

**westcoast** labs

September 2008

ESET Smart Security Business  
Edition Comparative Testing

# ESET Smart Security Business Edition Comparative Testing

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# ESET Smart Security Business Edition Comparative Testing

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# ESET Smart Security Business Edition Comparative Testing

## Introduction

ESET commissioned West Coast Labs to carry out a series of independent performance evaluations and comparative tests on the ESET Smart Security Business Edition package when compared with other leading vendors.

The peer products, chosen to provide appropriate comparisons in the same market space as ESET's Smart Security Business Edition product, are drawn from the leading vendors in the field of IT security:

- McAfee Total Protection (comprises ePolicy Orchestrator 4.0 and VirusScan Enterprise 8.5)
- Microsoft Forefront Client Security
- Kaspersky Anti Virus 6.0 (with Kaspersky Administration Kit - free download)
- SOPHOS Endpoint Security 7.0
- Symantec Endpoint Protection 11.0

All testing was conducted at West Coast Labs' UK test facility from April to July 2008. All testing was done using default options.

# ESET Smart Security Business Edition Comparative Testing

## **Test Objectives**

The primary objective of these tests was to carry out a series of performance benchmarking tests on the products when installed onto machines of a standard specification.

To this end, each client machine was a Dell Optiplex 170L with an Intel Celeron 2.66 GHZ Processor and 1GB Ram, with Windows XP Professional Service Pack 2 being installed on a 5Gb partition. Each client was forensically imaged from a "Master" client so that each product was installed onto an exactly identical machine image.

As these are client server solutions, each client was attached to a server, an Acer Aspire T180 with AMD Athlon 64x2 4000+ Processor and 1GB Ram, with Windows Server 2003 Service Pack 1 installed onto a 10 Gb partition.

## **Ensuring Statistical relevance**

For each phase of testing, West Coast Labs took a mean value after having discarded the top and bottom 10% from the figures to ensure that the results were not skewed.

# ESET Smart Security Business Edition Comparative Testing

## Test Methodology

### Test I – Commit Charge

This consisted of measuring commit charge during the tasks performed in Tests II, III and V.

Commit charge is defined as : "In computing, commit charge is a term used in modern Microsoft Windows operating systems to describe the total amount of virtual address space for which the backing store is the pagefile. It may be thought of as the maximum potential pagefile usage."

([http://en.wikipedia.org/wiki/Commit\\_charge](http://en.wikipedia.org/wiki/Commit_charge))

### Test II - Data copying

This consisted of taking 1Gb of data broken down into 10,000 files of random content. The data was then copied using a batch script which output the start and end time.

# ESET Smart Security Business Edition Comparative Testing

## Test Methodology

### Test III - CD Opening

This consisted of opening a CD of content, and then measuring the time it took for that content to become available.

This was achieved by using the third party checksumming solution "fsum", and scripting so that date and time stamps were output at the point when the CD drive was fully closed, when fsum started to access and fingerprint the data, and when fsum had finished fingerprinting the data (i.e., all content had been accessed).

Three content types were used over three different CDs – images, Office documents, and executables.

### Test IV - Application Start times

WCL started Office applications (Word, Excel, PowerPoint, Internet Explorer) on each system a total of fifty times. Each product was automatically scripted to start using a batch file and the time was measured to stabilization and usage availability. WCL used a combination of batch file startup scripting and a third party tool to register keystrokes and record the timestamp of availability.

# ESET Smart Security Business Edition Comparative Testing

## Test Methodology

### Test V - Scanning Time

This consisted of three sets of timing metrics:

- a) Timing the length of full scans per clean machine.
- b) Timing the length of full scans per infected machine (containing a collection of 50 different viruses that all solutions are known to detect).
- c) Timing the length of full scans per clean machine with a collection of CAB files.

### Test VI - Reboot Times

This consisted of WCL rebooting the system with the product installed for a total of fifty times, and measuring the amount of time taken to stabilize the system at 50% or less CPU usage for more than 60 seconds. In order to measure this, West Coast Labs deployed a CPU monitor included in the Windows Startup folder and set Windows to automatically log in to avoid the potential delay that may have occurred from manual log on. Both cold starts and restarts were measured.

