

CHAPTER 2:

Getting Online

After gaining some book knowledge about the Internet, the next step is getting online. This section outlines the three key elements of getting online—acquiring the necessary equipment and software, selecting an access method, and devoting time to practice. If telecommunications is new to your organization, begin by hooking up one computer. For those who have used the Internet before, follow these same steps to expand your organization's use of the Internet on multiple computers or sites. Because this step requires some technical skill, it will be important to have both a comprehensive Internet reference book and a computer-knowledgeable person nearby. Check among your organization's staff or volunteers—chances are someone has worked with a modem before.

Equipment and Software: Required Elements

1. Computer — Virtually any computer, Mac or IBM-compatible, new or old, can get onto the Internet. Your computer's central processing unit (CPU), speed, and memory will determine how you can connect to the Internet and what features you can use. To take advantage of the graphical point-and-click interface of the Internet known as the World Wide Web, with its colorful pictures and user-friendly icons, newer and more technically advanced equipment is needed. For web browsing, the minimum recommended configuration is at least a 486 PC (IBM compatible) or a Macintosh II with 8 Mb of RAM. Older computers may work, but you will probably find them to be so slow that it would not be worth your time and effort. However, you might be able to use them for e-mail and text-only modes of connecting to the Internet. (See charts on pages 12–13 for more details.)

2. Modem — A modem is a device that connects to your computer and allows data to be transmitted both to and from your machine to distant computers using ordinary phone lines. Modems have different baud rates or “speeds” of transmitting data. The rate is usually listed in Kbps (kilobits per second) or just as “K.” Faster (represented by a higher number) is generally better, but the latest modems may not be compatible with older computers. The current standard modem speed is 56K and a modem with that speed can be

**Questions to ask
while shopping for
Internet access**

How many hours of access will I receive each month? (Unlimited is recommended—it's more economical.)

How do I install/set up the service? (Get detailed steps.)

Is there a local (not long-distance) or toll-free access number?

Does the service provide access to the World Wide Web?

Does this service offer space for a web homepage? Does web space cost extra? (As you learn, you may want to publish your own information. See Chapter 6 for details.)

Are there any special discounts or services for nonprofits? (Well, it can't hurt to ask!)

purchased for under \$100. For web browsing, a modem with at least 28.8K or 33.6K is recommended. Slower modems are becoming increasingly difficult to find because they are obsolete for most users.

You can also choose between an internal and external modem. External modems sit outside your computer and require an additional cable to connect to your computer. They are slightly more expensive than internal modems, but are much easier to install and give you the flexibility of being able to easily move the modem to another computer. Internal modems are installed inside the computer case. You will need a little bit of technical aptitude and probably a small screwdriver to remove the computer case and install the modem. If you bought a new computer within the last few years, it probably came with an internal modem.

There are also stand-alone devices, called analog modem routers, that allow all computers on a local area network (LAN) to access the Internet simultaneously through a single dial-up connection. One example of an analog modem router is 3Com's OfficeConnect 56K LAN modems.

When shopping for a modem, be sure you know the make, model, processor chip, and operating system of your computer. Don't hesitate to ask the sales representative plenty of questions to ensure that the modem you purchase will be compatible with your computer.

3. Communications software — This software is necessary for your modem to connect to the Internet. It controls the flow of data in and out of your computer when you are online. If your computer's operating system is Windows 95 or Macintosh System 7.5 or newer, you should already have the communications software you need to connect to any Internet service provider (ISP). Other services like America Online (AOL) provide their own software on their setup disk. Nearly all modems come with a diskette or CD-ROM that includes basic communications software that should be adequate for any other situation.

4. Phone line — You need a direct outside phone line. In many cases, the line can be shared with the phone on your desk. However, if your phone system is part of an internal network, the modem may have to use the same line as your fax machine, which requires an outside phone line as well. If you dial a number to get an outside line,

you also need to set your modem to dial that number. Eventually you may want to get a separate phone line that is dedicated to Internet access.

5. DSL (Digital Subscriber Line) technology — DSL is a new alternative to using modems as an Internet connection method. It offers fast, permanent (dedicated) Internet access over existing phone lines. For DSL access, the computer should have functioning Ethernet capabilities or, if networked, you should have a functioning Ethernet LAN connecting your machines. Currently, DSL is only available in major urban/suburban areas. For areas where DSL is not available, other high-speed Internet connection alternatives are cable modem, ISDN digital phone lines, and satellite-based Internet access. Of these, cable modem technology is the most attractive alternative. Offering speeds similar to DSL, it connects via existing cable television wiring.

