200 billion operations a second and deliver up to 17 million triangles per second.

The GeForce NVIDIA GPU card is compatible with the following graphics APIs : OpenGL and Microsoft's DirectX, Intel's Accelerated Graphics Port (AGP) technology and AMD 's 3DNow

The Quadro is an OpenGL specific card with driver support for Pentium III Xeon and AMD Athlon CPUs.

3-D   3D

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CPU   。   CPU

CPU   。

GPU   NVIDIA。   GeForce

256 GPU   ,

,   2 200   ,

Pentium III   900   。

Quadro   CAD   ,   2 000

1 700   。

GeForce   NVIDIA GPU   API :

OpenGL   DirectX、Intel   （AGP）

     AMD   Athlon CPU。

     Quadro   Pentium III Xeon   AMD   Ath-
lon CPU   OpenGL   。

     :Hardware

     1 ,1999. 11. 12

granularity

The extent to which a system contains separate components (like granules). The more components in a system -- or the greater the granularity -- the more flexible it is.

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📁:Hardware

1️⃣:1998. 11. 13

📷:modular architecture

graphics based

　　Refers to software and hardware that treat objects on a display screen as bit maps or geometrical shapes rather than as characters. In contrast，character-based systems treat everything as ASCII or extended ASCII characters.

　　All graphics software is by definition graphics based. Systems that manipulate text can also be graphics based; for example，desktop publishing systems are essentially graphics-based word processors.

　　Traditionally，most DOS applications -- word processors，spreadsheets，and database management systems -- have been character based. Windows and the Mac OS are graphics-based.

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　　　ASCII　　　　　　　ASCII　　　。

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　　，　　　　DOS　　　——　　　　　　　、

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Mac OS　　　　　。

　　▢:Graphics

　　1:1998. 5. 15

gray scaling

    The use of many shades of gray to represent an image. Continuous-tone images, such as black-and-white photographs, use an almost unlimited number of shades of gray. Conventional computer hardware and software, however, can only represent a limited number of shades of gray (typically 16 or 256). Gray-scaling is the process of converting a continuous-tone image to an image that a computer can manipulate.

    While gray scaling is an improvement over monochrome, it requires larger amounts of memory because each dot is represented by from 4 to 8 bits. At a resolution of 300 dpi, you would need more than 8 megabytes to represent a single 8 by 11-inch page using 256 shades of gray. This can be reduced considerably through data compression techniques, but gray scaling still requires a great deal of memory.

    Many optical scanners are capable of gray scaling, using from 16 to 256 different shades of gray. However, gray scaling is only useful if you have an output device -- monitor or printer -- that is capable of displaying all the shades. Most color monitors are capable of gray scaling, but the images are generally not as good as on dedicated gray-scaling monitors.

    Note that gray scaling is different from dithering. Dithering simulates shades of gray by altering the density and pattern of black and white dots. In gray scaling, each individual dot can have a different shade of gray.

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dpi   ，   8 MB   256

$8 \frac{1}{2} \times 11$ 。

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， $16 \sim 256$

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:Graphics

1 :1998. 5. 15

:continuous tone

GSM

Short for Global System for Mobile Communications，one of the leading digital cellular systems. GSM uses narrowband TDMA，which allows eight simultaneous calls on the same radio frequency. f

GSM was first introduced in 1991. As of the end o 1997，GSM service was available in more than 100 countries and has become the de facto standard in Europe and Asia.

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GSM 1991 。 1997 ，GSM 100

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📁：Mobile Computing

1️⃣：1997. 12. 3

☞：3G CDMA

Hacker

A slang term for a   enthusiast. Among professional ,
the term hacker implies an amateur or a programmer who
lacks formal training. Depending on how it used，the term
can be either complimentary or derogatory，although it is
developing an increasingly derogatory connotation. The pe-
jorative sense of hacker is becoming more prominent largely
because the popular press has coopted the term to refer to
individuals who gain unauthorized access to computer sys-
tems for the purpose of stealing and corrupting data. Hack-
ers，themselves，maintain that the proper term for such in-
dividuals is cracker.

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📁:Programming

1️⃣:1998. 1. 19

hand-held computer

A portable computer that is small enough to be held in one's hand. Although extremely convenient to carry, hand-held computers have not replaced notebook computers because of their small keyboards and screens. The most popular hand-held computers are those that are specifically designed to provide PIM (personal information manager) functions, such as a calendar and address book.

Some manufacturers are trying to solve the small keyboard problem by replacing the keyboard with an electronic pen. However, these pen-based devices rely on handwriting recognition technologies, which are still in their infancy.

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PIM(   )   、   。

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📁: Mobile Computing

📅: 1996. 9. 1

📰: Bluetooth EPOC palmtop PDA WAP WBMP
        Windows CE WTLS

HDLC

Short for High-level Data Link Control, a transmission protocol used at the data link layer (layer 2) of the OSI seven layer model for data communications. The HDLC protocol embeds information in a data frame tha allows devices to control data flow and correct errors. HDLC is an ISO standard developed from the Synchronous Data Link Control (SDLC) standard proposed by IBM in the 1970's.

For any HDLC communications session, one station is designated primary and the other secondary. A session can use one of the following connection modes, which determine how the primary and secondary stations interact.

＊ Normal unbalanced: The secondary station responds only to the primary station.

＊ Asynchronous: The secondary station can initiate a message.

＊ Asynchronous balanced: Both stations send and receive over its part of a duplex line. This mode is used for X. 25 packet-switching networks.

The Link Access Procedure-Balanced (LAP-B) and Link Access Procedure D-channel (LAP-D) protocols are subsets of HDLC.

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　　　　　　　　　（　　　）　　　　　。HDLC

　。HDLC　　　　　IBM20　　　70

　　　　（SDLC）　　　　　　　ISO　　。

　　　　HDLC　　　　，

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（LAP-B） D
（LAP-D） HDLC 。

:Communication

:2001. 10. 19

HDML

Handheld Device Markup Language is used to format content for Web-enabled mobile phones. HDML is phone. com's (formerly known as Unwired Planet) proprietary language，which can only be viewed on mobile phones that use phone. com browsers.

HDML came before the WAP standard was created. It uses phone. com's Handheld Device Transport Protocol (HDTP)，instead of WAP.

Phones access HDML sites the following way：

Once the URL is typed into the phone，the phone sends the request to phone. com's UP. Link gateway. The gateway sends a HTTP request to the Web server. The Web servers returns the page via HTTP back to the phone. com UP. Link gateway. The gateway sends the data via HDTP to the wireless carrier's network and down to the phone.

HDML and the phone. com gateway are most popular throughout North America. In Europe，WML and the Nokia WAP gateway and browser are the emerging standard. However，some versions of phone. com browsers do interpret basic WML.

To serve HDML pages，administrators must add the text/x-hdml mime type to their Web servers.

　　　　　　　。HDML　　　phone. com　　（　　　　　　　　　）
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HDML　　WAP　　　　　　　　　。　　　　phone. com
　　　　　　（HDTP），　　　WAP。
　　　　　　　　　HDML　　　：
　　　　　　　URL，　　　　phone. com
　　　　　。　　　　　　　　　　　　　　　　　　　HTTP

。 HTTP phone. com

。 HDTP

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HDML phone. com 。

,WML Nokia WAP

。 , phone. com WML

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HDML ,

text/x-hdml MIME 。

📁:Mobile Computing

1️⃣:2000. 5. 19

🖨:WAP WML WTLS

HDTV

Short for High-Definition Television，a new type of television that provides much better resolution than current televisions based on the NTSC standard. There are a number of competing HDTV standards，which is one reason that the new technology has not been widely implemented. All of the standards support a wider screen than NTSC and roughly twice the resolution. To pump this additional data through the narrow TV channels，images are digitized and then compressed before they are transmitted and then decompressed when they reach the TV.

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HDTV   ，

。   NTSC

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:Multimedia

:1997. 2. 26

heat sink

A component designed to lower the temperature of an electronic device by dissipating heat into the surrounding air. All modern CPUs require a heat sink. Some also require a fan. A heat sink without a fan is called a passive heat sink; a heat sink with a fan is called an active heat sink. Heat sinks are generally made of an aluminum alloy and often have fins.

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📁:Hardware

1️⃣:2000.2.11

🖨:CNR

Hercules graphics Hercules

A graphics display system for PCs developed by Van Suwannukul，founder of Hercules Computer Technology. Suwannukul developed the system so that he could produce his doctoral thesis on PC equipment using his native Thai alphabet.

First offered in 1982，the original Hercules system filled a void left by IBM's MDA（monochrome display adapter）system. MDA produces high-resolution monochrome text but cannot generate graphics. Hercules systems generate both high-resolution text and graphics for monochrome monitors. The resolution is 720 by 348.

Hercules has been supplanted by other standards，such as VGA，and is now obsolete.

Hercules   Van Suwannukul   。Suwannukul

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Hercules   1982   ,   IBM
MDA(   )   。MDA
                            。Hercules

    。   720×348。
Hercules   VGA   ,

    。
📁：Multimedia
1️⃣：2000.12.14

HPC

A branch of computer science that concentrates on developing supercomputers and software to run on supercomputers. A main area of this discipline is developing parallel processing algorithms and software: programs that can be divided into little pieces so that each piece can be executed simultaneously by separate processors.

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:Programming

:2000. 12. 11

:parallel processing

HiperLAN

Short for high performance radio local area network. Developed by the European Telecommunications Standards Institute，HiperLAN is a set of WLAN communication standards used chiefly in European countries. HiperLAN is similar to the IEEE 802. 11 WLAN standards used in the U. S.

There are two types of HiperLAN：

HiperLAN/1：provides communications at up to 20 Mbps in the 5 GHz band.

HiperLAN/2：provides communications at up to 54 Mbps in the 5 GHz band.

Like 802. 11，HiperLAN serves to ensure the possible interoperability of different manufacturers' wireless communications equipment that operate in this spectrum.

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HiperLAN   WLAN
  。 HiperLAN   IEEE 801. 11 WLAN
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              HiperLAN：
HiperLAN/1：   5 GHz   20 Mbps
    。
HiperLAN/2：   5 GHz   54 Mbps
     。
   802. 11   ，HiperLAN

                                          。

📁:communication

📅:2001. 5. 2

🔗:802. 11 Ethernet Wi-Fi WLAN

hit   /

1. The retrieval of any item，like a page or a graphic，from a Web server. For example，when a visitor calls up a Web page with four graphics，that's five hits，one for the page and four for the graphics. For this reason，hits often aren't a good indication of Web traffic. See page view.

2. Any time a piece of data matches criteria you set. For example，each of the matches from a Yahoo or any other search engine search is called a hit.

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          5   ，1   ，4   。   ，hint

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hoo   。

:WWW

:1998. 10. 28

HMD

Short for head-mounted display，a headset used with virtual reality systems. An HMD can be a pair of goggles or a full helmet. In front of each eye is a tiny monitor. Because there are two monitors，images appear as three-dimensional. In addition，most HMDs include a head tracker so that the system can respond to head movements. For example，if you move your head left，the images in the monitors will change to make it seem as if you're actually looking at a different part of the virtual reality.

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📁：Hardware
1️⃣：2000. 11. 28

Honeypot

An Internet-attached server that acts as a decoy, luring in potential hackers in order to study their activities and monitor how they are able to break into a system. Honeypots are designed to mimic systems that an intruder would like to break into but limit the intruder from having access to an entire network. If a honeypot is successful, the intruder will have no idea that s/he is being tricked and monitored. Most honeypots are installed inside firewalls so that they can better be controlled, though it is possible to install them outside of firewalls. A firewall in a honeypot works in the opposite way that a normal firewall works: instead of restricting what comes into a system from the Internet, the honeypot firewall allows all traffic to come in from the Internet and restricts what the system sends back out.

By luring a hacker into a system, a honeypot serves several purposes:

The administrator can watch the hacker exploit the vulnerabilities of the system, thereby learning where the system has weaknesses that need to be redesigned.

The hacker can be caught and stopped while trying to obtain root access to the system.

By studying the activities of hackers, designers can better create more secure systems that are potentially invulnerable to future hackers.

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honeypot

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📁:WWW

1️⃣:2001. 2. 7

Hop

An intermediate connection in a string of connections linking two network devices. On the Internet, for example, most data packets need to go through several routers before they reach their final destination. Each time the packet is forwarded to the next router, a hop occurs. The more hops, the longer it takes for data to go from source to destination. You can see how many hops it takes to get to another Internet host by using the PING or traceroute utilities.

Some Internet Service Providers (ISPs) advertise how many hops away from Internet backbone they are. Theoretically, the fewer hops it takes to get your data onto the backbone, the faster your access will be.

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　　　　。　　　PING　　traceroute

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　　　　　　（ISP）

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　:Network

　1:1998.3.5

hot fixing

In a Microsoft NT File System (NTFS), hot fixing of disk sectors prevents data from being stored in a bad sector or cluster. During a hot fix, the operating system automatically detects bad disk sectors, relocates the data to a safe cluster and marks the bad cluster as unusable to the system. This process is transparent to the user, requires no interaction on the user's part and does not report any error messages (such as Abort, Retry or Fail) to any applications.

　　　　　　Microsoft NT　　　　　(NTFS)，

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📁:hardware

1️⃣:2001.4.4

hot potato routing

hot potato routing, or deflection routing, the nodes of a network have no buffer to store packets in before they are moved on to their final predetermined destination. In normal routing situations, when multiple packets contend for a single outgoing channel, packets that are not buffered are dropped to avoid congestion. But in hot potato routing, each packet that is routed is constantly transferred until it reaches its final destination because the individual communication links can not support more than one packet at a time. The packet is bounced around like a "hot potato," sometimes moving further away from its destination because it has to keep moving through the network. This technique allows multiple packets to reach their destinations without being dropped. This is in contrast to "store and forward" routing where the network allows temporary storage at intermediate locations. Hot potato routing has applications in optical networks where messages made from light can not be stored in any medium.

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📁:network

1️⃣:2001. 2. 8

👉:OSPF

HPNA

Also referred to as HomePNA. A de facto home networking standard developed by the Home Phoneline Networking Alliance. This technology, building on Ethernets, allows all the components of a home network to interact over the home's existing telephone wiring without disturbing the existing voice or fax services. In the same way a LAN operates, home networking processes, manages, transports and stores information, which enables the disparate devices in a home network such as telephones, fax machines, desktops, laptops, printers, scanners and Web cameras to connect and integrate over a home's unpredictable wiring topology.

HPNA technology must coexist with telephone service and comply with FCC Part 68.

HomePNA。
（Home Phoneline Networking Alliance）

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HPNA　　　　　　　　　　　　FCC

Part 68。

📁:Network

📅:2001.1.17

☞:Bluetooth collapsed backbone Ethernet local-area network mesh topology

HSSI

Short for High-Speed Serial Interface. HSSI is a serial interface that supports transmission rates up to 52 Mb/s. It is used to connect routers on local area networks with wide area networks over a 680x0 or similar high-speed line. HSSI can also be used to provide high-speed connectivity between LANs，such as token ring and Ethernet.

HSSI is a DTE /DCE interface developed by Cisco Systems and T3plus Networking to address the need for high-speed communication over WAN links.

。HSSI 52 Mb/s 。

680x0 。HSSI LAN 。

HSSI Cisco T3plus DTE/DCE WAN 。

📁:network

1️⃣:2001. 3. 8

🖧:topology WLAN

HRMS

A Human Resources Management System (HRMS) is a software application that combines many human resources functions, including benefits administration, payroll, recruiting and training, and performance analysis and review into one package.

Application Service Provider

(HRMS) ,

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: sotftware

: 2001. 4. 20

Hyperstitial

Hyperstitial -- A companion application，developed in
the Fall of 1997 by San Francisco based software develop-
ment firm Streamix Corp. As a cure for the World Wide
Wait，HyperStitial technology is an application that runs a-
longside a browser，allowing advertisers to present full-
screen ads during the delay of Web page downloads. As us-
ers wait for the content of a Web site to be displayed，or
downloaded，Hyperstital "ads" are displayed in a similar
manner as television commercials. Viewers are subjected to
the advertisements，which are more difficult to ignore than
the common banner ad.

Hyperstital——   ，1997
Streamix   。 Hyperstitial

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                 。   ，Hyperstitial

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  🗀:WWW

  📅:1999. 1. 22

  🎞:SUPERSTITIAL

IANA

Short for Internet Assigned Numbers Authority，an organization working under the auspices of the Internet Architecture Board（IAB）that is responsible for assigning new Internet-wide IP addresses.

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（IAB）   ，IAB

IP   。

📁:WWW

1️⃣:2000.5.29

ICANN

ICANN (Internet Corporation for Assigned Names and Numbers) was created by the late Jon Postel in the fall of 1998 in response to a policy statement issued by the US Department of Commerce. This statement called for the formation of a private sector not-for-profit Internet stakeholder to administer policy for the Internet name and address system.

Thus far ICANN has taken various measures to oversee the domain-name registration system's transition from government hands to private hands and to coordinate the its decentralization and integration into a global community.

Currently, ICANN is conducting a test to see how a multiple-registrars system to provide registration services for all the top-level domain names will work. The six participants are America Online Inc., The Internet Council of Registrars, France Telecom/Oleane, Melbourne IT, an Australian e-commerce company, and register. com.

The test is scheduled to end on June 26. If it succeeds, there will be no limit to the number of companies that can register domains.

ICANN's diverse board consists of nineteen Directors, nine At-Large Directors, who serve one-year terms and will be succeeded by At-Large Directors elected by an at-large membership organization. None of the present interim directors may sit on the board once the permanent members are selected.

ICANN(   )   Jon Postel   1998   ,

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register. com。

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ICANN　　　　　　　　　　　19　　　，9　　　　，

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📁:WWW

1️⃣:1999. 5. 25

IDNX

Short for Integrated Digital Network Exchange, a technology that multiplexes voice, data, and video onto multiple T1/E1 backbones. Allowing integration of equipment from different vendors, IDNX is an integrated packet/circuit switch providing frame-relay adaption for X. 25 packet switches, SNA communications processors and other HDLC-based devices. IDNX concentrates and routes this traffic along with Ethernet and token-ring LAN-generated frame-relay frames, over private or public frame-relay networks. IDNX also supports voice/fax compression, ISDN and switched 56K/64K call setup, and digital cross-connection.

The IDNX family has been functionally superceded by the Promina family of ATM switching platforms, and in particular the Promina 800 Series Multiservice Access Platform that provides an enhanced chassis and bus system to the IDNX while being able to make use of IDNX modules.

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          IDNX   /   ，

X. 25   、SNA   HDLC

            。 IDNX

               LAN

  。 IDNX   /   ，ISDN   56K/64K

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    IDNX   ATM   ，

Promina 800   ，

  IDNX   ，

  IDNX   。

    📁:network

    1️⃣:2001. 4. 24

247 ILEC

ILEC

Short for incumbent local exchange carrier. An ILEC is a telephone company that was providing local service when the Telecommunications Act of 1996 was enacted. Compare with CLEC，a company that competes with the already established local telephone business.

ILEC

1996 。

CLEC ，ILEC

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📁:communication

1️⃣:2001. 2. 23

☞:ISP OLEC

IMA ATM

Short for inverse multiplexing over ATM. IMA is a physical layer technology in which a high-speed stream of ATM cells is broken up and transmitted across multiple T1/E1 links，then is reconstructed back into the original ATM cell order at the destination. For companies with low to mid-range WAN requirements，the purchase of costly T3/E3 access is not a viable solution. IMA divides an aggregate stream of ATM cells across multiple T1/E1 WAN links on a cell-by-cell basis，mimicking the behavior of transmissions across T3/E3 lines.

IMA is a User-to-Network Interface standard approved by the ATM Forum in 1997.

ATM   。IMA
    ,   ATM
T1/E1   ,
ATM   。   WAN
    ,T3/E3   。
IMA   T1/E1 WAN   ATM
                                    ,
T3/E3   。

　　📁:network

　　1️⃣:2001.3.1

　　🖧:Ethernet FDDI

iMac

An Apple computer intended for home，school，and small offices，and promoted by Apple as an easy-to-use, stylish computer that outperforms other low-cost options. The computer comes equipped with a 233MHz G3 processor -- which Apple has advertised as faster than the Pentium 400MHz Pentium IIPC processor -- 32 MB SDRAM, 4GB hard disk drive，a 56 Kb/s modem，and a Universal Serial Bus（USB），which allows a user to add devices without restarting the computer. The iMac does not come with a floppy disk drive，which has raised concerns with some critics and users. Easily recognizable for its translucent blue casing，the computer sold quickly after its introduction in August 1998.

Apple   、

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            。   233 MHz G3

——Apple   Pentium 400 MHz

——32 MB SDRAM，4 GB   ，   56 Kb/s

                    （USB），

                        。 iMac

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                    1998   8

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📁:Hardware

1️⃣:1998. 10. 2

🖳:Macintosh computer USB

impact printer

Refers to a class of printers that work by banging a head or needle against an ink ribbon to make a mark on the paper. This includes dot-matrix printers, daisy-wheel printers, and line printers. In contrast, laser and ink-jet printers are nonimpact printers. The distinction is important because impact printers tend to be considerably noisier than nonimpact printers but are useful for multipart forms such as invoices.

📁:Hardware

1️⃣:2000.12.5

impression

An advertisement's appearance on an accessed Web page. For example, if the page you're on shows three ads, that's three impressions. Advertisers use impressions to measure the number of views their ads receive, and publishers often sell ad space according to impressions. (It can be tough to know, though, whether an impression really means a visitor saw the ad, since they could be browsing without graphics or might not have scrolled down far enough.) Impressions are tracked in a log maintained by a site server and are often sold on a cost per thousand (CPM) basis.

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🗁:WWW

1️⃣:1998.10.28

information highway

A popular buzzword to describe the Internet，bulletin board services，online services，and other services that enable people to obtain information from telecommunications networks. In the U. S. ，there is currently a national debate about how to shape and control these avenues of information. Many people believe that the information highway should be designed and regulated by government，just like conventional highway systems. Others argue that government should adopt a more laissez faire attitude. Nearly everyone agrees that accessing the information highway is going to be a normal part of everyday life in the near future.

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:Online Service

1 :1998. 5. 15

:bulletin board system

intelligent agent

Programs，used extensively on the Web，that perform tasks such as retrieving and delivering information and automating repetitive tasks. More than 50 companies are currently developing intelligent agent software or services，including Firefly and WiseWire.

Agents are designed to make computing easier. Currently they are used as Web browsers，news retrieval mechanisms，and shopping assistants. By specifying certain parameters，agents will "search" the Internet and return the results directly back to your PC.

Push technology relies on agents to deliver pre-selected information to your desktop. Some intelligent agents are also used as tools to track Web behavior：they can even "watch" as your surf the Net and record how often you visit certain sites. Later，they can be used to automatically download your favorite sites，let you know when your favorite site has been updated，and even tailor specific pages to suit your tastes.

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， Firefly WiseWire。

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Push

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:Programming

:1998. 7. 21

Interior Gateway Routing

Interior Gateway Routing Protocol (IGRP) is a proprietary network protocol, developed by Cisco Systems, designed to work on autonomous systems. IGRP is a distance-vector routing protocol, which means that each router sends all or a portion of its routing table in a routing message update at regular intervals to each of its neighboring routers. A router chooses the best path between a source and a destination. Since each path can comprise many links, the system needs a way to compare the links in order to find the best path. A system such as RIP uses only one criteria -- hops -- to determine the best path. IGRP uses five criteria to determine the best path: the link's speed, delay, packet size, loading and reliability. Network administrators can set the weighting factors for each of these metrics.

(IGRP)　　　　Cisco

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　　:network

　　:2001.3.29

　　:Enhanced Interior Gateway Routing Protocol OSPF VRRP

interrupt

(n) A signal informing a program that an event has occurred. When a program receives an interrupt signal, it takes a specified action (which can be to ignore the signal). Interrupt signals can cause a program to suspend itself temporarily to service the interrupt.

Interrupt signals can come from a variety of sources. For example, every keystroke generates an interrupt signal. Interrupts can also be generated by other devices, such as a printer, to indicate that some event has occurred. These are called hardware interrupts. Interrupt signals initiated by programs are called software interrupts. A software interrupt is also called a trap or an exception.

PCs support 256 types of software interrupts and 15 hardware interrupts. Each type of software interrupt is associated with an interrupt handler -- a routine that takes control when the interrupt occurs. For example, when you press a key on your keyboard, this triggers a specific interrupt handler. The complete list of interrupts and associated interrupt handlers is stored in a table called the interrupt vector table, which resides in the first 1 K of addressable memory.

(v) To send an interrupt signal.

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     PC   256   15

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　　　　　　　　　1K　。

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📁 :Operation System

1️⃣ :1998. 5. 16

🔧 :interrupt vector table IRQ

interrupt vector table

A table of interrupt vectors (pointers to routines that handle interrupts). On PCs, the interrupt vector table consists of 256 4-byte pointers, and resides in the first 1 K of addressable memory. Each interrupt number is reserved for a specific purpose. For example, 16 of the vectors are reserved for the 16 IRQ lines.

An interrupt vector table is also called a dispatch table.

中断向量（指向处理中断的例程的指针）表。PC 机中，中断向量表由 254 个 4 字节的指针组成，驻留在可寻址内存的头 1 K 区域。每个中断号都保留作特定用途。例如，其中 16 个向量为 16 个 IRQ 线路保留。

中断向量表也称为调度表。

📁：Operation System

1️⃣：1998.3.1

☞：IRQ

Interstitial

    Meaning in between，an advertisement that appears in a separate browser window while you wait for a Web page to load．Interstitials are more likely to contain large graphics，streaming presentations，and applets than conventional banner ads，and some studies have found that more users click on interstitials than on banner ads．Some users，however，have complained that interstitials slow access to destination pages．

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      applet，

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📁：WWW

📅：1998．10．15

🖼：Hyperstitial SUPERSTITIAL World Wide Web

IPP

The Internet Printing Protocol was first drafted between Novell and Xerox with necessary support from Internet Engineering Task Force (IETF). The idea behind the IPP is to define a protocol for end users' most common printing situations over the Internet. The IPP will be used to accommodate these four functions:

Allow a user to find out about a printer's capabilities

Allow a user to submit print jobs to a printer

Allow a user to find out the status of a printer or a print job

Allow a user to cancel a previously submitted job

IPP will be transferred using the HTTP/1. 1 protocol because HTTP/1. 1 has the ability to perform multiple transfers over a single TCP connection and because it is the most widely accepted protocol in the Internet marketplace.

Novell   Xerox   ，

　　　　　　　　　　（IETF）　　　　　　。IPP

　　　　　　。IPP　　　　　　　　　　4　　　　：

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IPP　　　　　　HTTP/1. 1　　　　　　　，　　　　HTTP/1. 1

　　　　　　　　TCP　　　　　　　　　　　　，

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📁:Standard

1️⃣:1999. 5. 10

IPP

Short for Internetwork Packet Exchange, a networking protocol used by the Novell NetWare operating systems. Like UDP/IP, IPX is a datagram protocol used for connectionless communications. Higher-level protocols, such as SPX and NCP, are used for additional error recovery services.

Novell NetWare

UDP/IP ，IPX

SPX NCP 。

📁：Network

1️⃣：1997.1.6

🖘：SPX

ISAM

Abbreviation for Indexed Sequential Access Method，a method for managing how a computer accesses records and files stored on a hard disk. While storing data sequentially，ISAM provides direct access to specific records through an index. This combination results in quick data access regardless of whether records are being accessed sequentially or randomly.

There are a number of products that provide basic ISAM access for different operating systems and program languages.

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，ISAM

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:Data

1 :1997. 11. 25

ISV

Short for Independent Software Vendor，a company that produces software.

，   。

:Computer Industry Companies

:1998. 1. 14

IT

　　Short for Information Technology，and pronounced as separate letters，the broad subject concerned with all aspects of managing and processing information，especially within a large organization or company. Because computers are central to information management，computer departments within companies and universities are often called IT departments. Some companies refer to this department as IS (Information Services) or MIS (Management Information Services).

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　。　　　　　　　　　IS(　　　)　　MIS(

　　　)。

:Computer Science

1 :1997. 11. 25

:MIS

Itanium

A member of Intel's new Merced family of processors，Itanium is a 64-bit RISC microprocessor. Based on the EPIC (Explicitly Parallel Instruction Computing) design philosophy，which states that the compiler should decide which instructions be executed together，Itanium has the highest FPU power available.

In 64-bit mode，Itanium is able to calculate two bundles of a maximum of three instructions at a time. In 32-bit mode，it is much slower. Decoders must first translate 32-bit instruction sets into 64-bit instruction sets，which results in extra-clock cycle use.

Itanium's primary use is driving large applications that require more than 4 GB of memory，such as databases，ERP，and future Internet applications.

       Intel   ，Itanium

  64   RISC   。Itanium   EPIC(

)   ，

         ，   Itanium   FPU

  。

    64   ，Itanium   3

    。   32   ，   。

32   64   ，

    。

  Itanium   4 GB

     ，   ，ERP   。

📁:Hardware

1️⃣:2000. 10. 9

☞:ERP RISC

IVR

Short for interactive voice response. A telephony technology in which someone uses a touch-tone telephone to interact with a database to acquire information from or enter data into the database. IVR technology does not require human interaction over the telephone as the user's interaction with the database is predetermined by what the IVR system will allow the user access to. For example，banks and credit card companies use IVR systems so that their customers can receive up-to-date account information instantly and easily without having to speak directly to a person. IVR technology is also used to gather information，as in the case of telephone surveys in which the user is prompted to answer questions by pushing the numbers on a touchtone telephone.

