Remediation Testing Report

A test commissioned by Enigma Software Group and performed by AV-Test GmbH
Date of the report: February 15th, 2017, last update February 15th, 2017

Executive Summary

In January 2017, AV-Test performed a test of Enigma Software Group SpyHunter remediation capabilities. The test has been run on a clean Windows 7 (SP1, 64-bit). The same disk image was used on several identical PCs.

The malware test corpus for the remediation test consisted of 20 samples and was divided into two parts. Test Part 1: First the image was infected with one of the malware samples. The next step was trying to install the security product, scanning the PC and removing any threats that have been found. Test Part 2: In the second part the AV was disabled to infect the system. Then the AV was enabled again and to ensure that all components of the AV are enabled correctly a reboot was performed. The next step was trying to remediate the system and performing a system scan additionally.

SpyHunter scored perfectly in both test parts and managed to clean 20 out of 20 samples completely in part 1 and part2.

SpyHunter cleaned all active parts as well all dropped files of the malware on the system.

Overview

With the increasing number of threats that is being released and spreading through the Internet these days, the danger of getting infected is increasing as well. A few years back there were new viruses released every few days. This has grown to several thousand new threats per hour.

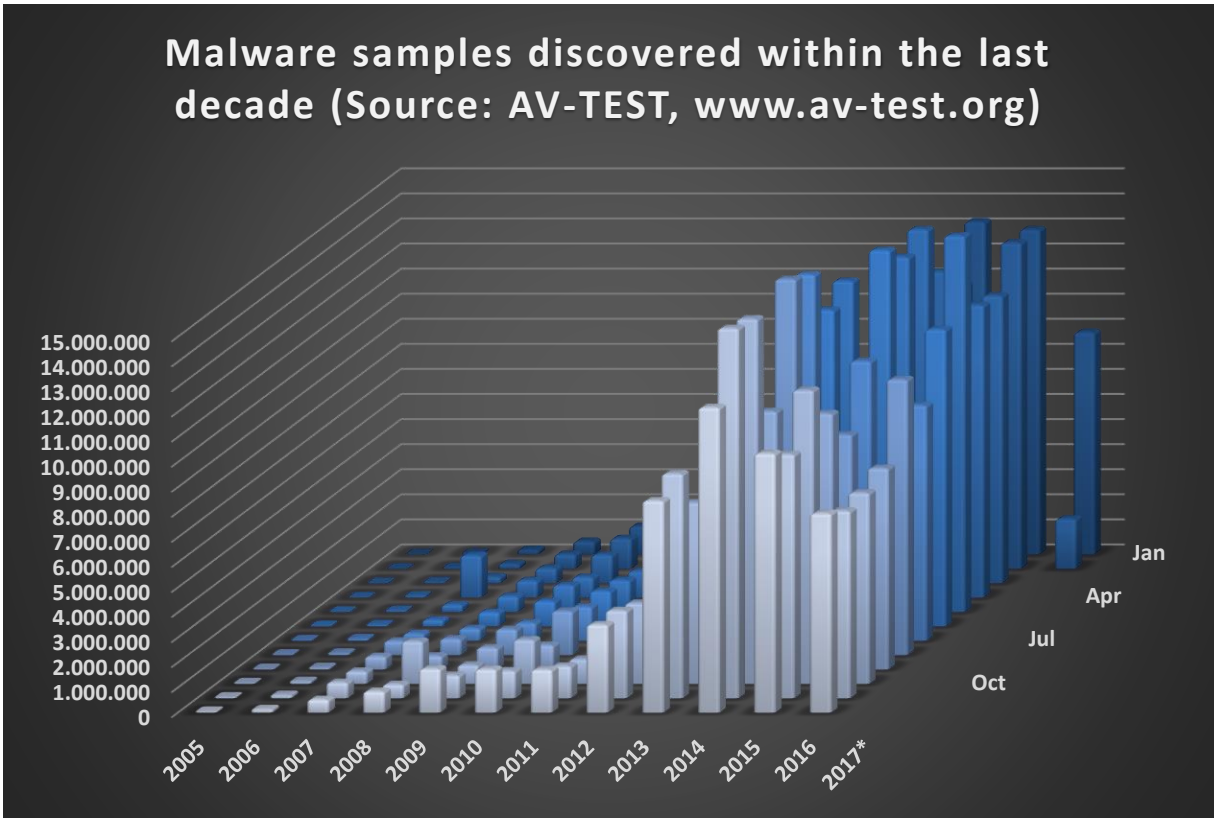


Figure 1: New samples added per year

In the year 2000, AV-Test received more than 170,000 new samples, and in 2013, the number of new samples grew to over 80,000,000 new samples. The numbers continue to grow in the year 2016. The growth of these numbers is displayed in Figure 1. AV-TEST currently has over 600 million malware samples in its database.

