

(英汉对照)

计算机专业英语

What is the internet?

林波 宋宁 编



电子工业出版社

PUBLISHING HOUSE OF ELECTRONICS INDUSTRY

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北京·BEIJING

内 容 简 介

本书的特点是取材新, 内容为“什么是 Internet?”, 包括 Internet 的基本知识、应用以及常见故障。书中对专业名词、生词、句子难点和惯用语均有注解, 并标出国际音标, 便于阅读。本书可供科技人员学习, 也可作为大专院校的专业英语教材。

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前 言

计算机作为信息时代的主角，它正在为社会创造着财富，它为人们的工作和学习提供了极大帮助，因此也就有相当一部分科技工作者以及大学的师生们，需要直接阅读计算机方面的英文原版的书、刊及报纸，以便了解计算机技术的新发展，也希望提高自己的英文水平，以满足工作中的需要。自改革开放以来，人们的英语水平有了很大的提高，各种英语教材及培训班如雨后春笋，但是计算机方面的英语读物及教材，无论从品种数量上，还是选材内容方面，与时代的要求尚有相当的差距。我们编写这本英汉对照的计算机专业英语，其目的就是想丰富这方面的教材和读物，以满足广大读者的需求。

本书的特点是取材新，Internet 也是当今人们感兴趣的话题。本书对于专业词条、生词、句子难点和惯用语均有注解，译文比较准确，读者可以从中学到如何正确理解原文。希望这本书能对读者在计算机专业英语的学习上有所帮助。

在编写本书过程中，电子工业出版社宋玉升先生对本书的内容筛选给予了很大帮助，在此表示感谢。由于我们的专业水平和英文水平有限，书中的译文有不妥之处，敬请读者指正。

编 者

1999年3月1日于北京

1. What is the Internet?

The Internet^①——also known as the Net——is the world's largest computer network. “And what is a network?”^② you may ask. A computer network is basically a bunch of computers hooked together somehow. In concept, it's sort of like a radio or TV network that connects a bunch of radio or TV stations.

Some computer networks consist of a central computer and a bunch of^③ remote stations that report to it——a central airlinereservation^④ computer, for example, with thousands of terminals^⑤ at airports and travel agencies. Others, including the Internet, permit any computer on the network to communicate with any other.

Actually, the Internet isn't really a network——it's a network of networks, all freely exchanging information. The networks range from the big and formal to the small and informal, and everything in between. College and university networks have long been part of the Internet, and now high schools and elementary schools are joining up too.

The Internet is probably the most open network in the world. Thousands of computers provide facilities that are available to anyone who has Net access.^⑥ This situation is unusual——most networks are very restrictive^⑦ in what they allow users to do and require specific arrangements and passwords^⑧ for each service. Although a few

① Internet 互联网

② network (计算机)网络

③ bunch [bʌntʃ] n. 一束,一包,一堆,一群等

④ airline reservation [ˌreɪzəˈveɪʃən] 飞机订票

⑤ terminal 终端(计算机)

⑥ access [ˈækses] n. have ~ to 进入,访问,存取数据

⑦ restrictive [rɪˈstrɪktɪv] a. 有限制的

⑧ password [ˈpɑːswəːd] n. 口令

pay services exist, the vast majority of Internet services are free for the taking, once you are connected. If you don't already have access to the Internet through your company, your school, you'll probably have to pay for access to the Internet by using an Internet access provider.

The Internet's facilities are provided through a large set of different services.

Electronic mail (e-mail)

This is the most widely used service—you can exchange e-mail with millions of people all over the world. And people use e-mail for anything they might use paper mail or the telephone for. Mail servers^① (programs that respond to e-mail messages) let you retrieve^② all sorts of information.

On-line conversation

You can “talk” to other users anywhere on the net. It's great^③ for quick chats^④ with people on other continents,^⑤ particularly when one party or the other^⑥ isn't a native English speaker.