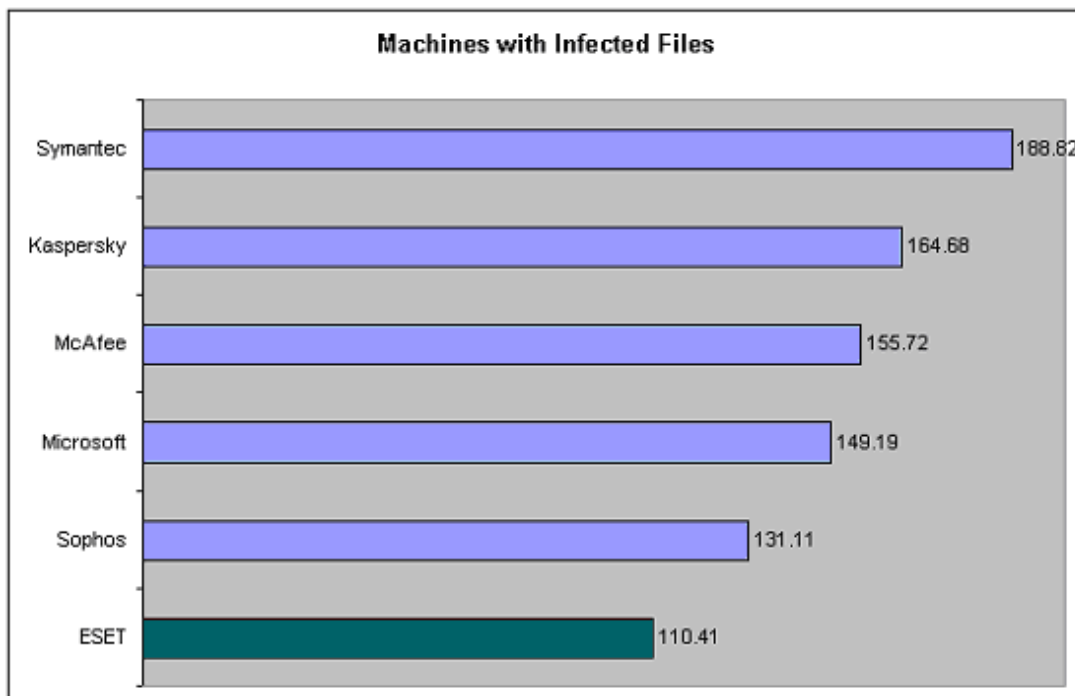
# ESET Smart Security Business Edition Comparative Testing

## Results

### Test I - Commit Charge.

The following seven graphs show the average commit charge used by the system with each of the products installed, while each of the Tests II, III, and V were performed. Results are in shown megabytes. Lower results are better and indicate that product has less impact on system resources, in this case specifically pagefile usage.

### Machines with Infected Files.

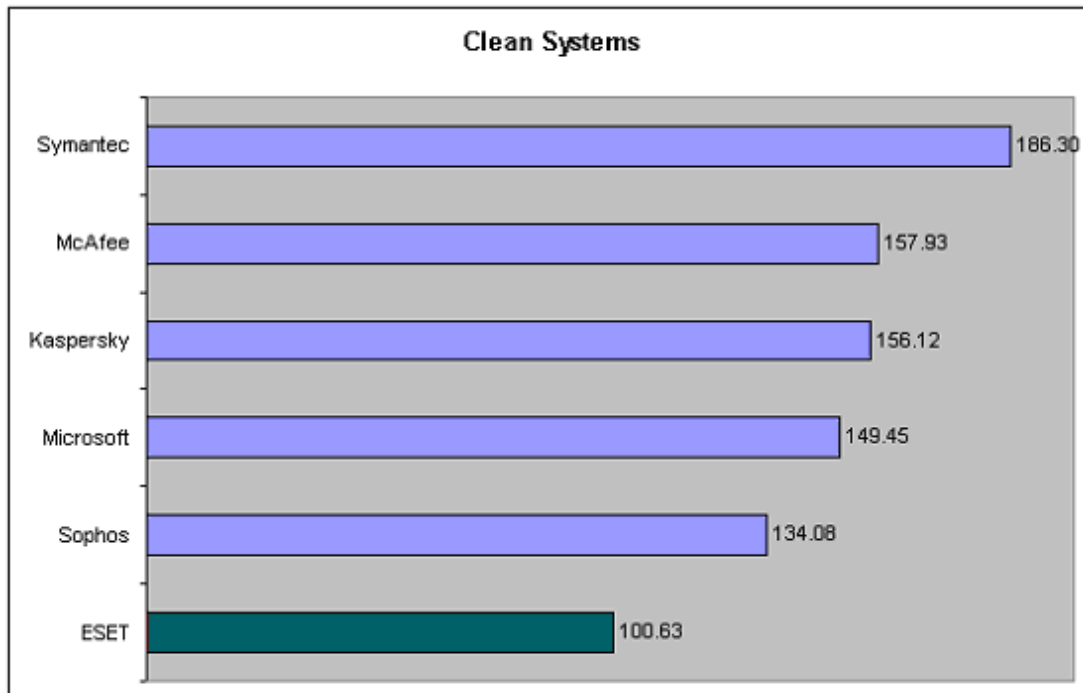


# ESET Smart Security Business Edition Comparative Testing

## Results

Test I - Commit Charge.

Clean Systems.