Getting started strategies: Many businesses and individuals are upgrading to faster computers and are getting rid of their old machines (which are often only a few years old). Approach local businesses, announce your need in newsletters, and put a poster up in area computer stores. Many people are also getting faster modems and you might be able to locate a free 28.8K or 33.6K modem that way too.

“RSVP projects should call local Internet access companies to see who might donate time. For example, in the central Massachusetts area, Ultranet donates 10 hours of Internet access per month to nonprofit organizations, and 5 megabytes of space in which to ‘park’ a web page. Because of that I am able to e-mail you!”

**Carolyn Hallin, Director
Worcester Area RSVP**

Selecting an Access Method

Once you have your equipment in order, the next step is selecting a method to access the Internet. The most common way is with a dial-up connection to an Internet service provider (ISP) or a commercial online service. For a monthly fee, these companies provide users with an account that allows them to dial up a host computer and connect to the Internet. They also provide one or more e-mail addresses and sometimes space on their server for your own website.

At one time there were some major differences between ISPs and commercial online services, but there are now fewer distinctions than there were previously. If you are a newcomer to using computers and installing software, you may find commercial online services like America Online or CompuServe much easier than other options. But that distinction is also fading as many ISPs (such as Earthlink) now provide start-up disks that walk you through the setup procedure.

ISPs vary in size, from large companies providing service nationwide to small local companies providing access to one community or region. Nearly all commercial services offer a free trial period, but you will be required to cancel within the first 30 days to avoid charges for the next month. During the initial sign-up, you will be asked for a credit card number, so have one ready (even if the promotion includes a “free trial” offer). There are also several “free” ISPs that will flash advertisements across a portion of your screen while you are online in exchange for the free access.

You may be able to take advantage of a local college or university, or a local freenet or community network, for accessing the Internet. The benefit of these is the lower cost involved, but there is probably little technical support available and the setup procedure may be more complicated.

Things to Consider

There are a number of things to consider when choosing an ISP or commercial online service. It may be difficult to get accurate information on such items as reliability and technical support until you’ve tried the service. If you are dissatisfied, you can always change providers, but be aware that you will also have to change your e-mail address. Your old company will probably not forward your mail after you have closed your account with them, so you may need to overlap service for a month or so.

- **Local access number:** This is the most important consideration. Make sure the company has a dial-up number that is a local phone call. You don’t want to be racking up long-distance phone charges while you are online. If you live in an urban or suburban area, you have many choices. If you live in a more rural area, your choices may be limited.
- **Compatibility:** Older computers may not be compatible with the software needed to use the commercial online services. Know what version of operating system you are using as well as the make and model of your computer.
- **Features:** Does the provider offer more than one e-mail address per account, web server space, or unlimited hours?

- **Price:** How much is the monthly fee and what is included? Are additional features like the ones above included or do they cost extra? Is there a one-time setup fee? Most companies provide unlimited access for \$15–25 per month, but other details vary.
- **Reliability, ease of use, and support:** Is local or toll-free phone support available? How long is the wait when you call? How complicated is the setup? Do you ever get a busy signal when trying to connect to the Internet?

Finding an Internet Service Provider

- Ask friends or colleagues who are already online what they use and if they are satisfied with the service.
- Check with a local computer store, look in the yellow pages under Internet or computers, or pick up an Internet or computer magazine at a newsstand or library.
- Go to the website of The List at <http://www.thelist.com> to find the ISPs in your area. If you don't have a computer yet, use a friend's or colleague's computer. Or, go to your local library—most public libraries have computers connected to the Internet.

Getting started strategies: Don't expect in-kind donations from commercial online services, but you may have luck approaching donors with your estimated yearly costs if you explain that they are a part of a telecommunications plan for your organization. Obtaining an account through a university may be easier if you work with students or faculty involved in a campus service program or related academic department. If your organization is affiliated with local or state government, check to see if your organization qualifies for free Internet access through existing agency networks.

