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Privacy, Security & Virus Information

What are Virus Scans and How do They Work?

There are many threats that face our computers every day. Your first line of defense is a strong **Anti-Virus Software**, but what are these threats and how do virus scans protect you and your computer?

Threats on Your Computer

Anti-virus software works to defend your computer not simply from **viruses**, but also from Worms and Trojan Horses. Although all three terms are often used interchangeably, it can be helpful to know the difference.

Difference Between a Virus and Worm

Many computer users will mistakenly call a worm a virus. This is not the case. Although both are hazardous threats, a worm and a virus are distinct. The difference is that viruses attack the computer and its files, while worms attack the network.

Difference Between a Virus and Trojan Horse

Many computer users will mistakenly call a Trojan Horse a virus. This is not the case. Viruses attach themselves to programs that already exist within the computer, whereas a Trojan Horse will create a program. In fact, a Trojan Horse is often downloaded on purpose by the computer user who thinks they are getting a useful piece of software.

Damage that Viruses can Cause

- When your computer is infected with a virus, you face a number of risks.
- The virus could steal your personal information leading to **identity theft**.
- The virus could steal your passwords and usernames, allowing criminals to access your bank accounts and other online member-sites.
- The virus could overwork your system, causing your computer to crash.
- The virus could delete important files causing your computer to stop working properly or you to lose valuable information.

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What is a Virus Scan?

Essentially, a virus scan operates like a police officer on patrol. The program has a list of known viruses to look for, just like a list of wanted criminals. The software also watches for any **suspicious behaviour**, much like a police officer on duty would, to identify new threats that it may not have already known about.

Key Components of Effective Anti-Virus Software

In order for your anti-virus software to do its job properly, it must meet the following criteria.

Regular Updates

Your antivirus software must update itself regularly. Each day new viruses and threats are developed, and if your software is not informed of them, they could go undetected in your system. It would be like a police officer looking for criminals based on an old list.

Strong Cleaning Ability

Once your antivirus software locates a threat, it must be able to isolate and eliminate the virus. The manner in which this is done depends on the threat, but a good system will alert you to the threat, and provide the options for removal. These options can include straight removal, or deletion and rebuilding of the infected software.

More advanced antivirus software programs include backup and restore functions that allow the virus to be removed without losing any information.

Prevention

It is not simply enough that the antivirus software will eliminate the threat; you also want to stop the virus from entering your computer in the first place. **Advanced antivirus programs** will defend your computer from a siege of attacks by stopping viruses from entering through **emails**, infected websites, and viral files.