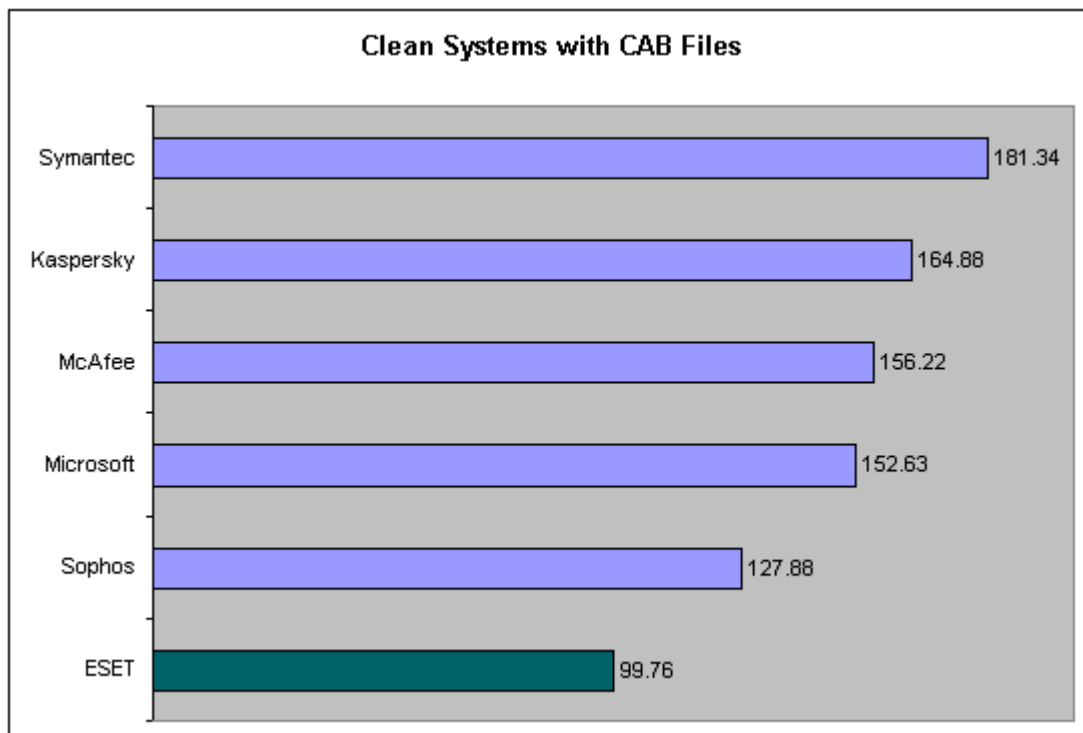


# ESET Smart Security Business Edition Comparative Testing

## Results

Test I - Commit Charge.

Clean Systems with CAB Files.

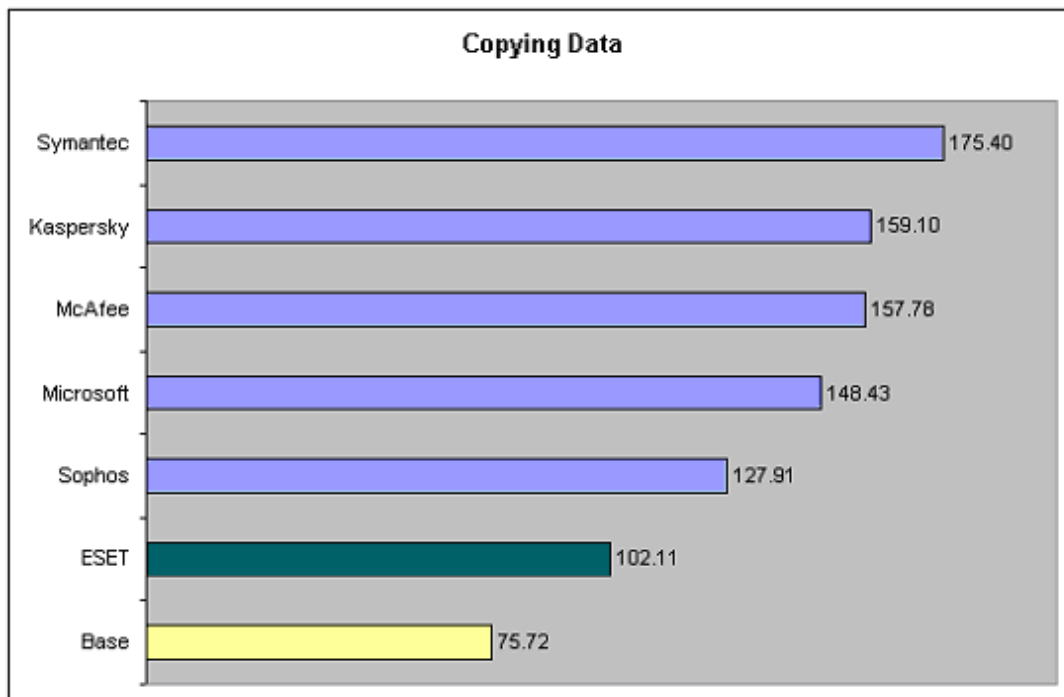


# ESET Smart Security Business Edition Comparative Testing

## Results

Test I - Commit Charge.

Copying Data.