Options for Internet Access: A Summary of Provider Services

Type and Description	Pros and Cons	Examples*
<p>Commercial Online Services — Large companies make Internet access available in most places nationwide. For the beginner, a national company can be the best option, offering a free and user-friendly installation disk that gets you started with a minimum of problems. These companies provide varying degrees of access to the Internet, along with additional services specific to their network, like databases, news digests and “chat rooms.” Toll-free technical support is available.</p>	<p>Pros</p> <ul style="list-style-type: none"> • Easy to use • Extra resources available only to their users • Most dial-up numbers nationwide <p>Cons</p> <ul style="list-style-type: none"> • Older equipment will not always work • More likely to get busy signals • Many ads and junk e-mail 	<p>America Online <i>http://www.aol.com</i></p> <p>CompuServe <i>http://www.compuserve.com</i></p> <p>Prodigy <i>http://www.prodigy.com</i></p>
<p>Internet Service Providers (ISPs) — Many local companies are springing up that simply plug you into the Internet. If you have the patience and know-how, most of the software you need to use these services is currently available for free on the Internet. Large national companies are comparable to the commercial online service in terms of access numbers available and ease of use.</p>	<p>Pros</p> <ul style="list-style-type: none"> • Faster Internet connection • No additional software required <p>Cons</p> <ul style="list-style-type: none"> • May have more complicated setup procedure • Varied customer support and dependability 	<p>Earthlink <i>http://www.earthlink.com</i></p> <p>For local or regional ISPs, check newspapers, computer magazines, and yellow pages for an ISP in your area. Or, search The List at: <i>http://www.thelist.com</i></p>
<p>Free ISPs — Several companies provide free Internet access. In exchange for the free access, you have to answer a long list of marketing-oriented questions and then whenever you use the service, a small part of your screen is taken up by a window with advertising.</p>	<p>Pros</p> <ul style="list-style-type: none"> • Absolutely free <p>Cons</p> <ul style="list-style-type: none"> • Limited hours online • Constant advertising on screen • Very limited technical support • Requires their special software 	<p>Juno <i>http://www.juno.com</i></p> <p>NetZero <i>http://www.netzero.com</i></p> <p>For a listing of free ISPs, visit: <i>http://nzlist.org/user/freesip/compare.sht</i></p>
<p>Community Networks (also called Free-Nets) — Dedicated to providing free or low-cost access to online information for all community members, these systems are cropping up in cities and some rural areas across the country. The emphasis is on local information.</p>	<p>Pros</p> <ul style="list-style-type: none"> • Cheap • Older equipment works fine <p>Cons</p> <ul style="list-style-type: none"> • Services vary widely • Usually little technical support or customer service 	<p>To find out if there is a Free-Net system in your area, contact the Organization for Community Networks at 216-731-9801 or visit their website: <i>http://www.ofcn.org</i></p>
<p>Universities — The Internet was originally used mostly by academics. It still provides powerful access to students and faculty. Sometimes community-minded universities provide Internet accounts to national service participants, especially if you work with students or faculty.</p>	<p>Pros</p> <ul style="list-style-type: none"> • Free and powerful access to the Internet <p>Cons</p> <ul style="list-style-type: none"> • Usually little technical support or customer service 	<p>Contact your local college or university</p>

* Please note that this list of providers is included for informational purposes only. The Corporation in no way endorses the use or content of any particular provider. Other providers not listed here may be available in your area.

Deciphering Internet Service Provider Ads

Instant Relay Chat and Instant Messaging is like e-mail popping up on your screen in virtual real-time.

Chat/IRC
Instant messaging

Dial-up access and 56K means that modems up to a speed of 56,000 bps (bits per second) are supported. DSL means that always-on, high-speed DSL technology is supported.

Dial-up access
56K
DSL

If agencies want to create a website, they can add \$5 to the monthly charge for 5 megabytes of space on the web server.

Web-hosting
Web space:
+\$5/mo/5M

It's usually easiest and most economical to pay a set monthly charge for unlimited access.

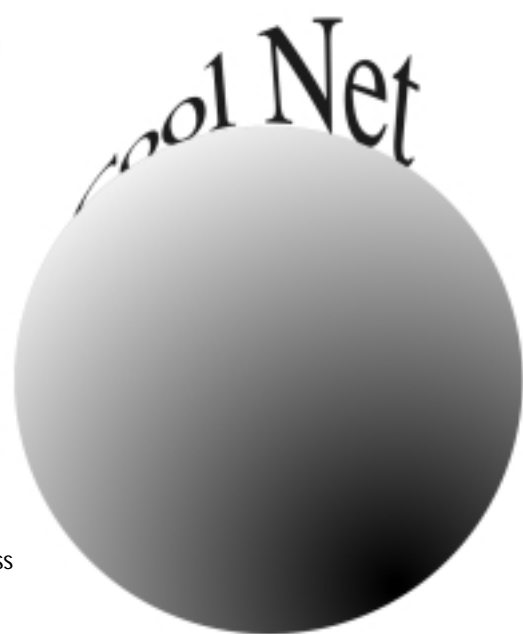
Unlimited access
\$19.95/mo!!

