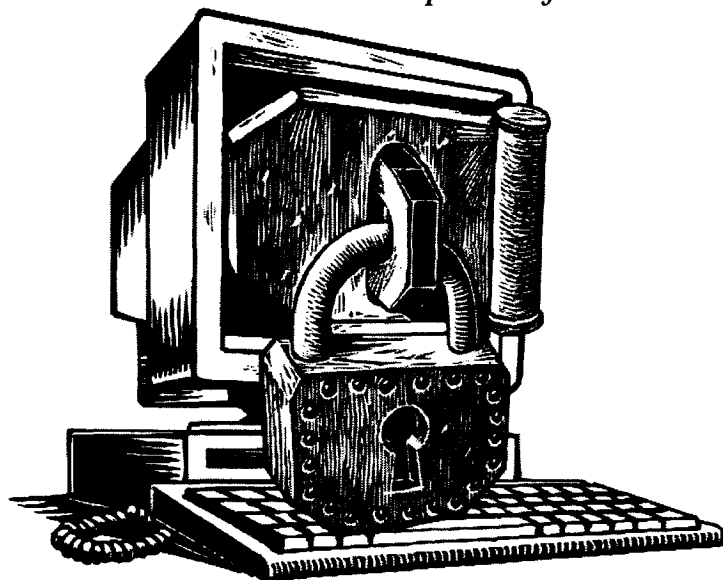




Privacy Software

Safe travel on the Internet is worth the price of these security products



By Joe Rudich

The act of logging onto the Internet is becoming one of the most common daily tasks of our personal and professional lives. But most of us don't give enough thought to potential problems.

Problems include the way some features of Web pages, such as cookies and active content, may capture private data from a PC, and the fact that e-mail messages themselves are not inherently secure.

Although online retailing usually involves sites that use security systems such as Secure Sockets Layer (SSL) to encode credit card numbers, e-mail is increasingly used for other aspects of electronic commerce, such as questions about accounts. These and other forms of online communication are potentially open messages to snoops and thieves who exert only minimal hacking effort.

There are some solutions. One of the most important is the use of anti-virus software, which is widely available for all PC platforms and is fairly user-friendly. Of course, purchasing and installing anti-virus software is not sufficient by itself. Because viruses change so often, it is also necessary to install updates as frequently as a software manufacturer produces them.

Other Internet safety concerns are not within the scope of anti-virus software, but are generally considered privacy issues. Lack of that privacy, however, may be more than inconvenient: The type of data compromised can prove costly.

Several products are available to help. They should be considered additions to a computer that already has strong and up-to-date anti-virus protection.

PGP Security Suite

McAfee Software

Division of Network Associates

800-338-8754

www.mcafee.com

Price: \$39

PGP (which stands for "pretty good privacy") is a legend among older Internet users. Created by Phil Zimmerman as a text-based shareware product in 1994, PGP was the first personal-security software for the PC. Zimmerman actually served jail time and suffered harassment because the U.S. government considered his encryption algorithm too strong for private use. His persistence made him a hero among personal privacy advocates. Unfortunately for many end users, his text-based PGP tools always proved a challenge for less-sophisticated users.

Pretty Good Privacy was eventually turned into a commercial product by PGP,

which was then bought by McAfee, which was then bought by Network Associates. (Got all that?) Network Associates is now offering the PGP Security Suite, which includes tools for securing files on your hard drive and for creating digital signatures, as well as encrypting e-mail.

PGP uses public-key cryptography that requires a public key for encryption and a private key for decryption. Anyone sending you a private message uses your public key to encrypt the text. You then decrypt it using your private key, which is kept secure on your hard drive. You should also keep a backup copy secure in another location.

You choose a key size and a pass phrase to create both keys. Although the two are mathematically related, you cannot derive one from the other. The key sizes range from 768 to 4,096 bits. The longer the key size, the stronger the encryption, and the longer it takes to generate. According to Network Associates, a key composed of 1,024 bits should be strong enough to protect against most attacks. Your pass phrase lets you—and anyone else who learns it—encrypt and decrypt files, so it should be chosen carefully. Finally, to give others access to your public key, you need to send it to one of PGP's servers.

