

SECURITY ISSUES WHITE PAPER

A Recommendation Essay on the
Best Antivirus Software for PCs

Student's Name
Institution



Executive Summary

RECOMMENDATIONS

This paper argues for obvious advantage of Microsoft Security Essentials antivirus, according to the evidence from PCs that have already installed and run this software.

BACKGROUND

Anti – virus software safeguards computers from malware that includes viruses, Trojan Horses and computer worms. Anti –viruses also work best in preventing or eliminating possible spyware, adware and other forms of maliciously dangerous programs. Free anti – viruses, which are availed to the market, check the computers by the use of signature based form of detection. This detection involves the use of data patterns, which are known to portray relations with an already identified malware. On the contrary, the paid-edition anti-viruses use heuristic approach, and capture zero-day and new threats by the use of genetic signatures. These signatures help to identify newer variants of the already existing codes of viruses through running files in virtual environment in other terms also referred to as the sand box technology. After completion of a scanning process, an individual is then allowed to monitor the operations of a file and decide whether it portrays any malicious intentions.

Of course, virus designers are aware of the available anti –virus software. Therefore, in the course of designing they carry-out tests using malicious codes with major and known types of anti –viruses. This makes the process of detecting viruses difficult and resource consuming. Hence, it is fair for individual PC users to make sure that they own the best anti – virus software,

ensure that their respective web browsers are of the latest version and download information only from trusted websites.

COURSES OF ACTION

For proper protection of PCs, individual users should adopt the following causes of action: firstly, they should scan all of the directories or files in case of any unidentified malicious patterns or malware. Secondly, they should allow automatic anti – virus scheduled scans to take effect in order to identify and clean any available viruses. Thirdly, they should allow automatic updates of the anti – virus and also, initiate scans of flash drives, CD's or files. Fourth, they should validate removal of any detected malicious codes, because, in most cases, individuals will be asked whether or not they would allow for files to be scanned.

CRITERIA

The best anti – virus has been determined based on the following criteria:

- 1) The aspect of usability; where anti-viruses are chosen in respect to their simplicity and user friendly capacities.
- 2) The aspect of the ease within which anti-virus can be downloaded; so that it can be accessed and downloaded easily from multiple websites.
- 3) The aspect of cost; that is, whether the anti – virus is completely free or its use is paid. Some anti-viruses are offered as free-products, but their further updates and other services require payment.

ANALYSIS

In this paper an in-depth analysis of four readily available anti – viruses is conducted with aim to evaluate to their pros and cons in regards to PC security they offer. These four anti-viruses are Microsoft Security Essentials, AVG Free antivirus, Panda Cloud Antivirus and Comodo anti – virus + Firewall.

Accordingly, a distinctive recommendation has been provided regarding the type of anti - virus that will offer reliable services in securing PC against viruses.

RECOMMENDATIONS

The paper has recommended that Microsoft Security Essential as the best anti- virus currently available on the anti-virus market due to the numerous advantages it provides to PCs.

A Recommendation Essay on the Best Antivirus Software for PCs

INTRODUCTION

The following discussion on anti-virus software in respect to its respective advantages and disadvantages is given in a hierarchical order where the anti-viruses are evaluated from the most effective to the least effective in terms of protection capacities against viruses and other malicious programs.

MICROSOFT SECURITY ESSENTIALS

This antivirus was released in 2009 by Microsoft Inc. The antivirus is really effective given that it is light-weight enough to be able to run even on older machines without paralyzing their intended performance capacities but quite competent to handle most malware and viruses. Significantly, another key characteristic of the Microsoft Security Essentials is its simplicity. It has a very clear user interface with larger buttons required for most of the essential functions. This characteristic is essential if the antivirus is to be used on a computer operated by individuals regardless of their computer literacy (Johnston, 2009).

It is important to mention that Microsoft Security Essentials has little or no cost implications since it is available at the market completely free of cost. The antivirus does not have a professional version that an individual user must upgrade, and thus, be required to incur hidden cost on its acquisition and installation. In fact, the antivirus has been available in the market for commercial business functions (Johnston, 2009). This means that individuals can use it at their respective places of work without fear of breaking any software policy laws. It can be argued that this characteristic feature is

essential which puts Microsoft Security Essential ahead of its immediate rivals.

Below is a snapshot of the anti-virus interface as it is presented within the software market.