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IVR　　　　　　　　　　　　　　　　。　　　　，

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🗀: WWW

📅: 2001. 2. 13

☞: CRM EAI

Jabber   (   )

1) an error in which a faulty device (usually a NIC) continuously transmits corrupted or meaningless data onto a network. This may halt the entire network from transmitting data beacuse other devices will perceive the network as busy.

2) a sent data packet greater than the maximum 1518 bytes specified in IEEE 802. 3. To prevent this，jabber control should be added to the hardware to make the circuitry incapable of sending information for more than 150 milliseconds (approximately 1500 bytes).

1) (   )

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2)   IEEE 802. 3   1 518

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150 ms(1 500   )

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📁: Network

📅: 2000. 2. 21

🔌: network interface card

Java

A high-level programming language developed by Sun Microsystems. Java was originally called OAK，and was designed for handheld devices and set-top boxes. Oak was unsuccessful so in 1995 Sun changed the name to Java and modified the language to take advantage of the burgeoning World Wide Web.

Java is an object-oriented language similar to C＋＋，but simplified to eliminate language features that cause common programming errors. Java source code files（files with a . java extension）are compiled into a format called bytecode（files with a . class extension），which can then be executed by a Java interpreter. Compiled Java code can run on most computers because Java interpreters and runtime environments，known as Java Virtual Machines（VMs），exist for most operating systems，including UNIX，the Macintosh OS，and Windows. Bytecode can also be converted directly into machine language instructions by a just-in-time compiler（JIT）.

Java is a general purpose programming language with a number of features that make the language well suited for use on the World Wide Web. Small Java applications are called Java applets and can be downloaded from a Web server and run on your computer by a Java-compatible Web browser，such as Netscape Navigator or Microsoft Internet Explorer.

　　　　　　　Sun　　　　　　　　　　　　　　。Java
　　OAK，　　　　　　　　　　　　　　。Oak
　，　　　1995　Sun　　　　　　　Java
　　　　　　　　　　　WWW。
　　Java　　　C＋＋　　　　　　　　　　，
　　　　　　　　　　　　　　　　　　　　　　。
Java　　　　　　　（　　. java　　　）

(. class) , Java

。 Java

Java , Java (VM),

, UNIX、Macintosh OS

Windows。

(JIT) 。

Java .

WWW 。 Java

Java applet, Java

Netscape Navigator IE

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📁:Software

1️⃣:1996. 9. 1

👉:ActiveX bytecode JavaBeans JDBC Jini JIT JNI
   JVM icoJava thin client virtual machine

JavaBeans

A specification developed by Sun Microsystems that defines how Java objects interact. An object that conforms to this specification is called a JavaBean, and is similar to an ActiveX control. It can be used by any application that understands the JavaBeans format.

The principal difference between ActiveX controls and JavaBeans are that ActiveX controls can be developed in any programming language but executed only on a Windows platform, whereas JavaBeans can be developed only in Java, but can run on any platform.

Sun   ，   Java

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JavaBean，   ActiveX   。

JavaBean   。

ActiveX   JavaBean   , ActiveX

Win-

dows   ，   JavaBean   Java   ，

。

🗀:Software

1️⃣:1997.1.29

☞:Java

JDBC Java

Short for Java Database Connectivity，a Java API that enables Java programs to execute SQL statements. This allows Java programs to interact with any SQL-compliant database. Since nearly all relational database management systems（DBMSs）support SQL，and because Java itself runs on most platforms，JDBC makes it possible to write a single database application that can run on different platforms and interact with different DBMSs.

JDBC is similar to ODBC，but is designed specifically for Java programs，whereas ODBC is language-independent.

JDBC was developed by JavaSoft，a subsidiary of Sun Microsystems.

Java ， Java SQL Java API。 Java

SQL 。

（DBMS） SQL Java

，JDBC

DBMS

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JDBC ODBC ， Java

， ODBC 。

JDBC Sun JavaSoft 。

:Programming

1 ;1997.2.14

JDK Java

Short for Java Development Kit，a software development kit（SDK）for producing Java programs. The JDK is developed by Sun Microsystem's JavaSoft division. The most recent version，1. 1，includes the JavaBeans component architecture and support for JDBC.

Java   ，   Java
                    （SDK）。JDK   Sun
JavaSoft   。   1. 1，   JavaBean
            JDBC。

📁:Programming

1️⃣:2000. 10. 2

☞:JavaBeans

Jini

（pronounced GEE-nee; loosely derived from the Arabic for magician）Software from Sun Microsystems that seeks to simplify the connection and sharing of devices, such as printers and disk drives, on a network. Currently adding such devices to a computer or network requires installation and boot-up, but a device that incorporates Jini will announce itself to the network, provide some details about its capabilities, and immediately become accessible to other devices on the network. Under this technology it would be possible to create distributed computing, whereby capabilities are shared among the machines on a common network. This would allow users to access the power and features of any device on the network and would free the desktop computer from holding all the memory, storage and processing power it needs for any job. For example, if a disk drive on a network had Jini capabilities, any computer on that network could use the drive as though it were its own. Because Jini has the potential to make operating systems incidental to the power of networks, some have seen Jini as an attempt to reduce the influence of Windows.

The software works by passing snippets of programs, called applets, back and forth among devices. Any computer that can run Java will be able to access the code and data that passes among devices.

Sun will offer a free license for the Jini code and plans its first full release by the end of 1998.

（   ）Sun

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Jini　　　　　　　　　　　，

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Jini   Windows   。

，   applet。

Java

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Sun   Jini   ，   1998

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📁:Software

1️⃣:1998. 8. 18

🖨:JVM virtual machine

JIT

Short for just-in-time compiler，a code generator that converts Java bytecode into machine language instructions. Some Java Virtual Machines（VMs），including the VM in the Netscape Navigator browser，include a JIT in addition to a Java interpreter. Java programs compiled by a JIT generally run much faster than when the bytecode is executed by an interpreter.

即时编译器，是一种代码生成器，将 Java 字节码转换成机器语言指令。某些 Java 虚拟机（VM），包括 Netscape 导航器浏览器中的 VM，除了 Java 解释器外，还包括一个 JIT。Java 程序经过 JIT 编译后，一般要比用解释器执行字节码快得多。

📁:Programming

1️⃣:2000. 9. 26

🔗:bytecode virtual machine

JNI Java

(Java Native Interface) A Java programming inter-
face, or API, that allows developers to access the langua-
ges of a host system and determine the way Java integrates
with native code. The JNI has been a point of contention
between Sun and Microsoft, since Microsoft seeks to create
its own native code interface and Sun claims this violates
their licensing agreement.

(Java　　　　) 　Java　　　　, 　　API，
　　　　　　　　　　，　　　　　Java
　　　。JNI　　　　Sun
　　　　，
　Sun　　　　　　　　　　　　　。

🗀: Software

[1]: 1998. 9. 8

👉: JVM virtual machine

journaled file system

A file system in which the hard disk maintains data integrity in the event of a system crash or if the system is otherwise halted abnormally. The journaled file system (JFS) maintains a log, or journal, of what activity has taken place in the main data areas of the disk; if a crash occurs, any lost data can be recreated because updates to the metadata in directories and bit maps have been written to a serial log. The JFS not only returns the data to the pre-crash configuration but also recovers unsaved data and stores it in the location it would have been stored in if the system had not been unexpectedly interrupted.

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(JFS)   ，

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。 JFS   ，

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:Computer Science

:2001. 1. 29

JPEG

Short for Joint Photographic Experts Group，and pronounced jay-peg. JPEG is a lossy compression technique for color images. Although it can reduce files sizes to about 5% of their normal size，some detail is lost in the compression.

。JPEG

。 5%，

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▭:WWW

1️⃣:1997.2.19

Jscript

JScript is Microsoft 's extended implementation of EC-MAScript (ECMA262), an international standard based on the Netscape 's JavaScript and Microsoft's JScript langua-ges. JScript is implemented as a Windows Script engine. This means that it can be "plugged in" to any application that supports Windows Script, such as Internet Explorer, Active Server Pages, and Windows Script Host. It also means that any application supporting Windows Script can use multiple languages - JScript, VBScript, Perl, and oth-ers.

JScript (and the other languages) can be used for both simple tasks (such as mouseovers on Web pages) and for more complex tasks (such as updating a database with ASP or running logon scripts for Windows NT). Windows Script relies on external "object models" to carry out much of its work. For example, Internet Explorer's DOM pro-vides objects such as 'document' and methods such as 'write ()' to enable the scripting of Web pages.

    Jscript   ECMAScript (ECMA262)

      ,   ECMAScript   Netscape

JavaScript   Jscript   。Jscript

         Windows   Script   。

    "   "   Windows Script   , In-ternet Explorer, Active Server Pages   Windows Script Host。   Script

         ——Jscript、VBScript、Perl   。

    Jscript(   )

(   )   (

ASP   Windows NT   scripts)。

Windows Script   "   "   。

    ,Internet Explores   DOM   "document"

       "write()"   。

    📁:Programming

    1️⃣:2000.11.13

Jukebox

A device that stores numerous CD-ROMs and uses a mechanical arm，carousel or other device to bring the disk to an optical station for reading and writing. A jukebox can reside in a PC or be an external device. Some of the larger jukeboxes hold as many as 500 disks and have multiple readers and drives to allow a network of users to simultaneously access data.

CD-ROM   、

                                                          。

PC

。   500

                                            。

📁：Hardware

1️⃣：1998. 9. 29

Jumper

A metal bridge that closes an electrical circuit. Typically，a jumper consists of a plastic plug that fits over a pair of protruding pins. Jumpers are sometimes used to configure expansion boards. By placing a jumper plug over a different set of pins，you can change a board's parameters.

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:Hardware

1 :200.12.22

:configuration expansion board

JVM Java

Acronym for Java Virtual Machine. An abstract computing machine, or virtual machine, JVM is a platform-independent programming language that converts Java bytecode into machine language and executes it. Most programming languages compile source code directly into machine code that is designed to run on a specific microprocessor architecture or operating system, such as Windows or UNIX. A JVM -- a machine within a machine -- mimics a real Java processor, enabling Java bytecode to be executed as actions or operating system calls on any processor regardless of the operating system. For example, establishing a socket connection from a workstation to a remote machine involves an operating system call. Since different operating systems handle sockets in different ways, the JVM translates the programming code so that the two machines that may be on different platforms are able to connect.

{JP2JVMs are not the only virtual machines being used today.

Java　　　　(Java Virtual Machine)　　　　　　。

　　　　　　　，　　　　　　　　。JVM

　　　，　　Java　　　　　　　　　　　　。

　　　　　　　　Windows、UNIX　　　　　　。

　　JVM——　　　　　　　——　　　　　Java

va　　　，

　　Java　　　　　　　　　　　　。　　，

　　　　　　　socket

　　。　　　　　　　　　　　　socket，

JVM

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　　　JVM　　　　　　　　　　　　。

📁 :programming

📅 :2001.1.19

☞ :Java Jini JIT JNI

KDE K

Acronym for K Desktop Environment. A network-transparent contemporary desktop environment for UNIX workstations. KDE is part of the free software, or open source, movement, which competes with the more common commercial operating system /desktop platforms on the market. KDE is free to anyone and its source code is available to anyone to modify. Development of KDE takes place across the Internet where users share information with each other regarding current developments of the system.

K   。   UNIX
                ，KDE
    ，   /
  。 KDE   ，
            。 KDE   ，
                              。

:Operation System

:2001. 1. 19

:FreeBSD GNOME GNU open source

kernel

The central module of an operating system. It is the part of the operating system that loads first，and it remains in main memory. Because it stays in memory，it is important for the kernel to be as small as possible while still providing all the essential services required by other parts of the operating system and applications. Typically，the kernel is responsible for memory management，process and task management，and disk management.

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📁：Operation System

1️⃣：2000.12.9

🖥：Operating Systemskernel32.dll

kernel32. dll

Kernel32. dll is the 32-bit dynamic link library found in the Windows operating system kernel. It handles memory management，input/output operations，and interrupts. When Windows boots up，kernel32. dll is loaded into a protected memory space so other applications do not take that space over.

On occasion，though，users may encounter the "invalid page fault" error.

This error occurs when a program or application tries to access kernel32. dll's protected memory space. Sometimes the error is caused by one particular program or application，and other times it is provoked by multiple files and applications.

If the problem results from running one application，then the application needs to be replaced. If the problem occurs when accessing multiple files and applications，the corruption is probably caused by faulty hardware.

Kernel32. dll Windows 32 。 、 / 。 Windows ，Kernel32. dll ， 。 " " 。 Kernel32. dll 。 ， 。 ， 。 。

:Operation System

:1999. 11. 29

:kernel operating system

key /

(1) A button on a keyboard.

(2) In database management systems, a key is a field that you use to sort data. It can also be called a key field, or index. For example, if you sort records by age, then the age field is a key. Most database management systems allow you to have more than one key so that you can sort records in different ways. One of the keys is designated the primary key, and must hold a unique value for each record. A key field that identifies records in a different table is called a foreign key.

(3) A password or table needed to decipher encoded data.

(1)   。

(2)   ,

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                                    。

(3)   。

□:Data

1:1998.6.1

KQML

Short for Knowledge Query and Manipulation Language. KQML is a language and protocol for exchanging information and knowledge. Programs use KQML to communicate attitudes about information, such as querying, stating, believing, requiring and subscribing. It is both a message format and a message-handling protocol that supports run-time knowledge sharing among agents. KQML can be used as a language for an application program to interact with an intelligent system or for disparate intelligent systems to share knowledge in support of cooperative problem solving. The language is indifferent to the format of the information itself, thus KQML expressions can contain subexpressions in other languages. It also is complementary to newer approaches to distributed computing such as CORBA.

KQML is part of the ARPA Knowledge Sharing Effort, which is a consortium to develop conventions facilitating the sharing and reuse of knowledge bases and knowledge-based systems. Its goal is to define, develop, and test infrastructure and supporting technology to enable participants to build much bigger and more broadly functional systems than could be achieved working alone.

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KQML

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。   ,   KQML

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CORBA   。

📁:programming

1️⃣:2001. 4. 24

☞:CORBA

L2TP

Short for Layer Two Tunneling Protocol，an extension to the PPP protocol that enables ISPs to operate Virtual Private Networks (VPNs). L2TP merges the best features of two other tunneling protocols：PPTP from Microsoft and L2F from Cisco Systems. Like PPTP，L2TP requires that the ISP's routers support the protocol.

，　　　　　PPP　　　　　，

ISP　　　　　　　　　(VPN)。L2TP

　　　　　　　：　　　　　PPTP　Cisco

　　L2F。　PPTP　，L2TP　ISP

　　。

:Communication

1 :2000. 10. 13

:dial-up access

LATA

Local Access and Transport Area is a U. S. term that refers to a geographic region assigned to one or more telephone companies for providing communication services.

A connection between two telephone companies within the same region is referred to as intraLATA. A connection between two local exchange carriers in different regions is called interLATA，which is the same as long-distance service.

Provisions guiding the use of LATAs are outlined in the Telecommunications Act of 1996.

(Local Access and Transport Area) ，

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intraLA-
TA。   in-
terLATA，   。

1996   LATA

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▭:Communication

1:2000. 2. 18

LDCM

Developed by Intel，LANDesk Client Manager is a management tool that constantly monitors networked personal computers and workstations for hardware problems. If a malfunction is detected，the administrator is alerted.

LDCM contains an inventory of hundreds of hardware and thousands of software items and provides a failure mechanism that catches problems with hard drive，fan，power supply and/or temperature.

LDCM works using standards such as SNMP，DMI and WfM.

Intel　　，

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LDCM

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LDCM　　　　SNMP，DML　WfM　　　　。

📁：Hardware

1️⃣：1999.10.28

leased line

A permanent telephone connection between two points set up by a telecommunications common carrier. Typically, leased lines are used by businesses to connect geographically distant offices. Unlike normal dial-up connections, a leased line is always active. The fee for the connection is a fixed monthly rate. The primary factors affecting the monthly fee are distance between end points and the speed of the circuit. Because the connection doesn't carry anybody else's communications, the carrier can assure a given level of quality.

For example, a T-1 channel is a type of leased line that provides a maximum transmission speed of 1. 544 Mb/s. You can divide the connection into different lines for data and voice communication or use the channel for one high speed data circuit. Dividing the connection is called multiplexing.

Increasingly, leased lines are being used by companies, and even individuals, for Internet access because they afford faster data transfer rates and are cost-effective if the Internet is used heavily.

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　　　　，　　　T-1　　　　　　　　　　　　1. 544 Mb/s　　　　。

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📁:Network

1️⃣:1998. 2. 26

🖱:dial-up access

LED

Abbreviation of light emitting diode，an electronic device that lights up when electricity is passed through it. LEDs are usually red. They are good for displaying images because they can be relatively small，and they do not burn out. However，they require more power than LCDs.

。LED

LCD 。

:Hardware

1 :1996.9.1

library

(1) A collection of files.

(2) In programming，a library is a collection of pre-compiled routines that a program can use. The routines，sometimes called modules，are stored in object format. Libraries are particularly useful for storing frequently used routines because you do not need to explicitly link them to every program that uses them. The linker automatically looks in libraries for routines that it does not find elsewhere. In MS-Windows environments，library files have a . DLL extension.

(1)　　　　　　　　　　　　　。

(2)　　　　　　　，

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　　　　　　　　　　　　　　　　。　　MS-Windows

，　　　　　　. DLL　　　　　。

📁:Programming

📅:1997. 4. 15

linkrot

Internet slang for the condition where hypertext links lead nowhere because Web sites have removed We pages or reorganized them. Also known as outdated links.

To prevent linkrot, Web sites can add redirects, which automatically take users to the correct url, or, they can provide the new and correct url on the old page.

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linkrot   ,   ,

URL。

:WWW

:2000. 3. 6

:URL World Wide Web

load balancing

Distributing processing and communications activity evenly across a computer so that no single device is overwhelmed. Load balancing is especially important for networks where it's difficult to predict the number of requests that will be issued to a server. Busy Web sites typically employ two or more Web servers in a load balancing scheme. If one server starts to get swamped，requests are forwarded to another server with more capacity. Load balancing can also refer to the communications channels themselves.

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📁: Network

1️⃣:1997. 4. 23

👉: Clustering network-attached storage server farm
     three-tier

local-area ntework

A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN).

Most LANs connect workstations and personal computers. Each node (individual computer) in a LAN has its own CPU with which it executes programs, but it is also able to access data and devices anywhere on the LAN. This means that many users can share expensive devices, such as laser printers, as well as data. Users can also use the LAN to communicate with each other, by sending e-mail or engaging in chat sessions.

There are many different types of LANs Ethernets being the most common for PCs. Most Apple Macintosh networks are based on Apple's AppleTalk network system, which is built into Macintosh computers.

The following characteristics differentiate one LAN from another:

topology : The geometric arrangement of devices on the network. For example, devices can be arranged in a ring or in a straight line.

protocols : The rules and encoding specifications for sending data. The protocols also determine whether the network uses a peer-to-peer or client/server architecture.

media : Devices can be connected by twisted-pair wire, coaxial cables, or fiber optic cables. Some networks do without connecting media altogether, communicating instead via radio waves.

LANs are capable of transmitting data at very fast rates, much faster than data can be transmitted over a tele-

phone line; but the distances are limited, and there is also a
limit on the number of computers that can be attached to a
single LAN.

LAN

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LAN 。

LAN

(WAN)。

LAN 。 LAN

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CPU, LAN

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e-mail 。

LAN :

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LAN ,

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LAN 。

: Network

1 : 1998. 5. 16

localization

The process of adapting software for a particular country or region. For example，the software must support the character set of the local language and must be configured to present numbers and other values in the local format. Localizing a word processor might require adding a new spell checker that recognizes words in the local language.

Software companies that wish to sell their software internationally must invest considerable money and energy in localization efforts. There are also companies that specialize in localizing software for third parties.

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📁:Programming

1️⃣:1998. 7. 12

🔧:character set

logical

(1) Refers to a user's view of the way data or systems are organized. The opposite of logical is physical，which refers to the real organization of a system. For example，a logical description of a file is that it is a collection of data stored together. This is the way files appear to users. Physically，however，a single file can be divided into many pieces scattered across a disk.

(2) Refers to any Boolean logic operation.

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（2）   。

　:Computer Science

　1 ：1998. 5. 16

loopback address

Loopback address is a special IP number (127.0.0.1) that is designated for the software loopback interface of a machine. The loopback interface has no hardware associated with it，and it is not physically connected to a network.

The loopback interface allows IT professionals to test IP software without worrying about broken or corrupted drivers or hardware.

IP (127.0.0.1),

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IT   IP   ，

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:Network

1 : 2000.3.24

Luhn formula LUHN

Based on ANSI X4. 13，the LUHN formula（also known as the modulus 10 -- or mod 10 -- algorithm）is used to generate and/or validate and verify the accuracy of credit-card numbers.

Most credit cards contain a check digit，which is the digit at the end of the credit card number. The firs part of the credit-card number identifies the type of credit card（Visa，MasterCard，American Express，etc.），and the middle digits identify the bank and customer.

To generate the check digit，the LUHN formula is applied to the number. To validate the credit-card number，the check digit is figured into the formula.

The LUHN formula was created in the late 1960s by a group of mathematicians. Shortly thereafter，credit card companies adopted it. Because the algorithm is in the public domain，it can be used by anyone.

The LUHN formula is also used to check Canadian Social Insurance Number（SIN）validity. In fact，the LUHN formula is widely used to generate the check digits of many different primary account numbers. Almost all institutions that create and require unique account or identification numbers use the Mod 10 algorithm.

ANSI X4. 13　　LUHN　　（　　　　　　10

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　　。　　　　　　　　　　　（Visa，Master-

Card，American Express　　）　　　，

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　LUHN　　　　　　　　20　　　60　　　。

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LUHN

(SIN) 。 .LUHN

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10 。

:Online Service

1 :1999. 12. 13

machine dependent

Refers to a software application that runs only on a particular type of computer. Programs that run on a variety of different types of computers are called machine independent.

Almost all programs have some machine dependencies (that is, they run somewhat differently on different types of computers), but the degree of independence can vary widely. Machine-independent programs give you more flexibility: if you buy a new type of computer, you can continue using the same software package instead of learning a new one. On the other hand, machine-dependent programs often take advantage of special hardware features of a particular computer, making the programs faster.

Another term for machine dependent is device dependent, but whereas machine dependent usually refers to the computer, device dependent can refer to a dependency on any device, like a printer.

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:Software

1 :1998. 5. 16

Macintosh computer Macintosh

A popular model of computer made by Apple Computer. Introduced in 1984, the Macintosh features a graphical user interface (GUI) that utilizes windows, icons, and a mouse to make it relatively easy for novices to use the computer productively. Rather than learning a complex set of commands, you need only point to a selection on a menu and click a mouse button.

Moreover, the GUI is embedded into the operating system. This means that all applications that run on a Macintosh computer have a similar user interface. Once a user has become familiar with one application, he or she can learn new applications relatively easily. The success of the Macintosh GUI led heralded a new age of graphics-based applications and operating systems. The Windows interface copies many features from the Mac.

There are many different Macintosh models, with varying degrees of speed and power. All models are available in many different configurations. All models since 1994 are based on the PowerPC microprocessor.

Apple   。Macintosh   1984   ,   、
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    GUI   。
Macintosh   。
          ,   ( )
  。Macintosh GUI
                。Windows   Mac
    。

                    Macintosh   ,
    。   。   1994

PowerPC 。

📁:Type of Computer

1️⃣:1998.5.19

MAE

Short for Metropolitan Area Ethernet, a Network Access Point (NAP) where Internet Service Providers (ISPs) can connect with each other. The original MAE was set up by a company called MFS and is based in Washington, D. C. Later, MFS built another one in Silicon Valley, dubbed MAE-West. In addition to the MAEs from MFS, there are many other NAPs. Although MAE refers really only to the NAPs from MFS, the two terms are often used interchangeably.

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                         (NAP)。   MAE

      MFS   。

  , MFS   ,   MAE-West。

MFS   MAE,   NAP。   MAE

MFS   NAP,   。

　　📁: Network

　　1️⃣: 2000. 11. 28

　　🖥: ISP

magnetic drum

A direct-access, or random-access, storage device. A magnetic drum, also referred to as drum, is a metal cylinder coated with magnetic iron-oxide material on which data and programs can be stored. Magnetic drums were once used as a primary storage device but have since been implemented as auxiliary storage devices.

The tracks on a magnetic drum are assigned to channels located around the circumference of the drum, forming adjacent circular bands that wind around the drum. A single drum can have up to 200 tracks. As the drum rotates at a speed of up to 3,000 rpm, the device's read/write heads deposit magnetized spots on the drum during the write operation and sense these spots during a read operation. This action is similar to that of a magnetic tape or disk drive.

Unlike some disk packs, the magnetic drum cannot be physically removed. The drum is permanently mounted in the device. Magnetic drums are able to retrieve data at a quicker rate than tape or disk devices but are not able to store as much data as either of them.

200

3 000 r/min   /

📁:computer science

1️⃣:2001. 4. 25

💾:solid state disk

Mainframe

A very large and expensive computer capable of supporting hundreds, or even thousands, of users simultaneously. In the hierarchy that starts with a simple microprocessor (in watches, for example) at the bottom and moves to supercomputers at the top, mainframes are just below supercomputers. In some ways, mainframes are more powerful than supercomputers because they support more simultaneous programs. But supercomputers can execute a single program faster than a mainframe. The distinction between small mainframes and minicomputers is vague, depending really on how the manufacturer wants to market its machines.

Unisys and IBM are the largest manufacturers of mainframes.

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Unisys　IBM　　　　　　　。

□ :Type of Computer

1 :1998. 11. 8

malware

Short for malicious software. Software designed specifically to damage or disrupt a system，such as a virus or a Trojan horse.

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📁：compuger science

1️⃣：2001.3.29

📠：CERT/CC quarantine

Managed Service Provider

A Managed Service Provider (MSP), also called a Management Service Provider, is a company that manages information technology services for other companies via the Web. An MSP client may use internal operations or an ASP to run its business functions.

（MSP） Web

。 MSP

ASP 。

📁:software

1️⃣:2001.4.20

☞:Application Service Provider

mass storage

Refers to various techniques and devices for storing large amounts of data. The earliest storage devices were punched paper cards, which were used as early as 1804 to control silk-weaving looms. Modern mass storage devices include all types of disk drives and tape drives. Mass storage is distinct from memory, which refers to temporary storage areas within the computer. Unlike main memory, mass storage devices retain data even when the computer is turned off.

The main types of mass storage are:

∗ floppy disks : Relatively slow and have a small capacity, but they are portable, inexpensive, and universal.

∗ hard disks : Very fast and with more capacity than floppy disks, but also more expensive. Some hard disk systems are portable (removable cartridges), but most are not.

∗ optical disks : Unlike floppy and hard disks, which use electromagnetism to encode data, optical disk systems use a laser to read and write data. Optical disks have very large storage capacity, but they are not as fast as hard disks. In addition, the inexpensive optical disk drives are read-only. Read/write varieties are expensive.

∗ tapes : Relatively inexpensive and can have very large storage capacities, but they do not permit random access of data.

Mass storage is measured in kilobytes (1,024 bytes), megabytes (1,024 kilobytes), gigabytes (1,024 megabytes) and terabytes (1,024 gigabytes).

Mass storage is sometimes called auxiliary storage.

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， 1804

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(1 024 B)、 (1 024 KB)、 (1 024 MB) (1 024 GB) 。

:Computer Science

:2000.10.23

MBR

Short for Master Boot Record, a small program that is executed when a computer boots up. Typically, the MBR resides on the first sector of the hard disk. The program begins the boot process by looking up the partition table to determine which partition to use for booting. It then transfers program control to the boot sector of that partition, which continues the boot process. In DOS and Windows systems, you can create the MBR with the FDISK /MBR command.

An MBR virus is a common type of virus that replaces the MBR with its own code. Since the MBR executes every time a computer is started, this type of virus is extremely dangerous. MBR viruses normally enter a system through a floppy disk that is installed in the floppy drive when the computer is started up. Even if the floppy disk is not bootable, it can infect the MBR.

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。 MBR   。

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，   。 DOS   Windows

，   FKISK/MBR   MBR。

MBR   ，

MBR。   MBR

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，   MBR   。

📁:Operation Sysem

1️⃣:1998.3.17

💠:Boot bootable diskette

MCI

Short for Media Control Interface, a high-level API developed by Microsoft and IBM for controlling multimedia devices, such as CD-ROM players and audio controllers. Both OS/2 and Windows support MCI.

IBM

API, CD-ROM

。OS/2 Windows MCI。

:Multimedia

1 :1998.5.6

memory effect

The property of nickel-cadmium (NiCad) batteries that causes them to lose their capacity for full recharging if they are discharged repeatedly the same amount and then recharged without overcharge before they have fully drained. The term derives from the fact that the battery appears to have a memory for the amount of charging it can sustain.

The effect was first noticed in aerospace applications and has been widely misused with regard to the batteries used in portable computer devices. The memory effect is very rare in computer NiCad batteries，especially modern ones.

