Getting Connected

Ready to expand your world by connecting to the Internet? Here's help with the choices you'll have to make.

BY LESLIE HOFFMAN & JP FRENZA

To get connected, you need to do two things. The first is to establish Internet access for people in your organization. The second is to set up space on a Web server so that others can access information about your nonprofit.

This article takes a look at how you connect to the Net. Next issue we'll discuss the logistics involved in setting up a Web server.

NO, THE INTERNET IS NOT THE WEB

To understand how to get connected, you need to know what the Internet is, what it isn't, how it works, and why it's so cost-effective. This knowledge will help you make the best choices for your organization.

Put simply, the Internet is a global network of computer networks. The term Internet actually refers to the physical wires and cables that make up the network.

Today's Internet evolved out of a communications network created for scientists and the military to share data. The idea was that the system would be decentralized—one computer in Washington, one in California, one in New York. That way, if one computer failed, or was under attack, the rest could continue to share information. If you work in a small office you can understand how the Internet works: You and your co-workers probably have a small network on which you share one printer. If one machine is out of service, the rest can still access the printer (see Figure 1).

That early network of scientists and military personnel formed the basis of what we now know as the Internet. More and more computers were added as members of government, universities, businesses, and the nonprofit community joined in. The network grew quickly, soon encompassing the entire globe (see Figure 2).

Many people think that the Internet is the same as the World Wide Web, but it's not. The Web is the part of the Internet that allows information transfer in a multimedia format—text, pictures, sound, and video. You don't even enter the Web for some things, such as e-mailing messages—one of the most popular uses of the Internet. With e-mail, you can create messages in a text format and send them to anyone with an e-mail account anywhere in the world—all without ever accessing the Web. The Web, therefore, is considered a subset of the Internet, although it's the fastest growing part of Internet use.

TWO PRINCIPLES OF CONNECTING TO THE INTERNET

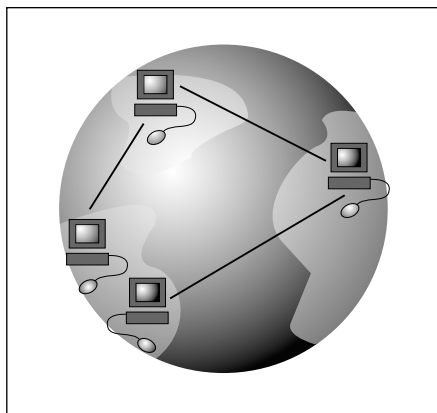When it comes to understanding your Internet connection, keep in mind two important points:

Figure 1
In the beginning, the goal was to make the Internet a true network where computers from a wide geographic area could connect.
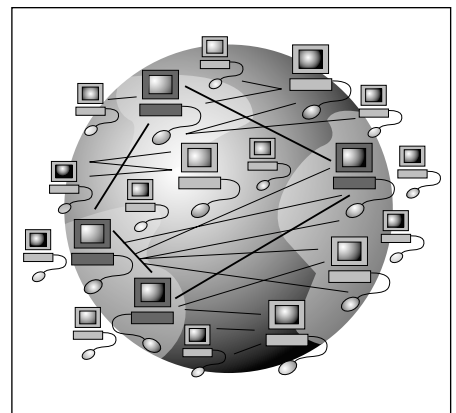

Figure 2
Today the Internet is truly global and represents hundreds and thousands of computer networks.

1. The Client-Server Relationship Is Key.

We don't know why computer language has to be harder than everyday English, but it's certainly true when it comes to the Internet. Client-server relationships is computerspeak for the fact that there are two types of computers on the Internet: clients and servers. When you're accessing the Internet, you're a client. Clients are computers which dial up and connect to the Internet to access information. For example, if you connect to the Internet and log in to CNN's Web site, you and your computer are acting as a client.

Servers, on the other hand, are connected to the Internet to distribute information. Servers can serve e-mail, in which case they are mail servers, or they can serve Web pages, in which case they are Web servers. When you connect to the Internet you, your computer, your modem, and your phone line are negotiating a client-server relationship.

2. The Client Is Local. The Server Is Global.

When you make a local phone call, you dial into a system that recognizes your phone number and the number you're calling and bills you accordingly. When you make a long-distance phone call, the same thing happens except that the bill is higher. You're charged depending on where you are, where the person you're calling is, and how long you're on the phone.