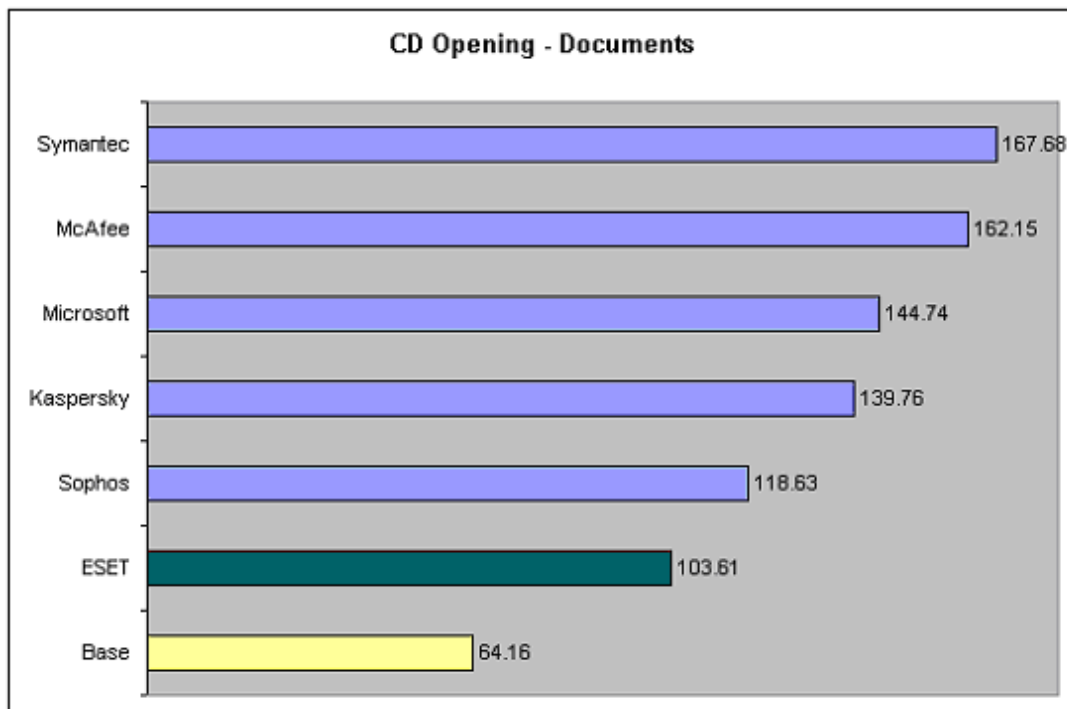


# ESET Smart Security Business Edition Comparative Testing

## Results

Test I - Commit Charge.

CD Opening - Documents.

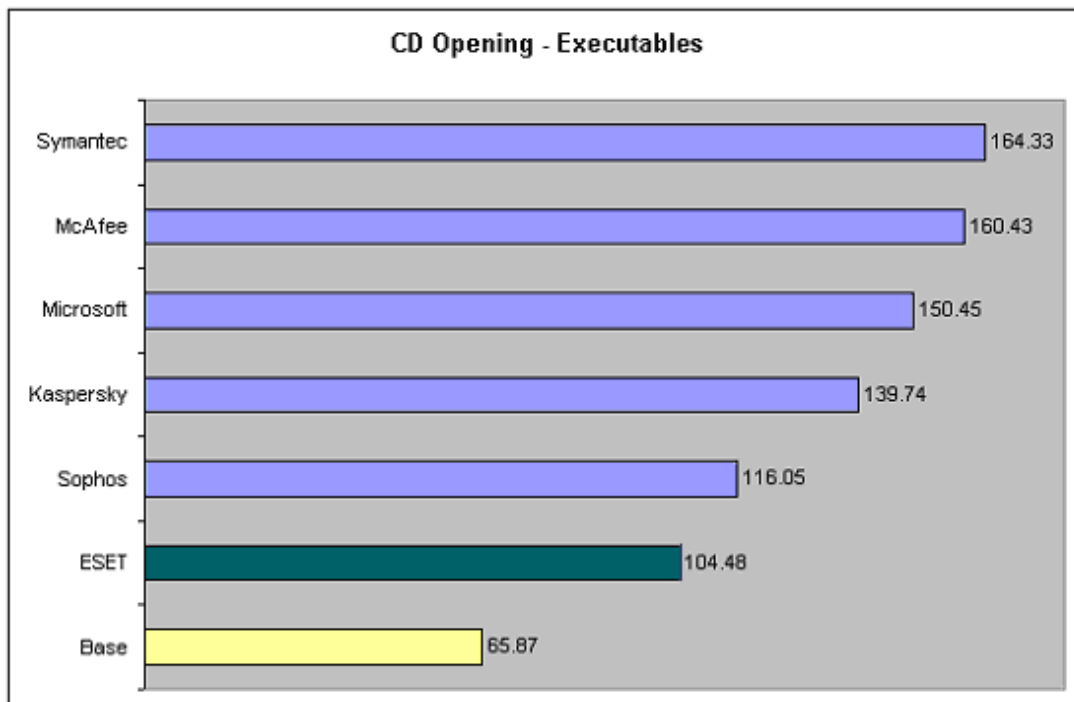


# ESET Smart Security Business Edition Comparative Testing

## Results

Test I - Commit Charge.

CD Opening - Executables.