（NiCad）　　　　　。

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　:Mobile Computing

　:1998. 5. 16

memory resident

Permanently in memory. Normally, a computer does not have enough memory to hold all the programs you use. When you want to run a program, therefore, the operating system is obliged to free some memory by copying data or programs from main memory to a disk. This process is known as swapping.

Certain programs, however, can be marked as being memory resident, which means that the operating system is not permitted to swap them out to a storage device; they will always remain in memory.

The programs and data used most frequently are the ones that should be memory resident. This includes central portions of the operating system and special programs, such as calendars and calculators, that you want to be able to access immediately.

Another term for memory resident is RAM resident. In DOS systems, memory-resident programs are called pop-up utilities or TSRs (terminate and stay resident).

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　　　　　　　RAM　　　。　　DOS　　　　，
　　　　　　　TSR(　　　　　)。

:Operation System

:1997.11.25

:operating system

Meta

In computer science, a common prefix that means "about". So, for example, metadata is data that describes other data (data about data). A metalanguage is a language used to describe other languages. A metafile is a file that contains other files. The HTML META tag is used to describe the contents of a Web page.

在计算机科学中，常用的一个前缀，表示"关于"。所以，举例来说，metadata 是描述其他数据的数据（关于数据的数据）。一种 metalanguage 是用来描述其他语言的语言。一个 metafile 是包含其他文件的文件。HTML META 标记用于描述 Web 页面的内容。

:Computer Science

1 :1997. 10. 5

meta ad

Used in search engines，an advertisement displayed on the results page of a search，specific to the searched term. Also referred to as keyword advertising. Advertisers pay search engines to target their ads and only display the banners when relevant keywords are searched on by a user. Keyword advertising on the search engines enables an advertiser to target a specific audience. For example，if a user searched on the term "digital camera" the ads may be for electronic boutiques or camera shops that sell digital cameras. The meta ads are displayed on the dynamic pages that result whenever the keyword "digital camera" is searched on.

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　　，　　　　　　　"digital camera"，
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"digital camera"　　　　　　　　　。

　　📁:WWW
　　1️⃣:1999.1.23

meta data

Data about data. Meta data describes how and when and by whom a particular set of data was collected, and how the data is formatted. Meta data is essential for understanding information stored in data warehouses.

。Meta data

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:Data

:1999. 6. 17

:data warehouse meta

MGCP

The Media Gateway Control Protocol，developed by Telcordia and Level 3 Communications，is one of a few proposed control and signal standards to compete with the older H. 323 standard for the conversion of audio signals carried on telephone circuits（PSTN）to data packets carried over the Internet or other packet networks.

The reason new standards are being developed is because of the growing popularity of Voice over IP（VoIP）. Regular phones are relatively inexpensive because they don't need to be complex; they are fixed to a specific switch at a central switching location. IP phones and devices，on the other hand，are not fixed to a specific switch，so they must contain processors that enable them to function and be intelligent on their own，independent from a central switching location. This makes the terminal（phone or device）more complex，and therefore，more expensive. The MGCP is meant to simplify standards for this new technology by eliminating the need for complex，processor-intense IP telephony devices，thus simplifying and lowering the cost of these terminals.

，   Telcordia   Level 3

，   H. 323

。   （PSTN）

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Voice over IP（VoIP）

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IP

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　:Online Service

　:2000.6.29

MCA

A bus architecture for older PCs. It is called a bus architecture because it defines how peripheral devices and internal components communicate across the computer's expansion bus. Introduced by IBM in 1987, MCA was designed to take the place of the older AT bus, the architecture used on IBM PC-ATs and compatibles. For a variety of reasons, however, the industry never accepted the new architecture.

　　　　　　　　　PC　　　　　　　　　。　　　　　　　　，

　　。MCA　　　1987　　　IBM　　　，
　　AT　　　　IBM PC-AT　　　　　　　　　　。

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📁:Hardware

1️⃣:2000. 12. 27

middleware

Software that connects two otherwise separate applications. For example，there are a number of middleware products that link a database system to a Web server. This allows users to request data from the database using forms displayed on a Web browser，and it enables the Web server to return dynamic Web pages based on the user's requests and profile.

The term middleware is used to describe separate products that serve as the glue between two applications. It is，therefore，distinct from import and export features that may be built into one of the applications. Middleware is sometimes called plumbing because it connects two sides of an application and passes data between them. Common middleware categories include：

TP monitors
DCE environments
RPC systems
Object Request Brokers (ORBs)
Database access systems
Message Passing

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Web   。
Web
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TP monitors
DCE environments
RPC systems

Object Request Brokers (ORBs)

Database access systems

Message Passing

application server

📁:Software

1️⃣:1999.9.15

☞:DCE ORB three-tier

MIME

Short for Multipurpose Internet Mail Extensions, a specification for formatting non-ASCII messages so that they can be sent over the Internet. Many e-mail clients now support MIME, which enables them to send and receive graphics, audio, and video files via the Internet mail system. In addition, MIME supports messages in character sets other than ASCII.

There are many predefined MIME types, such as GIF graphics files and PostScript files. It is also possible to define your own MIME types.

In addition to e-mail applications, Web browsers also support various MIME types. This enables the browser to display or output files that are not in HTML format.

MIME was defined in 1992 by the Internet Engineering Task Force (IETF). A new version, called S/MIME, supports encrypted messages.

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ASCII   。   。

   e-mail   MIME，

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  ，MIME   ASCII   。

                MIME   ，   GIF

PostScript   。   MIME   。

      e-mail   ，   MIME

   。   HTML

   。

    MIME   1992   (IETF)

   。   S/MIME   。

   📁 : WWW

   1️⃣ : 1997. 3. 8

   📠 : Uuencode

Minicomputer

A midsized computer. In size and power, minicomputers lie between workstations and mainframes. In the past decade, the distinction between large minicomputers and small mainframes has blurred, however, as has the distinction between small minicomputers and workstations. But in general, a minicomputer is a multiprocessing system capable of supporting from 4 to about 200 users simultaneously.

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4～200　　　　　　　　　。

📁:Type of Computer

1️⃣:1998.5.16

🖨:mainframe

MIS

Short for management information system or management information services, and pronounced as separate letters, MIS refers to a class of software that provides managers with tools for organizing and evaluating their department. Typically, MIS systems are written in COBOL and run on mainframes or minicomputers.

Within companies and large organizations, the department responsible for computer systems is sometimes called the MIS department. Other names for MIS include IS (Information Services) and IT (Information Technology).

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MIS   COBOL

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MIS   。MIS   IS(   )

IT(   )。

📁:Network

1️⃣:1996.9.1

🖳:IT mainframe minicomputer

MMDS

Multipoint Microwave Distribution System，also know as Multi-channel Multi-point Distribution System and wireless cable，is another wireless broadband technology for Internet Access.

MMDS channels come in 6 MHz chunks and runs on licensed and unlicensed channels. Each channel can reach transfer rates as high as 27Mb/s（over unlicensed channels；99MHz，2.4GHz，and 5.7 to 5.8GHz）or 1Gb/s（over licensed channels）.

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MMDS   6 MHz

            。   27 Mb/s(

        ；99 MHz，2.4 GHz   5.7 ~ 5.8 GHz)   1

Gb/s(   )   。

📁:Communication

1️⃣:2000.11.8

modular architecture

Refers to the design of any system composed of separate components that can be connected together. The beauty of modular architecture is that you can replace or add any one component (module) without affecting the rest of the system. The opposite of a modular architecture is an integrated architecture, in which no clear divisions exist between components.

The term modular can apply to both hardware and software. Modular software design, for example, refers to a design strategy in which a system is composed of relatively small and autonomous routines that fit together.

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📁:Hardware

1️⃣:1996.9.1

☞:granularity

Monospacing

Refers to fonts in which each character has the same width. The opposite of monospacing is proportional spacing, in which different characters have different widths. For example, in a proportionally spaced font, the letter o would be wider than the letter i. Proportionally spaced fonts look more professional, but monospaced fonts are often superior for tabular data because the uniform width of each character makes alignment of columns easier.

Most printed matter, including this book, uses proportional spacing.

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:Computer Science

:2001.1.22

Mosaic

An application that simplifies accessing documents on the World Wide Web. Originally produced by the National Center for Supercomputing Applications (NCSA), Mosaic has always been distributed as freeware. In 1994, however, the NCSA turned over commercial development of the program to a company called Spyglass. There are now several varieties of Mosaic, some free and some for sale.

一种简化WWW文档存取的应用程序。Mosaic原先是由国家超级计算中心(NCSA)生产的，一直作为免费软件发行。但在1994年，NCSA将此程序的商业性开发权转交给了Spyglass公司。目前有几种Mosaic，有的免费，有的则出售。

📂:WWW

1️⃣:2000.3.31

📑: World Wide Web

mouseover

A JavaScript element that triggers a change on an item (usually a graphic) in a Web page when the mouse passes over it. The change usually signifies that the item is a link to related or additional information. Mouseovers are widely used in Navigation Bars, pop-up boxes, and/or form submissions.

Mouseovers require javascript in two places of an html document. At the beginning of your document and before the BODY tag, javascript defines the event to take place. After the BODY tag, HTML code contains the actual mouseover element in the place on your Web page you want the action to take place. When your mouse passes over the html code containing the mouseover element, it signals the javascript event to take place.

（
）　　　JavaScript　　。

。Mouseover

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Mouseover　　　html　　　　　　　　　javas-
cript。　　　　　　　BODY　　　，javascript
　　。　BODY　　，HTML

mouseover　　。
mouseover　　　html　　，　　　javascript　　。

: Multimedia

: 1999. 3. 5

Moustrapping

A technique that forces a user to remain on a specific Web site by not allowing the user to leave the site. Whenever the user tries to leave the site by closing the browser window or going to a new URL, the site that is mousetrapping will automatically open a new browser window with its URL or not allow the browser to go to the new URL. Some mousetraps only will open a limited number of new browser windows and eventually will let the persevering user leave the site; other mousetraps will open new browser windows ad infinitum, and the only way to get out of the trap is to reboot the computer.

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URL　　　　　，

URL

URL。

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📁:WWW

1️⃣:2001.3.6

MPC

Abbreviation of Multimedia Personal Computer，a software and hardware standard developed by a consortium of computer firms led by Microsoft．There are three MPC standards，called MPC，MPC2，and MPC3，respectively． Each specifies a minimum hardware configuration for running multimedia software．

To run MPC-2 software，you need at least an Intel 486SX microprocessor with a clock speed of 25 MHz，4 MB (megabytes) of RAM，a VGA display，and a double-speed CD-ROM drive．

MPC3 specifies the following minimum configuration：

- 8 MB RAM
- 540 MB disk drive
- 75 MHz Pentium processor
- 4X CD-Rom
- MPEG support

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。 3 MPC ， MPC、 MPC2 MPC3。

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MPC2 ， 25 MHz

Intel 486SX ，4MB 、 VGA

CD-ROM 。

MPC3 :

- 8 MB
- 540 MB
- 75 MHz Pentium
- 4X CD-ROM
- MPEG

🗀：Multimedia

1️⃣：1998.5.16

MSA/RSA   /

Metropolitan Statistical Area/Rural Service Area refers to cellular service areas used by the FCC to license cellular telephone service. There are 306 MSAs and 428 RSAs. Every county in the United States is assigned to one of these markets.

MSAs -- originally used by the US government for grouping census data -- include cities of at least 50,000 people, or urbanized areas of at least 100,000 people and the counties that include these areas.

RSAs include all areas not part of MSAs. These are often rural areas.

In order for a carrier to provide service to specific MSAs and RSAs, it must have a FCC license. If the carrier did receive the license at the time of auction, then it must try to buy it from the successful bidder or create a deal with the rightful owner that allows it to serve that particular area. Multiple licenses are given out per MSA/RSA, and each carrier must transmit over its assigned frequency.

If a carrier can't build a system to serve a certain percentage of the licensed area by a specified deadline date, then it must return the license to the FCC.

/   (Metroplitan Statistical Area/Rural Service Area)   FCC

, 306   MSA   428 RSA。

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MSA   ,

50 000   ,   100 000

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RSA   MSA   。

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MSA   RSA   ,

FCC 。

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。 MSA/RSA ，

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FCC。

📁:Communication

1️⃣:2000.6.1

MSCS

Short for Microsoft Cluster Server, a clustering technology built into Windows NT 4. 0 and later versions. MSCS supports clustering of two NT servers to provide a single fault-tolerant server.

During its development stage, MSCS was code-named Wolfpack.

(Microsoft Cluster Server) ，

Windows NT 4. 0 。

MSCS NT

。

，MSCS Wolfpack。

:Network

1 :1998. 3. 16

:Clustering

multimedia

The use of computers to present text, graphics, video, animation, and sound in an integrated way. Long touted as the future revolution in computing, multimedia applications were, until the mid-90s, uncommon due to the expensive hardware required. With increases in performance and decreases in price, however, multimedia is now commonplace. Nearly all PCs are capable of displaying video, though the resolution available depends on the power of the computer's video adapter and CPU.

Because of the storage demands of multimedia applications, the most effective media are CD-ROMs.

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20   90
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。   PC   ,
CPU   。
,   CD-
ROM。

▱: Multimedia

1️⃣: 1998. 5. 16

📇: AAF   authoring tool   MPC   ripper   Shock-
wave

multiplier lock

The multiplier lock is used by CPU manufacturers to prevent consumers and dealers from overclocki g the CPU. When overclocking became mainstream, profit margins for CPU manufacturers lowered because users wouldn't need to upgrade to a faster processor.

When locked, the multiplier--the factor by which the bus speed is multiplied to derive the CPU speed--is stuck at one given value, thus ruling out any overclocking on motherboards strictly built to the CPU manufacturers specifications. The lock is hard wired into the CPU and is very difficult to overcome.

　　　　　CPU　　　　　　　，
　　CPU。　　　　　　　　　，CPU
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　　　　　，　　(　　　　　　　　　CPU
　)　　　　　　　　，
　　　　　CPU　　　　　　　　。
CPU　　　　　　　。

📁: Hardware

📅: 1998. 8. 25

Multiprocessing /

(1) Refers to a computer system's ability to support more than one process (program) at the same time. Multiprocessing operating systems enable several programs to run concurrently. UNIX is one of the most widely used multiprocessing systems, but there are many others, including OS/2 for high-end PCs. Multiprocessing systems are much more complicated than single-process systems because the operating system must allocate resources to competing processes in a reasonable manner.

(2) Refers to the utilization of multiple CPUs in a single computer system. This is also called parallel processing.

(1)　　　　　　　　　　　　　　　　　( )
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UNIX　　　　　　　　　　　　　　　　　　，
　　　　　，　　　　　PC　　OS/2。
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(2)　　　　　　　　　　　　　　CPU
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📁:Operation System

1️⃣:1996.9.1

☞:multitasking OS/2 parallel processing SMP

Multitasking

The ability to execute more than one task at the same time, a task being a program. The terms multitasking and multiprocessing are often used interchangeably, although multiprocessing sometimes implies that more than one CPU is involved.

In multitasking, only one CPU is involved, but it switches from one program to another so quickly that it gives the appearance of executing all of the programs at the same time.

There are two basic types of multitasking: preemptive and cooperative. In preemptive multitasking, the operating system parcels out CPU time slices to each program. In co-operative multitasking, each program can control the CPU for as long as it needs it. If a program is not using the CPU, however, it can allow another program to use it temporarily. OS/2, Windows 95, Windows NT, the Amiga operating system and UNIX use preemptive multitasking, whereas Microsoft Windows 3. x and the MultiFinder (for Macintosh computers) use cooperative multitasking.

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CPU　　　　。

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CPU　　。

CPU　　　　　　。

CPU，

。OS/2、Windows 95、Windows NT、Amiga

UNIX　　　　，　　　Windows 3. x

MultiFinder(Macintosh)　　　　。

:Operation System

1 :1997. 1. 13

:cooperative multitasking   multiprocessing   operating system   OS/2

Multithreading

    The ability of an operating system to execute different parts of a program，called threads，simultaneously. The programmer must carefully design the program in such a way that all the threads can run at the same time without interfering with each other.

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    :Operation System

    :1996. 9. 1

    :Multitasking SMP

MVS

Short for Multiple Virtual Storage, the operating system for older IBM mainframes. MVS was first introduced in 1974 and continues to be used, though it has been largely superseded by IBM's newer operating system, OS/390.

，　　　　　IBM

。MVS　　1974　　　　　　　　　　　，

　　　IBM　　　　　　　OS/390　　。

📁:Operation System

⌛:1998. 6. 17

🖥:Mainframe　operating system

Napster

Created by 19-year-old Shawn Fanning in 1999，Napster is an application that gives individuals access to one another's MP3 files by creating a unique file-sharing system via the Internet.

Napster lets users view and download the contents of MP3 directories from other Napster users' hard drives.

Because Napster searches individual hard drives，the number and variety of MP3 files vary. Not all Napster users are online at the same time; therefore，what you may not find one day，may，in fact，be there the next.

Macintosh faithful who want to benefit from Napster can download Macster，which works the exact same way as Napster.

Napster has been under fire from the Recording Industry Association of America (RIAA)，who interprets Napster as copyright-infringement software. But，because the MP3 files do not reside on Napster's servers，nor does Napster charge a fee for the service，critics feel the RIAA has a weak legal leg to stand on. Napster simply allows individuals to share music，as does tape recorders and CD burners.

Many feel that Napster is revolutionizing the consumer music market，and it is up to the Music industry to adapt.

Napster 19 Shawn Fanning 1999

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MP3 。

Napster Napster

MP3 。

Napster ， MP3

。 Napster

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Napster Macintosh

Macster， Napster   。

Napster
(RIAA)   .RIAA   Napster   。

         MP3   Napster   ，

Napster   ，   RIAA

              。 Napster   ，

              CD   。

              Napster   ，

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:Online Service

:2000. 3. 16

NC

A type of network computer designed to execute Java programs locally. NCs do not contain any storage devices, so theysmust be connected to a network server that hold the data to be processed. However, unlike thin clients and Windows terminals, NCs do have a microprocessor so that they can execute programs locally.

Java

。 NC   ,

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Windows   ,NC   ,

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📁:Type of Computer

1️⃣:1998. 4. 29

🔳:Net PC network computer thin client

NDMP

Pioneered by Intelliguard and Network Appliance，Network Data Management Protocol defines a common architecture for the way heterogeneous file servers on a network are backed up.

The new protocol will allow the creation of a common agent used by the central back-up application to back up different file servers running different platforms and platform versions.

With NDMP，network congestion is minimized because the data path and control path are separated. Back up can occur locally--from file servers direct to tape drives，while management can occur from a central location.

NDMP is an open standard protocol promoted and supported by server vendors，back-up software vendors，and back-up device vendors.

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NDMP，   ，
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NDMP   ，   、
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:Standard

1 :1999. 10. 11

Netiquette

Contraction of Internet etiquette, the etiquette guidelines for posting messages to online services, and particularly Internet newsgroups. Netiquette covers not only rules to maintain civility in discussions (i. e. , avoiding flames), but also special guidelines unique to the electronic nature of forum messages. For example, netiquette advises users to use simple formats because complex formatting may not appear correctly for all readers. In most cases, netiquette is enforced by fellow users who will vociferously object if you break a rule of netiquette.

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:Online Service

:1998. 5. 16

Net PC   PC

A type of network computer designed cooperatively by Microsoft and Intel. In some respects, the Net PC is really just a scaled-down PC since it is able to execute Windows applications locally. However, it also includes features to simplify connecting it to a network and to administer it remotely.

Net PCs are based on the Wintel platform, but are configured to be as inexpensive as possible and to discourage users from configuring the machines themselves. Consequently, they have no floppy disk drive or CD-ROM drive. They do have a hard disk though it's meant to be used as a temporary cache to improve performance rather than for permanently storing data. Configuration and management of a Net PC is performed through a network server and Microsoft's Zero Administration Windows (ZAW) system.

     。   ，   PC   PC，
           Windows   。

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     PC   Wintel   ，
        ，   。   ，
         CD-ROM   。

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PC   Windows
    （ZAW）   。

📁:Network

1️⃣:1998.4.29

🔜:diskless workstation   NC   network computer   ZAW

Netscape

Officially called Netscape Communications Corporation，Netscape was founded by James H. Clark and Marc Andreessen in 1994. It revolutionized the computer software market by giving away for free its popular Navigator Web browser until it had acquired an overwhelming market share for this category of software.

This strategy is now used by many other software companies，including Microsoft，which also distributes its Web browser，Internet Explorer，for free.

In addition to its browsers，Netscape also produces Web servers and tools for building intranets. Indeed，its in the server category that Netscape gets most of its revenue.

Netscape's headquarters are located in Mountain View，California.

Netscape   ，   H Clark

Marc Andressen   1994   。

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，   Web   Internet Explorer

。，Netscape

Web   。   Netscape

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Netscape   Mountain View。

📁:WWW

1️⃣:1998. 5. 16

NetWare

A popular local-area network (LAN) operating system developed by Novell Corporation. NetWare is a software product that runs on a variety of different types of LANs，from Ethernets to IBM token-ring networks. It provides users and programmers with a consistent interface that is independent of the actual hardware used to transmit messages.

Novell　　　　　　　　　　　　　　(LAN)

。 NetWare　　　　　　　　　　　　LAN

，　　　　　IBM　　　　　　。

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□:Operation System

1:1997.3.31

□:Ethernet IPX local-area network operating system SAP SPX token-ring network

network-attached storage

A network-attached storage (NAS) device is a server that is dedicated to nothing more than file sharing. NAS does not provide any of the activities that a server in a server-centric system typically provides, such as, e-mail, authentication or file management. NAS allows more hard dish storage space to be added to a network that already utilizes servers without shutting them down for maintenance and upgrades. With a NAS device, storage is not an integral part of the server. Instead, in this storage-centric design, the server still handles all of the processing of data but a NAS device delivers the data to the user. A NAS device does not need to be located within the server but can exist anywhere in a LAN and can be made up of multiple networked NAS devices.

　　　　　　　　(NAS)

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NAS　　　,　　　　　　　　　　　　。　　　,

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NAS　　　　　　　　　　　,

LAN　　　,　　　　　　　　　　NAS　　　。

　　📁:network

　　1️⃣:2001.1.27

　　🔧:client/server architecture　load balancing　local-area network server farm

network computer

A computer with minimal memory, disk storage and processor power designed to connect to a network, especially the Internet. The idea behind network computers is that many users who are connected to a network don't need all the computer power they get from a typical personal computer. Instead, they can rely on the power of the network servers.

This is really a variation on an old idea -- diskless workstations -- which are computers that contain memory and a processor but no disk storage. Instead, they rely on a server to store data. Network computers take this idea one step further by also minimizing the amount of memory and processor power required by the workstation. Network computers designed to connect to the Internet are sometimes called Internet boxes, Net PCs, and Internet appliances.

One of the strongest arguments behind network computers is that they reduce the total cost of ownership (TCO) -- not only because the machines themselves are less expensive than PCs, but also because network computers can be administered and updated from a central network server.

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:Network

1 :1998.5.16

:diskless workstation NCNet PC TCO thin
   client ZAW

network meltdown

A state in which a network grinds to a halt due to excessive traffic. A network meltdown generally starts as a broadcast storm that gets out of control，but even legitimate network messages can cause a meltdown if the network hasn't been designed to accommodate that level of traffic.

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📁：Network

1️⃣：1998.7.7

☞：broadcast storm

network operating system

An operating system that includes special functions for connecting computers and devices into a local-area network (LAN). Some operating systems, such as UNIX and the Mac OS, have networking functions built in. The term network operating system, however, is generally reserved for software that enhances a basic operating system by adding networking features. For example, some popular NOS's for DOS and Windows systems include Novell Netware, Artisoft's LANtastic, Microsoft LAN Manager, and Windows NT.

UNIX　Mac OS

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DOS　Windows　　NOS　Novell Netware，Artisoft　LANtastic、　　LAN Windows NT。

:Operation System

:1998.5.16

:local-area network　operating system

network transparency

A condition in which an operating system or other service allows the user access to a remote resource through a network without needing to know if the resource is remote or local. For example，Sun Microsystem's NFS，which has become a de facto industry standard，provides access to shared files through an interface called the Virtual File System（VFS）that runs on top of TCP/IP. Users can manipulate shared files as if they were stored locally on the user's own hard disk.

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。   ，Sun

NFS   TCP/IP

（VFS）   。

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📁：Network

1️⃣：2001. 1. 19

NextStep

An object-oriented operating system developed by Next Inc. , a company started in 1985 by Steven Jobs, one of the co-founders of Apple Computer. In 1997, Apple Computer acquired Next, with idea of making NextStep the foundation of its new Macintosh operating system.

　　　　　Next　　　　　　　　　　　　　,
　1985　　Steven Jobs　　　,　　Apple
　　　　　　　　　。　1997　,Apple
Next，　　　NextStep　　　　　Macintosh
　。

▢：Operation System

1️⃣：1998. 5. 19

☞：Apple Computer object oriented operating sys-
　　tem

Node

(1) In networks，a processing location. A node can be a computer or some other device，such as a printer. Every node has a unique network address，sometimes called a Data Link Control (DLC) address or Media Access Control (MAC) address.

(2) In tree structures，a point where two or more lines meet.

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　　　　　　　　　　，
(DLC) 　　　　　　　(MAC) 　　。

(2)
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📁:Network

1️⃣:1998.5.16

Noise

(1) In communications, interference (static) that destroys the integrity of signals on a line. Noise can come from a variety of sources, including radio waves, nearby electrical wires, lightning, and bad connections. One of the major advantages of fiber optic cables over metal cables is that they are much less susceptible to noise.

(2) In general, anything that prevents a clear signal or message from being transmitted. For example, you might hear someone complain of a lot of noise in a newsgroup, meaning that there are many superfluous messages that don't add anything to the discussion.

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(2)

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📁:Communication

📅:1998. 5. 16

NRZI

Non-Return-to-Zero Inverted A method for transmitting and recording data so that it keeps the sending and receiving clocks synchronized. This is especially helpful in situations where bit stuffing is employed -- the practice of adding bits to a data stream so it conforms with communications protocols. These added bits can create a long string of similar bits, which register to the receiver as a single, unchanging voltage. Since clocks adjust on voltage changes, they'll lag behind true time. NRZI ensures that after a 0 bit appears, the voltage will immediately switch to a 1 bit voltage level. These voltage changes allow the sending and receiving clocks to synchronize.

（Non-Return-to-Zero Inverted）   。

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        ，   。 NRZI
        0   ，   1   。

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:Communication

:1998. 12. 11

NTVDM NT　　DOS

The NT Virtual DOS Machine (a. k. a WOW, or Windows on Windows), is a Win16 subsystem that runs under Windows NT, which allows 16-bit applications to run as if they were being executed on a DOS machine, with that machine's multitasking and segmented memory model.

Because the system is multitasked 16-bit DOS and Windows applications cannot crash NT. However, 16-bit apps within a Win16 subsystem run the exact same way as they do on a DOS/Win 3. x machine; therefore, 16-bit apps within the subsystem can crash one another, or the subsystem. To prevent this, you can launch multiple WOW subsystems as long as your program does not communicate using shared memory.

Windows NT will not allow NTVDM to execute instructions that try to directly manipulate hardware or memory locations. As a result, some DOS and Windows 3. x applications (such as games) may not run under Windows NT.

　　NT　　　DOS　　(Windows　　　　)，Windows NT　　　　　16　　　DOS　　　　　　　　Win 16　　　　，　　　　　　　　　　　　。

　　　　　　　　　　　　　　16　　DOS　　Windows，　　　　　　　NT　　。　　　　　　　Win16　　16　　　　　　　　　DOS/Win 3. x　　，　　　　　　16　　　　　　　　，　　　。　　　　　　　，　　　　WOW　，　　　　　　　　　　　。

　　Windows NT　　　　　NTVDM　　　　　　　。　，　　DOS　　Windows 3. x　(　　　　)　　　Windows NT　　。

　　📁:Operation System

　　1️⃣:1998.8.16

NUMA

Short for Non-Uniform Memory Access，a type of parallel processing architecture in which each processor has its own local memory but can also access memory owned by other processors. It's called non-uniform because the memory access times are faster when a processor accesses its own memory than when it borrows memory from another processor.

NUMA computers offer the scalability of MPP and the programming ease of SMP.

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:Type of Computer

1,1997. 7. 2

:parallel processing   SMP

object oriented

A popular buzzword that can mean different things depending on how it is being used. Object-oriented programming (OOP) refers to a special type of programming that combines data structures with functions to create re-usable objects (see under object-oriented programming). Object-oriented graphics is the same as vector graphics.

Otherwise, the term object-oriented is generally used to describe a system that deals primarily with different types of objects, and where the actions you can take depend on what type of object you are manipulating. For example an object-oriented draw program might enable you to draw many types of objects, such as circles, rectangles, triangles, etc. Applying the same action to each of these objects, however, would produce different results. If the action is Make 3D, for instance, the result would be a sphere, box, and pyramid, respectively.

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3D　　，　　　　　　　　　、

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📁:Software

1️⃣:1996.9.1

object-oriented graphics

The representation of graphical objects, such as lines, arcs, circles, and rectangles, with mathematical formulas. This method of describing objects enables the system to manipulate the objects more freely. In an object-oriented system, for example, you can overlap objects but still access them individually, which is difficult in a bit-mapped system. Also, object-oriented images profit from high-quality output devices. The higher the resolution of a monitor or printer, the sharper an object-oriented image will look. In contrast, bit-mapped images always appear the same regardless of a device's resolution.