The volume of new samples that have to be processed by anti-malware vendors in order to protect their customers can create problems. It is not always possible to successfully protect a PC in time. It is possible that a PC can get infected, even if up-to-date anti-malware software is installed because signatures are provided only every few hours, which sometimes may be too late. Infections create financial loss, either because sensitive data is stolen or because the PC cannot be used for productive work anymore until the malware has completely removed from the system.

Therefore remediation techniques become more important to get an infected PC up and running again. In that process it is imperative that the cleaning process is reliable in two ways:

1. The malware and all of its components have to be removed and any malicious system changes have to be reverted

2. No clean applications or the system itself must be harmed by the cleaning process

Products Tested

The testing occurred in Janaury. AV-TEST used the latest releases available at the time of the test of:

- Enigma Software Group SpyHunter

Methodology and Scoring

Platform

All tests have been performed on identical PCs equipped with the following hardware:

- Intel Xeon Quad-Core X3360 CPU
- 4 GB Ram
- 500 GB HDD (Western Digital)
- Intel Pro/1000 PL (Gigabit Ethernet) NIC

The operating system was Windows 7 (SP1, 64-bit) with only those hotfixes that were part of this version as well as all patches that were available on January 3rd 2017

Testing methodology

The remediation test has been performed according to the methodology explained below.

1. **Clean system for each sample**. The test systems should be restored to a clean state before being exposed to each malware sample.
2. **Physical Machines**. The test systems used should be actual physical machines. No Virtual Machines should be used.
3. **Internet Access**. The machines had access to the Internet at all times, in order to use in-the-cloud queries if necessary.
4. **Product Configuration**. All products and their accompanying remediation tools or bootable recovery tools were run with their default, out-of-the-box configuration.
5. **Infect test machine**. Infect native machine with one threat, reboot and make sure that threat is fully running.
6. **Sample Families and Payloads**. No two samples should be from the same family or have the same payloads.
7. **Remediate using all available product capabilities**.
    a. Try to install security product in default settings. Follow complete product instructions for removal.
    b. If a. doesn't work, try ***standalone fixtool/rescue tool*** solution (if available).
    c. If b. doesn't work, boot standalone ***boot solution*** (if available) and use it to remediate.
8. **Validate removal**. Manually inspect PC to validate proper removal and artifact presence.
9. **Score removal performance**. Score the effectiveness of the tool and the security solution as a whole using the agreed upon scoring system.

10. **Overly Aggressive Remediation**. The test should also measure how aggressive a product is at remediating. For example some products will completely remove the hosts file or remove an entire directory when it is not necessary to do so for successful remediation. This type of behavior should count against the product.

Efficacy Rating

For each sample tested, apply points according to the following schedule:

a. Malware completely removed (3)
b. Detected and removed, only inactive traces remains (2)
c. Something detected and partly removed, but malware traces are still active (1)
d. Not detected, nothing remediated (0)

The scoring should not take into consideration which of the available techniques were needed to remove the malware. All techniques should however, be applied. When a product cleans out the entries in the hosts file that relate to that very product and leave the machine uninfected and the product functional and updateable, it should be given full credit for remediation even if entries for other security vendors remain in the hosts file.

Samples

The set contained 20 malicious files that were able to infect Windows 7 (SP1, 64-bit).

Test Results

Enigma Software Group achieved in the first and second test part a perfect score of 100%. Both can be seen in Figure 2.