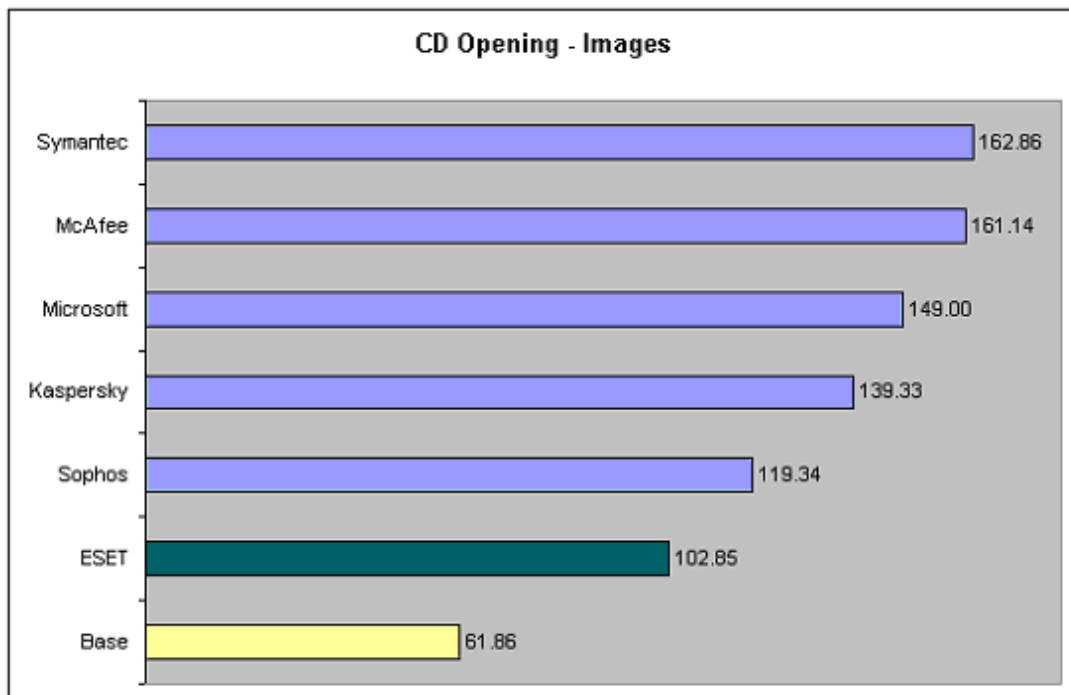


# ESET Smart Security Business Edition Comparative Testing

## Results

Test I - Commit Charge.

CD Opening - Images.

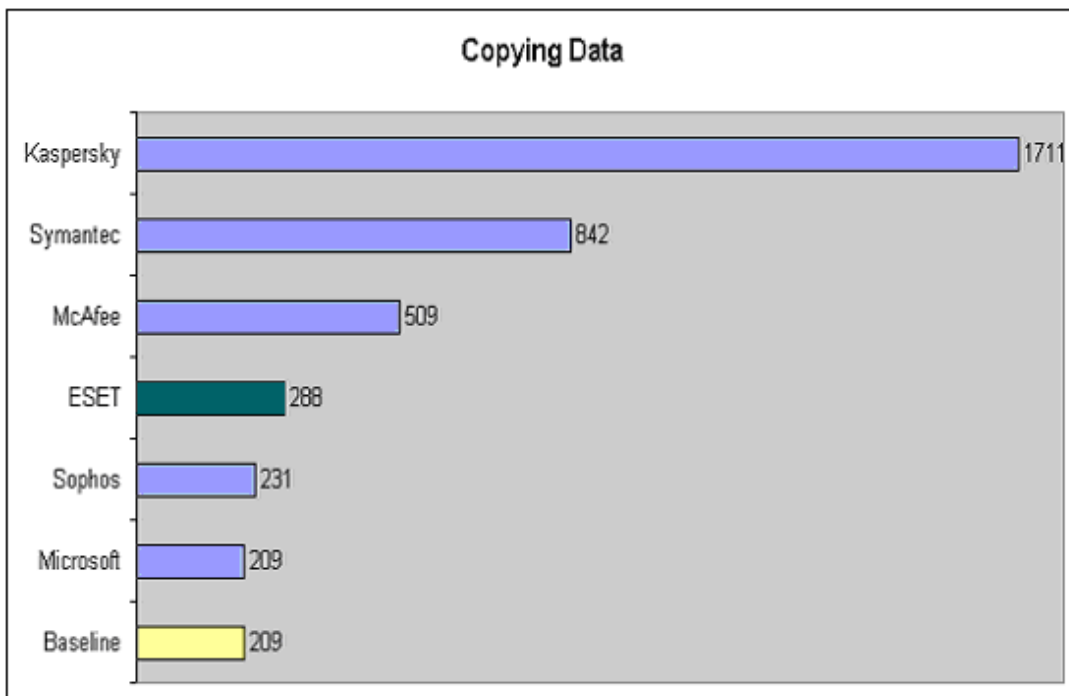


# ESET Smart Security Business Edition Comparative Testing

## Results

### Test II: Copying data.

The following graph shows the results for copying 1 GB of data (10,000 files). Results are shown in seconds. Lower results are better, but do not necessarily show how effectively each product scanned the files.