Information retrieval

Zillions^⑦ of computers have files^⑧ of information that are free for the taking. The files range from U.S. Supreme^⑨ Court^⑩ decisions and library card catalogs, digitized

-
- ① Mail servers 电子邮件服务器
 - ② retrieve [rɪ'tri:v] v. 检索
 - ③ It's great 非常好
 - ④ chat [tʃæt] n. 交谈
 - ⑤ continent [ˈkɒntɪnənt] n. 大陆
 - ⑥ one party or the other 某一方
 - ⑦ Zillion [ˈzɪljən] n. 无限多, 数不清
 - ⑧ file [faɪl] n. 文件
 - ⑨ supreme [sɪˈjuːprɪm] a. 最高的, 最终的
 - ⑩ court [kɔ:t] n. 法院

pictures and an enormous variety of software, from games to operating systems. ①

Bulletin boards

A system called Usenet is an enormous, distributed, on-line bulletin board ② with about 100 million characters of messages in more than 4,000 different topic ③ groups flowing daily. Topics range from computer stuff ④ to hobbies. ⑤

Games and gossip ⑥

A game can easily absorb ⑦ all your waking hours ⑧—in it, you can challenge ⑨ other players who can be anywhere in the world. Chat is a party line over which you can have more or less interesting conversations with other users all over the place.

The ancestor ⑩ of the Internet was the ARPANET, a project started by the Department of Defense (DOD) in 1969, both as an experiment in reliable networking and to link DOD and military research contractors, ⑪ including the large number of universities. (ARPA stands for Advanced Research Projects Administration, the branch of Defense in charge of handing out grant money. The agency is now known as DARPA—the added D is for Defense.) The ARPANET started small and connected three computers in California with one in Utah, but it quickly grew to span the continent.

The ARPANET was wildly successful, and every university in the country wanted

-
- ① Operating System 操作系统
 - ② bulletin ['bulitin] n. 公报, 专刊
 - ③ topic ['tɒpɪk] n. 专题, 题目
 - ④ stuff [stʌf] n. 东西, 素材
 - ⑤ hobby ['hɒbi] n. 业余爱好
 - ⑥ gossip ['gɒsɪp] n. 杂谈
 - ⑦ absorb [ə'bɔːb] v. 吸收
 - ⑧ waking hours 醒着的时间, 整日的
 - ⑨ challenge [tʃælɪndʒ] n. 挑战
 - ⑩ ancestor ['ænsɪstə] n. 前身, 祖先
 - ⑪ contractor [kən'træktə] n. 承包人

to sign up.^① This success meant that the ARPANET began getting hard to manage, particularly with the large and growing number of university sites on it. So it was broken into two parts: MILNET, which had the military sites, and the new, smaller ARPANET, which had the nonmilitary sites. The two networks remained connected, however thanks to a technical scheme called IP (Internet Protocol), which enabled traffic^② to be routed^③ from one network to another. All the networks connected by IP in the Internet speak IP, so they all can exchange messages.

Although there were only two networks at that time, IP was designed to allow for tens of thousands of networks. An unusual fact about the IP design is that every computer on an IP network is, in principle, just as capable as any other, so any machine can communicate with any other machine.

Beginning around 1980, university computing was moving from a small number of large time-sharing machines^④ to a large number of smaller desktop workstations^⑤ for individual users.

Most of the new workstations ran a variety of UNIX, a popular kind of operating software^⑥ that had been developed at AT&T and the University of California at Berkeley. The people at Berkeley were big fans^⑦ of computer networking, so their version^⑧ of UNIX included all the software necessary to hook up^⑨ to a network. Workstation manufacturers began to include the necessary network hardware also, so all you had to do to get a working network was^⑩ to string the cable to connect the

① sign up 签约参加

② traffic [ˈtræfɪk] n. 通信业务, 交通

③ to be routed 成为通路

④ time-sharing machine 分时机

⑤ desktop workstation 桌面工作站

⑥ operating software 操作系统软件

⑦ fan [fæn] n. 影迷、球迷等称呼

⑧ version [ˈvɜːʃən] n. 版本

⑨ hook up v. 钩住, 挂上

⑩ all you had to do to...was... 为了...而你必需做的就是...

(was 之前是复合主语)

workstations.

The National Science Foundation (NSF) decided to set up five supercomputer centers for research use. The NSF figured that it would fund a few supercomputers, let researchers from all over the country use the ARPANET to send their programs to be supercomputed and then send back the results.

The plan to use the ARPANET didn't work out for a variety of reasons, some technical, some political. So the NSF never shy about establishing a much faster network to connect the supercomputing centers: the NSFNET. In fact, by 1990 so much "business" had moved from the ARPANET to the NSFNET that, after nearly 20 years, the ARPANET had outlived its usefulness and was shut down.^① The supercomputer centers the NSFNET was supposed to support turned out to be^② not successful. Fortunately, by the time it became clear that the supercomputers were on the way out,^③ the NSFNET had become entrenched^④ in the internet. By 1994, several large commercial networks had grown up within the Internet such as IBM and Sprint, and others by such specialist Internet companies as Performance Systems International (always known as PSI) and Alternet. And now, the NSFNET is being dim down, and its traffic taken over^⑤ by commercial networks.