ADVANTAGES OF MICROSOFT SECURITY ESSENTIALS

Despite the fact that some types of anti - viruses are availed, within the market, at a free cost but imply additional expenses for upgrading, this anti - virus is accessed by users at a completely free cost. Additionally, hidden costs are incurred when the anti-virus has been downloaded and used for some time upon which users realize that they cannot enjoy all of its features (Johnston, 2009). This means that this anti - virus will offer an individual a free anti -virus product, but demand to pay for any additional services required; the user will be required to acquire purchase- edition before they can access any additional services. The users will be allowed to perceive advertisements coming from the anti - virus companies on available

discounts in case a new version of the anti-virus should be purchased. In case of any issues, the user might also find it difficult to access help from the technical support team. Therefore, even if individuals get other forms of free anti-viruses, they are not likely to get the additional services simply out of the fact that the anti-virus is free. This is not the case with Microsoft Security Essential, which has no purchase editions in the market. There is only a single product, which is the free edition that incorporates all features. In case of any arising difficulty, the technical support team members are ready to offer any form of assistance that is required. Microsoft Security Essential also offers all the necessary services common with all anti-viruses within the market (Johnston, 2009).

Subsequently, this version is the final edition and thus, there is no need for upgrading to another version. The need for upgrading might lead the users to waste time and other resources checking on individual anti-virus websites for the newer versions (Johnston, 2009). For the case of the Microsoft Security Essentials, the individual users do not have to keep on checking for the newer versions as when the version is developed, it will provide prompts and all that the user will need to do is to upgrade automatically.

Microsoft Security Essentials is easy to download. Unlike other forms of anti-viruses that require the user to fill up a form, a process that is not only tedious but also resource-wasteful, the Microsoft Security Essentials only requires an individual to log into the website and have the software downloaded (Johnston, 2009).

Microsoft Security Essentials can be used to validate the genuineness of windows OS. This protects the underlying PCs given that in case an individual was using fake Windows, then the PC will be at risk regardless of a powerful anti-virus installed.

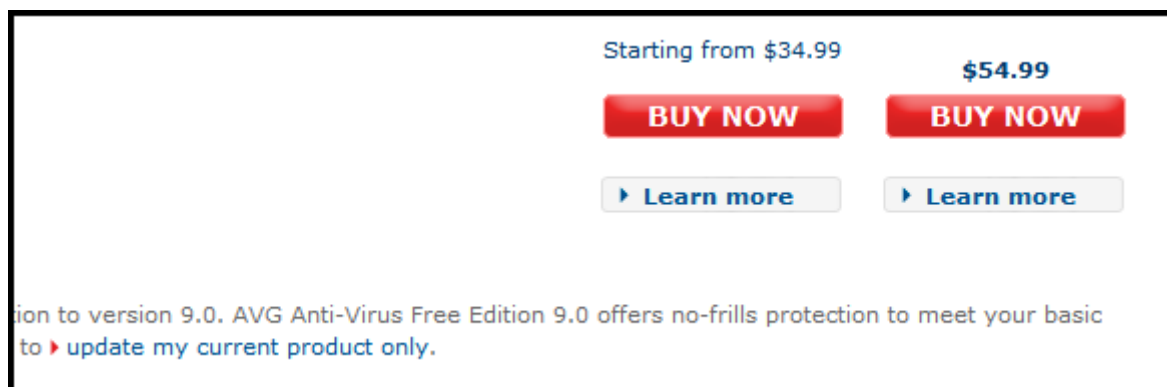
AVG FREE ANTI-VIRUS

This antivirus holds the number 1 spot on the Movers and Shakers top list due to the fact that it is the top most downloaded free anti – virus software within the market. The popularity of AVG is synonymous with free anti – virus programs. The anti – virus offers a full malware protection with very considerable bloat, which is less than the high pay-to-use anti -virus software. From time to time, the AVG free antivirus is able to remind its users of the possibility of acquiring a professional version. It should be understood that all this is executed without it hindering the core purposes of the program, which rests with protecting an individual's computer from viruses (Bradley, & Carvey, 2006).



It is important to note that in the course of upgrading from one version of AVG to another, an individual user is required to conduct a lot of analysis taking immense levels of precision and accuracy before upgrade is done successfully. Free download option is hidden at the bottom of the screen and is performed

through a diminutive link. This can be attributed to the fact that the site actually needs the user to go for the purchase version of the software. The figure below shows the manner with which the free download link was hidden, hence, preventing possible upgrade to version 9 (Bradley, & Carvey, 2006).