One of the most widely used formats for object-oriented graphics is PostScript. PostScript is a page description language (PDL) that makes it possible to describe objects and manipulate them in various ways. For example, you can make objects smaller or larger, turn them at various angles, and change their shading and color. A font described in PostScript, therefore, can easily be transformed into another font by changing its size or weight. Object-oriented fonts are called outline fonts, scalable fonts, or vector fonts.

Object-oriented graphics is also called vector graphics, whereas bit-mapped graphics is sometimes called raster graphics.

PostScript。

PostScript   (PDL)，

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📁:Graphics

1️⃣:1997. 11. 25

OCX OLE

Short for OLE Custom control，an independent program module that can be accessed by other programs in a Windows environment. OCX controls end with a . ocx extension. OCX controls represent Microsoft's second generation of control architecture，the first being VBX controls written in Visual Basic.

Both VBX and OCX controls have now been superseded by ActiveX controls. However，ActiveX is backward compatible with OCX controls，which means that ActiveX containers，such as Microsoft's Internet Explorer，can execute OCX components.

OLE 　　　　　　　，　　　　　Windows
　　　　　　　　　　　。OCX　　　　　　. ocx
　　。OCX　　　　　　　　　　　　，
　　　　Visual Basic　　　VBX　　　。

VBX　OCX　　　　　　　　ActiveX
　。　，ActiveX　　　OCX　　　　　　，
ActiveX　　　，　　　　IE　　　OCX　　　。

📁:Programming

1️⃣:1998. 4. 29

▭:ActiveX　VBX

ODBC

Abbreviation of Open DataBase Connectivity, a standard database access method developed by Microsoft Corporation. The goal of ODBC is to make it possible to access any data from any application, regardless of which database management system (DBMS) is handling the data. ODBC manages this by inserting a middle layer, called a database driver, between an application and the DBMS. The purpose of this layer is to translate the application's data queries into commands that the DBMS understands. For this to work, both the application and the DBMS must be ODBC-compliant -- that is, the application must be capable of issuing ODBC commands and the DBMS must be capable of responding to them. Since version 2.0, the standard supports SAG SQL.

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(DBMS)   。ODBC

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ODBC   ——

ODBC   DBMS   。   2.0

，   SAG SQL。

:Software

1 :1996.9.1

:ADO JDBC UDA

OEM

（n） Stands for original equipment manufacturer，
which is a misleading term for a company that has a special
relationship with computer producers. OEMs buy comput-
ers in bulk and customize them for a particular application.
They then sell the customized computer under their own
name. The term is really a misnomer because OEMs are
not the original manufacturers—they are the customizers.

Another term for OEM is VAR （value-added
reseller）.

（v） To provide equipment to another company，an
OEM，which customizes and markets the equipment.

（n） ，

。OEM

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， OEM ——

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OEM VAR（ ）。

（v） OEM， ， OEM

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:Computer Industry Companies

1 :1996.9.1

:VAR

office automation

The use of computer systems to execute a variety of office operations, such as word processing, accounting, and e-mail. Office automation almost always implies a network of computers with a variety of available programs.

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e-mail。

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☐:Software

1:1996.9.1

open architecture

An architecture whose specifications are public. This includes officially approved standards as well as privately designed architectures whose specifications are made public by the designers. The opposite of open is closed or proprietary.

The great advantage of open architectures is that anyone can design add-on products for it. By making an architecture public, however, a manufacturer allows others to duplicate its product. Linux, for example, is considered open architecture because its source code is available to the public for free. In contrast, DOS, Windows, and the Macintosh architecture and operating system have been predominantly closed. Many lawsuits have been filed over the use of these architectures in clone machines. For example, IBM issued a Cease and Desist order, followed by a battery of lawsuits, when COMPAQ built its first computers.

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Macintosh 。

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PAQ ,IBM

Cease Desist , 。

📁:Standard

1️⃣:2000.1.13

OpenDoc

A standard and application programming interface (API) that makes it possible to design independent programs (components) that can work together on a single document. OpenDoc is being developed by a loose alliance of companies, including Apple Computer, IBM, and Lotus. Notably absent from this list is Microsoft, which is pushing an alternative standard and API called Object Linking and Embedding (OLE).

（API），

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。OpenDoc ， Apple、IBM Lotus。

（OLE）

API。

📁:Operation System

1️⃣:1997.9.18

open source

A certification standard issued by the Open Source Initiative (OSI) that indicates that the source code of a computer program is made available free of charge to the general public. The rationale for this movement is that a larger group of programmers not concerned with proprietary ownership or financial gain will produce a more useful and bug-free product for everyone to use. The concept relies on peer review to find and eliminate bugs in the program code, a process which commercially developed and packaged programs do not utilize. Programmers on the Internet read, redistribute and modify the source code, forcing an expedient evolution of the product. The process of eliminating bugs and improving the software happens at a much quicker rate than through the traditional development channels of commercial software as the information is shared throughout the open source community and does not originate and channel through a corporation's research and development cogs.

OSI dictates that in order to be considered "OSI Certified" a product must meet the following criteria:

The author or holder of the license of the source code cannot collect royalties on the distribution of the program

The distributed program must make the source code accessible to the user

The author must allow modifications and derivations of the work under the program's original name

No person, group or field of endeavor can be denied access to the program

The rights attached to the program must not depend on the program's being part of a particular software distribution

The licensed software cannot place restrictions on oth-

er software that is distributed with it.

Examples of open source software are UNIX，Linux and FreeBSD.

（OSI）

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OSI "OSI "，

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UNIX，Linux FreeBSD。

📁: Software

1️⃣:2001.1.10

🔖:FreeBSD GNOME GNU KDE

operating system

The most important program that runs on a computer. Every general-purpose computer must have an operating system to run other programs. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.

For large systems, the operating system has even greater responsibilities and powers. It is like a traffic cop -- it makes sure that different programs and users running at the same time do not interfere with each other. The operating system is also responsible for security, ensuring that unauthorized users do not access the system.

Operating systems can be classified as follows：

multi-user ： Allows two or more users to run programs at the same time. Some operating systems permit hundreds or even thousands of concurrent users.

multiprocessing ： Supports running a program on more than one CPU.

multitasking ： Allows more than one program to run concurrently.

multithreading ： Allows different parts of a single program to run concurrently.

real time real time： Responds to input instantly. General-purpose operating systems, such as DOS and UNIX, are not real-time.

Operating systems provide a software platform on top of which other programs, called application programs, can run. The application programs must be written to run on top of a particular operating system. Your choice of operating system, therefore, determines to a great extent the applications you can run. For PCs, the most popular operat-

ing systems are DOS, OS/2, and Windows, but others are available, such as Linux.

As a user, you normally interact with the operating system through a set of commands. For example, the DOS operating system contains commands such as COPY and RENAME for copying files and changing the names of files, respectively. The commands are accepted and executed by a part of the operating system called the command processor or command line interpreter. Graphical user interfaces allow you to enter commands by pointing and clicking at objects that appear on the screen.

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DOS UNIX 。

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PC

， DOS、OS/2 Windows，

Linux。

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📁: Operation System

1️⃣: 1999. 8. 27

👉: BeOS BIOS kernel kernel32. dll multipro-
cessing multitasking multithreadingMVS
OS/2 VMS Windows CE

ORB

Short for Object Request Broker, a component in the CORBA programmingl model that acts as the middleware between clients and servers. In the CORBA mode , a client can request a service without knowing anything about what servers are attached to the network. The various ORBs receive the requests, forward them to the appropriate servers, and then hand the results back to the client.

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📁:Software

1:1997.7.24

🖥:CORBA middleware

OS/2

An operating system for PCs developed originally by Microsoft Corporation and IBM，but sold and managed solely by IBM. OS/2 is compatible with DOS and Windows，which means that it can run all DOS and Windows programs. However，programs written specifically to run under OS/2 will not run under DOS or Windows.

Since its introduction in the late 80s，OS/2 has traveled a particularly rocky road. The first releases were hampered by a number of technical and marketing problems. Then Microsoft abandoned the project in favor of its own operating system solution，Microsoft Windows. That break spawned a feud between the two computer giants that is still being played out in many arenas.

IBM   PC

，   IBM。OS/2   DOS   Windows

dows   ，   DOS   Windows   。

OS/2   DOS   Windows

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OS/2   20   80   ，

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Windows。

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📁:Operation System

1️⃣:1998.5.16

👉:multitasking   operating system

OS/9

A real-time，multi-user，multitasking operating system developed by Microware Systems Corporation. Originally，OS-9 was a joint effort between Microware and Motorola. In the 1980's，Microware ported OS-9 to the Motorola 680x0 family of microprocessors，creating OS-9/68000，which is used in a variety of industrial and commercial arenas，including Philips' CD-I and，most recently，WebTV boxes.

　　　　Microware

　　　。OS-9　　Microware　　Motorola

　　。　20　　80　　，Microware　　　　OS-9

Motorola　　　680x0　　　　　　，　　　OS-9/68000。

　　　　　　　　　，　　Philips　CD-I

　　　WebTV　。

📁:Opetation System

[1]:1997. 6. 18

oscillator clock

A circuit within a computer that creates a series of pulses that pace the computer's electronic system. The oscillator clock synchronizes，paces and coordinates the operations of the computer's circuit.

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📁：hardware

1️⃣：2001.4.2

🖱️：Bottleneck

OSPF

Open Shortest Path First is a routing protocol developed for IP networks based on the shortest path first or link-state algorithm.

Routers use link-state algorithms to send routing information to all nodes in an internetwork by calculating the shortest path to each node based on a topography of the Internet constructed by each node. Each router sends that portion of the routing table (keeps track of routes to particular network destinations) that describes the state of its own links, and it also sends the complete routing structure (topography).

The advantage of shortest path first algorithms is that they results in smaller more frequent updates everywhere. They converge quickly, thus preventing such problems as routing loops and Count-to-Infinity (when routers continuously increment the hop count to a particular network). This makes for a stable network.

The disadvantage of shortest path first algorithms is that they require a lot of CPU power and memory. In the end, the advantages out weigh the disadvantages.

OSPF Version 2 is defined in RFC 1583. It is rapidly replacing RIP on the Internet.

IP 。

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(hop   )

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CPU

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OSPF   2   RFC1583   。

RIP。

📁:Computer Science

1️⃣:2000.9.19

outsourcing

The act of hiring an outside source，usually a consultant or application service provider，to transfer components or large segments of an organization's internal IT structure，staff，processes and applications for access via a virtual private network or an Internet-based browser。

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， IT 、 、

Internet

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📁：software

1️⃣：2001. 4. 20

☞：Application Service Provider

OverDrive

A user-installable microprocessor from Intel for the 486 microprocessor. Many PCs 486-based PCs are built with an OverDrive socket，which allows the owner to upgrade to a faster microprocessor simply by inserting an OverDrive chip.

Intel　　　486

。　　　　　486　　PC　　　　　　OverDrive　，

OverDrive

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📁:Hardware

1️⃣:2001.1.23

P3P

Platform for Privacy Preferences is a specification that will allow users' Web browsers to automatical y understand Web sites' privacy practices. Privacy policies will be embedded in the code of a Web site. Browsers will read the policy，and then，automatically provide certain information to specific sites based on the preferences set by the users. For instance，if the site is an e-commerce site，the browser will automatically provide shipping info. If the site is requesting demographic info，then the browser will know to provide it anonymously.

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    📁：WWW

    １：1999.9.20

    📷：World Wide Web

packet switching

Refers to protocols in which messages are divided into packets before they are sent. Each packet is then transmitted individually and can even follow different routes to its destination. Once all the packets forming a message arrive at the destination，they are recompiled into the original message.

Most modern Wide Area Network（WAN）protocols，including TCP/IP，X. 25，and Frame Relay，are based on packet-switching technologies. In contrast，normal telephone service is based on a circuit-switching technology，in which a dedicated line is allocated for transmission between two parties. Circuit-switching is ideal when data must be transmitted quickly and must arrive in the same order in which it's sent. This is the case with most real-time data，such as live audio and video. Packet switching is more efficient and robust for data that can withstand some delays in transmission，such as e-mail messages and Web pages.

A new technology，ATM，attempts to combine the best of both worlds -- the guaranteed delivery of circuit-switched networks and the robustness and efficiency of packet-switching networks.

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（WAN） ， TCP/IP、
X. 25 。 ，

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e-mail

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. ATM

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: Network

$\boxed{1}$: 1998. 2. 17

PDL

A language for describing the layout and contents of a printed page. The best-known PDLs are Adobe PostScript and Hewlett-Packard PCL (Printer Control Language), both of which are used to control laser printers.

Both PostScript and modern versions of PCL are object-oriented, meaning that they describe a page in terms of geometrical objects such as lines, arcs, and circles.

PDL　　Adobe　　PostScript　　　　　　　PCL(
　)，

　　PostScript　　　　　　PCL　　　　　　　　　，

　　:Programming

　　1 :2000. 11. 10

　　:object oriented　PostScript

paging

A technique used by virtual memory operating systems to help ensure that the data you need is available as quickly as possible. The operating system copies a certain number of pages from your storage device to main memory. When a program needs a page that is not in main memory，the operating system copies the required page into memory and copies another page back to the disk. One says that the operating system pages the data. Each time a page is needed that is not currently in memory，a page fault occurs. An invalid page fault occurs when the address of the page being requested is invalid. In this case，the application is usually aborted.

This type of virtual memory is called paged virtual memory. Another form of virtual memory is segmented virtual memory.

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📁：Programming

1️⃣：2000. 12. 20

☞：operating system

palette

(1) In computer graphics, a palette is the set of available colors. For a given application, the palette may be only a subset of all the colors that can be physically displayed. For example, a SVGA system can display 16 million unique colors, but a given program would use only 256 of them at a time if the display is in 256-color mode. The computer system's palette, therefore, would consist of the 16 million colors, but the program's palette would contain only the 256-color subset.

A palette is also called a CLUT (color look-up table).

On monochrome systems, the term palette is sometimes used to refer to the available fill patterns.

(2) In paint and illustration programs, a palette is a collection of symbols that represent drawing tools. For example, a simple palette might contain a paintbrush, a pencil, and an eraser.

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1 600　　　　　，　　　　　　　　256

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　　1 600　　　，　　　　　　256

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　　　　　　　CLUT(　　　　)。

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📁:Graphics

1️⃣:1998. 5. 16

palmtop

A small computer that literally fits in your palm. Compared to full-size computers，palmtops are severely limited，but they are practical for certain functions such as phone books and calendars. Palmtops that use a pen rather than a keyboard for input are often called hand-held computers or PDAs.

Because of their small size，most palmtop computers do not include disk drives. However，many contain PCM-CIA slots in which you can insert disk drives，modems，memory，and other devices.

Palmtops are also called PDAs，hand-held computers and pocket computers.

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PDA。

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PCMCIA   ，   、

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PDA，   。

:Mobile Computing

1 :1996. 9. 1

:electronic book   hand-held computer   PDA
Windows CE

paperless office

The idealized office in which paper is absent because all information is stored and transferred electronically. With the ever-expanding application of computers into business areas as diverse as accounting, desktop publishing, billing, mail, and scheduling, it seemed in the early 80s that the real paperless office was just around the corner. Ironically, just the opposite has transpired. The ease with which computers enable people to print all sorts of documents has created a flood of new paper. Indeed, perhaps the most widespread computer application is the fax machine, which uses paper by the ream.

Some analysts believe that the paperless office is still an achievable and laudable goal, but that certain key technologies such as optical character recognition (OCR) must be improved. Others, however, argue that the tangibleness of paper documents yields certain benefits that will never disappear.

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(OCR)　　　　　　　。

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📁:Computer Science

1️⃣:1998. 5. 16

parallel processing

The simultaneous use of more than one CPU to execute a program. Ideally, parallel processing makes a program run faster because there are more engines (CPUs) running it. In practice, it is often difficult to divide a program in such a way that separate CPUs can execute different portions without interfering with each other.

Most computers have just one CPU, but some models have several. There are even computers with thousands of CPUs. With single-CPU computers, it is possible to perform parallel processing by connecting the computers in a network. However, this type of parallel processing requires very sophisticated software called distributed processing software.

Note that parallel processing differs from multitasking, in which a single CPU executes several programs at once.

Parallel processing is also called parallel computing.

CPU   。

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(CPU)   。   ,

    CPU   。

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CPU   。

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📁:Operation System

1️⃣:1997.12.4

PCI

Acronym for Peripheral Component Interconnect, a local bus standard developed by Intel Corporation. Most modern PCs include a PCI bus in addition to a mor general ISA expansion bus. Many analysts, however, believe that PCI will eventually supplant ISA entirely. PCI is also used on newer versions of the Macintosh computer.

PCI is a 64-bit bus, though it is usually implemented as a 32-bit bus. It can run at clock speeds of 33 or 66 MHz. At 32 bits and 33 MHz, it yields a throughput rate of 133 Mb/s.

Although it was developed by Intel, PCI is not tied to any particular family of microprocessors.

外围部件互连。是由 Intel 公司开发的局部总线标准。大多数现代的 PC 机除了配置较普通的 ISA 扩充总线外，还配置了 PCI 总线。但是，许多分析家认为 PCI 最终将完全取代 ISA。PCI 还用于新型的 Macintosh 计算机。

PCI 是一种 64 位总线，尽管它通常是以 32 位总线方式实现的。它可以运行在 33 MHz 或 66 MHz 的时钟频率上。在 32 位、33 MHz 时，其吞吐率为 133 Mb/s。

尽管它是由 Intel 开发的，PCI 并不受任何特定微处理器系列的约束。

📁:Hardware

1️⃣:1996.9.1

☞:cache coherence

PCMCIA

Short for Personal Computer Memory Card International Association, and pronounced as separate letters, PCMCIA is an organization consisting of some 500 companies that has developed a standard for small, credit card-sized devices, called PC Cards. Originally designed for adding memory to portable computers, the PCMCIA standard has been expanded several times and is now suitable for many types of devices. There are in fact three types of PCMCIA cards. All three have the same rectangular size (85.6 by 54 millimeters), but different widths

   * Type I cards can be up to 3.3 mm thick, and are used primarily for adding additional ROM or RAM to a computer.

   * Type II cards can be up to 5.5 mm thick. These cards are often used for modem and fax modem cards.

   * Type III cards can be up to 10.5 mm thick, which is sufficiently large for portable disk drives.

As with the cards, PCMCIA slots also come in three sizes:

   * A Type I slot can hold one Type I card

   * A Type II slot can hold one Type II card or two Type I cards

   * A Type III slot can hold one Type III card or a Type I and Type II card.

In general, you can exchange PC Cards on the fly, without rebooting your computer. For example, you can slip in a fax modem card when you want to send a fax and then, when you're done, replace the fax modem card with a memory card.

                                     。PCMCIA

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               PC   。   PCMCIA

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PCMCIA 。   3   (85. 6 mm

×54 mm)，   :

    ＊   Ⅰ   3. 3 mm

          ROM   RAM。

    ＊   Ⅱ   5. 5 mm。

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    ＊   Ⅲ   10. 5 mm，

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          ，PCMCIA   3   :

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    ＊   Ⅱ   Ⅱ   Ⅰ   。

    ＊   Ⅲ   Ⅲ   Ⅰ

Ⅱ 。

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    📁:Hardware

    1️⃣:2000. 10. 25

PCS

Short for Personal Communications Service, the U. S. Federal Communications Commission (FCC) term used to describe a set of digital cellular technologies being deployed in the U. S. PCS works over CDMA(also called IS-95), GSM, and North American (also called IS-136) air interfaces. Two of the most important distinguishing features of PCS systems are:

They are completely digital.

They operate at the 1900 MHz frequency range.

They can be used internationally.

PCS is a second generation mobile communications technology.

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(FCC) 。PCS

CDMA(IS-95)、GSM TDMA (IS-136) 。PCS :

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1 900 MHz 。

。PCS

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:Mobile Computing

1 :1997. 12. 3

:GSM CDMA

PDA

Short for personal digital assistant, a handheld device that combines computing, telephone/fax, and networking features. A typical PDA can function as a cellular phone, fax sender, and personal organizer. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated handwriting recognition features. Some PDAs can also react to voice input by using voice recognition technologies. PDAs of today are available in either a stylus or keyboard version.

The field of PDA was pioneered by Apple Computer, which introduced the Newton MessagePad in 1993. Shortly thereafter, several other manufacturers offered similar products. Today, one of the most popular brands of PDAs is the series of Palm Pilots from Palm, Inc.

PDAs are also called palmtops, hand-held computers and pocket computers.

个人数字助理的简称,是一种集计算、电话/传真和网络等多种功能于一体的手持设备。典型的PDA可以作为移动电话、传真发送器以及个人事务管理器。不同于便携式计算机,多数PDA都是基于笔式的,即利用stylus(触笔)而不是键盘进行输入。这就是说它们也包含手写识别功能。某些PDA还能利用语音识别技术对语音输入作出反应。当今的PDA有触笔或键盘两种类型。

PDA领域的先驱是Apple计算机公司,Apple于1993年推出了Newton MessagePad。此后不久,数家其他厂商也相继推出了类似产品。今天,最流行的PDA品牌之一是Palm公司生产的Palm Pilots系列。

PDA也称为掌上计算机、手持式计算机和袖珍计算机。

📁:mob

📅:2000. 12. 8

🔧:Apple Computer　EPOC　hand-held computer
　　HPC　palmtop　Windows　CE WTLS

peer-to-peer architecture

A type of network in which each workstation has e-quivalent capabilities and responsibilities. This differs from client/server architectures, in which some computers are dedicated to serving the others. Peer-to-peer networks are generally simpler and less expensive, but they usually do not offer the same performance under heavy loads.

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📁: Netwrok

1️⃣: 1998. 3. 18

📠: client/server architecture   local-area network

pen computer

A computer that utilizes an electronic pen (called a stylus) rather than a keyboard for input. Pen computers generally require special operating systems that support handwriting recognition so that users can write on the screen or on a tablet instead of typing on a keyboard. Most pen computers are hand-held devices, which are too small for a full-size keyboard.

（   stylus）

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▢:Mobile Computing

1️⃣:1997.7.23

▱:hand-held computer   palmtop   PDA

Pentium 4　　4

The next generation of microprocessors from Intel. Features such as a 32-bit microprocessor, hyper-pipelined technology, a rapid execution engine and a 100 MHz system bus that delivers three times the bandwidth of the Pentium III processor are designed to enhance online gaming, digital video and photography, speech recognition and MP3 encoding. Current speeds run at 1.4 and 1.5 GHz. The Pentium 4 processor also features：

* New Level 1 cache technology - Execution Trace Cache, which delivers a higher performance instruction cache than the Pentium III through a more efficient use of cache memory.

* NetBurst microarchitecture doubles the pipelength depth to 20 stages, and increases the frequency capability.

* Streaming SIMD extension 2 (SSE2) -- 144 new instructions, a 128-bit SIMD integer arithmetic and 128-bit SIMD double precision floating point instructions.

Intel　　　　　　　　　。　　　　　32　　　　、

　　　　　、　　　　　　　　　　　　100 MHz

，　　　　　3　　　Pentium III　　　　　　　　，

　　　　、　　　　　　、　　　　　　　MP3　　　　　　。

　　　1.4 GHz　　1.5 GHz。Pentium 4

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　　　　　　　　　　Pentium III　　　　　　　。

*　NetBurst　　　　　　　　　　20，

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*　（　　　　　　）　　　2（SSE2）——144

，　128　　SIME　　　　　128

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📁：Hardware

personal computer

A small, relatively inexpensive computer designed for an individual user. In price, personal computers range anywhere from a few hundred dollars to over five thousand dollars. All are based on the microprocessor technology that enables manufacturers to put an entire CPU on one chip. Businesses use personal computers for word processing, accounting, desktop publishing, and for running spreadsheet and database management applications. At home, the most popular use for personal computers is for playing games.

Personal computers first appeared in the late 1970s. One of the first and most popular personal computers was the Apple II, introduced in 1977 by Apple Computer. During the late 1970s and early 1980s, new models and competing operating systems seemed to appear daily. Then, in 1981, IBM entered the fray with its first personal computer, known as the IBM PC. The IBM PC quickly became the personal computer of choice, and most other personal computer manufacturers fell by the wayside. One of the few companies to survive IBM's onslaught was Apple Computer, which remains a major player in the personal computer marketplace.

Other companies adjusted to IBM's dominance by building IBM clones, computers that were internally almost the same as the IBM PC, but that cost less. Because IBM clones used the same microprocessors as IBM PCs, they were capable of running the same software. Over the years, IBM has lost much of its influence in directing the evolution of PCs. Many of its innovations, such as the MCA expansion bus and the OS/2 operating system, have not been accepted by the industry or the marketplace.

Today, the world of personal computers is basically

divided between Apple Macintoshes and PCs. The principal characteristics of personal computers are that they are single-user systems and are based on microprocessors. However, although personal computers are designed as single-user systems, it is common to link them together to form a network. In terms of power, there is great variety. At the high end, the distinction between personal computers and workstations has faded. High-end models of the Macintosh and PC offer the same computing power and graphics capability as low-end workstations by Sun Microsystems, Hewlett-Packard, and DEC.

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Apple Ⅱ，   Apple 1977   。

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Apple   ，

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IBM   IBM

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OS/2   。

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toshes   PC   。

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。 Macintosh   PC

Sun   、   DEC

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📁:Type of Computer

1️⃣:1997. 4. 14

🖥:Macintosh computer

PicoJava

A low cost (between $10-$50) RISC microprocessor dedicated to executing Java -based bytecodes without the need for a interpreter or JIT compiler. The new chip will be used in network computers, cellular telephones and pagers, hand-held PCs, and enterprise peripherals.

picoJava directly executes the Java Virtual Machine instruction set. As a result, Java software applications are up to 3 times smaller in code size and up to 5 times faster--thus reducing memory requirements--and 20 times faster than Java interpreters running on standard CPU s.

It does not include any memory or I/O interface logic. Rather, developers can add their own logic to customize memory and an interface.

　　　　　　　　(　　10～50　　　　　)　RISC
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　JIT　　　　。　　　　　　　　　　　　、
　　　、　　PC　　　　　　　　　　　　。
　PicoJava　　　　Java　　　　　　。　，Java
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　　　　　——　　　　　PC　　Java
　20　。
　　　　　　　　I/O　　　。
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📁:Hardware

1️⃣:1999.6.9

☞:Java

pipelining

（1）A technique used in advanced microprocessors where the microprocessor begins executing a second instruction before the first has been completed. That is，several instructions are in the pipeline simultaneously，each at a different processing stage.

The pipeline is divided into segments and each segment can execute its operation concurrently with the other segments. When a segment completes an operation，it passes the result to the next segment in the pipeline and fetches the next operation from the preceding segment. The final results of each instruction emerge at the end of the pipeline in rapid succession.

Although formerly a feature only of high-performance and RISC -based microprocessors，pipelining is now common in microprocessors used in personal computers. Intel's Pentium chip，for example，uses pipelining to execute as many as six instructions simultaneously.

Pipelining is called pipeline processing.

（2）A similar technique used in DRAM，in which the memory loads the requested memory contents into a small cache composed of SRAM and then immediately begins fetching the next memory contents. This creates a two-stage pipeline，where data is read from or written to SRAM in one stage，and data is read from or written to memory in the other stage.

DRAM pipelining is usually combined with another performance technique called burst mode. The two techniques together are called a pipeline burst cache.

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RISC

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(2) DRAM ，

SRAM

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SRAM，

DRAM

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📁:Hardware

1️⃣:2001.1.6

☞:RISC

pixel

Short for Picture Element, a pixel is a single point in a graphic image. Graphics monitors display pictures by dividing the display screen into thousands (or millions) of pixels, arranged in rows and columns. The pixels are so close together that they appear connected.

The number of bits used to represent each pixel determines how many colors or shades of gray can be displayed. For example, in 8-bit color mode, the color monitor uses 8 bits for each pixel, making it possible to display 2 to the 8th power (256) different colors or shades of gray.

On color monitors, each pixel is actually composed of three dots -- a red, a blue, and a green one. Ideally, the three dots should all converge at the same point, but all monitors have some convergence error that can make color pixels appear fuzzy.

The quality of a display system largely depends on its resolution, how many pixels it can display, and how many bits are used to represent each pixel. VGA systems display 640 by 480, or about 300,000 pixels. In contrast, SVGA systems display 1,024 by 768, or nearly 800,000 pixels. True Color systems use 24 bits per pixel, allowing them to display more than 16 million different colors.

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480　　　，　　300 000　　　。　，SVGA
1 024×768，　　800 800　　。　　　　　　　24
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:Graphics

1 ,1998. 5. 18

platform

The underlying hardware or software for a system. For example, the platform might be an Intel 80486 processor running DOS Version 6. 0. The platform could also be UNIX machines on an Ethernet network.

The platform defines a standard around which a system can be developed. Once the platform has been defined, software developers can produce appropriate software and managers can purchase appropriate hardware and applications. The term is often used as a synonym of operating system.

The term cross-platform refers to applications, formats, or devices that work on different platforms. For example, a cross-platform programming environment enables a programmer to develop programs for many platforms at once.

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Intel 80480   DOS 6. 0   。

UNIX   。

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:Operation System

1 :1998. 5. 18

plug compatible

Able to replace another product without any altera-
tions. Two devices are said to be plug-compatible if either
one can be plugged into the same interface. The term is al-
so sometimes used to describe software modules that inter-
face with an application in the same way.