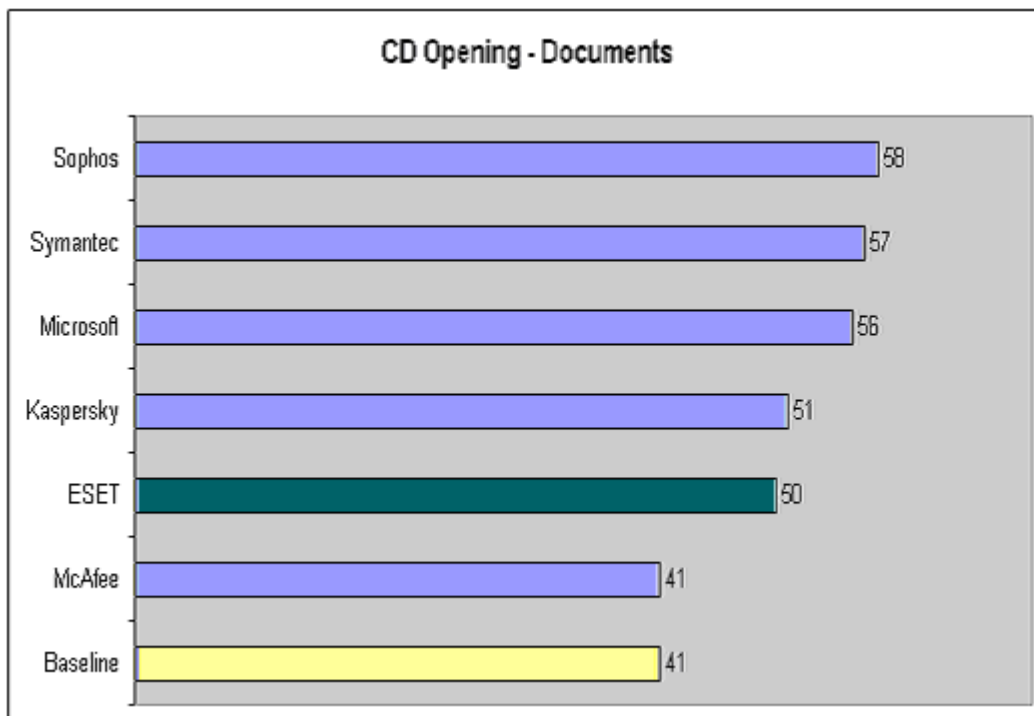
# ESET Smart Security Business Edition Comparative Testing

## Results

### Test III: CD Opening.

The following three graphs show the average time it takes to open CDs with documents, with executables, and with images for each of the tested products. Results are shown in seconds. Lower results are better, but do not necessarily show how effectively each product scanned the files.

#### CD Opening - Documents.

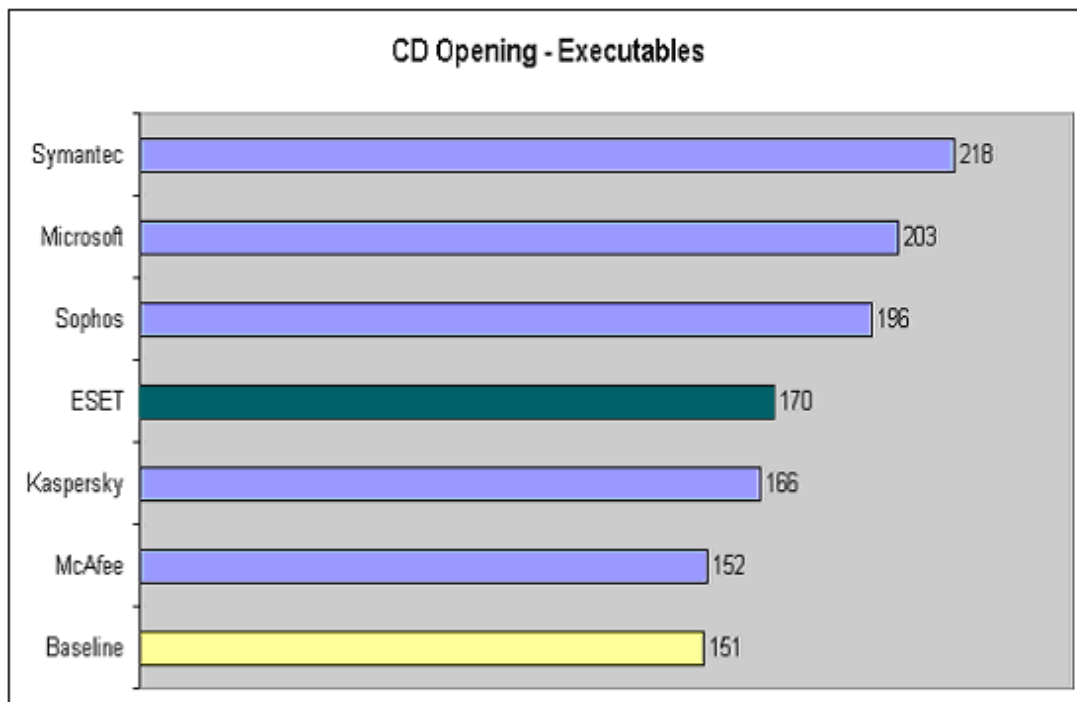


# ESET Smart Security Business Edition Comparative Testing

## Results

Test III: CD Opening.

CD Opening - Executables.