The NSFNET permitted traffic related only to research and education, but independent, commercial IP network services can be used for other kinds of traffic. The commercial networks connect to the regional networks just like the NSFNET does, and they provide direct connections for customers.

IP networks have appeared in many countries, either sponsored by the local telephone company (usually also the local post office). Nearly all of them are connected directly or indirectly to some U. S. network, meaning that they can exchange traffic with each other.

① shut down 关闭

② turn out to be... (运行的)结果是...

③ to be on the way out 走头无路

④ entrench [in'trentʃ] v. 确立, 占据地位

⑤ take over 接管, 取代

1. 什么是 Internet?

Internet, 也叫做 Net, 是世界上最大的计算机网络。你也许会问: “什么是网络?” 计算机网络, 简单地说, 就是通过某种方法被连在一起的若干计算机。从概念上讲, 就像若干无线电台或电视台连成无电线网络或电视网络一样。

某些计算机网络包括一个中心计算机和若干与中心计算机相联的远端计算机。例如, 一台飞机订票系统的中心计算机, 就与各个机场和旅行社的上万台终端相连。其它类型的计算机网络, 包括 Internet, 允许网络中每台计算机与另一台计算机通信。

事实上, Internet 并不只是一个网络, 它是网络的网络, 所有网络都能自由交换信息。网络类型各异, 有的庞大而正规, 有的小而不正规, 还有许多规模居中的网络。大学的网络早已是 Internet 的一部分, 现在中学及小学也加入进来。

Internet 可能是世界上最开放的网络。任何人, 只要联入 Net, 就能利用上万台计算机提供的服务。这种情况是不多见的, 很多网络在允许用户使用方面限制性较强, 并且对每项服务均有特别安排的口令。尽管有一些服务需要缴费, 但绝大多数 Internet 的服务都是只要你连通了就可免费享受。如果你通过公司、学校还不能进入 Internet, 你可以付费给 Internet 访问权提供商来进入 Internet。

Internet 的功能是由大量的各类服务来体现的。

电子邮件 (e-mail)

这是应用最广的一项服务, 你可以与世界上千百万人互换电子邮件。人们可用电子邮件交换任何用信件或电话来交换的内容。邮件服务器 (响应电子邮件的程序) 使你能检索各类信息。

联机对话

你可与在网上任何地方的用户进行“交换”，尤其是某一方的母语不是英语的人进行交谈，就显得非常便捷。

信息提取

数不清的计算机均有可免费提取的文件。文件范围极广，有美国最高法院的决定、图书馆卡片目录、数字化图片；从游戏到操作系统等各种软件。

公告牌

所谓的 Usenet 系统是一个巨大的、分布式的联机公告牌，每天流动的有一亿多字符的信息和 4000 多不同题目的专题组。专题范围从计算机技术到业余爱好。

游戏和闲谈

一个游戏可以轻易地消磨掉你整日的时间，在游戏中你可向全世界任何地方的参赛者挑战。交谈是一种聚会形式，在此你可和全球的用户进行有趣的谈话。

Internet 的前身是 ARPANET，是美国国防部（DOD）1969 年创建的项目，它作为可靠组网的一个实验，把 DOD 与军事研究单位包括许多大学联网的实验。（ARPA 是高级科研项目管理部，是国防部主管拨款的机构。现在该部更名为 DARPA——D 是国防部简称。）ARPANET 起始规模很小，只是三台在加利福尼亚和一台在犹它州的计算机互联，之后就迅速发展到大陆。

ARPANET 获得很大的成功，美国每所大学都想加入，这个成功也意味着 ARPANET 管理上变得困难，尤其是入网的大学数量巨大，而且不断增加，于是它分成了两个部分：即 MILNET 军方网和新的较小的 ARPANET 非军方网。由于有了称为 IP（网间协议的）技术方案，可使信息能从一个网络传至另一网络，这两个网络仍维持相互连接。在 Internet 中所有通过 IP 连

接的网络均采用 IP，这样它们就能交换信息。

尽管当时只有两个网络，但 IP 却是为成千上万的网络能适用而设计的。IP 设计的不凡之处在于：IP 网络上的每台计算机基本上与任何另外一台计算机具有同样的效能，所以每台机器均可与另外机器通讯。