The Internet doesn't work that way. You (the client) access the Internet at the point nearest your office. That means that whenever you access the Internet, it's a local call. Which brings up point number one: Clients (you) are local.
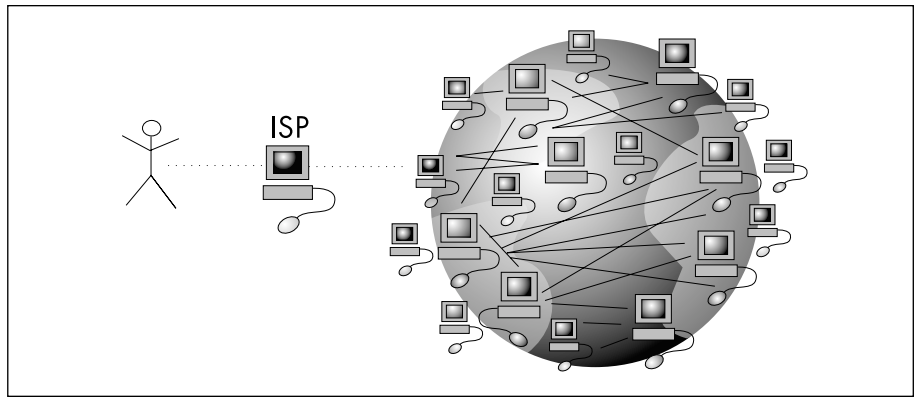

Figure 3

Think of your ISP as a tollbooth collector. For a fee you pass through the tollbooth and access the Information Superhighway.

Once you've dialed a local number and accessed the Internet, everything you do is global. If you live in New York, you can access a Web site (server) in Arizona, Costa Rica, or Japan. As a client, you connect to the Internet locally but once you're on the network you can access information globally—all for the price of that local phone call.

Finally, Internet access isn't charged by the minute. It used to be, but most Internet service providers don't price their services that way any more. So your local call gives you worldwide access without charging by the minute. That capability is why the Internet has gone from technological novelty to household word in a very short time.

CONNECTING TO THE NET

To connect to the Internet, you need a computer, a modem, software (usually free with your computer or modem), and an Internet service provider, or ISP. What does the ISP do?

Think of the ISP as a hub. The ISP purchases phone lines and connects them to hardware (modems and routers).

That hardware is linked directly or indirectly to the actual Internet network. When you open an account with an ISP, you get a phone number that's local to your area. (If you don't get a local number, get another ISP!) Your phone number is input into a field in your modem's control panel. When your modem dials the number, it makes a connection to the ISP's hardware which then grants you access to the system and lets you connect to the Internet (see Figure 3).

The faster your computer's modem, the faster your access to the Internet will be. Typical modem speeds are 14.4, 28.8, and 56K. If you're thinking of purchasing a modem to access the Internet, get the fastest modem that you can afford. Two years ago, most people on the Internet used 14.4 modems. Today, 28.8, 56K, and ISDN (a very fast digital connection) are quickly becoming the standard.

TYPES OF INTERNET SERVICE PROVIDERS

There are three basic types of ISPs. Let's take a look at each and review their pros and cons.

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1. Proprietary ISPs

In this category are such ISPs as America On-Line (the largest ISP in the country), the Microsoft Network (MSN), and CompuServe. These proprietary ISPs offer some clear advantages and only a few (but significant) disadvantages:

Advantage 1: They aren't expensive. America On-Line (AOL) offers full-Internet access for $19.95 per month for unlimited usage.

Advantage 2: They're easy. AOL's software is a fairly foolproof way to access the Net. You get the software for free, and installation is simple. You can be on the Internet in less than 15 minutes using a service like AOL.

Advantage 3: AOL has unique content. Hundreds of magazines and services are available on-line only for AOL customers.

Advantage 4: AOL has hundreds of local phone numbers. No matter where you are, therefore, there's bound to be a local number you can use. And when you're traveling, you can select a local number in the area and still access the Internet and your e-mail.

Disadvantage 1: Large proprietary ISPs have modeled their business on getting as many customers as they can. AOL, for example, has eight million subscribers. Sometimes the company doesn't have adequate equipment to provide connections for all its customers. If too many people dial the same number to get access, they get a busy signal (this was the case when a group of subscribers recently sued AOL for lack of service because they couldn't access the Internet for hours or even days at a time).

Disadvantage 2: Proprietary ISPs often don't have the latest and best technology available. Therefore, you may

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have a fancy new 56K modem but your connection through AOL to the Internet may be restricted to 14.4 or 28.8.

2. Regional ISPs

These are the mom-and-pop ISPs—the small service providers in most cities that provide dial-up access to the Internet. Regional ISPs don't provide content as AOL does—their business is in simply providing a reliable phone number that will flip the switch and get you on the Net.