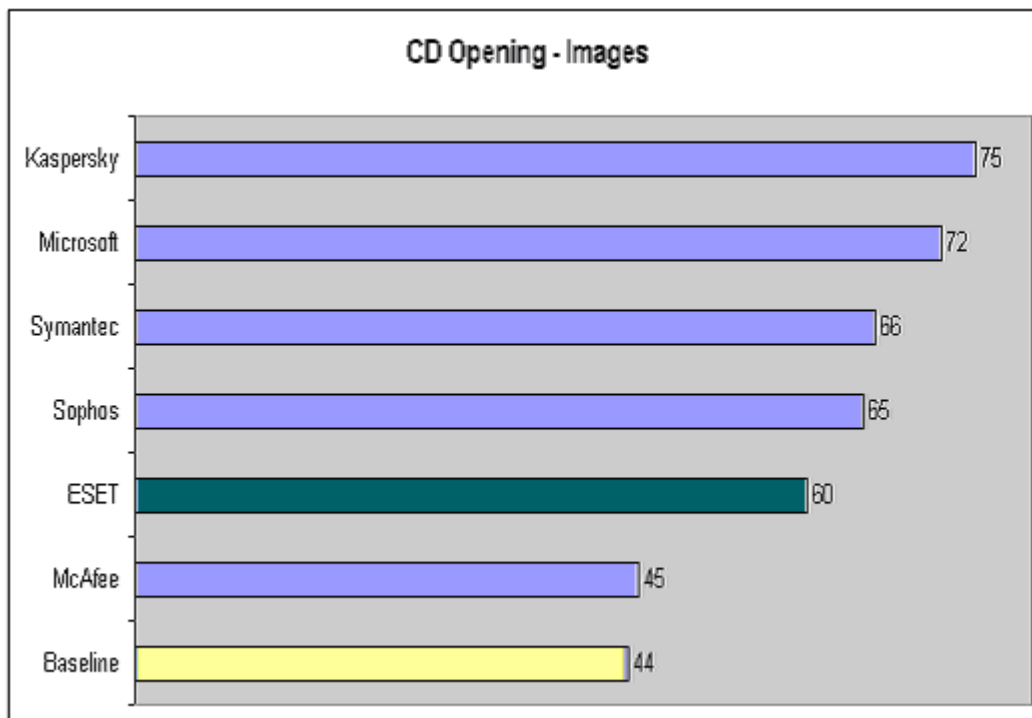


# ESET Smart Security Business Edition Comparative Testing

## Results

Test III: CD Opening.

CD Opening - Images.



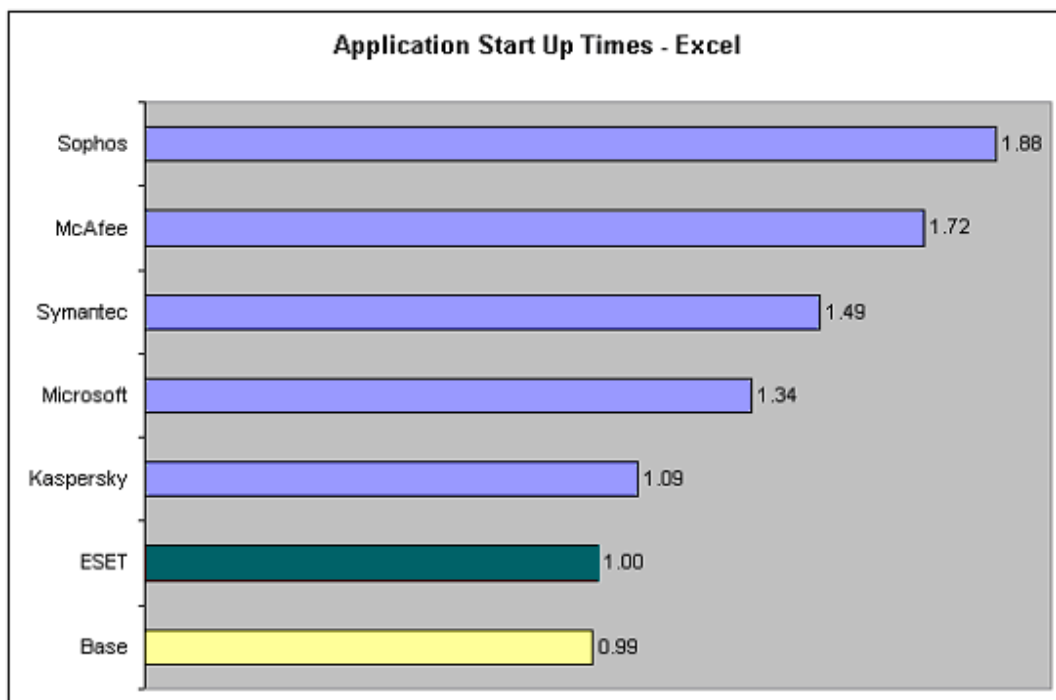
# ESET Smart Security Business Edition Comparative Testing

## Results

### Test IV – Application Start Up Times.

The following four graphs show the average time it takes to launch MS Excel, MS PowerPoint, MS Word, and Internet Explorer with each of the products installed. Results are shown in seconds. Lower results are better.