从 1980 年左右开始，大学里的计算机系统从少量的大型分时机发展到大量的小型桌面工作站供用户单独使用。多数新型的工作站都运行各式各样的 UNIX 系统，它是目前较受欢迎的一种操作系统软件，是由 AT&T 和加州大学伯克利分校开发的。伯克利的人们极其热衷于计算机网络，所以他们的 UNIX 版本包括了上网必备的各种软件。工作站的制造商也开始推出必要的网络硬件，所以你要想获得一个有效的网络，只要将电缆与工作站一连就可以了。

国家科学基金会（NSF）决定建立五个超级计算机中心供研究之用。NSF 宣称要投资于少量的超级计算机，让全国的研究人员使用 ARPANET，将他们的程序传来进行超级计算机处理，然后再将结果传回去。

由于技术和政治两方面的原因，使用 ARPANET 的计划并未实现，所以 NSF 从不隐讳他们想建立一个更快的网络 NSFNET 与超级计算机中心相连的想法。事实上到 1990 年，大量的业务从 ARPANET 转到了 NSFNET，从而 ARPANET 在诞生 20 年后终于寿终正寝。由 NSFNET 支持的超级计算机中心运行的结果是不成功的。可幸的是，在超级计算机已被认为走到尽头的时候，NSFNET 在 Internet 中地位已算稳固。截至 1994 年，几个较大的商业网络在 Internet 中成长起来，如 IBM、Spring 运行的网络，由专业 Internet 公司如国际操作系统（PSI）和 Altemet 运行的网络。目前，NSFNET 已黯淡下去，它的通信量被商业网络所代替。

NSFNET 只允许与科研和教育相关的通信，而独立的商业 IP 网络却能为其方面的通讯服务。商业网络与 NSFNET 一样能同地区性网络连接，但不同的是能直接与客户相连。

IP 网络已在许多国家使用，有的由当地电话公司赞助（通常也由当地邮局赞助）。几乎所有网络均直接或间接与美国网络相连，这意味着它们可以互相通讯。

2. Which Way to the Internet?

“How do I get to the Internet?” Well depending on your lifestyle, including your job or your school, checking out^① the Internet can be trivially^② easy or moderately^③ difficult.

(1) Modem

A modem is a little device that enables data from one computer to travel to another computer by using ordinary telephone lines. This cute^④ little box goes between your computer and your phone line and between the phone line and the computer on the other end. Modems are built-in to some computers, so if you're not sure whether one is in your computer, ask.

If you need to buy a modem, find the cheapest fax modem that runs at 14,400 bps.^⑤ You can pay more for things that go faster, but that speed isn't really passed on to you by using your ordinary phone line just now. Make sure that your modem comes with^⑥ some communications software that's appropriate for the computer and version of operating system you're using.

The Internet is out there with tons of^⑦ exciting things to do, but you have to get access to it through your school or work. The folks^⑧ who provide access to the Internet

-
- ① checking out 调整, 检查
 - ② trivially [ˈtrɪviəli] ad. 稍微地
 - ③ moderately [ˈmɒdərɪtli] ad. 适度地
 - ④ cute [kju:t] a. 小巧的
 - ⑤ bps (= bits per second) 每秒传递位数
 - ⑥ come with... 配有..., 带有...
 - ⑦ out with tons of... 提出许多...
 - ⑧ folk [fəʊk] 人们

(generally for a fee) are called Internet Service Providers. ①

(2) On-line

On-line services are services provided to you by a computer or computers interactively. They include but are not limited to computerized^② banking, shopping, dating, entertainment, ^③ and study. They may or may not have anything to do with the Internet, such as CompuServe, existed independently of the Internet. They allowed users to exchange electronic mail among other CompuServe users but failed to reach out to touch anyone else. Now most of these services do provide e-mail access beyond their insulated client^④ base. This is a far cry, ^⑤ however, from real Internet access and capability.

(3) Bulletin boards(BBS)

Electronic bulletin board systems (abbreviated^⑥ as BBS) provide on-line services generally on a smaller scale. Bulletin board systems are often local, often very cheap, and sometimes even free to callers. They might provide e-mail, chatting (on-line conversations with other users), forums^⑦ about special interests, games, ads, and lots, lots more.

Service providers of all sorts want to know who's on the system. To track usage, users are given an account, ^⑧ sort of like^⑨ a bank account. The account has your name and a secret password associated with it.