ADVANTAGES OF AVG ANTI-VIRUS

The anti-virus allows for easy installation processes that can be pursued without difficulties even by computer unknowledgeable individuals. The anti-virus enjoys the online auto update feature that is easy to utilize. It is also possible to install AVG on the Mozilla Firefox browser like a plug, hence, making it safer for surfing purposes (Bradley, & Carvey, 2006). With the aforementioned feature, the anti-virus is able to scan for possible viruses at a fast pace, hence, saving lots of time resource. AVG is also credited with the fact that it uses less storage space on the PC, hence, preventing possible slow-downs due to pressurized internal processor. Substantively, this feature does not allow inefficiency in the performance of the computer. The anti – virus has an email scanner, link scanner and is both anti -spyware and anti-spam in nature.

DISADVANTAGES OF AVG FREE

The installation process of AVG 9 version is long and tedious. The anti-virus features sophisticated operation settings make it difficult for non-technological savvy individuals to understand and using the software. Furthermore, the anti-virus, in the course of scanning, might delete some useful files along with viruses. Accordingly, the operational effectiveness of AVG depends on the operating system installed. It should be understood that it takes a substantial number of hours before the upgrade to the anti-virus is affected. This leads to higher upgrading costs due to internet connectivity charges especially in cases of bundles (Bradley, & Carvey, 2006).

PANDA CLOUD ANTI-VIRUS

Most individual PC users assume that the idea of a cloud based anti-virus feature is ineffective and inefficient in that matter. This is attributed to the fact that the anti-virus can only work on an online platform (Miller, 2002). It is worth to mention that the virus definitions of Panda Cloud anti-virus are stored online. This works best for the users since it ensures that the virus definitions are, at all times, up-to date. However, the anti-virus constantly makes use of the user's network connections, which is costly in terms of network bundle consumptions.

Moreover, this limits the use of the anti-virus software to only such powered PCs that are in constant access to the network capacities as net-books. On the contrary, individual users that have access to a net-book are not under any obligation to use Windows since they are allowed automatic switch to Joli-cloud feature, which offers a functional operating system to a net-book that is immune to most viruses (Miller, 2002).



ADVANTAGES OF PANDA CLOUD ANTI-VIRUS

First, this anti-virus does not require users to install it on their PCs. This means that there is a possibility of saving the software data on the existing disk storage space for other functions. Therefore, the anti-virus does not leave room for slow-downs due to over-pressurized RAM and the computer processing unit. For this reason, Panda cloud anti-virus keeps on running on the background while the computer user is working.

Secondly, there is no need for updating the software unlike other anti-virus software that keep on alerting users for possible updates. Routine updates consume a lot of resources in both time and effort. This is not the case for this anti-virus given that the database anti-virus signature is updated only at the cloud, thus, benefitting all the PCs that are connected (Miller, 2002).

Thirdly, the anti-virus enjoys double security layers. Drawing from this fact, there is an extensive amount of computer resources than what a single local anti-virus can consume. Therefore, it is expensive to try and install another localized anti-virus program. It is also possible that a single anti-virus program can miss a virus in the course of scanning. This means that by adopting an advantage of running a PC with more than one anti-virus program reduces any possible chances of missing any impending virus. This feature is only enjoyed with the installation of Panda cloud anti-virus. Thus, it uses fewer amount of computer resources as compared to other anti-virus programs in the market (Miller, 2002).

