PROTECT YOUR COMPUTER—AND YOUR PRIVACY!

Fraud comes in many shapes simple: the loss of both money protecting your computer and Take action and get peace of

and sizes, but the outcome is and time. That's why your privacy is so important. mind.

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PROTECT YOUR COMPUTER.



- Antivirus Software
- Anti-Spyware Software
- Firewall Protection
- Software Updates

Antivirus Software



Antivirus software detects and responds to various types of **malware** (<u>mal</u>icious soft<u>ware</u>), including viruses, worms and other programs designed to damage or disrupt a computer.

About Malware:

Malware (malicious software) is a general term used to describe any program designed to cause harm. Some common types of malware include viruses, worms and trojans.

Virus A malicious program that attaches itself to and "infects" other software applications and files, disrupting computer operations. Viruses often carry a "payload," which is an executable script designed to damage, delete or steal information from a computer.

A virus is a self-replicating program, meaning it copies itself. Typically, a virus only infects a computer and begins replicating when the user executes the program or opens an infected file.

Viruses spread from computer to computer only when users unknowingly share infected files. For example, viruses can spread when users send emails with infected documents attached.

Worm A worm is similar to a virus but with an additional dangerous element. Like a virus, a worm can make copies of itself, but it does not require a person to send it along to other computers. A worm spreads rapidly across a network without having to attach itself to another program.

Since worms are so quick and pervasive through a network, they quickly absorb resources and can bring not just one computer down, but thousands, potentially shutting down an entire network.

Trojan A malicious program disguised or hidden within another program that appears to be safe (much like the myth of the Trojan horse). When a trojan is executed, it allows attackers to gain unauthorized access to the computer in order to steal information and cause harm. Trojans commonly spread through email attachments and Internet downloads.

About Antivirus Software:

Antivirus software typically works in two ways:

Removes Known Malware

Antivirus software examines your computer looking for known viruses using a library of definitions and cures to remove threats. Antivirus software will automatically update its library to stay current as new threats and protections emerge.

Prevents New Malware

Antivirus software looks for suspicious computer processing behavior to prevent threats that are either new variants of existing threats or brand new threats altogether. Antivirus software prevents suspicious code from executing and blocks access to infected files.

The rise in online identity fraud from 8.3% in 2006

to 16% in early 2007 may indicate that consumers are not sufficiently securing their computers with Antivirus and Anti-Spyware software.*



Where do I get Antivirus software protection? Antivirus software can be purchased at an electronics store, either online or offline.

Some Antivirus software vendors include:

Symantec

www.symantec.com

McAfee

www.mcafee.com

Trend Micro

www.trendmicro.com

How do I know if I already have Antivirus software? Check the list of programs on your computer to verify if Antivirus software is already installed. Look for program names that may match one of the Antivirus vendors listed above.

How long does Antivirus software last? Most Antivirus vendors sell a perpetual license that requires annual renewal in order to continue receiving updates that protect against the latest threats. The annual renewal fee is often less than the initial purchase of the Antivirus software.

How do I update my Antivirus software? Antivirus software automatically updates itself with the latest threat and cure definitions and often repairs damaged content automatically if it encounters malware (malicious software).



- Install Antivirus software on your computer.
- Keep your Antivirus software license current.
- Only open email and attachments from known senders.
- If you receive an attachment from someone you do not know or are not expecting, do not open it, delete it.

^{* &}quot;2007 Identity Fraud Survey Report", Javelin Strategy & Research, February 2007

Anti-Spyware Software



Anti-Spyware software protects against another kind of malware, called **spyware**.

About Spyware:

Spyware is a type of program that monitors a user's computer activity, collects information about a user without his knowledge, and then provides that information to a third party.

Spyware can be benign (like collecting information in order to show the user a targeted advertisement) or malicious (such as attempts to commit fraud).

The most dangerous spyware is usually combined with a trojan or other malware and spread by criminals trying to obtain passwords, user IDs, account numbers and other sensitive data in order to commit fraud.

Most spyware finds its way onto computers via the Internet. Web downloads and JavaScript files are popular ways to transmit spyware as they can be embedded in other programs and are self-executable, meaning they execute without any assistance from the user.