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:Hardware

:1998.5.19

:expansion board

PNG

Short for Portable Network Graphics，and pronounced ping，a new bit-mapped graphics format similar to GIF. In fact，PNG was approved as a standard by the World Wide Web consortium to replace GIF because GIF uses a patented data compression algorithm called LZW. In contrast，PNG is completely patent- and license-free. The most recent versions of Netscape Navigator and Microsoft Internet Explorer now support PNG.

，   GIF

。   ，PNG   WWW   GIF

GIF   LZW。

，PNG   。   Netscape

Navigator   IE   PNG。

:WWW

1 ;1998.2.1

PnP

Short for Plug and Play，a technology developed by Microsoft and Intel that supports plug-and-play installation. PnP is built into the Windows 95 operating system，but to use it，the computer's BIOS and expansion boards must also support PnP.

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Intel 。PnP Windows
95 ， ， BIOS
PnP。

:Operation System

1 :1997.4.17

:BIOS expansion board plug-and-play

PointCast

A now-defunct company founded in 1992 to deliver news and other information over Internet connections. PointCast's flagship product was PointCast Network，which sent customized news to users' desktops. PointCast Network was free. To use it，you needed to download the PointCast client program，which was available from PointCast's Web site and many other places．

PointCast was the first company to successfully combine the Internet with push technologies.

In 1999 EntryPoint acquired PointCast，and in late 2000 EntryPoint merged with Internet Financial Network Inc. to form InfoGate.

1992

。PointCast   PointCast

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PointCast   。

PointCast

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1999   ，EntryPoint   PointCast   ，

2000   ，EntryPoint

InfoGate。

:Online Service

:2001.1.31

:CDF   push   webcasting

PON

Passive Optical Network is a high bandwidth point to multipoint optical fibre network based on the asynchronous transfer mode protocol (ATM).

PONs generally consist of an OLT (Optical Line Termination), which is connected to ONUs (Optical Network Units), aka subscriber terminals, using only fibre cables, optical splitters and other passive components (do not transmit signals using electricity). Up to 32 ONUs can be connected to an OLT.

The OLT is located at a local exchange, and the ONU is located either on the street, in a building, or even in a user's home.

PONs rely on lightwaves for data transfer.

In a PON, signals are routed over the local link with all signals along that link going to all interim transfer points. Optical splitters route signals through the network; optical receivers at intermediate points and subscriber terminals tuned for specific wavelengths of light direct signals intended for their groups of subscribers. At the final destination, a specific residence or business can detect its specified signal.

PONs are capable of delivering high volumes of upstream and downstream bandwidth (up to 622 Mb/s downstream and 155 Mb/s upstream), which can be changed "on-the-fly" depending on an individual user's needs.

(ATM)

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PON ONU( ) OLT( )、 aka 、 ( )。 32ONU OLT。

OLT , ONU 、

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PON

　　PON ，　　　　　　　　　　　　　　　，

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　　PON   （   622
Mb/s，   155 Mb/s），

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📁:Network

1️⃣:2000. 1. 13

portable

(1) When used to describrihardware, portable means small and lightweight. A portable computer is a computer small enough to carry. Portable computers include note-book and subnotebook computers, hand-held computers, palmtops, and PDAs.

(2) When used to describe software, portable means that the software has the ability to run on a variety of com-puters. Portable and machine independent mean the same thing -- that the software does not depend on a particular type of hardware.

(1)   ,portable   。

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           、   、   PDA。

(2)   ,portable

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📁:Mobile Computing

📅:1996.9.1

👉: hand-held computer   machine independent palmtop   PDA

port scanning

The act of systematically scanning a computer's ports. Since a port is a place where information goes into and out of a computer, port scanning identifies open doors to a computer. Port scanning has legitimate uses in managing networks, but port scanning also can be malicious in nature if someone is looking for a weakened access point to break into your computer.

Types of port scans:

vanilla: the scanner attempts to connect to all 65,535 ports.

strobe: a more focused scan looking only for known services to exploit.

fragmented packets: the scanner sends packet fragments that get through simple packet filters in a firewall.

UDP: the scanner looks for open UDP ports.

sweep: the scanner connects to the same port on more than one machine.

FTP bounce: the scanner goes through an FTP server in order to disguise the source of the scan

stealth scan: the scanner blocks the scanned computer from recording the port scan activities.

Port scanning in and of itself is not a crime. There is no way to stop someone from port scanning your computer while you are on the Internet because accessing an Internet server opens a port, which opens a door to your computer. There are, however, software products that can stop a port scanner from doing any damage to your system.

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vanilla：   65 535   。

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UDP：   UDP   。

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FTP   ：   FTP

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📁：computer science

1️⃣：2001. 3. 15

🖘：Hacker intrusion detection system VRRP

POST

Short for power-on self test，a series of diagnostic tests that run automatically when you turn your computer on．The actual tests can differ depending on how the BIOS is configured，but usually the POST tests the RAM，the keyboard，and the disk drives．If the tests are successful，the computer boots itself．If the tests are unsuccessful，the computer reports the error by emitting a series of beeps and possibly displaying an error message and code on the display screen．The number of beeps indicates the error，but differs from one BIOS to another．

📁：Hardware

1️⃣：2000．11．27

📠：BIOS boot

power cycling

In the case of a frozen or hung device，power cycling refers to turning the device's power off and then on in order to get the device to function again. For example，if a desktop computer freezes，the user is unable to perform a routine shutdown by utilizing the shut down window. In order to get the device working again，the user must power cycle the device by manually by pressing the power key or disengaging the power source.

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📁：Hardware

1️⃣：2001. 2. 14

☞：bug

power supply

The component that supplies power to a computer. Most personal computers can be plugged into standard electrical outlets. The power supply then pulls the required amount of electricity and converts the AC current to DC current. It also regulates the voltage to eliminate spikes and surges common in most electrical systems. Not all power supplies，however，do an adequate voltage-regulation job，so a computer is always susceptible to large voltage fluctuations.

Power supplies are rated in terms of the number of watts they generate. The more powerful the computer，the more watts it can provide to components. In general，200 watts should be sufficient.

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　　　: Hardware

　　1 : 1996. 9. 1

　　: UPS　voltage regulator

PPGA

Plastic Pin Grid Arrays were first developed by Intel in 1993 to combat power supply decoupling issues in high-performance microprocessors. This square chip packaging technology was designed for microprocessors with greater numbers of transistors on each chip than previous models. Unlike ceramic pin grid arrays (CPGA) or tape carrier packages (TCP), PPGA packages offer a greater amount of thermal resistance and improved electrical performance and power distribution, which directly affect the potential performance of microprocessors sensitive to heat transmission.

                    Intel   1993

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        (CPGA)   (TCP),PPGA

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      📁:Hardware
      1️⃣:2000. 11. 21
      ☞:FC-PGA

PPPoE

Acronym for Point-to-Point Protocol over Ethernet. PPPoE relies on two widely accepted standards: PPP and Ethernet. PPPoE is a specification for connecting the users on an Ethernet to the Internet through a common broadband medium, such as a single DSL line, wireless device or cable modem. All the users over the Ethernet share a common connection, so the Ethernet principles supporting multiple users in a LAN combine with the principles of PPP, which apply to serial connections.

PPPoE   (Point-to-Point Protocol over Ethernet)   。 PPPoE

          :PPP   Ethernet。 PPPoE

                                        ,   DSL   、

          ,   。

                    PPP

    。

📁:network

1️⃣:2001.1.24

☞:PPTP

primitive

A low-level object or operation from which higher-level, more complex objects and operations can be constructed. In graphics, primitives are basic elements, such as lines, curves, and polygons, which you can combine to create more complex graphical images. In programming, primitives are the basic operations supported by the programming language. A programmer combines these primitives to create more complex operations, which are packaged as functions, procedures, and methods.

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📁:Graphics

1⃣:1998. 6. 17

Proprietary

Privately owned and controlled. In the computer industry，proprietary is the opposite of open. A proprietary design or technique is one that is owned by a company. It also implies that the company has not divulged specifications that would allow other companies to duplicate the product.

Increasingly，proprietary architectures are seen as a disadvantage. Consumers prefer open and standardized architectures，which allow them to mix and match products from different manufacturers.

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▱:Computer Science

1:1996.9.1

☞:open architecture

Protocol

An agreed-upon format for transmitting data between two devices. The protocol determines the following：

the type of error checking to be used.

data compression method，if any.

how the sending device will indicate that it has finished sending a message.

how the receiving device will indicate that it has received a message.

There are a variety of standard protocols from which programmers can choose. Each has particular advantages and disadvantages；for example，some are simpler than others，some are more reliable，and some are faster.

From a user's point of view，the only interesting aspect about protocols is that your computer or device must support the right ones if you want to communicate with other computers. The protocol can be implemented either in hardware or in software.

📁:Standard

1️⃣:1996.9.1

☞:bit stuffing   CIFS   PPPoE

proxy server

A server that sits between a client application, such as a Web browser, and a real server. It intercepts all requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server.

Proxy servers have two main purposes:

Improve Performance: Proxy servers can dramatically improve performance for groups of users. This is because it saves the results of all requests for a certain amount of time. Consider the case where both user X and user Y access the World Wide Web through a proxy server. First user X requests a certain Web page, which we'll call Page 1. Sometime later, user Y requests the same page. Instead of forwarding the request to the Web server where Page 1 resides, which can be a time-consuming operation, the proxy server simply returns the Page 1 that it already fetched for user X. Since the proxy server is often on the same network as the user, this is a much faster operation. Real proxy servers support hundreds or thousands of users. The major online services such as Compuserve and America Online, for example, employ an array of proxy servers.

Filter Requests: Proxy servers can also be used to filter requests. For example, a company might use a proxy server to prevent its employees from accessing a specific set of Web sites.

Web

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X   Y   WWW。

X ， Page 1。 ，

　Y 。

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　X 。

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ca Onlin 。

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📁:Network

1️⃣:1999.7.16

📠:Firewall network-attached storage server farm Web
　　server

Pull

To request data from another program or computer. The opposite of pull is push, where data is sent without a request being made. The terms push and pull are used frequently to describe data sent over the Internet. The World Wide Web is based on pull technologies, where a page isn't delivered until a browser requests it. Increasingly, however, Information services are harnessing the Internet to broadcast information using push technologies. A prime example is the PointCast Network.

。 Pull

push,push   。

push   pull   。

WWW   pull   ,

。   ,   push

。   PointCast   。

:Online Service

:1997. 1. 30

:push

PURL　　URL

Short for Persistent URL，a type of URL that acts as an intermediary for a real URL of Web resource．When you enter a PURL in a browser，the browser sends the page request to a PURL server which then returns the real URL of the page．PURLs are persistent because once a PURL is established，it never needs to change．The real address of the web page may change but the PURL remains the same．

PURLs are managed by the Online Computer Library Center (OCLC)．

　　　　URL　　　　　，

URL　　　　　URL　　　。　　　　　　　　　　　　　　PURL

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　PURL　　　　　，　　　　　　　　。

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　PURL　　　　　　　　　　(OCLC)　　　。

　📁:WWW

　1️⃣:1997.6.13

　⌨:URL

push

(1) In client/server applications, to send data to a client without the client requesting it. The World Wide Web is based on a pull technology where the client browser must request a Web page before it is sent. Broadcast media, on the other hand, are push technologies because they send information out regardless of whether anyone is tuned in.

Increasingly, companies are using the Internet to deliver information push-style. Probably the oldest and most widely used push technology is e-mail. This is a push technology because you receive mail whether you ask for it or not -- that is, the sender pushes the message to the receiver.

(2) In programming, to place a data item onto a stack. The opposite of push is pop, which means to remove an object from a stack.

(1) 　　　　　/　　　　　，

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WWW　　　　pull　　　，

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　　　　　　　　　　　push

　。　　　　　　　　　push　　　　e-mail。e-mail　　　　push

　　——　　　　　　　　" "　　　　　。

(2)　　　　　　，　　　　　　　　。

Push　　　pop，　　　　　　　　。

📁:Online Service

1️⃣:1997.1.30

🔧:CDF　intelligent agent　PointCast　pull　webcasting

PVC

Short for permanent virtual circuit, a virtual circuit that is permanently available. The only difference between a PVC and a switched virtual circuit (SVC) is that an SVC must be reestablished each time data is to be sent. Once the data has been sent, the SVC disappears. PVCs are more efficient for connections between hosts that communicate frequently.

PVCs play a central role in Frame Relay networks. They're also supported in some other types of networks, such as X. 25.

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PVC   (SVC)

SVC   。

     ，SVC   。PVC

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     PVC   。

                         ，   X. 25。

     📁:Network

     1️⃣:1998. 2. 18

     ☞:SVC virtual circuit

quantum computing

First proposed in the 1970s, quantum computing relies on quantum physics by taking advantage of certain quantum physics properties of atoms or nuclei that allow them to work together as quantum bits, or qubits, to be the computer's processor and memory. By interacting with each other while being isolated from the external environment, qubits can perform certain calculations exponentially faster than conventional computers.

Qubits do not rely on the traditional binary nature of computing. While traditional computers encode information into bits using binary numbers, either a 0 or 1, and can only do calculations on one set of numbers at once, quantum computers encode information as a series of quantum-mechanical states such as spin directions of electrons or polarization orientations of a photon that might represent a 1 or a 0, might represent a combination of the two or might represent a number expressing that the state of the qubit is somewhere between 1 and 0, or a superposition of many different numbers at once. A quantum computer can do an arbitrary reversible classical computation on all the numbers simultaneously, which a binary system cannot do.

Quantum computing is not well suited for tasks such as word processing and email, but it is ideal for tasks such as cryptography and modeling and indexing very large databases.

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email

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:Type of Computer

$\boxed{1}$:2000. 12. 27

:qubit

quarantine

To move an infected file, such as a virus, into an area where it cannot cause more harm. Antivirus softwares come with quarantine options so that the user also can keep track of virus activity.

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📁:computer science

1️⃣:2001.3.9

☞:bootable diskette MBR

qubit

A quantum bit. The smallest unit of information i
quantum computing. Qubits hold an exponentially larger a-
mount of information than traditional bits.

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📁:Data

1️⃣ :2000. 12. 27

🖇:quantum computing

RAID

Short for Redundant Array of Independent (or Inexpensive) Disks，a category of disk drives that employ two or more drives in combination for fault tolerance and performance. RAID disk drives are used frequently on servers but aren't generally necessary for personal computers.

There are number of different RAID levels. The three most common are 0，3，and 5：

Level 0：Provides data striping (spreading out blocks of each file across multiple disks) but no redundancy. This improves performance but does not deliver fault tolerance.

Level 1：Provides disk mirroring.

Level 3：Same as Level 0，but also reserves one dedicated disk for error correction data. It provides good performance and some level of fault tolerance.

Level 5：Provides data striping at the byte level and also stripe error correction information. This results in excellent performance and good fault tolerance.

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RAID。   RAID

0，3   5：

RAID 0：   (

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RAID 1：   。

RAID 3： RAID 0   ，

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RAID 5： 。

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📁：Hardware

1️⃣：1996.11.20

🖱️：fault tolerance

RAM latency RAM

A delay in transmitting data between a computer's RAM and its processor. Since RAM is not necessarily fast compared to the computer's processor，RAM latency can occur，causing a delay between the time a computer's hardware recognizes the need for a RAM access（initiates a request for data）and the time the data or instruction is available to the processor. If the CPU requests data that is not stored in the cache，then it will have to wait for the RAM to retrieve the data，opening the door to latency problems.

Also see latency.

RAM

。   RAM   ,RAM

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RAM   (   )

。   CPU

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latency。

:computer science

:2001. 1. 25

:Bandwidth

raw

Unprocessed. The term refers to data that is passed along to an I/O device without being interpreted. In contrast, cooked refers to data that is processed before being passed to the I/O device.

The term comes from UNIX，which supports cooked and raw modes for data output to a terminal. In cooked mode，special characters，such as erase and kill are processed by the device driver before being sent the output device.

未处理的。此术语指不加解释地传输给 I/O 设备的数据。相反地，cooked 指在传输给 I/O 设备之前已经过处理的数据。

此术语来自 UNIX，它支持将数据以 cooked 和 raw 两种模式输出至终端。在 cooked 模式中，特殊字符，如 erase 和 kill 在送往输出设备之前已由设备驱动程序处理。

📁:Data

1️⃣:1999.5.19

RDF

Short for Resource Description Framework. RDF is a general framework for describing a Web site's metadata, or the information about the information on the site. It provides interoperability between applications that exchange machine-understandable information on the Web. RDF details information such as a site's sitemap, the dates of when updates were made, keywords that search engines look for and the Web page's intellectual property rights.

Developed under the guidance of the World Wide Web Consortium, RDF was designed to allow developers to build search engines that relay on the metadata and to allow Internet users to share Web site information more readily. RDF relies on XML as an interchange syntax, creating an ontology system for the exchange of information on the Web.

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Web 。

RDF ， ，

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WWW RDF

。RDF XML

， Web

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:data

:2001. 3. 29

:meta data XML

real-time clock

A clock that keeps track of the time even when the computer is turned off. Real-time clocks run on a special battery that is not connected to the normal power supply. In contrast，clocks that are not real-time do not function when the computer is off.

Do not confuse a computer's real-time clock with its CPU clock. The CPU clock regulates the execution of instructions.

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CPU   。

CPU   。

📁: Hardware

1️⃣: 1996. 9. 1

record

(1) In database management systems, a complete set of information. Records are composed of fields, each of which contains one item of information. A set of records constitutes a file. For example, a personnel file might contain records that have three fields: a name field, an address field, and a phone number field.

In relational database management systems, records are called tuples.

(2) Some programming languages allow you to define a special data structure called a record. Generaly, a record is a combination of other data objects. For example, a record might contain three integers, a floating-point number, and a character string.

(1) , 。

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: name , address

phone number 。

(2) , 。

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:Data

:1998. 5. 20

refresh

(1) Generally, to update something with new data. For example, some Web browsers include a refresh button that updates the currently display Web pages. This feature is also called reload.

(2) To recharge a device with power or information. For example, dynamic RAM needs to be refreshed thousands of times per second or it will lose the data stored in it.

Similarly, display monitors must be refreshed many times per second. The refresh rate for a monitor is measured in hertz (Hz) and is also called the vertical frequency, vertical scan rate, frame rate or vertical refresh rate. The old standard for monitor refresh rates was 60Hz, but a new standard developed by VESA sets the refresh rate at 75Hz for monitors displaying resolutions of 640x480 or greater. This means that the monitor redraws the display 75 times per second. The faster the refresh rate, the less the monitor flickers.

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(2)   。

RAM   。

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Hz,   VESA

640×480   75 Hz   。

            75 。   ,

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📁:Hardware

1️⃣:2000.10.18

Resident Font

Also called an internal font or built-in font，a resident font is a font built into the hardware of a printer. All dot-matrix and laser printers come with one or more resident fonts. You can add additional fonts by inserting font cartridges or downloading soft fonts.

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:Computer Science

:2001.1.31

resolution

Refers to the sharpness and clarity of an image. The term is most often used to describe monitors, printers, and bit-mapped graphic images. In the case of dot-matrix and laser printers, the resolution indicates the number of dots per inch. For example, a 300-dpi (dots per inch) printer is one that is capable of printing 300 distinct dots in a line 1 inch long. This means it can print 90,000 dots per square inch.

For graphics monitors, the screen resolution signifies the number of dots (pixels) on the entire screen. For example, a 640-by-480 pixel screen is capable of displaying 640 distinct dots on each of 480 lines, or about 300,000 pixels. This translates into different dpi measurements depending on the size of the screen. For example, a 15-inch VGA monitor (640x480) displays about 50 dots per inch.

Printers, monitors, scanners, and other I/O devices are often classified as high resolution, medium resolution, or low resolution. The actual resolution ranges for each of these grades is constantly shifting as the technology improves.

Video RAM Required for Different Resolutions

Resolution	256 colors (8-bit)	65 000 colors (16-bit)	16.7 million colors (24-bit, true color)
640×480	512 KB	1 MB	1 MB
800×600	512 KB	1 MB	2 MB
1 024×768	1 MB	2 MB	4 MB
1 152×1 024	2 MB	2 MB	4 MB
1 280×1 024	2 MB	4 MB	4 MB
1 600×1 200	2 MB	4 MB	6 MB

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480 640 ， 300 000

。 dpi

。 ， 15 VGA (640×480)

50 。

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1 RAM

	256 (8-)	65 000 (16-)	1 670 (24- ,)
640×480	512 KB	1 MB	1 MB
800×600	512 KB	1 MB	2 MB
1 024×768	1 MB	2 MB	4 MB
1 152×1 024	2 MB	2 MB	4 MB
1 280×1 024	2 MB	4 MB	4 MB
1 600×1 200	2 MB	4 MB	6 MB

📁:Graphics

1️⃣:1998.3.19

🖱:pixel

Rexx

Rexx is short for Restructured Extended Executor, an interpreted, structured, procedural script programming language created by IBM's Mike Cowlishaw that allows programs and algorithms to be written in a clear structured way. It was designed so that it would be truly easy to use for both professionals and casual users and was designed to work in several diverse application areas -- such as personal programming, command processing, application macro processing and application prototyping -- where different languages are typically used. It is, however, designed to be platform-independent.

Even though Rexx is not BASIC, it can be used to write simple programs and large robust programs and can be used for many of the programs for which BASIC would otherwise be used.

Rexx evolved between the years 1979 and 1982 and, in 1983, IBM made Rexx the standard System Product interpreter for CMS in VM/SP and VM/XA. IBM selected Rexx as its SAA Procedures Language in 1987 and brought the language to all of its operating platforms, including MVS, VM, OS/400, AIX and OS/2. Today, Rexx is available in either commercial form or as freeware for operating systems including Amiga, MS/PC-DOS, most UNIX systems, VMS, 16-bit Windows, Macintosh, Windows NT and all IBM systems.

Rexx   ,

IBM   Mike Cowlishaw   、

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Rexx BASIC，

， BASIC

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Rexx 1979 1982 ， 1993
IBM Rexx VM/SP VM/XA CMS
。 IBM 1987 Rexx

SAA ，

MVS、VM、OS/400、AIX OS/2。 Rexx

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Amiga、MS/PC-DOS、 UNIX 、VMS、16
Windows、Macintosh、Windows NT IBM 。

📁 : programming

1️⃣ : 2001. 2. 6

☞ : honeypot

RFC

Short for Request for Comments，a series of notes about the Internet，started in 1969 (when the Internet was the ARPANET). An RFC can be submitted by anyone. Eventually，if it gains enough interest，it may evolve into an Internet standard.

Each RFC is designated by an RFC number. Once published，an RFC never changes. Modifications to an original RFC are assigned a new RFC number.

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RFC　　　　　　　　　　　。　　　　　　　　　　　　，

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　　　　RFC　　　　　RFC　　　　　　。　　　，

RFC　　　。　　　　　　　　RFC

RFC　　。

　　📁:Standard

　　1️⃣:1997.3.2

Ripper

A software program that "grabs" digital audio from a compact disc and transfers it to a computer's hard drive. The integrity of the data is preserved because the signal does not pass through the computer's sound card and does not need to be converted to an analog format. The digital-to-digital transfer creates a WAV file that can then be converted into an MP3 file.

一个从压缩盘上"抓取"数字声频并把它们传送到计算机硬盘上的软件程序。数据的完整性被保护，因为信号不通过计算机声卡，也不需要被转换成模拟格式。这种数字到数字的传送产生一个 WAV 文件，此文件可以被转换成一个 MP3 文件。

📁：software

1️⃣：2001. 1. 30

RISC

Pronounced risk, acronym for reduced instruction set computer, a type of microprocessor that recognizes a relatively limited number of instructions. Until the mid-1980s, the tendency among computer manufacturers was to build increasingly complex CPUs that had ever-larger sets of instructions. At that time, however, a number of computer manufacturers decided to reverse this trend by building CPUs capable of executing only a very limited set of instructions. One advantage of reduced instruction set computers is that they can execute their instructions very fast because the instructions are so simple. Another, perhaps more important advantage, is that RISC chips require fewer transistors, which makes them cheaper to design and produce. Since the emergence of RISC computers, conventional computers have been referred to as CISCs (complex instruction set computers).

There is still considerable controversy among experts about the ultimate value of RISC architectures. Its proponents argue that RISC machines are both cheaper and faster, and are therefore the machines of the future. Skeptics note that by making the hardware simpler, RISC architectures put a greater burden on the software. They argue that this is not worth the trouble because conventional microprocessors are becoming increasingly fast and cheap anyway.

To some extent, the argument is becoming moot because CISC and RISC implementations are becoming more and more alike. Many of today's RISC chips support as many instructions as yesterday's CISC chips. And today's CISC chips use many techniques formerly associated with RISC chips.

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CPU。

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CPU   。

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RISC   。   RISC

CISC   。   CISC

RISC   。

:Hardware

:1996.9.1

RosettaNet

Named after the ancient Rosetta stone，which helped decipher hieroglyphics. A non-profit organization（www. rosettanet. org）that seeks to implement standards for supply-chain（manager-supplier）transactions on the Internet. Created in Winter 1998，the group includes companies like American Express，Microsoft，Netscape，and IBM，and is working to standardize labels for elements like product descriptions，part numbers，pricing data，and inventory status. The group hopes to implement many of its goals through XML，a mark-up language that lets programmers classify information with tags.

Rosetta 。

（www. rosettanet. org），

（ ） 。

1998 American Express，Microsoft，

Netscape IBM ，

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XML——

—— 。

:Online Service

1 :2001. 1. 12

RPG /

(1) Short for Report Program Generator, a programming language developed by IBM in the mid-60's for developing business applications, especially generating reports from data. The newest version, RPG 400, is still widely used on AS/400 systems.

(2) Short for role-playing games, computer games where one or more players adopt a role and act it out in a virtual reality.

(1) , IBM 20 60

。 RPG 400,

AS/400 。

(2) , ,

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:Programming

1 :2000. 11. 22

RTSP

Short for Real Time Streaming Protocol, a proposed standard for controlling streaming data over the World Wide Web. RTSP grew out of work done by Columbia University, Netscape and RealNetworks has been submitted to the IETF for standardization.

Like H. 323, RTSP uses RTP (Real-Time Transport Protocol) to format packets of multimedia content. But whereas H. 323 is designed for videoconferencing of moderately-sized groups, RTSP is designed to efficiently broadcast audio-visual data to large groups.

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。RTSP　　　　　　　　　　，

Netscape　RealNetwork　　　　　　　IETF　　　　　。

H. 323　　，RTSP　　RTP(　　　　)

。　H. 323

，　RTSP

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:WWW

1 :1997. 11. 16

:SMIL

RTT   /

（1）Short for real-time technology. RTT refers to technology that allows a user to receive data during the actual time that a physical process occurs，known as real time. Real time is measured in milliseconds or microseconds.

While RTT is used for sophisticated entertainment purposes，such as streaming live video or audio and has applications that ultimately will make Internet use more lively and practical，this immediate-response technology is being used for a wide array of critical applications that require instant response times. For example，an automatic pilot must respond to data on changing flight conditions or the position of other aircraft immediately；nuclear power plants must have real-time information on what is happening at all times in all critical areas of the plant for safety；space flight computers must respond instantly to changing conditions in the atmosphere.

（2）Short for round-trip time，the time required for a network communication to travel from the source to the destination and back. RTT is used by some routing algorithms to aid in calculating optimal routes.

（1）   。RTT

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        RTT   ，

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（2）　　　　　　　　　　　　，

。RTT

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:computer science

1 :2001. 4. 12

:RTSP　SMIL

sampling

A technique used to capture continuous phenomena，whereby periodic snapshots are taken. If the sampling rate is fast enough，the human sensory organs cannot discern the gaps between each snapshot when they are played back. This is the principle behind motion pictures.

Sampling is the key technique used to digitize analog information. For example，music CDs are produced by sampling live sound at frequent intervals and then digitizing each sample. The term sampling is also used to describe a similar process in digital photography.

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CD

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🗀：Computer Science

1️⃣：1996.9.1

🗇：ADPCM

SAN

Storage Area Network (SAN) is a high-speed subnetwork of shared storage devices. A storage device is a machine that contains nothing but a disk or disks for storing data.

A SAN's architecture works in a way that makes all storage devices available to all servers on a LAN or WAN. As more storage devices are added to a SAN, they too will be accessible from any server in the larger network. In this case, the server merely acts as a pathway between the end user and the stored data.

Because stored data does not reside directly on any of a network's servers, server power is utilized for business applications, and network capacity is released to the end user.

（SAN）

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SAN　　　　　LAN　　WAN

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SAN　，

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📁：Netwrork

1️⃣：1999.3.24

SASL

Acronym for Simple Authentication and Security Layer. Originating with RFC2222, written by John Myers while at Netscape Communications, SASL is a method for adding authentication support to connection-based protocols. SASL takes effect when a protocol initiates a command for identifying and authenticating a user to a server. SASL also includes an option for negotiating protection of subsequent protocol interactions. With this option in effect, SASL places a security layer between the protocol and the connection.

。SASL RFC2222， John Myers Netscape ，

，SASL 。SASL 。 ，SASL 。

🗀:computer science

1️⃣:2001.1.31

👉:digital wallet S-HTTP

secondary memory

Secondary memory (or secondary storage) is the slowest and cheapest form of memory. It cannot be processed directly by the CPU. It must first be copied into primary storage (also known as RAM).

Secondary memory devices include magnetic disks like hard drives and floppy disks; optical disks such as CDs and CDROMs; and magnetic tapes.