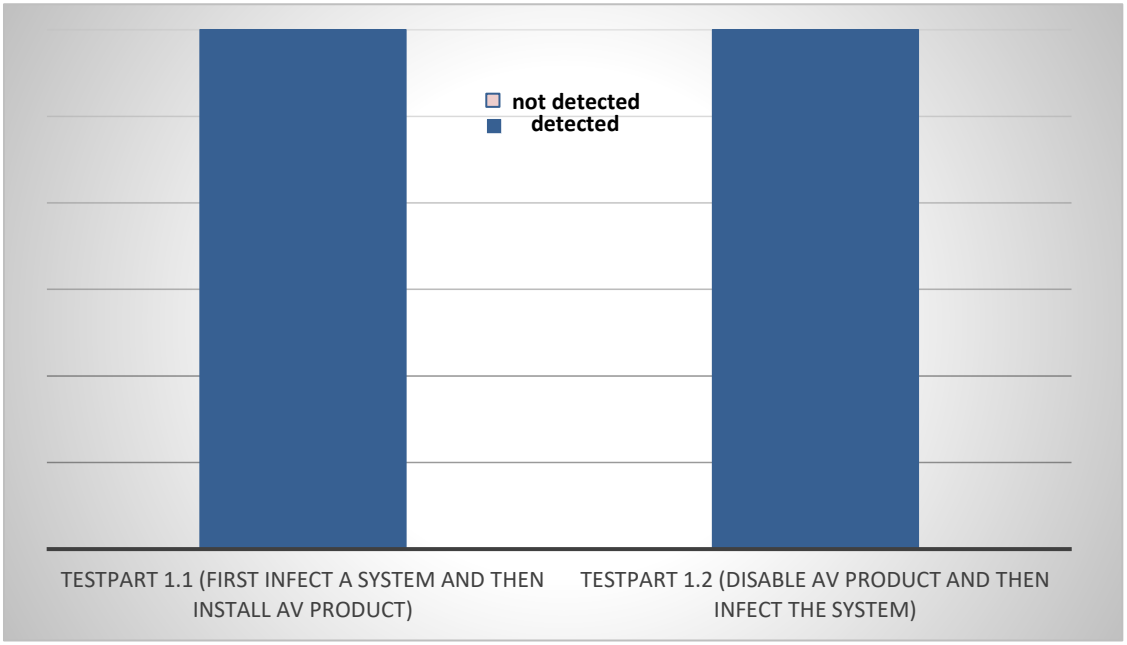
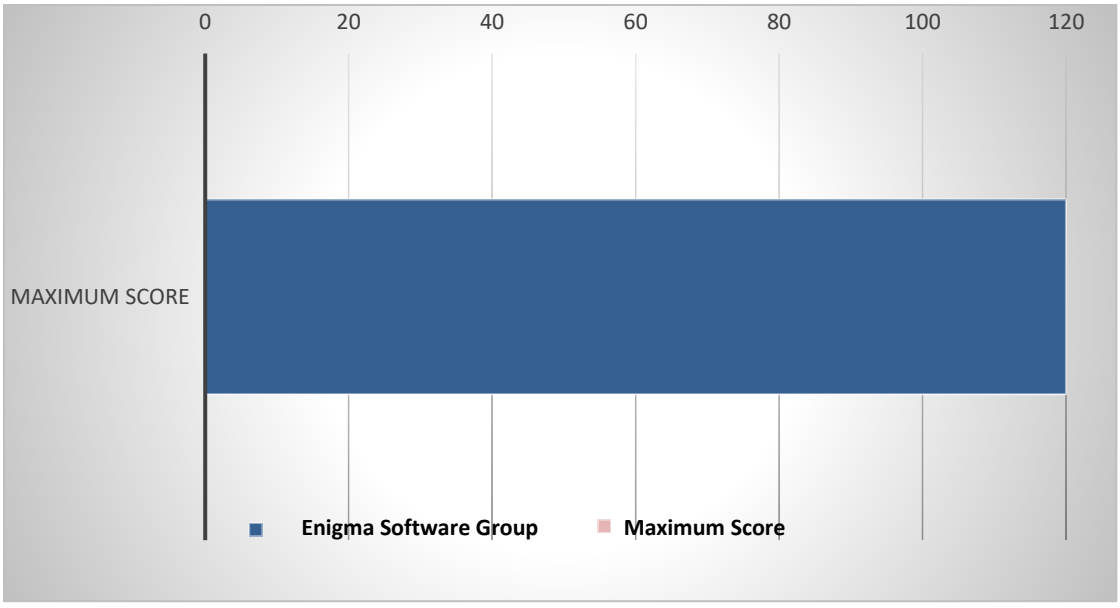


Figure 2: Remediation Score – Part 1.1 +1.2

The maximum score that could be reached was 120. The overall score of Enigma Software Group was 120 as can be seen in Figure 3. Regarding the cleaning efficiency in the Test Part 1.2 the system was completely cleaned by Spyhunter.

And also on the test part 1.1 Spyhunter scored perfectly and cleaned the infected system completely.



Appendix

Version information of the tested software

Developer, Distributor	Product name	Program version	Engine/ signature version
Enigma Software Group	SpyHunter 4	4.24.3.4750	2017.01.17v01

List of used malware samples (Remediation Test)

(SHA256)
0x0248aef55dd424770217a568e6d6e621b08f010faecc3bdc889e815bdba562b7
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