



What is Antivirus Software?

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In computer systems, the security of data is always a major concern because there are some unidentified people (known as hackers) who always try to steal or harm the personal data or information of the users using viruses, worms, trojans, etc. So, to protect computer systems from these viruses or any other harmful activity, software is developed and that software is known as Antivirus software.

What is Antivirus Software?

Antivirus software (computer protection software) is a program(s) that is created to search, detect, prevent and remove [software viruses](#) from your system that can harm your system. Other harmful software such as [worms](#), [adware](#), and other [threats](#) can also be detected and removed via antivirus. This software is designed to be used as a proactive approach to [cyber security](#), preventing threats from entering your computer and causing issues. Most antivirus software operates in the background once installed, providing real-time protection against virus attacks.

While you may believe that your computer is safe as long as you don't visit questionable [websites](#), hackers have far more sophisticated methods of infecting your computer, which is why you need a powerful antivirus to stay to secure your [data](#) and system. The implications of a virus getting into your computer might be fatal. Viruses can cause a wide range of malicious behaviour. They can crash your device, monitor your accounts, or spy on you through your [webcam](#). So, always use antivirus software.

Types of Cyber Threats

As the [Internet of Things](#) (IoT) continues to grow, so does the risk of cybercrime for mobile phones, laptops, smart home devices, and other internet-connected devices. According to the 2023 Cost of Data Breach Study by IBM, the average cost of a data breach involving mobile devices is \ \$1.9 million. You need to protect yourself against malware by using strong passwords, keeping your devices up to date, and being careful about what apps you download.

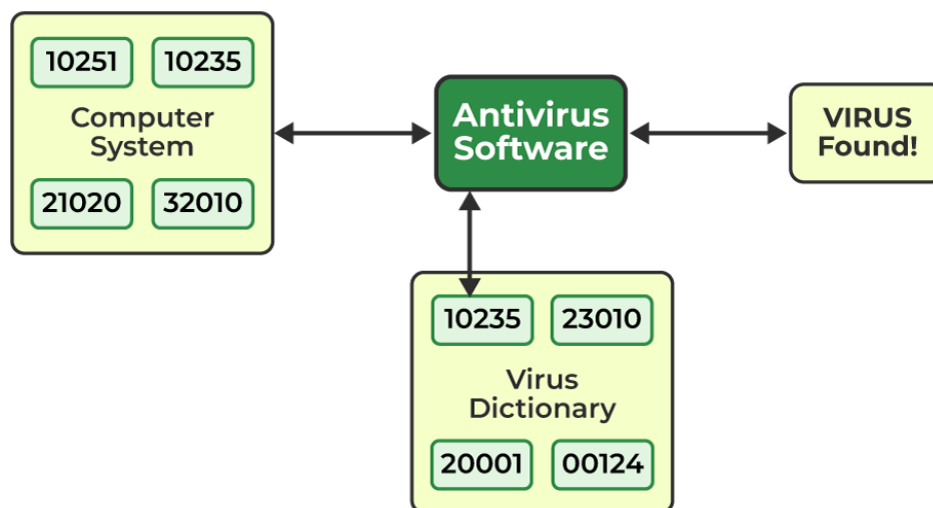
The three most common types of cyber threats are –

1. [Malware](#)
2. [spyware](#)
3. [phishing](#)

To learn more about computer security threats, please see this [article](#)

How Antivirus Works?

Antivirus software works by comparing your [computer applications](#) and files to a [database](#) of known malware kinds. Because hackers are continually creating and disseminating new viruses, they will also check systems for the presence of new or undiscovered malware threats. The antivirus checks files, programs, and applications going in and out of your computer to its database to identify matches. Similar and identical matches to the database are segregated, scanned, and eliminated.



How Antivirus Works?

Most Antivirus programs will employ these four types of detection techniques:

- **Signature detection** is a method by which an antivirus keenly scans files that are brought into a system to analyze more likely hazardous files.
- **Specific detection**, which looks for known parts or types of malware or patterns that are linked by a common codebase
- **A genericthe detection** is a type of detection that looks for known parts or types of malware or patterns that are related to a common codebase.
- **Heuristic detection** is a type of virus detection that looks for unknown infections by spotting suspicious file structures.

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Examples of Antivirus Software

The antivirus software is available in 2 types:

- (i) **Free:** Free anti-virus software provides basic virus protection
- (ii) **Paid:** commercial anti-virus software provides more extensive protection.



Examples of Antivirus Software

The following are some commonly used antivirus software:

- 1. Bitdefender:** Bitdefender Total Security is a comprehensive security suite that protects against viruses and dangerous malware of all varieties. This user-friendly antivirus software is compatible with all four major operating systems and smart homes, and it also includes a free VPN with a daily limit of 200MB, parental controls, camera protection, a password manager, etc. This security suite is reasonably priced and will protect up to five devices 24 hours a day, seven days a week.
- 2. AVAST:** This is a free antivirus available. All you have to do to obtain top-notch protection on your computer, emails, downloads, and instant messages in the free version is register (for free) once a year. It includes a sophisticated heuristics engine that enables it to detect viruses.
- 3. Panda:** It can detect [viruses](#), [trojans](#), [spyware](#), [adware](#), worms, and malware at the same level as other antiviruses do. It is different from others because using this software, when you scan your computer, it doesn't consume any of your computer's resources instead, it runs in the cloud, allowing your machine to continue to function normally.

Benefits of Antivirus Software

- **Spam and advertisements are blocked:** Viruses exploit pop-up advertising and spam websites as one of the most common ways to

infect your computer and destroy your files. Antivirus acts against harmful virus-infected adverts and websites by denying them direct access to your [computer network](#).

- **Virus protection and transmission prevention:** It identifies any possible infection and then attempts to eliminate it.
- **Hackers and data thieves are thwarted:** Antivirus do regular checks to see if there are any hackers or hacking-related apps on the network. As a result, antivirus offers complete security against hackers.
- **Protected against devices that can be detached:** Antivirus scans all removable devices for potential viruses, ensuring that no viruses are transferred.
- **To improve security from the toweb, restrict website access:** Antivirus restricts your online access in order to prevent you from accessing unauthorized networks. This is done to ensure that you only visit websites that are safe and non-harmful to your computer.
- **Password Protection:** Using antivirus, you should consider using a password manager for added security.

Disadvantages of Antivirus programs

- **Slows down system's speed:** When you use antivirus programs, you're using a lot of resources like your [RAM](#) and [hard drive](#). As a result, the computer's overall speed may be significantly slowed.
- **Popping up of Advertisements:** Apart from commercial antivirus applications, free antivirus must make money in some way. One approach to attaining these is through advertising. Many times these advertisements degrade the user experience by popping up every time.
- **Security Holes:** When security flaws exist in the [operating system](#) or networking software, the virus will be able to defeat antivirus protection. The antivirus software will be ineffective unless the user takes steps to keep it updated.
- **No customer care service:** There will be no customer service provided unless you pay for the premium version. If an issue arises, the only method to solve it is to use forums and knowledge resources.