

# Five Steps to Keep Your Computer Secure

**Purpose:** To help inform computer technology users on five steps towards better security against Viruses, Spyware, and Hackers.

## Introduction

You can easily avoid the vast majority of computer viruses and spyware by ensuring that your computer has certain software designed to help protect against the most common Internet based threats. Home users can obtain the software discussed in this article for free. Businesses almost always need to pay – just part of doing business. The cost to remove virus and spyware usually starts at \$100 to \$150 and most places that will remove it for you will often destroy all the files on your computer. The cost of obtaining all the software or equipment referenced in this article can cost less than \$100 and will greatly reduce the chances of you losing your valuable files. We have information about free versions of some of the programs discussed in this article on our website.

## The Five Essentials of Computer Security

1. Anti-Virus Software
2. Anti-Spyware Software
3. Operating System Software Updates
4. Computer Firewall
5. Network Firewall

## Step 1: Anti-Virus Software

The first essential step of computer security involves having a good anti-virus program installed on every one of your computers. Most anti-virus programs come with a license to obtain new virus definition updates for one year. After one year the software makers hope that you will purchase a license for another year. Because you need to pay money – a lot of people let their anti-virus update subscription lapse. This makes the database of virus information used by the anti-virus program ineffective at stopping any new virus threats. New viruses always pose a far greater danger than old viruses for this reason.

If you don't like paying the money every year then you can often find rebates on anti-virus software at retail stores that will essentially give you the program for free – including another year of updates. Of course you will normally pay for the software upfront and may need to send in a rebate form to get your money back. Look for when the next year's anti-virus products begin coming out best time to find this type of deal. Most anti-virus software makers place the year they made the program for in really big letters on the box. Home users can find any free anti-virus programs that we know about available for download at our website.

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A word of caution, most users that get a virus with updated anti-virus software on their computer install the virus themselves. The best anti-virus programs in the world can do little to stop you from installing a virus onto your computer. Do not install software or programs you do not trust. A whole lot of free programs you download from the Internet contain hidden viruses or spyware.

## **Step 2: Anti-Spyware Software**

The second essential step of computer security involves having a good anti-spyware program installed on every one of your computers. Spyware, adware, grayware, malware, can cause a multitude of very annoying problems on your computer as well as steal passwords and credit card info.

Unlike anti-virus programs, you can obtain a lot of anti-spyware programs and their definition updates for free. As with viruses a common way to get spyware comes from you installing it yourself. Do not install software or programs you do not trust. A whole lot of free programs you download from the Internet contain hidden viruses or spyware.

## **Step 3: Operating System Software Updates**

If you run Windows you need to keep the operating system updated (if you use a Mac or Linux ...). Operating system software makers typically will fix about all of their products' known security holes provided you have a legal copy of their software.

The good news – you get operating system updates for free. For example, once someone reports a dangerous security flaw to Microsoft they begin to work on a software update for Windows to eliminate the flaw. They will then release an update you can download and install. The bad news – once Microsoft announces the update to fix the flaw this also alerts virus and spyware makers of the flaw. The virus and spyware makers, plus hackers, will often create malicious programs to take advantage of the flaw. This makes a known flaw more dangerous than an unknown one – even though you can fix the flaw with a software patch. The key word here “can”

Most operating systems have a setting that will automatically download and install “critical” software updates. Visit your operating system maker’s website for info on how to get the updates.

## **Step 4: Computer Firewall**

Most operating systems from Windows XP on have a built-in firewall program to help block hackers from gaining access to your files. Viruses and spyware routinely try to disable the firewall when they first infect your computer. Disabling the firewall allows those malicious programs access to your files or give them the ability to download additional bad software onto your machine. Visit your operating system maker’s website for info on how to enable the

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firewall (most computers come with it enabled) or your computer's built-in help files. You can also look for some good third party firewall – some available for free.

## Step 5: Network Firewall

The network firewall sits at the entrance to your office or residence from the Internet. This firewall normally operates from inside a router to prevent unwanted persons from gaining access to your computer network. If malicious persons cannot get into your network they won't even know your computers exist.

You need to check that your router has at least an SPI firewall. SPI equals stateful packet inspection. An SPI firewall essentially makes sure that only data you requested gains access to your network. Many inexpensive, \$30-\$50, routers come with an SPI firewall (also known as a hardware firewall in this case).

## Summary

All these components work together to help block unwanted access, viruses and spyware. This diagram shows how it all works together:

### 5 Elements of a Cost Effective Office Information Systems Security Plan