About Anti-Spyware Software:

Anti-Spyware software works much like Antivirus software:

Prevents Spyware

Anti-Spyware software prevents spyware programs from collecting information on your computer and providing it to unknown parties.

Detects and Removes Spyware

Anti-Spyware software detects and removes spyware from your computer using a library of spyware file definitions and cures. The highest average dollar losses in a 2007 survey of identity theft victims were attributed to malware (viruses, worms, trojans), spyware, computer hacking and phishing (email fraud).*



Where do I get Anti-Spyware software protection? Anti-

Spyware software is available at any electronics store, either online or offline.

Some Anti-Spyware vendors include:

Symantec

www.symantec.com

McAfee

www.mcafee.com

Microsoft

www.microsoft.com

Webroot

www.webroot.com

Spywaredoctor

www.spywaredoctor.com

How do I know if I already have Anti-Spyware software? Check the list of programs on your computer to verify if Anti-Spyware software is already installed on your computer. Look for program names that may match one of the vendors listed above.

Is spyware more dangerous than malware (viruses, worms, trojans)? Spyware collects data and shares it with outside parties without your knowledge. It's made more dangerous when combined with malware and spread by cyber criminals. That's why it's important to have both Antivirus and Anti-Spyware protection.

Can I combine Antivirus and Anti-Spyware software? Most

Antivirus software vendors offer protection from spyware within their products or as a separate purchase. Be sure to verify that Anti-Spyware protection is included, or purchase a separate Anti-Spyware software package.



- Install Anti-Spyware software on your computer.
- Keep your Anti-Spyware software license current.
- Read software agreements to understand exactly what applications are being installed on your computer.
- Only download items from the Internet from trusted sources.

^{* &}quot;2007 Identity Fraud Survey Report", Javelin Strategy & Research, February 2007

Firewall Protection



Firewalls are systems that help prevent unauthorized access to and from computers.

About Firewalls:

Firewalls help protect against attacks across any network – the Internet, your home network, and even wireless networks, like at the airport, library or work.

There are two types of firewalls:

Software Firewalls are popular for individual home use. In fact, operating systems, like Microsoft Windows and Mac, often come with built-in software firewalls. If not already "built in" to a computer, software firewalls can be loaded onto any user's computer.

Hardware Firewalls provide a strong degree of protection and are often used by businesses or users with networked computers. These physical devices require a power source and connect directly to a network. Fraud operators are constantly developing new viruses, spyware and online fraud schemes: that's not going to change. The good news is that most damage can be avoided with a combination of Antivirus and Anti-Spyware antiques fraudle and education.*



Where do I get a firewall?

Microsoft Windows and Mac operating systems and even Antivirus software programs often include firewalls. Firewalls can also be purchased at most electronics stores. You can obtain free firewalls online although they offer minimal or non-existent technical support and documentation.

How do I know if I already have a firewall? Operating systems often come with built-in software firewalls:

Microsoft Windows users can verify if the firewall is turned on by accessing the Control Panel > Windows Firewall.

Mac users can verify if the firewall is turned on by accessing System Preferences > Sharing > Firewall.

Do I need to maintain or update my firewall once it's installed? Check your system to ensure that the firewall is not only installed but also turned on.

What will happen if I don't have a firewall? Without a firewall, your system may be vulnerable to unauthorized access and attack.

Do I need a software firewall or a hardware firewall? Most individual home users are suited to use a software firewall, typically the one that is included with their computer operating system. Hardware firewalls are typically suited for businesses and networked computers.



- Check your operating system to verify that your firewall is turned on.
- If you don't have a firewall, install one.
- Use a firewall in conjunction with Antivirus and Anti-Spyware software.

^{* &}quot;2007 Identity Fraud Survey Report", Javelin Strategy & Research, February 2007

Software Updates



Software Updates are necessary when companies identify application errors or weaknesses in their software or system that require stronger security protections.

About Software Updates:

Software Updates come in the form of software "patches" that replace defective sections of software code with corrected code. All software manufacturers issue patches either on a regular schedule or as defects are discovered.

Malware such as viruses, worms and trojans can infiltrate a computer through a software application that has not been patched.

Automatic Updates are included in most operating systems and software programs. These features periodically and automatically update the user's computer.

Microsoft Windows calls this feature "Auto Update."

Mac calls this feature "Software Update."