Also ask CoolNet about web design and corporate accounts,
Tech line 8 hrs./day, leased line, T1, ISDN.

Some companies will design your web pages and offer additional services (such as "programming" your agency web space to allow interactivity with the public, features like database searching and fill-out forms).

For most nonprofits, simple website development can be done by an enthusiastic employee or volunteer. Be cautious of people overcharging for web development.

Leased line, T1, DSL and ISDN are faster connections than traditional phone lines, requiring additional hardware and phone company installation and higher cost.



Getting Online: Preparation Worksheet

Computer Make, Model:
_____ / _____

CPU: _____

The CPU (central processing unit) is the brain of the computer. Some examples are 386, 486, Pentium, and PowerMac.

Speed: _____

Computers march to a timing pulse measured in MHz (megahertz). Faster is better.

RAM: _____

The working, short-term memory. Measured in megabytes.

Hard-Drive Size: _____

Permanent storage space to keep all your software and data. For IBM compatibles, at a DOS C:> prompt, type chkdsk for a report on the hard drive, including total disk space. Measured in megabytes or gigabytes.

Operating System: _____

The operating system tells the computer how to interact with all its pieces. Most PCs have DOS with Windows running "on top" of it. Find out what version of DOS you have by typing ver at the C:> prompt. For Macs, check the system by opening "About this Macintosh" in the Apple menu.

Modem: _____

Modems are either internal or external and come in many makes, models and speeds (28.8K, 33.6K, 56K, etc.).

Modem Speed: _____

Hardware Considerations and the Internet

As you consider any new Internet-related software, it's necessary to know the capabilities or "specs" of your equipment. Use the worksheet in the sidebar to assess the capabilities of your computer and compare them to the charts below. CPU, RAM, and speed are critical factors determining capabilities and performance. During "boot" (start-up), IBM-compatible computers normally test RAM and the specs will flash across your screen.

Where does your PC (IBM-compatible) computer fit?

CPU	386	486	Pentium/Celeron/AMD
RAM	4Mb	8Mb	16Mb
Modem	14.4K	28.8K	28.8K-56K or DSL,T1

For practical purposes, only capable of text-mode Internet. Use "Lynx," a text-based web browser with a standard communication software.

Even the most obsolete computer can connect in text mode. Can actually be faster, since it's simpler.

Unusable on some major online services. Not as user-friendly.

Capable of "graphical" Internet browsing with either a SLIP/PPP-type connection or through a commercial online service.

Graphical programs require better computers, since more processing is happening.

User-friendly: "point and click."

Hardware note: Be skeptical of cheap upgrade strategies, like disk compression, clock speed increases, and increasing RAM with software. There are appropriate situations to use these tools, but they can be a major nuisance for beginners.

Where does your Mac computer fit?

CPU	68030 (Mac II)	68040 (Quadra)	PowerPC/G3/G4
RAM	4Mb	8Mb	64Mb
Modem	14.4K	28.8K	56K

All these Macintosh configurations work with user-friendly, graphical Internet software, most of which is available free or at low cost (less than \$20) on the Internet. The major online services have Mac versions of their software. For direct Internet connections, you need SLIP or PPP software for the Mac, which is also readily available at low or no cost.

Practice and Training

The best training you can get is hands-on practice—try setting aside two hours per week for the first month. Focus on learning e-mail and browsing the web, and expose other staff by going online with them or describing your progress at regular meetings. As an exercise, try to access the national service resources listed in Chapter 4, and make the most of this initial month of exploration (especially if it's free).

Getting started strategies: Your time is most needed here—make sure you devote two hours per week and stick to a schedule. If you run into difficulty, a technically oriented volunteer can often be found by posting a notice at a computer store, local college, or high school.

How do I find out about Internet access providers in my area?

Look in the yellow pages under Internet Access.

Check ads in the newspaper.

Call or visit a computer store and ask a salesperson about Internet access.

While you are at your local computer store, look for magazines and free local papers that list Internet service providers. Computer User, a free monthly newspaper, has local versions in different cities.

Ask friends or colleagues already connected to the Internet which ISP they use and if they recommend it.