(　　　　　　　　　　　)　　　　　　　　　　　。

CPU　　　　　。　　　　　　　　　(

RAM)。

(　　　　　　　)、　(

CD　CDROM)　　　。

📁:Hardware

1️⃣:1999. 10. 25

Segment

(1) In networks, a section of a network that is bounded by bridges, routers, hubs, or switches. Dividing an Ethernet into multiple segments is one of the most common ways of increasing bandwidth on the LAN. If segmented correctly, most network traffic will remain within a single segment, enjoying the full 10 Mbps bandwidth. Hubs and switches are used to connect each segment to the rest of the LAN.

(2) In virtual memory systems, a variable-sized portion of data that is swapped in and out of main memory. Contrast with page, which is a fixed-sized portion of data.

(1)　　　　，　　　　、　　　　、

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　　10Mbps　　　　。

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(2)　　　　　　　　，

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:Operation System

1:1998.4.13

server farm

Also referred to as server cluster，compute farm or ranch. A server farm is a group of networked servers that are housed in one location. A server farm streamlines internal processes by distributing the workload between the individual components of the farm and expedites computing processes by harnessing the power of multiple servers. The farms rely on load-balancing software that accomplishes such tasks as tracking demand for processing power from different machines，prioritizing the tasks and scheduling and rescheduling them depending on priority and demand that users put on the network. When one server in the farm fails，another can step in as a backup.

Combining servers and processing power into a single entity has been relatively common for many years in research and academic institutions. Today，more and more companies are utilizing server farms as a way of handling the enormous amount of computerization of tasks and services that they require.

A Web server farm，or Web farm，refers to either a Web site that runs off of more than one server or an ISP that provides Web hosting services using multiple servers.

FARM 。

FARM 。

FARM FARM

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FARM

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　　　　　　　FARM　　　　　　　FARM，

　　　　　ISP。

📁 : Network

📅 : 2001. 1. 12

🔗 : client/server architecture　ColdFusion　DEC　load
　　balancing　local-area network　network-attached
　　storage　proxy server　server-side

server-side

　　Occurring on the server side of a client-server system.
For example，on the World Wide Web，CGI scripts are
server-side applications because they run on the Web serv-
er. In contrast，JavaScript scripts are client-side because
they are executed by your browser（the client）. Java ap-
plets can be either server-side or client-side depending on
which computer（the server or the client）executes them.

　　　　　　　　　/　　　　　　　　　　　。
　　，　WWW　　，CGI
　　Web　　　　。　　　，JavaScript
　　　　　（　　　）　　。 Java applets
　　　　，　　　　　　　　　　　　　（
　）　　　　。

　　　📁:Programming

　　　1️⃣:1997.5.13

　　　👉: client/server architecture　　network-attached
　　　　storage　server farm　SSI

Service Leve Agreement

A Service Level Agreement（SLA）is a contract between an ASP and the end user which stipulates and commits the ASP to a required level of service. An SLA should contain a specified level of service，support options，enforcement or penalty provisions for services not provided，a guaranteed level of system performance as relates to downtime or uptime，a specified level of customer support and what software or hardware will be provided and for what fee.

　　　　　　　（SLA）　　　ASP　　　ASP

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📁:network

1️⃣:2001.5.1

☞:Application Service Provider

service pack

    A service pack is an update to a software version that fixes an existing problem，such as a bug，or provides enhancements to the product that will appear in the next version of the product. When the new product version is released，it usually contains the fixes and updates from the service pack. Service packs can either be downloaded or ordered directly from the company.

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    ， bug，

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📁:software

1️⃣:2001.4.2

👉:Dribbleware   TCO

shared loop

In telecommunications, a shared loop refers to a loop, or subscriber line, that is shared by a competitive local exchange carrier (CLEC) and an incumbent local exchange carrier (ILEC), providing both DSL and voice service over the same line. In late 1999, the FCC passed the Advance Services Third Report and Order, allowing CLECs to gain access to the high-frequency portion of the local loop from incumbent providers. Prior to the ruling, ILECs were dismissing the notion that their lines could support both DSL and voice technology. However, it has been proven that the two technologies can coexist on the copper cables that the ILECs use.

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(CLEC)

(ILEC)   ，   DSL

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，   CLEC

。   ，IL-

EC   DSL   。

，   ILEC

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:network

1 :2001. 2. 28

:OLEC

Shockwave

A technology developed by Macromedia，Inc. that enables Web pages to include multimedia objects. To create a shockwave object，you use Macromedia's multimedia authoring tool called Director，and then compress the object with a program called Afterburner. You then insert a reference to the "shocked" file in your Web page. To see a Shockwave object，you need the Shockwave plug-in，a program that integrates seamlessly with your Web browser. The plug-in is freely available from Macromedia's Web site as either a Netscape Navigator plug-in or an ActiveX control.

Shockwave supports audio，animation，video and even processes user actions such as mouse clicks. It runs on all Windows platforms as well as the Macintosh.

　　　　　　Macromedia　　　　　　　　　　，

　　　　。　　　　　　　　Shockwave　　　，

Macromedia　　　　　　　　Director，

　　Afterburner　　　　　　　。

　　　　　。　　　　　Shockwave　　　，　　　Shock-

wave　　，　　　　　　　　　　　　。

　　　Macromedia　　　　　　　　　　Netscape

Navigator　　　　　　　ActiveX　　　　　　。

　　Shockwave　　　　　　、　　、

　　　　　。　　　　　　　　　Windows

Macintosh　　　。

　　　□:WWW

　　　[1]:1997.11.25

Short Message Service

Short Message Service (SMS) is the transmission of short text messages to and from a mobile phone, fax machine and/or IP address. Messages must be no longer than 160 alpha-numeric characters and contain no images or graphics.

Once a message is sent, it is received by a Short Message Service Center (SMSC), which must then get it to the appropriate mobile device.

To do this, the SMSC sends a SMS Request to the home location register (HLR) to find the roaming customer. Once the HLR receives the request, it will respond to the SMSC with the subscriber's status: 1) inactive or active; 2) where subscriber is roaming.

If the response is "inactive", then the SMSC will hold onto the message for a period of time. When the subscriber accesses his device, the HLR sends a SMS Notification to the SMSC, and the SMSC will attempt delivery.

The SMSC transfers the message in a Short Message Delivery Point to Point format to the serving system. The system pages the device, and if it responds, the message gets delivered.

The SMSC receives verification that the message was received by the end user, then categorizes the message as "sent" and will not attempt to send again.

The number of mobile-phone users expects to reach 500 million worldwide by 2003, and with the help of SMS, 75 percent of all cellular phones will be Internet-enabled.

（SMS）　　　/　　　　　　　、　　　／

IP　　　　　　　　　　　　。　　　　　　160

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　　　　　　，　　　　　　　　　　（SMSC）

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，SMSC   （HLR）

　　SMS   。   HLR

，   SMSC   ：1）

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SMS   ，   SMSC   。

　SMSC   。

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　SMSC   ，

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SMS   ，75％   。

　　📁：Mobile Computing

　　1️⃣：1999.11.24

　　⌨：hand-held computer

S－HTTP　　　HTTP

An extension to the HTTP protocol to support sending data securely over the World Wide Web. Not all Web browsers and servers support S-HTTP. Another technology for transmitting secure communications over the World Wide Web -- Secure Sockets Layer (SSL) -- is more prevalent. However, SSL and S-HTTP have very different designs and goals so it is possible to use the two protocols together. Whereas SSL is designed to establish a secure connection between two computers, S-HTTP is designed to send individual messages securely. Both protocols have been submitted to the Internet Engineering Task Force (IETF) for approval as a standard.

S-HTTP was developed by Enterprise Integration Technologies (EIT), which was acquired by Verifone, Inc. in 1995.

HTTP　　　　　　　　　　WWW

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HTTP。　　　WWW　　　　　　　　　——

　　(SSL)——　　　。　　　SSL　　S-HTTP

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SSL

　，　S-HTTP　　　　　　　　　　　　　。

　　　　　　　　　　　　　　　(IETF)

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　　S-HTTP　　　　　　　　(EIT)　　，
1995　　Verifone　　　　　。

　　🗀:WWW

　　1️⃣:1998.2.3

　　➡:SASL　SSL

silicon

A nonmetallic chemical element in the carbon family of elements. Silicon - atomic symbol "Si" - is the second most abundant element in the earth's crust, surpassed only by oxygen. Silicon does not occur uncombined in nature. Sand and almost all rocks contain silicon combined with oxygen, forming silica. When silicon combines with other elements, such as iron, aluminum or potassium, a silicate is formed. Compounds of silicon also occur in the atmosphere, natural waters, many plants and in the bodies of some animals.

Silicon is the basic material used to make computer chips, transistors, silicon diodes and other electronic circuits and switching devices because its atomic structure makes the element an ideal semiconductor. Silicon is commonly doped, or mixed, with other elements, such as boron, phosphorous and arsenic, to alter its conductive properties.

Silicon was first isolated and described as an element in 1824 by Jacob Berzelius, a Swedish chemist.

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"Si"——   "

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      1824   Jacob Berzelius

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📁:hardware

1️⃣:2001.4.5

☞:FC-PGA   FPGA

Silicon Valley

A nickname for the region south of San Francisco that contains an unusually high concentration of computer companies. Silicon is the most common semiconductor material used to produce chips.

 :Computer Industry Companies

 :1997.4.24

Slot

An opening in a computer where you can insert a printed circuit board. Slots are often called expansion slots because they allow you to expand the capabilities of a computer. The boards you insert in expansion slots are called expansion boards or add-on boards.

Do not confuse slots with bays. Bays are sites within the computer where you can install disk drives. Typically, slots are in the back of the computer and bays are in the front.

📁 : Hardware

1️⃣ : 1998. 5. 18

📇 : chassis　expansion board

sleep mode

An energy-saving mode of operation in which all unnecessary components are shut down. Many battery-operated devices，such as notebook computers，support a sleep mode. When a notebook computer goes into sleep mode，it shuts down the display screen and disk drive. Once awakened，the computer returns to its former operating status.

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📁：Mobile Computing

1️⃣：1996. 9. 1

👉：ACPI Suspend-to-RAM

slotket

Slotket is an adapter that accepts socket 370 CPUs into Slot 1 motherboards.

Computer owners can upgrade their systems with the newest CPUs，such as current and future Celerons and Pentiums，without having to replace their Slot 1 motherboards for the new 370s.

Slotket   sockey 370 CPU   Slot 1
　　　　　　　　。

                                   CPU   ，

　　Celeron   Pentium，   370

Slot 1   。

　　📁 : Hardware

　　1️⃣ : 2000. 2. 4

　　🖱 : socket 370

smart card

A small electronic device about the size of a credit card that contains electronic memory, and possibly an embedded integrated circuit (IC). Smart cards containing an IC are sometimes called Integrated Circuit Cards (ICCs).

Smart cards are used for a variety of purposes, including:

Storing a patient's medical records

Storing digital cash

Generating network IDs (similar to a token)

To use a smart card, either to pull information from it or add data to it, you need a smart card reader, a small device into which you insert the smart card.

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(IC)。   IC

(ICC)。

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ID(   )

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:Hardware

1 :1998.1.27

SMIL

Short for Synchronized Multimedia Integration Language，a new markup language being developed by the World Wide Web Consortium（W3C）that would enable Web developers to divide multimedia content into separate files and streams（audio，video，text，and images），send them to a user's computer individually，and then have them displayed together as if they were a single multimedia stream．The ability to separate out the static text and images should make the multimedia content much smaller so that it doesn't take as long to travel over the Internet．

SMIL is based on the eXtensible Markup Language （XML）．Rather than defining the actual formats used to represent multimedia data，it defines the commands that specify whether the various multimedia components should be played together or in sequence．

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SMIL　　　　　　　（XML）。

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📁：Multimedia

📅：1998.1.23

☞：RTSP　XML

S/MIME   /MIME

Short for Secure/MIME，a new version of the MIME protocol that supports encryption of messages. S/MIME is based on RSA's public-key encryption technology.

It is expected that S/MIME will be widely implemented，which will make it possible for people to send secure E-mail messages to one another，even if they are using different E-mail clients.

　　　　/MIME　　　　，　　　　　　　　MIME
　　　　。S/MIME　　　　RSA　　　　　　　　。
　S/MIME　　　　　　　　　，
　　　　　　E-mail　　　　　　，
　　E-mail　　　。

📁:WWW

1️⃣:1997.3.20

SMP /

(1) Short for Symmetric Multiprocessing, a computer architecture that provides fast performance by making multiple CPUs available to complete individual processes simultaneously (multiprocessing). Unlike asymmetrical processing, any idle processor can be assigned any task, and additional CPUs can be added to improve performance and handle increased loads. A variety of specialized operating systems and hardware arrangements are available to support SMP. Specific applications can benefit from SMP if the code allows multithreading.

SMP uses a single operating system and shares common memory and disk input/output resources. Both UNIX and Windows NT support SMP.

(2) Short for Simple Management Protocol, another name for SNMP2. SNMP2 is an enhanced version of the Simple Network Management Protocol (SNMP) with features required to support larger networks operating at high data transmission rates. SNMP2 also supports multiple network management workstations organized in a hierarchical fashion.

(1)　　　　　　　　　，　　　　　　　，
　　CPU　　　　　　　　　　　　　　　　　。

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　　　　CPU　　　　　　　　　　　　　　　。

SMP　　　　。

　　SMP　　　　　　　　　　　　　　　　　/

　　。UNIX　Windows NT　　　　SMP。

　(2)　　　　　　　，　　　SNMP2

。SNMP2　　　　　　　　　(SNMP)　　　，

　　　　　　　　　　　　。SNMP2

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:Operation System

1 :1998. 5. 18

:BeOS multiprocessing multithreading NU-
MA

sneakernet

（jargon.）Refers to the channel by which electronic information is transmitted from one computer to another by physically carrying it stored on a floppy disk，CD or other removable medium. This play on words stems from the idea that a person is using their feet，i. e.，sneakers，to transfer data instead of through the Internet or an organization's intranet.

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，CD

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📁：Network

1️⃣：2001. 1. 17

socket　　/

(1) In UNIX and some other operating systems，a software object that connects an application to a network protocol. In UNIX，for example，a program can send and receive TCP/IP messages by opening a socket and reading and writing data to and from the socket. This simplifies program development because the programmer need only worry about manipulating the socket and can rely on the operating system to actually transport messages across the network correctly. Note that a socket in this sense is completely soft - it's a software object，not a physical component.

(2) A receptacle into which a plug can be inserted.

(3) A receptacle for a microprocessor or other hardware component.

(1)　　UNIX　　　　　　　　　　，

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　　　　TCP/IP　　　。

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(2)　　　　　　　　　　　　　　。

(3)　　　　　　　　　　　　　　　。

📁:Network

📇:1998. 3. 18

Socket 370

Socket 370 is Intel's new plastic PGA ZIF mother-board socket for its line of Celeron and Pentiu processors. Intel plans to move its entire processor line from the Slot 1 to the socket 370 standard.

If you still happen to use a Slot 1 motherboard，you can purchase a slotket，which will support socket 370 chips.

Socket 370　　Intel　　　　　Celeron　　Pentium

　　　　　　　PGA ZIF　　　　　　。Intel

　　　　　　　Slot 1　　　socket 370　　　。

　　　　　　　　　　Slot 1　　　，

slotkey，　　　　　　socket 370　　　。

　　:Hardware

　　:2000. 2. 4

　　:FC-PGA　　slotket

software licensing

Allowing an individual or group to use a piece of software. Nearly all applications are licensed rather than sold. There are a variety of different types of software licenses. Some are based on the number machines on which the licensed program can run whereas others are based on the number of users that can use the program. Most personal computer software licenses allow you to run the program on only one machine and to make copies of the software only for backup purposes. Some licenses also allow you to run the program on different computers as long as you don't use the copies simultaneously.

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📁 :Software

1️⃣ :1996.12.3

🖰 :EULA

software piracy

The unauthorized copying of software. Most retail programs are licensed for use at just one computer site or for use by only one user at any time. By buying the software, you become a licensed user rather than an owner. You are allowed to make copies of the program for backup purposes, but it is against the law to give copies to friends and colleagues.

Software piracy is all but impossible to stop, although software companies are launching more and more lawsuits against major infractors. Originally, software companies tried to stop software piracy by copy-protecting their software. This strategy failed, however, because it was inconvenient for users and was not 100 percent foolproof. Most software now requires some sort of registration, which may discourage would-be pirates, but doesn't really stop software piracy.

An entirely different approach to software piracy, called shareware, acknowledges the futility of trying to stop people from copying software and instead relies on people's honesty. Shareware publishers encourage users to give copies of programs to friends and colleagues but ask everyone who uses a program regularly to pay a registration fee to the program's author directly.

Commercial programs that are made available to the public illegally are often called warez.

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warez。

:Software

1,1997. 8. 19

:warez

SOHO   /

Acronym for Small Office/Home Office，the fastest growing market for computer hardware and software. So-called SOHO products are specifically designed to meet the needs of professionals who work at home or in small offices.

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　　　　　　。　　　　SOHO

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📁 :Type of Computer

1️⃣ :1996.9.1

solid state disk

Solid State Disks（SSD）are high performance plug-and-play storage devices that contain no moving parts. SSD components include either DRAM or EEPROM memory boards，a memory bus board，a CPU，and a battery card.

Because they contain their own CPUs to manage data storage，they are a lot faster（18Mb/s for SCSI-II and 35 Mb/s for UltraWide SCSI interfaces）than conventional rotating hard disks ；therefore，they produce highest possible I/O rates.

SSDs are most effective for server applications and server systems，where I/O response time is crucial. Data stored on SSDs should include anything that creates bottlenecks，such as databases，swap files，library and index files，and authorization and login information.

（SSD）

。SSD   DRAM   EEPROM

`   、   、   CPU   。

CPU   ，

（SCSI-II   18 Mb/s，UltraWide SCSI   36 Mb/s），   I/O

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SSD   ，

I/O   。SSD

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📁 ：Hardware

1️⃣ ：2000. 1. 6

Spooling

Acronym for simultaneous peripheral operations on-line, spooling refers to putting jobs in a buffer, a special area in memory or on a disk where a device can access them when it is ready. Spooling is useful because devices access data at different rates. The buffer provides a waiting station where data can rest while the slower device catches up.

The most common spooling application is print spooling. In print spooling, documents are loaded into a buffer (usually an area on a disk), and then the printer pulls them off the buffer at its own rate. Because the documents are in a buffer where they can be accessed by the printer, you can perform other operations on the computer while the printing takes place in the background. Spooling also lets you place a number of print jobs on a queue instead of waiting for each one to finish before specifying the next one.

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:Operation System

1. :1996. 9. 1

SPX

Short for Sequenced Packet Exchange, a transport layer protocol (layer 4 of the OSI Model) used in Novell Netware networks. The SPX layer sits on top of the IPX layer (layer 3) and provides connection-oriented services between two nodes on the network. SPX is used primarily by client/server applications.

Whereas the IPX protocol is similar to IP, SPX is similar to TCP. Together, therefore, IPX/SPX provides connection services similar to TCP/IP.

，　　　　　Novell Netware

（OSI　　　　）。SPX　　　IPX

(　　　)

。SPX　　　　　　　　/　　　　　。

IPX　　　IP，　SPX　　　TCP。，IPX/

SPX　　　TCP/IP　　　　　。

📁：Network

1️⃣：1997.8.8

🖰：IPX

SSI

Short for server-side include, a type of HTML comment that directs the Web server to dynamically generate data for the Web page whenever it is requested. The basic format for SSIs are:

$<$ --# command tag="value"

Where # command can be any of various commands supported by the Web server. The simplest command is # include, which inserts the contents of another file. This is especially useful for ensuring that boilerplate components, such as headers and footers, are the same on all pages throughout a Web site. To change a boilerplate element, you need only modify the include file, instead of updating every individual Web page.

SSIs can also be used to execute programs and insert the results. They therefore represent a powerful tool for Web developers.

There is no official standard for SSIs, so every Web server is free to support different SSIs in different manners. However, many SSI commands, such as # include and # exec, have become de facto standards.

Web pages that contain SSIs often end with a . shtml extension, though this is not a requirement. The filename extension enables the Web server to differentiate those pages that need to be processed before they are sent to the browser.

，HTML ，

。SSI

：

$<$ --# command tag="value"

，# command

。 # include，

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SSI 。

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SSI ，

SSI。　　　　SSI 　　　♯ include

♯ exec 。

SSI 　　　　　　. shtml 　　　　，

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📁 : WWW

🗓 : 2000. 10. 16

☞ : server-side

SSL

Short for Secure Sockets Layer, a protocol developed by Netscape for transmitting private documents via the Internet. SSL works by using a private key to encrypt data that's transferred over the SSL connection. Both Netscape Navigator and Internet Explorer support SSL, and many Web sites use the protocol to obtain confidential user information, such as credit card numbers. By convention, Web pages that require an SSL connection start with https: instead of http:.

,   Netscape
                    。 SSL

        SSL   。
Netscape Navigator   IE   SSL,
                                    ,   。
    ,   SSL   https   ,   ht-
tp。

📁 :WWW

1️⃣ :1999.8.4

📇 :digital wallet   S-HTTP

stand-alone

Refers to a device that is self-contained，one that does not require any other devices to function. For example，a fax machine is a stand-alone device because it does not require a computer，printer，modem，or other device. A printer，on the other hand，is not a stand-alone device because it requires a computer to feed it data.

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📁 :Hardware

1️⃣ :1996. 9. 1

Standard

A definition or format that has been approved by a recognized standards organization or is accepted as a de facto standard by the industry. Standards exist for programming languages, operating systems, data formats, communications protocols, and electrical interfaces.

From a user's standpoint, standards are extremely important in the computer industry because they allow the combination of products from different manufacturers to create a customized system. Without standards, only hardware and software from the same company could be used together. In addition, standard user interfaces can make it much easier to learn how to use new applications.

Most official computer standards are set by one of the following organizations:

ANSI (American National Standards Institute)

ITU (International Telecommunication Union)

IEEE (Institute of Electrical and Electronic Engineers)

ISO (International Standards Organization)

VESA (Video Electronics Standards Association)

IEEE sets standards for most types of electrical interfaces. Its most famous standard is probably RS-232C, which defines an interface for serial communication. This is the interface used by most modems, and a number of other devices, including display screens and mice. IEEE is also responsible for designing floating-point data formats.

While IEEE is generally concerned with hardware, ANSI is primarily concerned with software. ANSI has defined standards for a number of programming languages, including C, COBOL, and FORTRAN.

ITU defines international standards, particularly communications protocols. It has defined a number of stand-

ards, including V. 22, V. 32, V. 34 and V. 42, that specify protocols for transmitting data over telephone lines.

In addition to standards approved by organizations, there are also de facto standards. These are formats that have become standard simply because a large number of companies have agreed to use them. They have not been formally approved as standards, but they are standards nonetheless. PostScript is a good example of a de facto standard.

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    ANSI：

    ITU：

    IEEE：

    IOS：

    VESA：

    IEEE   。

                                RS-232C。

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                    。 IEEE

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    IEEE   ，   ANSI   。

ANSI   ，   C、COBOL

    FORTRAN。

    ITU   。

        ，   V. 22、V. 32、

V. 34　V. 42。

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📁 :Standard

1️⃣ :1998. 6. 17

☞ :de facto standard　ITU　MGCP　open architec-
　　ture　VESA　VSB

Storage Service Provider

A Storage Service Provider（SSP）is a company that provides computer storage space and related management services. SSPs also offer periodic backup，archiving and the ability to consolidate data from multiple company locations so that data can be effectively shared.

（SSP）

。SSP

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📁：software

1️⃣：2001.4.20

👉：Application Service Provider

Stateless

Having no information about what occurred previously. Most modern applications maintain state, which means that they remember what you were doing last time you ran the application, and they remember all your configuration settings. This is extremely useful because it means you can mold the application to your working habits.

The World Wide Web, on the other hand, is intrinsically stateless because each request for a new Web page is processed without any knowledge of previous pages requested. This is one of the chief drawbacks to the HTTP protocol. Because maintaining state is extremely useful, programmers have developed a number of techniques to add state to the World Wide Web. These include server APIs, such as NSAPI and ISAPI, and the use of cookies.

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,WWW   ,

。   HTTP   。

,   WWW

。   API, NSAPI

ISAPI,   cookies   。

:Computer Science

1 :1997. 6. 16

STP

Acronym for Spanning Tree Protocol. STP, a link management protocol, is part of the IEEE 802.1 standard for media access control bridges. Using the spanning tree algorithm, STP provides path redundancy while preventing undesirable loops in a network that are created by multiple active paths between stations. Loops occur when there are alternate routes between hosts. To establish path redundancy, STP creates a tree that spans all of the switches in an extended network, forcing redundant paths into a standby, or blocked, state. STP allows only one active path at a time between any two network devices (this prevents the loops) but establishes the redundant links as a backup if the initial link should fail. If STP costs change, or if one network segment in the STP becomes unreachable, the spanning tree algorithm reconfigures the spanning tree topology and reestablishes the link by activating the standby path. Without spanning tree in place, it is possible that both connections may be simultaneously live, which could result in an endless loop of traffic on the LAN.

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IEEE802.1　　　　　　　。

，STP

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，　　　　LAN　　　　　　。

🗀 ：Data

1️⃣ ：2000.12.12

☞：BPDU

Streaming

A technique for transferring data such that it can be processed as a steady and continuous stream. Streaming technologies are becoming increasingly important with the growth of the Internet because most users do not have fast enough access to download large multimedia files quickly. With streaming, the client browser or plug-in can start displaying the data before the entire file has been transmitted.

For streaming to work, the client side receiving the data must be able to collect the data and send it as a steady stream to the application that is processing the data and converting it to sound or pictures. This means that if the streaming client receives the data more quickly than required, it needs to save the excess data in a buffer. If the data doesn't come quickly enough, however, the presentation of the data will not be smooth.

There are a number of competing streaming technologies emerging. For audio data on the Internet, the de facto standard is Progressive Network's RealAudio.

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Progressive Network RealAudio。

📁 : Multimedia

1️⃣ : 1997. 1. 20

🔜 : ASF RTSP SMIL

SUPERSTITIAL

SUPERSTITIAL(tm) format is a new standard in on-line advertising created by Unicast - a non banner，interactive advertising solutions and services company for the Internet.

SUPERSTITIALs are highly interactive，non-banner ads that can be any size on the computer screen and up to 100K in file size，featuring full animation，sound and graphics capable of effectively conveying integrated advertising while protecting a Web site's performance.

SUPERSTITIAL   ，

Unicast——   、

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SUPERSTITIAL   、   ，

100K，

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、   。

📁 :WWW

📝 :2000. 4. 12

Surf

To move from place to place on the Internet searching for topics of interest. Web surfing has become a favorite pastime for many Internet users. The links on each page enable you to start virtually anywhere on the Web and eventually find interesting pages. The term surfing is generally used to describe a rather undirected type of Web browsing in which the user jumps from page to page rather whimsically, as opposed to specifically searching for specific information.

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▭ :WWW

1⃣ :1996. 10. 7

🖳 :World Wide Web

surge protector

A device that protects a power supply and communications lines from electrical surges. All computers come with some surge protection built into the power supply，but it is a good idea to purchase a separate device. Many uninterruptible power supplies (UPSes) include surge protection.

Surge protectors are also called surge suppressors.

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。   (UPS)

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📁：Hardware

1️⃣：1998. 5. 19

🖱️：UPS

Suspend-to-RAM RAM

Suspend-to-RAM (STR) occurs when a system enters a low-power state. Information on system configuration, open applications, and active files is stored in main memory (RAM), while most of the system's other components are turned off. A system in STR can use as little as 5 watts of power, with most of it going to main memory for data maintenance.

If left in STR, a system may be programmed to waken, so it can perform tasks at any given time. If the power is interrupted, then the system will undergo a normal reboot, restoring full power to the machine and loosing any information not saved to the hard disk.

RAM

(STR)。   、

(RAM)，

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STR   ，

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:Hardware

1:2000. 1. 13

SVC

Short for switched virtual circuit, a temporary virtual circuit that is set up and used only as long as data is being transmitted. Once the communication between the two hosts is complete, the SVC disappears. In contrast, a permanent virtual circuit (PVC) remains available at all times.

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，SVC 。 ， (PVC)

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📁：Network

1️⃣：1998. 2. 18

👉：packet switching PVC

SVG

Scalable Vector Graphics is a vector graphics language written in XML. Using SVG, graphics can be coded directly into an XML document.

Benefits of SVG include：

— smaller files size than regular bitmapped graphics such as GIF and JPEG files.

— resolution independence，so that the image can scale down or up to fit proportionally into any size display on any type of Net device

— text labels and descriptions for searchability

— ability to link to parts of an image

— complex animation

SVG works by assigning attributes to SVG elements. For instance，the "svg" element takes on the attributes x，y，height，width，allowZoomAndPan. This element is the outermost container，which defines the image. The allowZoomAndPan attribute gives the author control over zooming in and panning over the image. Other elements define shapes and lines，others define opacity and others define ways to embed JPEGs and PNG s into the SVG image.

Currently，SVG images cannot be seen through a Web browser；therefore，a user must download a SVG viewer.