Other software programs may display pop-up notices within a program notifying you to install the latest software patches.

Software that's not regularly updated can

leave your computer system vulnerable to attacks



How do I keep my software programs updated? Some software programs, including Microsoft Windows and Mac operating systems, provide automatic software updates. Keep these automatic updates turned on so that your computer is protected routinely.

How do I check my computer operating system's automatic update settings?

Microsoft Windows users can check the "Auto Update" settings by accessing the Control Panel > Automatic Updates.

Mac users can check the "Software Update" settings by accessing System Preferences > Software Update.

How do I manually patch one of my software programs? Most software programs have automatic update and patching features. The program "Help" menu may also include a feature allowing you to manually "Check for Updates."



- Check your computer operating system's automatic update settings to ensure you're receiving updates.
- Check your software programs for updates that may be available in the "Help" menu or on the software vendor's Web site.
- Pay attention to pop-up messages within a program: these may be notices of available software updates.

PROTECT YOUR PRIVACY.



- Email Safety
- Online Identity Protection
- Offline Identity Protection

Email Safety



Email Safety means following best practices when you send and receive email.

About Email Safety:

Email commonly transports malware (<u>mal</u>icious soft<u>ware</u>), like viruses, that can result in identity fraud or computer damage. In addition to the transmission of malware, phishing also threatens email users.

Phishing is a type of email fraud in which the perpetrator poses as a legitimate, trustworthy business in order to acquire personal and sensitive information, like passwords or financial data.

Following some simple guidelines can help you safeguard your email environment.

It's never too late to evaluate your approach to email and develop good habits to better protect your privacy, identity, data and computer.



Never include sensitive information in email. Forged email purporting to be from your financial institution or favorite online store is a popular trick used by criminals to extract personal information for fraud.

Never open or respond to SPAM (unsolicited bulk email messages). Delete all SPAM without opening it. Responding to SPAM only confirms your email address to the spammer, which can actually intensify the problem.

Never click on links within an email. It is safer to retype the Web address than to click on it from within the body of the email.

Don't open attachments from strangers. If you do not know the sender or are not expecting the attachment, delete it.

Don't open attachments with odd filename extensions. Most computer files use filename extensions such as ".doc" for documents or ".jpg" for images. If a file has a double extension, like "heythere.doc.pif" it is highly likely that this is a dangerous file and should not be opened. In addition, do not open email attachments that have file endings of .exe, .pif, or .vbs. These are filename extensions for executable files and could cause damage to your computer if opened.

Never give out your email address to unknown Web sites. If you don't know the reputation of a Web site, don't assume trust. Many Web sites sell email addresses or may be careless with your personal information.

Don't Believe the Hype. Many fraudulent emails contain urgent messages claiming your account will be closed if sensitive information is not provided immediately or that important security information needs to be updated online.

Be aware of bad grammar, spelling and design. Fraudulent emails and Web sites often include typos and grammar errors as well as unprofessional design layout and quality.



How To Protect Your Privacy

- Don't include sensitive information in email.
- Never click on links within an email.
- Don't open SPAM or attachments from strangers.
- Be suspicious of emails asking for personal information.
- Be selective when providing your email address.

Online Identity Protection



Online Identity Protection means following best practices to help you browse the Internet safely and securely.

About Online Identity Protection:

Online security includes following best practices while you're banking online, shopping or just surfing the Internet.

Following simple guidelines can help protect your identity and allow you to conduct business online with confidence.



Be selective about where you surf. Not all Web sites are benign. Sites that are engaged in illegal or questionable activities often host damaging software and make users susceptible to aggressive computer attacks.

Use a secure browser. Always use secure Web pages when you're conducting transactions online (a Web page is secure if there is a locked padlock in the lower left-hand corner of your browser).

Select a strong password. The best password is an undetectable one. Never use birth dates, first names, pet names, addresses, phone numbers, or Social Security numbers as your password. Instead, use a combination of letters, numbers and symbols. Be sure to change your passwords regularly.

Don't choose "Remember My Password." You should never use the "remember password" feature for online banking or transactional Web sites.

Work on a computer you trust. Firewalls, Antivirus and Anti-Spyware software will help protect your computer and your

personal information.

Don't use public computers for sensitive transactions. Since you cannot validate the computer's integrity, there's a higher risk of fraud when you log in from a public computer.

