

A White Paper for **TWC 521**



## **Winning the War on Spyware**

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## The Spyware Syndrome

Today we are experiencing a technology revolution in the form of the Internet. However, along with this great new technology, potentially new and unusual problems can arise. One of these problems is the advent of a new type of software designed to extract private information from, or effectively spy on, those of us who use the Internet. This new software is called spyware or adware. We will discuss what spyware does, explore some of its ramifications, and examine methods of how to protect our privacy and how to remove this irritating computer disease.

### What is Spyware?

According to computer help by D-A-L, spyware is software that is installed on one's computer to collect information about a person without their knowledge. This can be with one's permission or without. One way that spyware can be installed with a person's permission is to use a user license agreement when installing downloaded free software such as screen savers. The spyware is "piggybacked" onto the downloaded software, and when a consumer clicks "OK" to the agreement, they are inadvertently agreeing to the spyware that is attached to the downloaded material. This process is called "clickwrap" agreements, and the consent clauses of the spyware are often buried deep within the agreement and not obvious to the consumer. This is one way that spyware remains legal in most circumstances. Apparently, spyware is also often attached to downloadable software without permission as well. Sometimes the spyware acknowledgements are at the websites of third party organizations that want consumer information, and the consumer has no knowledge of the spyware unless they visit the websites containing the acknowledgements, which is unlikely.

Another aspect of spyware is that it cannot be uninstalled easily. This assumes that one knows that the spyware is there running on the computer in the first place.

Sometimes companies don't even know that spyware is used to create pop-up advertising when consumers visit their own website. This is because companies often contract their Internet marketing to outside organizations.

Adware is a form of spyware that tracks the websites consumers visit. The information is then used by advertisers to send pop-up advertising that is tailored to one's interests. Adware might be thought of as a subset, or special type, of spyware; however, these terms are sometimes used interchangeably. Spyware can also include key loggers that record what someone may type on their keyboards including personal data such as passwords.

### **The Problem**

Besides the obvious privacy invasion, what is so bad about spyware?

- Microsoft claims that half of all PC crashes are caused by spyware, and Dell claims 12% of their tech-support calls involve spyware of some kind.
- Sometimes business systems can become so inundated with spyware in the form of pop-up advertising that its functions can slow down to the point that it interferes

with normal business operations.

- Spyware cannot be uninstalled easily, it creates security holes, and it hurts the stability of operating systems.
- Spyware can also lead consumers to believe that these problems may be with an application or with their ISP rather than the spyware itself.
- Personal data such as passwords, bank accounts, and SSNs are not safe when spyware is actively running on a computer.

### Signs of a Possible Spyware infection

There are some specific signs that may signal that there is a spyware infection present on your computer:

1. Your computer is running noticeably slower than usual.
2. You are bombarded with popup ads or irritating spam.
3. New toolbars suddenly appear in your browser.
4. Your home page changes on its own.
5. You are taken to an unfamiliar search page when you hit the search button.
6. Strange software loads on startup.
7. You frequently download freeware, shareware, music or video files.
8. You've found new entries in your Favorites that YOU DO NOT WANT.

9. The send/receive lights on your modem blink wildly even when you're not doing anything online.

### **Benefits of Taking Steps**

Benefits of taking steps to protect your data and remove unwanted spyware or adware from your computer system are many. Below are listed three of the most crucial benefits.

#### *Faster, Efficient Operation*

Your computer or computer system will run faster and more efficiently.

#### *Data is Secure*

Your personal data and identity will remain secure.

#### *Peace of Mind*

Peace of mind is perhaps the most important benefit because you can have reasonable confidence that your privacy, identity, and bank accounts are safe.

### **Solutions for Spyware**

Even though spyware is so prevalent today and poses such a threat to our privacy, there are effective solutions to combat this elusive menace.

First, steps must be taken to prevent spyware from getting to your computer in the first place. One way to accomplish this is to use a firewall. Firewalls only allow access to information on your computer with your permission. You can purchase a software firewall from virus-protection companies such as *ZoneAlarm*. The latest version of

Windows XP Professional includes a simple firewall in the operating system. If you have a home network with a router, the router itself can act as a hardware firewall if so desired.

Another way to help alleviate spyware is to use another browser rather than the popular Internet Explorer browser that comes with Microsoft's Windows operating system. A browser such as Firefox has the ability to block some spyware that IE does not. Using an unpopular browser like Firefox (17% of users) has its drawbacks, however. Not all of the "bells and whistles" available with IE can be displayed when viewing a website with Firefox.

A critical step in fighting spyware is to not download freeware such as music, screen savers and even some spyware blockers if the source of the downloads is unknown. Downloads are the most frequent source of unwanted software running on computers. This is because, as mentioned earlier, spyware is often "piggybacked onto the downloaded material."

Perhaps the most important solution to the spyware problem is to remove the spyware already present on your computer. There is software available from trusted sources that can be used for this purpose. PC World has completed a study on the effectiveness of these spyware removers, and most are relatively effective. *Spybot Search & Destroy* and *Ad-Aware* are free. Others range from \$20 to \$70. Some of the other trusted spyware removers include: *Panda Platinum Internet Security*, *CounterSpy*, *Spyware Doctor*, *McAfee AntiSpyware*, and *Software Spy Sweeper* by Webroot. Other trusted and effective solutions are available from Norton and ZoneLabs.

## **Summary**

Accessing the Internet can pose a very real security threat in the form of spyware or adware. Specific, effective solutions are available, however. The steps involved in the solution are as follows:

- Use a firewall
- Try a different browser
- Download only from trusted sources
- Use a spyware removal program

By following these simple steps, we can rest assured that our personal information is secure and our computers are running quickly and efficiently.