XML

。 SVG， XML 。

SVG ：

● GIF JPEG 。

● ，

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● 。

● 。

● 。

SVG SVG 。 。"svg"

x、y、height、width allowZoomAndPan。

。AllowZoomAndPan

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SVG 。

，SVG ，

SVG 。

:Graphics

1:1999.9.9

switch / /

(1) In networks, a device that filters and forwards packets between LAN segments. Switches operate at the data link layer (layer 2) of the OSI Reference Model and therefore support any packet protocol. LANs that use switches to join segments are called switched LANs or, in the case of Ethernet networks, switched Ethernet LANs.

(2) A small lever or button. The switches on the back of printers and on expansion boards are called DIP switches. A switch that has just two positions is called a toggle switch.

(3) Another word for option or parameter -- a symbol that you add to a command to modify the command's behavior.

(1) , LAN
。 OSI ( )

LAN LAN,
 LAN。

(2) 。

 DIP 。

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(3) ——

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:Hardware

:1998. 3. 22

:BPDU

Synchronous

Occurring at regular intervals. The opposite of synchronous is asynchronous. Most communication between computers and devices is asynchronous—it can occur at any time and at irregular intervals. Communication within a computer, however, is usually synchronous and is governed by the microprocessor clock. Signals along the bus, for example, can occur only at specific points in the clock cycle.

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📁:Communication

1️⃣:2000.10.27

🖘:asynchronous   bisync

system unit

The main part of a personal computer. The system u-
nit includes the chassis, microprocessor, main memory,
bus, and ports, but does not include the keyboard or moni-
tor, or any peripheral devices.

A system unit is sometimes called a box or main unit

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📁 : Hardware

1️⃣ : 1998. 5. 18

👉 : Chassis

system call

The invocation of an operating system routine. Operating systems contain sets of routines for performing various low-level operations. For example，all operating systems have a routine for creating a directory. If you want to execute an operating system routine from a program，you must make a system call.

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:Operation System

:1996. 9. 1

:operating system

system tray

    Introduced with Windows 95, the system tray is located in the Windows taskbar (usually at the bottom next to the clock) and contains miniature icons for easy access to system functions such as fax, printer, modem, volume, and more. Double click or right click on an icon to view and access the details and controls.

                Windows 95   ,   Windows

       (   ),

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📁 :Operation System

1️⃣ :1999.12.8

☞ :operating system

systems software

Refers to the operating system and all utility programs that manage computer resources at a low level. Software is generally divided into systems software and applications software. Applications software comprises programs designed for an end user，such as word processors，database systems，and spreadsheet programs. Systems software includes compilers，loaders，linkers，and debuggers.

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:Operation System

:1996.9.1

task

An operating system concept that refers to the combination of a program being executed and bookkeeping information used by the operating system. Whenever you execute a program, the operating system creates a new task for it. The task is like an envelope for the program: it identifies the program with a task number and attaches other bookkeeping information to it.

Many operating systems, including UNIX, OS/2, and Windows, are capable of running many tasks at the same time and are called multitasking operating systems.

In most operating systems, there is a one-to-one relationship between the task and the program, but some operating systems allow a program to be divided into multiple tasks. Such systems are called multithreading operating systems.

The terms task and process are often used interchangeably, although some operating systems make a distinction between the two.

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📁 :Operation System

1️⃣ :1998. 5. 18

☞ :multitasking　multithreading　operating system

television board

An expansion board that enables your computer monitor to do double-dutyras a television screen. The board contains a TV tuner to select channels and circuit y to convert from the TV video standard (NTSC) to your computer's video standard (normally VGA or SVGA). Most television boards support windowed TVs as well as full-screen viewing. With a TV window you can place a mini television in the corner of your screen while you use the computer for other tasks.

Today's television boards produce TV images comparable to normal televisions. Many home computers now come with a television board pre-installed.

　　　　　　　　　　　　　　　　TV　　　　　　TV
　（NTSC）　　　　　　　　　　　（　　　VGA
SVGA）　　　　。　　　　　　　　TV
　　　。　　　TV

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　　📁：Multimedia
　　1️⃣：1996. 12. 3
　　☞：expansion board

Telnet

A terminal emulation program for TCP/IP networks such as the Internet. The Telnet program runs on your computer and connects your PC to a server on the network. You can then enter commands through the Telnet program and they will be executed as if you were entering them directly on the server console. This enables you to control the server and communicate with other servers on the network. To start a Telnet session, you must log in to a server by entering a valid username and password. Telnet is a common way to remotely control Web servers.

TCP/IP 。

Telnet PC

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Telnet

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。 Telnet Web 。

:Network

:1998.5.18

texel

Short for Texture Element. Like a pixel, a texel is the base unit of a graphic, although texels make up textured graphics - graphics that define the surface of three dimensional objects. The base unit of the surface of a 3D brick wall would be a texel, while a two-dimensional wall would consist of pixels.

。   ,   texel

,   texel   ——

。   3D

texel,   。

:Graphics

:1998. 10. 15

thin client

In client/server applications, a client designed to be especially small so that the bulk of the data processing occurs on the server. The term thin client is an especially popular buzzword now because it serves as a symbol dividing the computer industry into two camps. On one side is a group led by Netscape and Sun Microsystems advocating Java-based thin clients running on network computers. The other side, championed by Microsoft and Intel, is pushing ever-larger applications running locally on desktop computers.

Although the term thin client usually refers to software, it is increasingly used for computers, such as network computers and Net PCs, that are designed to serve as the clients for client/server architectures. A thin client is a network computer without a hard disk drive, whereas a fat client includes a disk drive.

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Java

Intel

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:Computer Science

:1997. 3. 24

:client/server architecture   Java   NC   network
    computer

thread　　/

（1）In online discussions，a series of messages that have been posted as replies to each other. A single forum or conference typically contains many threads covering different subjects. By reading each message in a thread，one after the other，you can see how the discussion has evolved. You can start a new thread by posting a message that is not a reply to an earlier message.

（2）In programming，a part of a program that can execute independently of other parts. Operating systems that support multithreading enable programmers to design programs whose threaded parts can execute concurrently.

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　　（2）　　　　　，

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📁：Operation System

1️⃣：1996.9.1

☞：multithreading

three-tier

A special type of client/server architecture consisting of three well-defined and separate processes, each running on a different platform:

1. The user interface, which runs on the user's computer (the client).

2. The functional modules that actually process data. This middle tier runs on a server and is often called the application server.

3. A database management system (DBMS) that stores the data required by the middle tier. This tier runs on a second server called the database server.

The three-tier design has many advantages over traditional two-tier or single-tier designs, the chief ones being:

The added modularity makes it easier to modify or replace one tier without affecting the other tiers.

Separating the application functions from the database functions makes it easier to implement load balancing.

三层体系结构 一种特殊类型的客户机/服务器体系结构，它由三个定义明确、相互独立的进程组成，每个进程运行于不同的平台上：

1. 用户接口，运行于用户的计算机上（客户机）。

2. 实际处理数据的功能模块。这个中间层运行于服务器上，通常被称为应用服务器。

3. 存储中间层所需数据的数据库管理系统（DBMS）。这个层运行于第二个被称为数据库服务器的服务器上。

三层设计与传统的两层或单层设计相比有许多优点，其主要的优点是：

增加了模块性，使得修改或替换一个层而不影响其他层变得更加容易。

将应用功能与数据库功能相分离使得实现负载平衡更为容易。

throughput

The amount of data transferred from one place to another or processed in a specified amount of time. Data transfer rates for disk drives and networks are measured in terms of throughput. Typically, throughputs are measured in Kb/s, Mb/s and Gb/s.

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。　　　　，　　　　　　　　Kb/s，Mb/s　　Gb/s

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:Network

: 1998. 5. 18

title bar

A bar on top of a window. The title bar contains the name of the file or application. In many graphical user interfaces，including the Macintosh and Microsoft Windows interfaces，you move (drag) a window by grabbing the title bar.

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。 ， Macintosh Microsoft Windows ， 。

:Software

:2001. 1. 4

TLD

Short for top-level domain, and refers to the suffix attached to Internet domain names. There are a limited number of predefined suffixes, and each one represent a top-level domain. Current top-level domains include:

com - commercial businesses; this is the most common TLD

gov - U. S. government agencies

edu - Educational institutions such as universities

org - Organizations (mostly nonprofit)

mil - Military

net - Network organizations

ca - Canada

th - Thailand

With the explosion of the Internet over the last few years, competition for domain names has become fierce. Of all the companies named Acme Inc. , for example, only one can have the domain name Acme. com. The Internet Ad Hoc Committee (IAHC) is addressing this problem by creating six new TLDs, which will start being used sometime in 1998:

store - merchants

web - parties emphasizing Web activities

arts - arts and cultural-oriented entities

rec - recreation/entertainment sources

info - information services

nom - individuals

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com -   ，   TLD

gov -

edu -

org - ( )

mil -

net -

ca -

th -

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。 ， Acme Inc.

Acme. com 。 IAHC 6

TLD ， 1998

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store -

web -

arts -

rec -
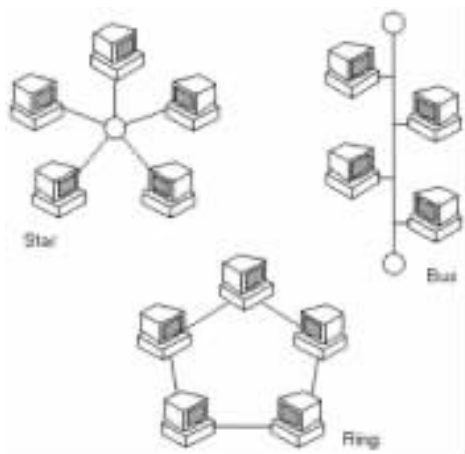
info -

nom -

📁 :Online Service

1️⃣ :2000. 12. 12

🖳 :domain name FQDN

topology   (2)

2

The shape of a local-area network (LAN) or other communications system. There are three principal topologies used in LANs.

* bus topology: All devices are connected to a central cable, called the bus or backbone. Bus networks are relatively inexpensive and easy to install for small networks. Ethernet systems use a bus topology.

* ring topology : All devices are connected to one another in the shape of a closed loop, so that each device is connected directly to two other devices, one on either side of it. Ring topologies are relatively expensive and difficult to install, but they offer high bandwidth and can span large distances.

* star topology: All devices are connected to a central hub. Star networks are relatively easy to install and man-

age，but bottlenecks can occur because all data must pass through the hub.

These topologies can also be mixed. For example, a bus-star network consists of a high-bandwidth bus, called the backbone, which connects a collections of slower-bandwidth star segments.

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📁 ：Network

1️⃣ ：2000. 11. 17

🖥 ：collapsed backbone　Ethernet local-area network

transaction processing

A type of computer processing in which the computer responds immediately to user requests. Each request is considered to be a transaction. Automatic teller machines for banks are an example of transaction processing.

The opposite of transaction processing is batch processing, in which a batch of requests is stored and then executed all at one time. Transaction processing requires interaction with a user, whereas batch processing can take place without a user being present.

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📁 :Operation System

1️⃣ :1996.9.1

🖱 :CICS

Transparent

Invisible. In computer software, an action is transparent if it takes place without any visible effect. Transparency is usually considered to be a good characteristic of a system because it shields the user from the system's complexity.

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:Computer Science

[1]:1996.9.1

Triton

Refers to the Intel 430 family of Pentium chipsets. The first in family, the 430FX, is called the Triton; the enhanced 430 HX is called Triton 2. The Triton chipset supports the PCI bus and was the first x86 chip to use EDO DRAM. The Triton 2 is one of the fastest Pentium chipsets, with support for multiple CPUs, pipelined burst SRAM cache, memory error checking and correction (ECC), 512 MB of memory, and caching of RAM over 64 MB. The 430VX, a third member of the family, supports USB and uses SDRAM. The VX model is sometimes called Triton-2 or Triton-3.

Intel 430 　　　　　　。

,430FX 　　　　Triton; 　　　　430HX Triton2。Triton 　　　　PCI 　　　　EDO DRAM 　　　x86 　。Triton2 ，　　　　CPU、　　　SRAM 　　、　　　　(ECC),512 MB 64 MB RAM 　　　。

430VX 　　USB 　SDRAM。VX Triton2 　Triton3。

📁:Hardware

1️⃣:2001.1.11

troubleshoot

To isolate the source of a problem and fix it. In the case of computer systems, the term troubleshoot is usually used when the problem is suspected to be hardware -related. If the problem is known to be in software, the term debug is more commonly used.

查找并排除故障。就计算机系统而言，当所怀疑的问题与硬件有关时，通常使用troubleshoot这个词。如果知道问题出在软件方面，则更常用debug。

📁:Hardware

1️⃣:1998. 6. 18

Turing test

A test devised by the English mathematician Alan M. Turing to determine whether or not a computer can be said to think like a human brain. In an attempt to cut through the philosophical debate about how to define "thinking," Turing devised a subjective test to answer the question, "Can machines think" and reasoned that if a computer acts, reacts and interacts like a sentient being, then call it sentient. The test is simple: a human interrogator is isolated and given the task of distinguishing between a human and a computer based on their replies to questions that the interrogator poses. After a series of tests are performed, the interrogator attempts to determine which subject is human and which is an artificial intelligence. The computer's success at thinking can be quantified by its probability of being misidentified as the human subject.

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turnkey system turnkey

A computer system that has been customized for a particular application. The term derives from the idea that the end user can just turn a key and the system is ready to go. Turnkey systems include all the hardware and software necessary for the particular application. They are usually developed by OEMs (original equipment manufacturers) who buy a computer from another company and then add software and devices themselves.

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。 Turnkey

。　　　　　OEM（　　　　　　　　）　，OEM

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□ : Type of Computer

1 : 1996. 9. 1

☞ : OEM

UDA

Short for Universal Data Access, a high-level specifi-cation developed by Microsoft for accessing data objects re-gardless of their structure. One of the main components of UDA is the ActiveX Data Objects (ADO) interface.

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。UDA

ActiveX　　　　（ADO）　。

📁 ：Data

🔢 ：2000. 12. 26

☞ ：ADO　DAO　ODBC

UDDI   、

　　Short for Universal Description，Discovery and Integration. A Web-based distributed directory that enables business to list themselves on the Internet and discover each other，similar to a traditional phone book's yellow and white pages.

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　　:online service

　　1 :2001. 3. 16

　　:. NET

UNC

Short for Universal Naming Convention or Uniform Naming Convention，a PC format for specifying the location of resources on a local-area network (LAN). UNC uses the following format：

\\server-name\shared-resource-pathname

So，for example，to access the file test. txt in the directory examples on the shared server silo，you would write：

\\silo\examples\test. txt

You can also use UNC to identify shared peripheral devices，such as printers. The idea behind UNC is to provide a format so that each shared resource can be identified with a unique address.

UNC is supported by Windows and many network operating systems (NOS's).

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PC　　。UNC

：

\server-name\shared-resource-pathname

，　　　　　silo　　　examples

file. test，　　　：

\silo\example\test. txt

UNC　　　　　，　　　。

UNC　　　　，

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▭ :Standard

🗓 :2000. 11. 16

unique visitor

When tracking the amount of traffic on a Web site, it refers to a person who visits a Web site more than once within a specified period of time. Software that tracks and counts Web site traffic can distinguish between visitors who only visit the site once and unique visitors who return to the site. Different from a site's hits or page views -- which are measured by the number of files that are requested from a site -- unique visitors are measured according to their unique IP addresses, which are like online fingerprints, and unique visitors are counted only once no matter how many times they visit the site. There are some ISPs that use Dynamic Host Configuration Protocol, such as AOL and cable modem providers, which use different IPs for every file requested, making one visitor look like many. In this case, a single IP address does not indicate a unique visitor.

baseband transmission   click-through   impression Web page   Web   server

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IP   ，

。   ISP，   AOL，

（DHCP）   ，

IP   ，

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📁:WWW

1️⃣:2001.1.23

UPS

Abbreviation of uninterruptible power supply, a power supply that includes a battery to maintain power in the event of a power outage. Typically, a UPS keeps a computer running for several minutes after a power outage, enabling you to save data that is in RAM and shut down the computer gracefully. Many UPSs now offer a software component that enables you to automate backup and shut down procedures in case there's a power failure while you're away from the computer.

There are two basic types of UPS systems: standby power systems (SPSs) and on-line UPS systems. An SPS monitors the power line and switches to battery power as soon as it detects a problem. The switch to battery, however, can require several milliseconds, during which time the computer is not receiving any power. Standby Power Systems are sometimes called Line-interactive UPSes.

An on-line UPS avoids these momentary power lapses by constantly providing power from its own inverter, even when the power line is functioning properly. In general, on-line UPSs are much more expensive than SPSs.

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　　　　，　　　　　　　　　RAM

　　　　。　　　UPS　　　　　　，

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　　　　UPS　　：　　　　　（SPS）

UPS　　。　　SPS

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　　　　UPS。

　　　UPS

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UPS   SPS   。

:Hardware

$\boxed{1}$:1996.11.7

:power supply

upward compatible

Refers to software that runs not only on the computer for which it was designed, but also on newer and more powerful models. For example, a program designed to run on an Intel 386 microprocessor, which also runs on a Pentium, is upward compatible. Upward compatibility is important because it means you can move to a newer, larger, and more sophisticated computer without converting your data.

In contrast to upward compatibility, downward (backward) compatible means that a program runs not only on the computer for which it was designed, but also on smaller and older models. For example, a program designed to run under MS-DOS 6.0, which also works under MS-DOS 5.0, is downward compatible.

Upward compatibility is sometimes called forward compatibility.

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(   )   。   ,

Intel 386

Pentium   ,   。

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。   ,   MS-DOS 6.0

MS-DOS 5.0   ,   。

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📁:Software

1️⃣:1998.5.19

⟹:backward compatible

URI

   Short for Uniform Resource Identifier，the generic term for all types of names and addresses that refer to objects on the World Wide Web. A URL is one kind of URI.

                          ，   WWW

            。URL   URI。

📁:WWW

1️⃣,1996.12.9

🖳:URL

URL

Abbreviation of Uniform Resource Locator，the global address of documents and other resources on the World Wide Web.

The first part of the address indicates what protocol to use，and the second part specifies the IP address or the domain name where the resource is located.

For example，the two URLs below point to two different files at the domain company. com. The first specifies an executable file that should be fetched using the FTP protocol；the second specifies a Web page that should be fetched using the HTTP protocol：

ftp：//www. company. com/stuff. exe
http：//www. company. com/index. html

　　　　　　　　　　　　　，　　WWW

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　　　　　　　　　　　　　　　　，

　　IP　　　　　　　　。
　　，　　　company. com　　　　　URL
　。　　　　　　　　　　FTP
　，　　　　　　　　　　HTTP

：
ftp：//www. company. com/stuff. exe
http：//www. company. com/index. html

▭：WWW

1 ：1998. 6. 24

☞：linkrot　PURL　URI　World Wide Web

USB

Short for Universal Serial Bus, a new external bus standard that supports data transfer rates of 12 Mbps (12 million bits per second). A single USB port can be used to connect up to 127 peripheral devices, such as mice, modems, and keyboards. USB also supports Plug-and-Play installation and hot plugging.

Starting in 1996, a few computer manufacturers started including USB support in their new machines. It wasn't until the release of the best-selling iMac in 1998 that USB became widespread. It is expected to completely replace serial and parallel ports.

，   12 Mb/s
                        。   UBS
    127   ，   、   。
USB   。

    1996 ，
    USB。   1998   iMac，USB
    。   。

📁：Hardware

1️⃣：1996. 11. 15

📇：cache coherence iMac PCMCIA

UNI

A term used in ATM and Frame Relay networks，UNI is the interface between the ATM end user and a private ATM switch. It also can represent the interface between a private ATM switch and the public carrier ATM network.

ATM ，UNI

ATM ATM

ATM ATM

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:network

1 :2001. 3. 17

:Ethernet FDDI

utility

A program that performs a very specific task，usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives，printers，and other devices.

Utilities differ from applications mostly in terms of size，complexity and function. For example，word processors，spreadsheet programs，and database applications are considered applications because they are large programs that perform a variety of functions not directly related to managing computer resources.

Utilities are sometimes installed as memory-resident programs. On DOS systems，such utilities are called TSRs.

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。 DOS

， TSR。

:Operation System

:1998.5.19

Unencode

A set of algorithms for converting files into a series of 7-bit ASCII characters that can be transmitted over the Internet. Originally, uuencode stood for Unix-to-Unix encode, but it has since become a universal protocol used to transfer files between different platforms such as Unix, Windows, and Macintosh. Uuencoding is especially popular for sending e-mail attachments. Nearly all e-mail applications support uuencoding for sending attachments and uudecoding for receiving attachments.

Another popular encoding algorithm is BinHex , which is often used for transferring Macintosh files, such as PICT graphics files.

7

ASCII 。 uuencode Unix-to-Unix ， Unix、 Windows Macintosh 。 Uuencoding e-mail 。 e-mail uuencoding

。

BinHex, Macintosh ， PICT 。

:Data

1 :2000. 9. 18

UUNET

(UNIX to UNIX Network) The first commercial Internet service provider, headquartered in Fairfax, VA. The company (www. us. uu. net) was founded in 1987 by Rick Adams, one of the original developers of ARPAnet, the precursor to the Internet. In 1996, UUNET merged with MFS Communications, Inc., and later that year, WorldCom acquired both MFS and UUNET. In 1998, WorldCom acquired Advanced Network Services and CompuServe Network Services. UUNET is now a full-service provider.

(UNIX   UNIX   )

,   Fairfax。   (www. us. uu. net)   Rick Adams   1987   ,Rick Adams   ARP Anet   ,   。 1996   ,UUNET   MFS   ,1996 WorldCom   MFS   UUNET。   1998   ,WorldCom   Advanced Network Services   CompuServe Network Services。 UUNET   。

📁:Online Service

1️⃣:1998. 8. 13

👉:ISP

VAR

　　Acronym for value-added reseller. Same as OEM(original equipment manufacturer).

　　　　　　　　　　　　　。　OEM(　　　　　　　)　　。

　:Computer Industry Companies

1 .1996. 9. 1

　:OEM

vBNS

Short for very high-speed Backbone Network Service，an experimental wide-area network backbone sponsored by the National Science Foundation（NSF）and implemented by MCI. vNBS has replaced NSFnet and is designed to serve as a platform for testing new，high-speed Internet technologies and protocols. It currently links several Supercomputer Centers（SCCs）and Network Access Points（NAPs）at OC-12 speeds（622 Mb/s）. By 1998，it will support data，voice and video traffic at 2. 5 Gb/s.

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　　　　　MCI　　　　　　　　　　　　　。VNBS
　　　　NSFnet，

　　　　　　　　。　　　　OC-12　　　（622 Mb/s）
　　　　　　（SCCs）　　　　　　（NAPs）。
1998　.　　　　2. 5 Gb/s　　　　　　、

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　　📁:Network
　　1⃣:1998. 3. 5

VBX Visual Basic

Short for Visual Basic custom control, a reusable software component designed for use in many different applications. While VBXs can be used in other environments, they were initially created for developing Windows applications with Visual Basic. An application developer can use a number of selected VBXs to quickly develop an application. While similar to objects, VBXs do not have two of the properties (inheritance and polymorphism) required by true object-oriented systems.

Many different companies offer specialized VBXs for tasks such as controlling instruments or image handling. However, VBXs are being superseded by ActiveX controls, which are more flexible.

Visual Basic   ,
                                      。 VBX
        ,   Visual Basic
Windows   。
            VBX   。   VBX
        ,
        (   )。
                              VBX
                          VBX
ActiveX   。

📁：Programming

1️⃣：1996. 12. 19

☞：OCX

Vertical Service Provider

A Vertical Service Provider (VSP) is an ASP that covers the application needs of a specific vertical market or industry，such as banking，manufacturing，education，real estate，government or law. A Vertical Service Provider (VSP) is an ASP that covers the application needs of a specific vertical market or industry，such as banking，manufacturing，education，real estate，government or law.

（VSP）

ASP，　　　、　　　、

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:software

:2001. 4. 20

:Application Service Provider

VESA

Short for Video Electronics Standards Association，a consortium of video adapter and monitor manufacturers whose goal is to standardize video protocols. VESA has developed a family of video standards that offer greater resolution and more colors than VGA. These standards are known collectively as Super VGA（SVGA）.

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。VESA

，   VGA

Super VGA(SV-

GA)。

📁:Standard

1️⃣.1996.9.1

video mode

The setting of a video adapter. Most video adapters can run in either text mode or graphics mode. In text mode, a monitor can display only ASCII characters. In graphics mode, a monitor can display any bit-mapped image. In addition to the text and graphics modes, video adapters offer different modes of resolution and color depth.

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ASCII 。 ，

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:Graphics

1 :1998. 5. 19

Virtual

Not real. The term virtual is popular among computer scientists and is used in a wide variety of situations. In general, it distinguishes something that is merely conceptual from something that has physical reality. For example, virtual memory refers to an imaginary set of locations, or addresses, where you can store data. It is imaginary in the sense that the memory area is not the same as the real physical memory composed of transistors. The difference is a bit like the difference between an architect's plans for a house and the actual house. A computer scientist might call the plans a virtual house. Another analogy is the difference between the brain and the mind. The mind is a virtual brain. It exists conceptually, but the actual physical matter is the brain.

The opposite of virtual is real, absolute, or physical.

📁:Computer Science

1️⃣:1997. 7. 8

☞:JVM   virtual machine   virtual server

virtual circuit

A connection between two devices that acts as though it's a direct connection even though it may physically be circuitous. The term is used most frequently to describe connections between two hosts in a packet-switching network. In this case, the two hosts can communicate as though they have a dedicated connection even though the packets might actually travel very different routes before arriving at their destination. An X. 25 connection is an example of a virtual circuit.

Virtual circuits can be either permanent (called PVCs) or temporary (called SVCs).

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　X. 25　　　　　　　　　　　　　　。

　　　　　　　　　　　（　　　PVC)　　　　　（

SVC)。

　　　🖿:Network

　　　1️⃣:1998. 5. 19

　　　🖳:packet switching　PVC　SVC

virtual desktop

A feature supported by some notebook computers that enables them to display images on an external monitor at a higher resolution than is supported by the built-in flat-panel display. For example，most flat-panel displays are limited to a maximum resolution of 800×600. With the virtual desktop feature，you could connect the computer to an external monitor and enjoy full SVGA （$1\ 024 \times 768$）resolution.

The term also refers to a feature supported by some video adapters that enables them to provide a desktop larger than what's actually displayed. Only part of the virtual desktop is displayed at any one time，but you can see hidden areas by scrolling the display. It's as if the display screen is a small window overlaid upon a larger desktop.

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800×600 。   ，

SVGA（$1\ 024 \times 768$）

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:Mobile Computing

:1998. 5. 19

virtual device driver

In Windows systems，a special type of device driver that has direct access to the operating system kernel. This allows them to interact with system and hardware resources at a very low level.

In Windows 95，virtual device drivers are often called VxDs because the filenames end with the . vxd extension .

Windows   ，

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Windows 95   ，   VxD，

. vxd   。

:Operation System

1 :1997. 6. 27

:VMM32. vxd

virtual machine

A self-contained operating environment that behaves as if it is a separate computer. For example, Java applets run in a Java virtual machine (VM) that has no access to the host operating system. This design has two advantages:

System Independence: A Java application will run the same in any Java VM, regardless of the hardware and software underlying the system.

Security: Because the VM has no contact with the operating system, there is little possibility of a Java program damaging other files or applications.

The second advantage, however, has a downside. Because programs running in a VM are separate from the operating system, they cannot take advantage of special operating system features.

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。 .Java applets
Java (VM) 。 :
: Java Java VM
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: VM , Java
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VM
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:Programming

:2001. 1. 18

:Java Jini JIT JNI JVM

virtual router

An abstract object managed by VRRP that acts as a default router for hosts on a shared LAN. It consists of a Virtual Router Identifier and a set of associated IP addresses across a common LAN.

　　　　　VRRP　　　　　　　　　　，

LAN　　　　　　　　　　　　　　。

　　　　　　　　　LAN　　　　IP　　　。

　　📁:network

　　1️⃣:2001.3.13

　　🖘:OSPF

VMM32. vxd

Found in Windows 9x machines, VMM32. vxd is the virtual device driver library that contains virtual device driver files needed for system start up.

VMM32. vxd is different for every machine; therefore, if it gets corrupted, it cannot be copied from another computer; it'll need to be rebuilt.

VMM32. vxd   Windows 9x   ,

                                                        。

                        VMM32. vxd   ,

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        。

📁:Operation System

1️⃣:2000. 1. 19

VMS

Short for Virtual Memory System, a multi-user, multitasking, virtual memory operating system that runs on DEC's VAX and Alpha lines of minicomputers and workstations. VMS was introduced in 1979 along with the first VAX minicomputer. Like the VAX itself, VMS has undergone many changes over the years. DEC now refers to it as OpenVMS.

, DEC VAX Alpha 、

。VMS 1979 VAX 。 VAX , VMS 。 DEC OpenVMS。

:Operation System

1 :1998. 3. 12

:multitasking operating system

von Neumann machine von Neumann

(pronounced von noi-man) An early computer created by Hungarian mathematician John von Neumann (1903-1957). It included three components used by most computers today: a CPU; a slow-to-access storage area, like a hard drive; and secondary fast-access memory (RAM). The machines stored instructions as binary values (creating the stored program concept) and executed instructions sequentially - the processor fetched instructions one at a time and processed them. Today "von Neumann architecture" often refers to the sequential nature of computers based on this model.