-
- ① Internet Service Providers (ISP) 联网服务提供者
② Computerize [kəm'pjʊːtəraɪz] v. 计算机化, 电算化
③ entertainment [entə'teɪnmənt] n. 娱乐
④ Client ['klaɪənt] n. 客户, 客户机
⑤ This is a far cry from... 与...有很大差别
⑥ abbreviate [ə'briːvi'eɪt] v. 简称, 缩短
⑦ forums [ˈfɔːrəms] 专题讲座
⑧ account [ə'kaʊnt] 帐户
⑨ sort of like... 有点像..., 类似于...

Your account name may also be called your user ID, or your login name. Your name must be unique within the bounds^① of the system you are using.

Your password, just like those associated with bank teller-machine cards, should not be a common word or something easily guessed. (For best results, include both numbers and letters so that a hacker using a dictionary-based program won't find your password listed.) You don't want strangers using your account, and your password is really your only protection.

To protect information from the ignorant,^② and the vile,^③ an elaborate scheme of permissions is used. Permissions, also known as **access control**, are what determine who can do what to what. Permissions are assigned to files and directories and determine who can access each file and directory and in what way. Levels of permission include **no access**, which in some cases means that you can't even see a file or directory; **read**, permission to read the file or directory; **write**, permission to write to or delete the file or directory; and **execute**, permission to run a program file. In traveling around from system to system, you no doubt will find information protected by some of these permissions.

(4) How to get off

After you've gotten yourself on the Internet, you're inevitably^④ placed in the position of having to get off. There are more and less graceful^⑤ ways of getting off. And depending on how far you've gone, there are potentially layers of systems to exit from.

If you use a modem to dial in, you can always hang up the phone from your terminal program. However, a more polite way to leave is to say "good bye" to everyone to whom you've said hello.

① bounds(复数)[baundz] 范围,界限

② ignorant ['ɪɡnərənt] 无知者

③ vile [vaɪl] 可憎的人

④ inevitably ['ɪnevɪtəbli] ad. 不可避免地

⑤ graceful ['ɡreɪsful] a. 适当的

The most common exit sequences^① include the following.

- Exit
- Ctrl - D (popular on always excessively terse^② UNIX systems)
- Logout
- Bye

Remember that you have to exit from all the systems you have signed on to. You aren't really out until you've exited from your original Internet service provider. You may at that point begin to see random^③ characters generated across your screen while your modem will more likely hang up by itself with a satisfying click.

If your computer is connected directly to the Internet by way of a network cable, you have to exit from all the systems you've accessed in order to get back to your home environment.

① sequence ['si:kwəns] n. 顺序, 次序

② terse [tɜ:s] a. 简明的

③ random ['rændəm] a. 随机的

2. 怎样连上 Internet?

怎样才能连通 Internet 呢? 这就要依你的情况而定, 涉及到你的工作或者你的学校。Internet 连网的工作可能比较简单, 也可能比较复杂。

(1) 调制解调器

Modem 是一个小装置, 它使用普通电话线就能将数据从一台计算机传到另一台计算机。这个小巧的盒子在你的计算机和电话线间, 在电话线与另一端的计算机间发挥作用。有的 modem 是装在计算机内的, 所以当你不能肯定计算机中是否装有 Modem 时, 请问问一下。

如果你需买一个 modem, 可选择最便宜的 14400bps 的传真 modem。你也可花钱买到速度更快的, 但是你现在用的普通电话线不能实现这种快的速度。要弄清楚你的 modem 是否配有适合你的计算机和操作系统版本的通讯软件。

利用 Internet 可做许多有趣的事情, 但是你要通过学校或单位得到对 Internet 的访问权。提供 Internet 访问权 (通常要收费) 的人被称为 Internet 服务提供商 (ISP)。

(2) 联机服务

联机服务是由一台计算机或由相互联系的几台计算机提供的服务, 包括 (但不限于) 计算机存取款、购物、约会、娱乐及学习。这种服务可能与 Internet 有关, 也可能无关, 例如 CompuServe, 它就是不依靠 Internet 而独立存在的, 它允许 CompuServe 用户相互间寄送电子邮件, 但不能与 CompuServe 以外的用户联系。现在, 许多这种服务已打破局限, 用户可以进行电子邮件寄送, 但这与实际的 Internet 访问功能还有较大差距。

(3) 公告牌 (BBS)

电子公告牌系统 (简称 BBS) 通常在一个较小范围内提供联机服务。