Advantage 1: With large providers such as AOL around, why consider a regional ISP? Perhaps the most important reason to work with a smaller ISP is customer service. Good regional ISPs will generally offer far superior customer service. Some will even visit your home or office and help you set up your modem and your Internet connection. If you're uncomfortable with computers or afraid of some of the complicated technology involved, it might be best to work with a regional service provider.

Advantage 2: Regional ISPs limit the number of customers. That way, they tend not to have customers getting busy signals as they attempt to access the Net.

Advantage 3: Since they tend to try to stay competitive, smaller ISPs are likely to support more advanced communications technologies such as ISDN or 56K modems.

Disadvantage 1: If there's a downside to working with regional ISPs, it may be the lack of available numbers. Suppose you work in Manhattan, for example. Your regional ISP provides service to Manhattan's 212 area code—but maybe not to Manhattan's boroughs or nearby New Jersey. To get service to the community to which you commute, you may need two separate accounts.

Disadvantage 2: Smaller ISPs struggle to stay in business. They compete with giant corporations with huge marketing budgets. There's nothing more frustrating than setting up your ISP account and receiving a lot of e-mail only to discover that your ISP is going out of business.

3. National Providers

National ISPs include large corporations such as AT&T. While late to the Internet, these national providers now offer nationwide dial-up access with an 800 number.

Advantage 1: One benefit of a company like AT&T is that its rates can be very competitive.

Advantage 2: The company can offer a multitude of phone numbers in practically every area code (or via an 800 number).

Disadvantage 1: The only potential downside to a national service provider can be its lack of customer service.

So, Which Type Should You Choose?

Of course, your specific needs will vary, but you may want to use these suggestions as a guide:

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If you have a small office with minimal needs, a regional ISP with good customer service can't be beat. In addition, many smaller ISPs offer other computer services such as networking, repair, and consulting as part of their business.

If you have a large organization with staff spread over several states, you might want to consider the benefits that a large national ISP offers. Some will even provide you with a cost-effective Internet access package combined with your phone service.

What Will It Cost?

As an individual Internet user, you should be able to find reliable access for approximately $15 to $20 per month. For that price, and a small set-up fee, you should also be able to register a unique domain name for your organization (www.earthpledge.org rather than www.members.aol.com/earthpledge), a limited amount of space on a Web server to host your site, and an e-mail address.

If you need to connect your entire office to the Internet, you're now looking for a total network solution which could include ISDN services or what an ISP calls "a dedicated lease line solution." Such solutions are far more costly and will require the help of a networking expert.

WHAT MAKES A GOOD ISP?

Two criteria differentiate a good ISP from a bad ISP:

1. Customer Service

Setting up an Internet account can be tricky. Find out how many customer service representatives work at the ISP you're considering. Call them. Ask them what software you need to connect to the Internet and how difficult it is to set up. Find out what hours they're open and whether they'll provide you with software. If the person on the phone is friendly and patient, you're probably in good hands. If they aren't, you know that's the type of service you can expect when you're paying $20 per month and can't get your e-mail to work.

2. Access

Before committing to an ISP, ask some questions about access. Ask, for example:

- How many subscribers do you serve?
- Are your subscribers connecting mainly during the day or night?
- What is your capacity to handle many users at the same time?
- What is your policy if users can't access the Internet because of a busy signal?

WHERE TO FIND AN ISP?

Finding a good ISP—like finding a good mechanic for your car, or a contractor for your home—can take time. Ask your friends and colleagues what service providers they use—whom they like and whom they don't. As with most things, your friends are your best sources of information.

You'll also want to check advertisements in your local newspaper. Ads in the computer sections of most papers offer Internet access along with monthly fees and set-up charges. When perusing these ads, keep in mind the usual consumer advice: If the offer is too good to be true, it's probably neither good nor true.

Check the Web—that is, if you have access to the Web. One incredibly helpful Web site can be found at www.thelist.com. It lists every major ISP in the U.S., all sortable by area code. Choose the area code you want, and you can find the types and prices of services available. You're on your way to being connected! ■

Selected References

Frenza, JP, "How to Stake Out Your Claim in Cyberspace," *Nonprofit World*, July-August 1997.

Frenza, JP & Leslie Hoffman, "So You Want a Web Site, Now What?", *Nonprofit World*, September-October 1997.

Frenza, JP & Leslie Hoffman, "Ten Top Web-Site Tips," *Nonprofit World*, January-February 1997.

Landskroner, Ron, "Nonprofit Networking (Or, How to Stop Worrying and Love the Internet)," *Nonprofit World,* September-October 1995.

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