John von Neumann(1903-1957)

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：   CPU，

（RAM）。   （

）   ——

。   "von Neumann   "

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📁:Computer Science

📅:1998.8.21

VRRP

Short for Virtual Router Redundancy Protocol. An e-lection protocol that dynamically assigns responsibility for one or more virtual router (s) to the VRRP router(s) on a LAN, allowing several routers on a multiaccess link to uti-lize the same virtual IP address. A VRRP router is con-figured to run the VRRP protocol in conjunction with one or more other routers attached to a LAN. In a VRRP set-up, one router is elected as the master router with the oth-er routers acting as backups in case of the failure of the master router.

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LAN　　　VRRP

　　，

　　　　IP　　。　　VRRP　　　　　　　　　VR-RP　　　　　　　　　　　LAN

　　　　。　　　　VRRP　　　，

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　　🗁:network
　　📅:2001.3.13
　　📠:OSPF

VSB /VME

1. (vestigial side band) A method for modulating -- or converting for transmission -- digital data over coaxial cable. Created by Zenith, VSB has been chosen by the FCC as a standard for digital TV.

2. (VME Subsystem Bus) An auxiliary bus used with a primary 32-bit bus called a VME (VersaModule Eurocard), made for commercial, industrial, and military uses. The VSB helps speed transfers between devices.

1. (　　　　)　　　　——　　　　　　　　——
　　　　　　　　　　　。　Zenith　　　　VSB
FCC　　　　　　　　　　　　　。
2. (VME　　　　　)　　　　　　　VME(Mo-
torola　　1981　　　　　　32　　　　) 32
　　　　　　，　　　、　　　　。VSB
　　　　　　　　　。

📁:Hardware

1️⃣:1998.9.8

🖥:cache coherence

vt100 100

Introduced by DEC in August 1978, Video Terminal 100 was the first terminal to use a general-purpose processor for interpreting the newly published (1977) ANSI control codes (ANSI X3. 64).

Quickly, the vt100 become popular, and the ANSI control codes embodied in the vt100 became a de facto standard. Eventually, IBM adopted them for its line of PCs.

Today, most terminal-emulation programs commonly use the vt100 setting.

1978 8 DEC , 100

(1977) ANSI

(ANSI X3. 64) 。

,vt100 , vt100 ANSI

。 ,IBM PC

。

, vt100 。

📁:Standard

1️⃣:1999. 12. 8

VXML

Short for Voice Extensible Markup Language. VXML, or VoiceXML, technology allows a user to interact with the Internet through voice-recognition technology. Instead of a traditional browser that relies on a combination of HTML and keyboard and mouse, VXML relies on a voice browser and/or the telephone. Using VXML, the user interacts with voice browser by listening to audio output that is either pre-recorded or computer-synthesized and submitting audio input through the user's natural speaking voice or through a keypad, such as a telephone.

AT&T, IBM, Lucent Technologies, and Motorola created VXML 1.0 in a joint effort to promote the technology.

,   VoiceXML，

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HTML   、   ,VXML

/   。   VXML，

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AT&T、IBM、Lucent   Motorola

VXML 1.0。

:programming

:2001.3.21

:XML

W3C WWW

Short for World Wide Web Consortium，an international consortium of companies involved with the Internet and the Web. The W3C was founded in 1994 by Tim Berners-Lee，the original architect of the World Wide Web. The organization's purpose is to develop open standards so that the Web evolves in a single direction rather than being splintered among competing factions. The W3C is the chief standards body for HTTP and HTML.

WWW　　　　　　，

　　　　　　。W3C　1994　　　Tim Berners-Lee

，　　　WWW　　　　　　　　　　。

　　　　，

　　　　　　。W3C　　HTTP　　HTML

　　。

:WWW

1:1997.4.2

:World Wide Web

Wake-on-LAN LAN

Often，IT personnel prefer to maintain client systems after employees have gone home. Even if these tasks are automated，client machines must be left on. In the past，if they weren't left on，personnel had to manually turn them on. But，with wake-on-LAN，client systems can be remotely and automatically powered up.

Wake-on-LAN technology resides in a PC's managed network adapter and motherboard. The two are attached via a wake-on-LAN cable terminated by a 3-pin connector on each side.

When the system is turned off，the managed network adapter uses an alternate power source to monitor the network and watch for a wake-up packet from the server. Once it receives a packet，it alerts the system to power up and accept any maintenance task it is given.

Wake-on-LAN is a part of Intel's Wired for Management System and is a result of the Intel-IBM Advanced Manageability Alliance.

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　　　　，　IT　　　　　　　　　　　　。　，

　LAN　　，　　　　　　　　　　　　　　。

　　LAN　　　　　　　　　　PC

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　LAN　　　　Intel

Intel-IBM　　　　　　。

📁：Hardware

1️⃣：1999. 11. 16

🔧：LDCM　personal computer　WfM

WAP

The Wireless Application Protocol is a secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smartphones and communicators.

WAP supports most wireless networks. These include CDPD, CDMA, GSM, PDC, PHS, TDMA, FLEX, ReFLEX, iDEN, TETRA, DECT, DataTAC, and Mobitex.

WAP is supported by all operating systems. Ones specifically engineered for handheld devices include PalmOS, EPOC, Windows CE, FLEXOS, OS/9, and JavaOS.

WAPs that use displays and access the Internet run what are called microbrowsers--browsers with small file sizes that can accommodate the low memory constraints of handheld devices and the the low-bandwidth constraints of a wireless-handheld network.

Although WAP supports HTML and XML, the WML language (an XML application) is specifically devised for small screens and one-hand navigation without a keyboard. WAP also supports WMLScript. It is similar to JavaScript, but makes minimal demands on memory and CPU power because it does not contain many of the unnecessary functions found in other scripting languages.

Because WAP is fairly new, it is not a formal standard yet. It is still an initiative that was started by Unwired Planet, Motorola, Nokia, and Ericsson.

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WAP   。   CDPD、CD-
MA、GSM、PDC、PHS、TDMA、FLEX、ReFLEX、 iDEN、
TETRA、DECT、DataTAC   Mobitex。

WAP   。

PalmOS、EPOC、Windows CE、FLEXOS、OS/9 JavaOS。

WAP

—— ，

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WAP HTML XML, WML (XML)

。WAP WMLScript。 JavaScript，

CPU ， Scrip-

ting 。

WAP ，

。 Unwired Planet、Motorola、Nokia

Ericsson 。

📁:Mobile Computing

1️⃣:2000.4.5

👉:bluetooth hand-held computer

warez

Pronounced wayrz or wayrss，refers to commercial software that has been pirated and made available to the public via a BBS or the Internet. Typically，the pirate（also called a cracker）has figured out a way to de-activate the copy-protection or registration scheme used by the software. Note that the use and distribution of warez software is illegal. In contrast，shareware and freeware may be freely copied and distributed.

BBS

。   ，   (   )

。   warez

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:Software

1 :1998.5.19

:software piracy

WBMP

Wireless BitMap is a graphic format optimized for mobile computing devices.

A WBMP image is identified using a TypeField value，which describes encoding information（such as pixel and palette organization, compression, and animation）and determines image characteristics according to WAP documentation.

TypeField values are represented by an Image Type Identifier. Currently, there is only one type of WMBP specified; the Image Type Identifier label for this is 0.

0 has the following characteristics：

- No compression

- One bit color（white＝1, black＝0）

- One bit deep（monochrome）

Any WAP device that supports WBMPs can only support type 0.

WBMP is part of the Wireless Application Protocol，Wireless Application Environment Specification Version 1.1.

　　　　　　　　　　　　　　　　　　　　　　　　。

　　　　WBMP　　　　　　　　　TypeField　　　，

　　　　　　　（　　　　　　　　　　　　、　　　　　）

　　WAP　　　　　　　　　　　　。

　　TypeField　　　　　　　　　　　　　　　。　　，

　　　　WMBP　　　　　　，

0。

　　0　　　　　　　　　：

　　　　　　（　　＝1，　　＝2）

　　　　　　（　　）

　　　　　　WBMP　　WAP　　　　　　　0　　。

　　WBMP　　　　　　　　，　　　　　　　　　1．1

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:Mobile Computing

:1999. 11. 2

:hand-held computer

Webcasting

　　Using the Internet，and the World Wide Web in parti-
cular，to broadcast information．Unlike typical surfing，
which relies on a pull method of transferring Web pages，
webcasting uses push technologies.

　　　　　　　　，　　　　WWW　　　　　　。
　　PULL　　　　　　　　　　，　　　　　　　PUSH
　。

:WWW

:1998.5.19

:PointCast　push

Web portal

    A Web site or service that offers a broad array of resources and services, such as e-mail, forums, search engines, and on-line shopping malls. The first Web portals were online services, such as AOL, that provided access to the Web, but by now most of the traditional search engines have transformed themselves into Web portals to attract and keep a larger audience.

                   ,   e-mail、

  `、   。   ，

           AOL，

          。

  📁:WWW

  1️⃣:1998.6.18

Web server Web

A computer that delivers (serves up) Web pages. Every Web server has an IP address and possibly a domain name. For example, if you enter the URL http://www.company.com/index.html in your browser, this sends a request to the server whose domain name is company.com. The server then fetches the page named index.html and sends it to your browser.

Any computer can be turned into a Web server by installing server software and connecting the machine to the Internet. There are many Web server software applications, including public domain software from NCSA and Apache, and commercial packages from Microsoft, Netscape and others.

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　　　　　。　　　，　　　　　　　　URL http://
www.company.com/index.html，　　　　companyr.
com　　　　　　　　　　。　　　　　　　　　　in-
dex.html　　　　　　　　　　。

　　　　　　　　　　Web　　　　。
，　　NCSA　　　　　　　　　Apache，　　　　　、
Netscape　　　　　　　　。

📁:WWW

📅:1998.5.19

👉:CERN　proxy server　unique visitor　virtual server World　Wide Web

WebTV

Originally, a general term for a whole category of products and technologies that enable you to surf the Web on your TV. Most WebTV products today consist of a small box that connects to your telephone line and television. It makes a connection to the Internet via your telephone service and then converts the downloaded Web pages to a format that can be displayed on your TV. These products also come with a remote control device so that you can navigate through the Web.

More recently, the name WebTV has been trademarked by Microsoft.

WebTV

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，   WebTV   。

📁 :Multimedia

🔢 :2001. 2. 9

➡ :World Wide Web

WDDX

Created by Allaire，Web Distributed Data Exchange is an XML -based technology that facilitates complex-data exchange between Web programming languages (ColdFusion，Perl，ASP，Java，JavaScript，PHP，etc.).

For example，a Web site based in ColdFusion can share data with a Web site based in ASP. Data in ColdFusion would be translated into XML，sent to an ASP server，translated out of XML and into VBScript.

WDDX assigns a specific module for each supported language. The module will translate (or serialize) the native data structures into an abstract form represented as XML，or deserialize the WDDX XML into a native data structure.

WDDX supports Boolean，number，date-time，and string data types，as well as，arrays，structures，and recordsets.

WDDX can be used with HTTP，SMTP，POP，and FTP.

Allaire   XML
，   (ColdFusion、Perl、ASP、Java、JavaScript、PHP   )   。

，   ColdFusion
ASP   。 ColdFusion
XML，   ASP   ，   VBScript。

WDDX   。

XML   WDDX XML

。

WDDX   、   、

、   。

WDDX   HTTP、SMTP、POP   FTP   。

📁:Data

1️⃣:1999.11.9

🖙:XML

WfM

Wired for Management is an open-industry specification developed by Intel that lets IT professionals automate client-PC management over a network.

WfM technology is used in client-side hardware (such as circuitry, memory, power supply and NIC) and management software applications (such as LDCM). IT managers will use the software to interact with PCs through their (PCs) hardware. From there, managers can monitor, update, and configure PCs. As long as they have the software -- let's say on their laptops -- they can access PCs from anywhere, even through a dial-up connection.

WfM biggest asset comes when managers have to access mobile computers from remote locations. For many critical tasks, users only need to dial-up through an analog modem, and the management application will take care of the rest.

WfM is in its second version (v 2.0).

Intel

IT

WfM (、 、
NIC) (LDCM)。IT

PC PC 。 ,

、 PC 。 ——

—— PC ,

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WfM

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WfM (v 2.0)。

📁:Hardware

1️⃣:1999. 11. 15

🔖:personal computer troubleshoot Wake-on-LAN

whois

An Internet utility that returns information about a domain name or IP address. For example，if you enter a domain name such as microsoft. com，whois will return the name and address of the domain's owner (in this case，Microsoft Corporation).

IP

microsoft. com，whois

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(   )

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:Online Service

:2000. 11. 15

:domain name

Wi-Fi

Wi-Fi is short for wireless fidelity and is another name for IEEE 802. 11b. It is a trade term promulgated by the Wireless Ethernet Compatibility Alliance (WECA). "Wi-Fi" is used in place of 802. 11b in the same way that "Ethernet" is used in place of IEEE 802. 3. Products certified as Wi-Fi by WECA are interoperable with each other even if they are from different manufacturers. A user with a Wi-Fi product can use any brand of access point with any other brand of client hardware that is built to the Wi-Fi standard.

Wi-Fi , IEEE802. 11b
。 (WECA)
。 "Wi-Fi" 802. 11b ,
IEEE802. 3 。 WECA Wi-Fi
, 。
Wi-Fi

Wi-Fi 。

📁:communication

📅:2001. 5. 2

☞:802. 11 HiperLAN WLAN

win. com

Win. com is the executable file responsible for Windows start-up. It runs after the autoexec. bat file is processed, and it accesses the VMM32. vxd file.

In a Windows 3. x environment, the win. com file is executed by typing "win" in the DOS prompt. In version 9x OSs, win. com runs automatically.

Win. com   Windows   。
        autoexec. bat   win. com

    VMM32. vxd。

            Windows 3. x   , win. com
DOS   "win"   。   Windows 9x   ,
win. com   。

📁:Operation System

1️⃣:2000. 1. 19

▭:boot   VMM32. vxd

Windows CE

A version of the Windows operating system designed for small devices such as personal digital assistants (PDAs) (or Handheld PCs in the Microsoft vernacular). The Windows CE graphical user interface (GUI) is very similar to Windows 95 so devices running Windows CE should be easy to operate for anyone familiar with Windows 95.

　　　　　　　　　　　　　（PDA

　　vernacular　　　　　　　）　　　　Windows

　　　　。Windows CE　　　　　　　（GUI）

Windows 95，　　　　　Windows CE　　　　　　　Win-

dows 95　　　　　　　　　。

　　📁：Mobile Computing

　　1️⃣：1997. 3. 18

　　📷：EPOC　hand-held computer　HPC　operating system　palmtop　PDA

wizard / /

(1) A utility within an application that helps you use the application to perform a particular task. For example, a "letter wizard" within a word processing application would lead you through the steps of producing different types of correspondence.

(2) An outstanding programmer. Also called a super-programmer. Common wisdom holds that one wizard is worth ten average programmers.

(3) The system administrator for a chat room or MUD.

(1)

。 , " "

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(2) 。 。

。

(3) MUD 。

📁:Programming

1️⃣:2000. 10. 30

WML

Wireless Markup Language is an XML language used to specify content and user interface for WAP devices; the WAP forum provides a DTD for WML.

WML is supported by almost every mobile phone browser around the world.

WML pages are requested and served in the same way as HDML pages. For Web servers to serve WML pages, they must contain the text/vnd. wap. wml mime type.

　　　　　　　　　　　　　　WAP

　　XML　　　, WAP　　　　　WML

DTD。

　　WML

　　WML　　　HDML

　。　　　　WML　　　　　　　,　　　　text/vnd. wap. wml　　MIME　　。

　　📁:Mobile Computing

　　1️⃣:2000. 5. 18

　　📠:WAP　WTLS

Wolfpack

The codename for Microsoft's clustering solution. Wolfpack was released in September, 1997 as part of Windows NT 4.0, enterprise Edition. Its official name is Microsoft Cluster Server (MSCS).

。Wolfpack Windows NT 4.0   1997 9   。

(MSCS)。

📁:Network

1️⃣:1998.5.19

☞:Clustering MSCS

WWW

A system of Internet servers that support specially formatted documents. The documents are formatted in a language called HTML (HyperText Markup Language) that supports links to other documents, as well as graphics, audio, and video files. This means you can jump from one document to another simply by clicking on hot spots. Not all Internet servers are part of the World Wide Web.

There are several applications called Web browsers that make it easy to access the World Wide Web; Two of the most popular being Netscape Navigator and Microsoft's Internet Explorer.

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　　HTML(　　　　　　　)　　　　　　　　　。

　　。　　　　　　　　　　　　WWW　　　　。

　　　　　　　　　　　　　　　　　WWW

　;　　　　　　　　Netscape　　　Navigator

　　　Internet Explorer。

📂:WWW

1️⃣:1998.5.19

🎞:CERN　Mosaic　surf　W3C

Wrapper

Software that accompanies resources or other software for the purposes of improving convenience，compatibility，or security. For example，a wrapper is used to compress and encrypt software that is being sold over the Internet. It is also used to make EDI - a decades-old electronic commerce standard - compatible with the Internet. The term can also apply to hardware：the casing around a Pentium II CPU is called a wrapper.

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。   EDI——   10

——

：   PentiumII CPU   。

：Hardware

1：1998. 8. 29

WTLS

Short for Wireless Transport Layer Security. WTLS is the security layer of the WAP, providing privacy, data integrity and authentication for WAP services. WTLS, designed specifically for the wireless environment, is needed because the client and the server must be authenticated in order for wireless transactions to remain secure and because the connection needs to be encrypted. For example, a user makingₑa transaction with a bank over a wireless devic needs to know that the connection is secure and private and not subject to a security breach during transfer (sometimes referred to as a man-in-the-middle attack). WTLS is needed because mobile networks do not provide complete end-to-end security.

WTLS is based on the widely used TLS v1.0 security layer used in Internet. Because of the nature of wireless transmissions, modifications were made to the TLS v1.0 in order to accommodate for wireless' low bandwidth, datagram connection, limited processing power and memory capacity, and cryptography exporting restrictions.

。 WTLS   WAP   ，

　　WAP   、   。

　　　　WTLS   ，

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WTLS   ，

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　　WTLS   TLS v1.0

　　。   ，   TLS v1.0   ，

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📁:WWW

1️⃣:2001. 2. 27

👉:Bluetooth   client/server architecture   hand-held
    computer   PDA   SSL   WML

XML

Short for Extensible Markup Language, a specification developed by the W3C. XML is a pared-down version of SGML, designed especially for Web documents. It allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.

Whether XML eventually supplants HTML as the standard Web formatting specification depends a lot on whether it is supported by future Web browsers. Microsoft Internet Explorer version 5 handles XML, but renders it as CSS, and Mozilla (Netscape) is still in experimenting with XML support.

，　　　　　　　　　　　　 W3C 　　　　　。

XML　　　　SGML　　　　　　，　　　　　　　　。

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　　　　`　`　　　　　　　　　　　　。

　　XML　　　　　　　HTML

　　　　　　　　　　　　　　　　。

　　IE 5　　　　XML，　　　　　　CSS，　Mozilla
（Netscape）　　　　　XML　　　　。

📁:WWW

1️⃣:2000.5.30

☞:DOM　WDDX　XML　XSL

ZAW Windows

Short for Zero Administration for Windows，a collection of utilities developed by Microsoft that should enable administrators to centrally manage and update software on PCs connected to a LAN. ZAW was developed partly as a response to the emergence of Net PCs. One of the main selling points of Net PCs is that they enable software to be centralized，which greatly simplifies administration of applications. ZAW attempts to offer the same sort of administration ease while letting the applications remain on traditional desktop PCs.

Windows   ，

　　　　，   PC

　　　　　　　。ZAW   PC

　　　　　　　　。   PC

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。ZAW   PC

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📁:Network

📅:2000. 12. 15

👉:Net PC　network　computer　TCO

ZV Port

Short for zoomed video port，a port that enables data to be transferred directly from a PC Card to a VGA controller. The port is actually a connection to a zoomed video bus. This new bus was designed by the PCMCIA to enable notebook computers to connect to real-time multimedia devices such as video cameras. The first notebook computers with the ZV port arrived in late 1996.

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PC VGA 。

。 PCM-

CIA

。 ZV 1996

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📁:Mobile Computing

1️⃣:1999. 9. 15

🖱:cache coherence PCMCIA

附. 录 I

Jukebox	Jumper	LDCM
LED	Micro Channel Architecture（MCA）	
modular archite-cture	multiplier lock	network-atta-ched storage
oscillator clock	OverDrive	PCI
PCMCIA	Pentium 4	picoJava
Pipelining	plug compatible	POST
power cycling	power supply	PPGA
RAID	real-time clock	refresh
RISC	secondary memory	silicon
Slot	Slotket	smart card
socket 370	solid state disk	stand-alone
surge protector	Suspend-to-RAM	switch
system unit	Triton	troubleshoot
UPS	USB	VSB
Wake-on-LAN	WfM	Wrapper

Mobile（　　　）

3G	ACPI	APM
battery pack	Bluetooth	CardBus
CDMA	GSM	hand-held computer
HDML	memory effect	palmtop
PCS	pen computer	portable
Short Message Service	sleep mode	virtual desk top
WAP	WBMP	Windows CE
WML	ZV Port	

Multimedia（　　　）

AAF	AIFF	ASF
BLOB	digital watermark	HDTV
Hercules graphics	MCI	mouseover
MPC	multimedia	SMIL
Streaming	television board	WebTV

Network(   )

Interface (UNI)		circuit
virtual router	VRRP	Wolfpack
ZAW		
	Online Service(　　)	
ActiveMovie	AUP	bulletin board system
CBT	co-location	Cyber
Cyberspace	DoCoMo	FAQ
information highway	Luhn formula	MGCP
Napster	Netiquette	PointCast
Pull	push	RosettaNet
TLD	UDDI	UUNET
whois		
	Operating System(　　)	
. NET	background	BeOS
BIOS	blue screen of death	Boot
bootable diskette	clean boot	command buffer
configuration file	cooperative multitasking	CP/M
DOS Protected Mode Interface (DPMI)	driver	EPOC
fault tolerance	file handle	GNOME
GPF	interrupt	interrupt vector table
KDE	kernel	kernel32. dll
MBR	memory resident	Multiprocessing
Multitasking	Multithreading	MVS
NetWare	network operating system	NEXTSTEP
NTVDM	OpenDoc	operating system
OS/2	OS/9	parallel processing

platform	PnP	Segment
SMP	Spooling	system call
system tray	systems software	task
thread	transaction processing	utility
virtual device driver	VMM32. vxd	VMS
win. com		

Programming（　　）

Abstraction	ADO	alpha version
ANNA	base address	Benchmark
beta test	big-endian	BPDU
brute force	bubble sort	Bug
Bytecode	CICS	Eiffel
EPS	Fetch	Hacker
High Performance Computing	intelligent agent	JDBC
JDK	JIT	Jscript
JVM	Library	KQML
localization	OCX	
Page Description Language (PDL)	paging	Rexx
RPG	server-side	VBX
virtual machine	VXML	wizard

Software（　　）

Abandonware	absolute cell reference	ActiveX
add-in	add-on	Aloha
backward compatible	bundled software	Castanet
character set	ColdFusion	CORBA
customer support	DAO	data warehouse
digital wallet	Dribbleware	ERP
FreeBSD	functional specification	GNU

Linkrot	meta ad	MIME
Mosaic	MousetrappingNetscape	P3P
PNG	PURL	RTSP
S/MIME	Shockwave	S-HTTP
SSI	SSL	SUPERSTI-TIAL
Surf	unique visitor	URI
URL	W3C	Web portal
Web server	Webcasting	
WTLS World Wide Web XML		

Ⅱ   （
                                          ）

1996

character set	edge connector	expansion board
hand-held computer	Java	LED
MIS	modular architecture	Multiprocessing
Multithreading	object oriented	ODBC
OEM	office automation	palmtop
PCI	portable	power supply
Proprietary	Protocol	real-time clock
RISC	sampling	sleep mode
SOHO	Spooling	stand-alone
system call	systems software	thread
transaction processing	Transparent	turnkey system
VAR	VESA	DNS
FreeBSD	Surf	USB
AGP	RAID	UPS
data warehouse	VBX	software licensing
television board	CORBA	URI

1997

Multitasking	Streaming	JavaBeans
Pull	push	IPX
JDBC	JPEG	HDTV
cooperative multitasking	Windows CE	RFC
S/MIME	thin client	NetWare
MIME	CDF	dongle
Library	de facto standard	personal computer
PnP	W3C	load balancing
Silicon Valley	server-side	CERN

Net PC	OCX	AAF
ASF	clustering	accelerator board
ADPCM	Amiga	animated GIF
Antialiasing	attribute	CBT
background	Backplane	bandwidth
capture	chassis	color depth
comma-delimited	command buffer	configuration
configuration file	continuous tone	CP/M
customer support	Cyber	data integrity
data processing	DCC	diskless workstation
driver	DTE	firmware
GPF	graphics based	gray scaling
information highway	interrupt	local-area network
logical	machine dependent	MCI
memory effect	Minicomputer	MPC
multimedia	Netiquette	Netscape
network computer	network operating system	Node
Noise	OS/2	palette
paperless office	BIOS	pixel
platform	Slot	SMP
system unit	task	Telnet
throughput	Aliasing	data independence
Macintosh computer	NEXTSTEP	plug compatible
surge protector	upward compatible	utility
video mode	virtual circuit	virtual desktop
warez	Web server	Webcasting
Wolfpack	World Wide Web	record
burn in	Dribbleware	Attenuation
big-endian	digitize	MVS
primitive	Standard	troubleshoot

Web portal	battery pack	URL
bit stuffing	file handle	localization
intelligent agent	broadcast storm	network melt-down
UUNET	NTVDM	Jini
Von Neumann machine	Wrapper	Aloha
digital wallet	ColdFusion	CAPI
Jukebox	FIF	JNI
VSB	ANI	Interstitial
Texel	iMac	hit
Impression	Castanet	electronic book
Granularity	Mainframe	NRZI
	1999	
Hyperstitial	meta ad	SAN
Mouseover	IPP	dial-up access
FAQ	AUP	raw
ICANN	meta data	codec
PicoJava	proxy server	cyberspace
multiplier lock	operating system	Bluetooth
SSL	blue screen of death	GPRS
CIFS	middleware	ZV Port
P3P	EDID	SVG
NDMP	DWDM	AMR
Foobar	device manager	secondary memory
LDCM	Application Service Provider	DOCSIS
GPU	WfM	Wake-on-LAN
WBMP	bastion host	Short Message Service
kernel32. dll	WDDX	Luhn formula
dark fiber	system tray	vt100

2000

NDMP	DWDM	AMR
Foobar	device manager	open architecture
PON	Suspend-to-RAM	VMM32. vxd
win. com	solid state disk	heat sink
Bug	LATA	Jabber
Slotket	socket 370	Napster
loopback address	collapsed backbone	Mosaic
Linkrot	FQDN	SUPERSTITIAL
co-location	DOM	EtherLoop
WAP	WML	HDML
IANA	XML	3G
flat technology monitor	MSA/RSA	MGCP
FPM RAM	EPS	Fetch
Uuencode	OSPF	BEDO DRAM
fixed-frequency monitor	JIT	Baby AT
L2TP	SSI	refresh
HDLC	JDK	mass storage
burst mode	PCMCIA	client/server architecture
Synchronous	wizard	DoCoMo
Itanium	Page Description Language (PDL)	
Jscript	whois	UNC
Topology	CMOS	PPGA
RPG	POST	HMD
MAE	Dvorak keyboard	CRM
CSS	Pentium 4	Ethernet
MMDS	Bisync	ESD wrist strap
BPDU	High Performance Computing	STP
TLD	FRAD	Hercules graphics
ZAW	Alan Turing	kernel

Paging	Jumper	UDA
Micro Channel Architecture (MCA)		quantum computing
Qubit	ANNA	Bottleneck
impact printer	extended keyboard	FC-PGA

2001

antistatic mat	open source	Bioinformatics
Triton	RosettaNet	server farm
Pipelining	HPNA	sneakernet
virtual machine	BinHex	backward compatible
Monospacing	OverDrive	Eiffel
Turing test	alpha version	beta test
PointCast	Resident Font	CNR
domain name	GNOME	title bar
gopher	absolute cell reference	KDE
network transparency	network-attached storage	power cycling
AIFF	EBPP	WebTV
EAI	JVM	unique visitor
cache coherence	PPPoE	RAM latency
network-attached storage	journaled file system	Ripper
SASL	IVR	CERT/CC
Content Vectoring Protocol	EBPP	fixed wireless
ILEC	demultiplex	WTLS
shared loop	Rexx	Honeypot
hot potato routing	IMA	virtual router
VRRP	digital access and cross-connect system (DACS)	
DOS Protected Mode Interface (DPMI)		port scanning
. NET	UDDI	
User-to-Network Interface (UNI)	VXML	Abandonware

attenuation crosstalk ratio   crosstalk

Enhanced Interior Gateway Routing Protocol

Interior Gateway Routing Protocol   malware

RDF   Mousetrapping   DLSw

HSSI   quarantine   Clickstream

DDR   RTT   oscillator clock

service pack   Human Resources Management System

Managed Service Provider outsourcing   Storage Service Provider

Vertical Service Provider   IDNX   KQML

magnetic drum   CAN   Backdoor

hot fixing   silicon   Service Level Agreement

HiperLAN   Wi-Fi   802.11

Cloud