Log off, disconnect, shut down.

Always sign off from online banking or any other Web site that you've logged into with a user ID and password. Utilize automatic timeout features that prevent others from continuing your online banking session in case you leave your computer unattended without logging out. When a computer is not in use, disconnect it from the Internet or shut it down.



How To Protect Your Privacy

- Update and strengthen the security of your online passwords.
- Use a secure browser and trusted computer for sensitive transactions.
- Log off when you're done using Web sites that require a user ID and password.
- Disconnect and shut down when you're not using your computer.

^{* &}quot;2007 Identity Fraud Survey Report", Javelin Strategy & Research, February 2007

Offline Identity Protection



Offline Identity Protection means following best practices to help you secure your personal information in the "real world."

About Offline Identity Protection:

Offline security is critical to helping you protect your identity. While online security is an important and current issue, the majority of identity fraud continues to take place offline.

Following simple guidelines for offline activities can help you protect your privacy and your identity.

The majority of identity theft and privacy infringement is the result of "real world" fraud, including lost or stolen wallets, checkbooks, credit cards and stolen confidential information.*



Lock your mailbox. Preferably, your personal mailbox should lock. Don't leave mail in your mailbox longer than necessary – especially if your mailbox does not lock.

Hold your mail. If you're traveling, don't let mail pile up. Have the post office hold your mail at times when you won't be able to collect it.

Monitor mail closely. Take immediate action if bills do not arrive as expected or if you receive unexpected credit cards or a mysterious account statement.

Don't give out your phone number. Ask solicitors or other businesses for their phone number so you have control over these communications.

Don't give out personal information in surveys. Surveys, both online and offline, can be dangerous if they ask you to provide confidential information.

Safeguard your Social Security Number. Do not publish your Social Security Number on checks and other public documents. Do no carry your card with you; keep your Social Security card in a safe place at home.

Copies aren't necessary. Know your rights regarding copies of your driver's license. Business transactions, like checking into a hotel, do not require a copy of your driver's license.

Take advantage of free annual credit reports. Credit reports contain information about your accounts and your bill paying history. Major nationwide consumer reporting companies are legally required to provide free copies of your credit reports. Review your credit report each year for accuracy.

Shred, Shred, Shred. Shred bills, bank statements, pre-approved financial solicitations and other confidential information before discarding them.



How To Protect Your Privacy

- Monitor your postal mail.
- Don't give out your personal information freely.
- Check your credit report annually.
- Shred documents containing personal information before discarding them.

^{* &}quot;2007 Identity Fraud Survey Report", Javelin Strategy & Research, February 2007

Quick Tips

HOW TO PROTECT YOUR COMPUTER FOCUS ON...

Antivirus Software	Anti-Sp	yware Software	Firewall Protec	tion	Software Updates
□ Install Antivirus software on your computer. □ Keep your Antivirus software license current. □ Only open email and attachments from known senders. □ If you receive an attachment from someone you do not know or are not expecting, do not open it, delete it.	Install Anti-Spyware software on your computer. Keep your Anti-Spyware software license current. Read software agreements to understand exactly what applications are being installed on your computer. Only download items from the Internet from trusted sources.		Check your operating system to verify that your firewall is turned on. If you don't have a firewall, install one. Use a firewall in conjunction with Antivirus and Anti-Spyware software.		Check your computer operating system's automatic update settings to ensure you're receiving updates. Check your software programs for updates that may be available in the "Help" menu or on the software vendor's Web site. Pay attention to popup messages within a program: these may be notices of available software updates.
HOW TO PROTECT YOU FOCUS ON	IR PRIV	ACY			
Email Safety		Online Identity Protection		Offline Identity Protection	
 □ Don't include sensitive information in email. □ Never click on links within an email. □ Don't open SPAM or attachments from strangers. □ Be suspicious of emails asking for personal information. □ Be selective when providing your email address. 		□ Update and strengthen the security of your online passwords. □ Use a secure browser and trusted computer for sensitive transactions. □ Log off when you're done using Web sites that require a user ID and password. □ Disconnect and shut down when you're not using your computer.		 □ Monitor your postal mail. □ Don't give out your personal information freely. □ Check your credit report annually. □ Shred documents containing personal information before discarding them. 	