DISADVANTAGES OF PANDA CLOUD ANTI-VIRUS

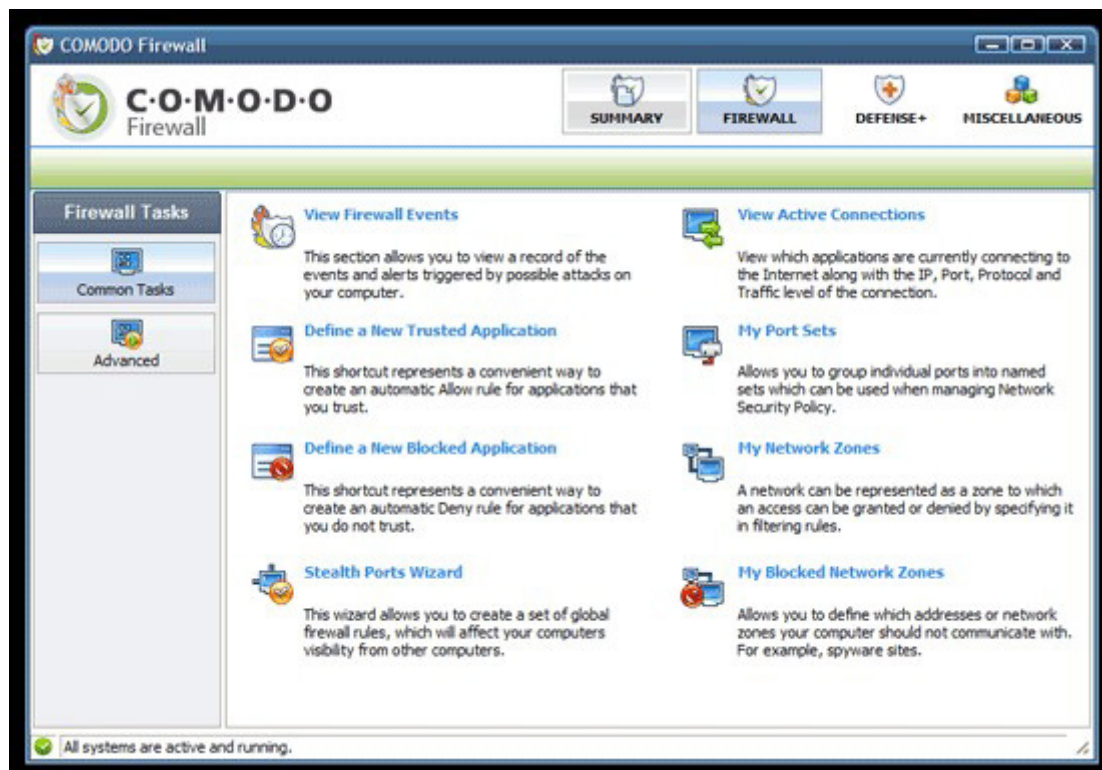
This anti-virus is based on the relationship created between the client and the cloud. This kind of arrangement cannot allow for the anti-virus to operate as the background program. It is important for an anti-virus to run within the background in order to scan each and every program before execution. It is also worth to note that cloud anti-viruses are, in most cases, unsuccessful in virus detection.

Additionally, Panda cloud anti-virus offers limited scanning features. This type of anti-virus can only scan files found on the desktop instead of scanning the entire computer. This backlog does not protect the computer from possible risk and thus, it offers any dormant virus on the hard drive an opportunity to re-activate. An effective anti-virus programs should be capable of completely scanning the compute and thereof, provide a report in case viruses are found anywhere within the hard drive (Bradley, & Carvey, 2006).

Lastly, the anti-virus highly depends on constant internet connection, because it utilizes a cloud based service for effective operation which turns away those individuals that cannot access internet.

COMODO FIREWALL + ANTI-VIRUS

Comodo software is well known for its free firewall feature. It also offers an anti-virus program. It is important to note that Comodo Firewall + Antivirus are not easy to use and also, it does not cater for protection from the non-viral forms of malware.



ADVANTAGES OF COMODO ANTI-VIRUS + FIREWALL

The first advantage is that the anti-virus is free-of-charge. This means that individual users do not suffer from higher costs in both acquiring an installing processes. Comodo anti-virus + Firewall is also known for its light-weight nature, hence, it causes minimal system drag. This becomes critical especially when it is scanning through the computer files and system while the PC is being in use at the same time (Miller, 2002). The anti-virus allows an option of

installing the firewall. The sand box technology works best to prevent any harm from possible unknown viruses.

Comodo anti-virus + Firewall has secure DNS that blocks dangerous sites from infecting the computer with viruses (Miller, 2002). The anti-virus uses behavior based detection feature in identifying and reporting the detected viruses.

DISADVANTAGES OF COMODO ANTI-VIRUS + FIREWALL

The anti-virus makes it challenging to access most of the web based services like Google and Gmail Readers. It also causes a lot of pop-ups and alerts, thereby, distorting the PC user. Hence, it can be concluded that Comodo anti-virus + Firewall is less user friendly in comparison to all other firewalls in the market (Miller, 2002).

RECOMMENDED PC ANTI-VIRUS SOFTWARE

From the analysis conducted above, the best recommended anti-virus whose advantages are more far-reaching than disadvantages is the Microsoft Securities Essentials anti-virus. The software has been credited with being cost-effective given that it is free, avails less alerts and prevents users from possible anxieties of seeking the next versions and the ease with which the software can be downloaded. The software is also simple and easy to install, hence, it is user friendly. Its light weight and enables the computer to be in use even when it is being scanned.

References

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Miller, M. (2002). *Absolute PC security and privacy*. San Francisco: Sybex