PGP Security Suite offers a number of new features. PGPdisk lets you designate one section of your hard drive as a secure virtual drive, where you can store files that can be accessed only with your pass phrase. The process of encrypting e-mail has also been simplified. It installs icons and menu options inside some e-mail clients—such as Eudora, Groupwise, Outlook Express, and Outlook 98—letting you encrypt and decrypt mail from within these programs.

The software's wiping features have been noticeably improved as well. You can select individual files for wiping or use Freespace Wipe to scrub the unused portions on your hard drive for traces of old files. Both methods prevent the files from being recovered.

One word of caution about using PGP Security Suite: This is serious security software. It will secure your files and e-mail and even verify your identity, but if you forget your pass phrase, you won't get your information back. In this case, you may become your own worst enemy.

AtGuard 3.1

WRQ, Inc.

800-872-2829

www.atguard.com

Price: \$29

WRQ offers a fairly inexpensive (\$29) Internet privacy and security solution in a utility, AtGuard, which WRQ has promoted primarily for its ability to prevent the online banner ads that appear in many Web sites. Ironically, AtGuard does not always handle banners properly, sometimes mistakenly blocking important parts of sites.

AtGuard is designed to be a multipurpose add-on tool for either Internet Explorer or Netscape Communicator; most of its features improve browser privacy. AtGuard is controlled through an interface called the Dashboard, which lets users examine information about the data they are sending to and receiving from Web sites. The Dashboard also lets users configure the kind of potentially confidential pieces of data they are exchanging on the Web, site-by-site: ActiveX, cookies, Java, and JavaScript code that may be malicious.

Users who are especially concerned about Internet security will be impressed by another feature included with AtGuard: a "personal firewall." A firewall can block not only malicious code but potentially any external attack, including the well-publicized exploitations of Windows operating systems, which can temporarily crash a computer system by sending various types of data packets. Unfortunately, firewalls can be especially difficult to configure, as they depend on specifying TCP/IP port numbers—and AtGuard's interface does not make this configuration simple.

ESafe Protect Desktop 2.1

Aladdin Knowledge Systems

888-772-3372

www.esafe.com

Price: \$39

One tool that may come closest to truly thorough privacy protection is Aladdin Knowledge Systems' eSafe Protect, and it has a reasonable price at \$39. Like AtGuard, eSafe Protect provides users with a personal firewall, but one with a far more intuitive interface and configuration logic. The firewall can be configured to filter specific TCP/IP

communication ports, which will appeal to users who are very familiar with the details of Internet data and threats. The firewall can also be managed in several ways which may mean more to less-studious surfers: blocking specific domain names (or groups of names, such as those with the .edu suffix, indicating a potentially hacker-rich college environment); using preconfigured port filtering; flagging any communication involving sensitive data such as Social Security or credit-card numbers.

A few other notable features of eSafe Protect are actually extensions into areas that often require a separate program. Included with eSafe Protect are an adequate anti-virus program and a content-filtering add-on that lets users block Web sites containing questionable or objectionable words. ESafe Protect also has a feature usually found only in mature corporate testing labs: a "Sandbox" that uses Windows virtual device drivers to isolate suspicious programs (potentially any active content or downloaded software, depending on configured settings) and to test these programs in a fashion that prevents them from permanently affecting your system.

Although it is a bit more expensive than AtGuard, eSafe Protect Desktop is a more extensive tool for protecting your Internet privacy, and it is also considerably easier to use and configure.

Complete protection

Although all of these privacy and personal protection tools bill themselves as "suites" and "complete," no single tool addresses all of the common privacy concerns. Neither AtGuard nor eSafe Protect offers the ability to encrypt e-mail, while PGP Personal Privacy is a "suite" that ignores Web-based privacy concerns. As a result, it is necessary to purchase more than one tool for thorough protection, and possibly an anti-virus package to boot. None of these is individually very expensive, but their combined cost is not insignificant. Nonetheless, safe travel on the Internet is probably worth the price. ♦

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