#### Excel.

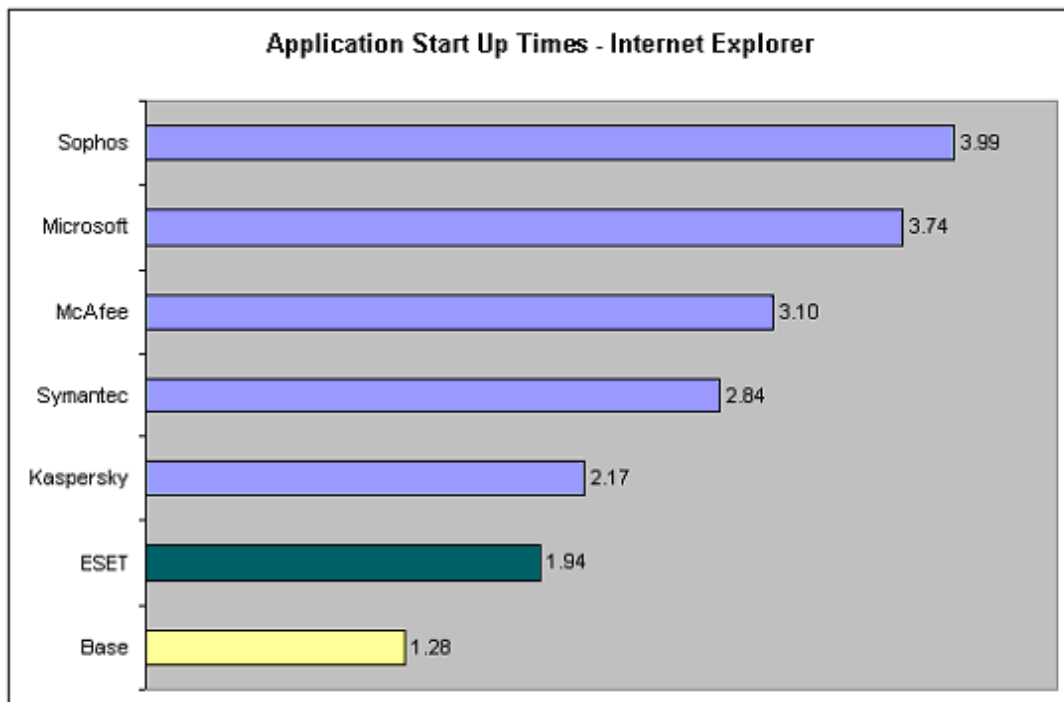


# ESET Smart Security Business Edition Comparative Testing

## Results

Test IV – Application Start Up Times.

Internet Explorer.

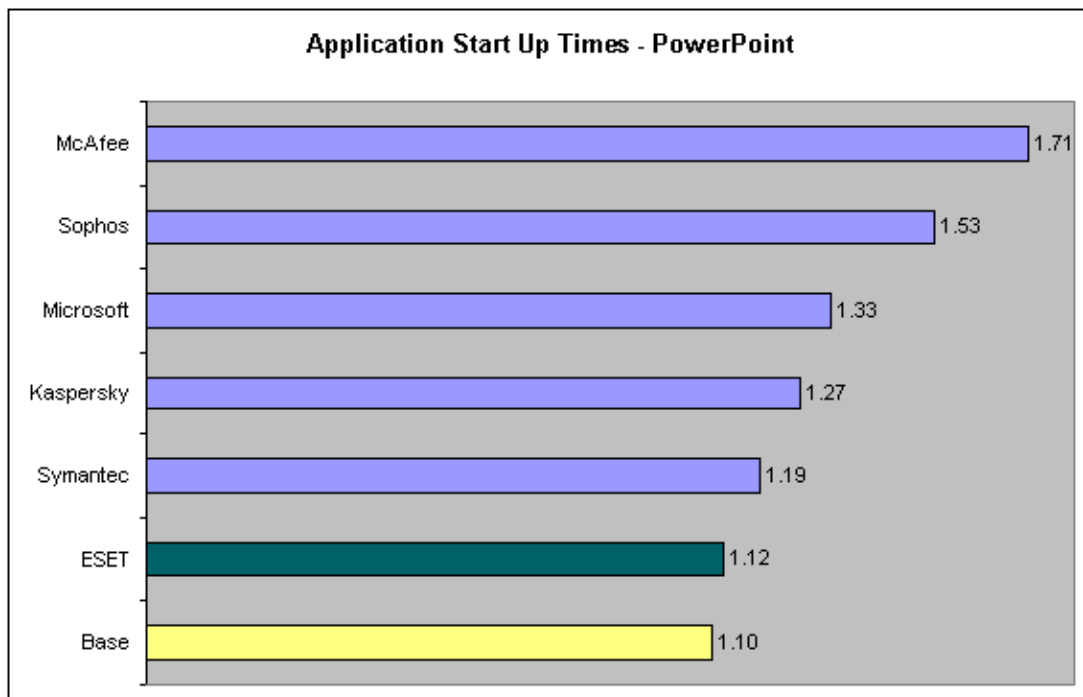


# ESET Smart Security Business Edition Comparative Testing

## Results

Test IV – Application Start Up Times.

PowerPoint.

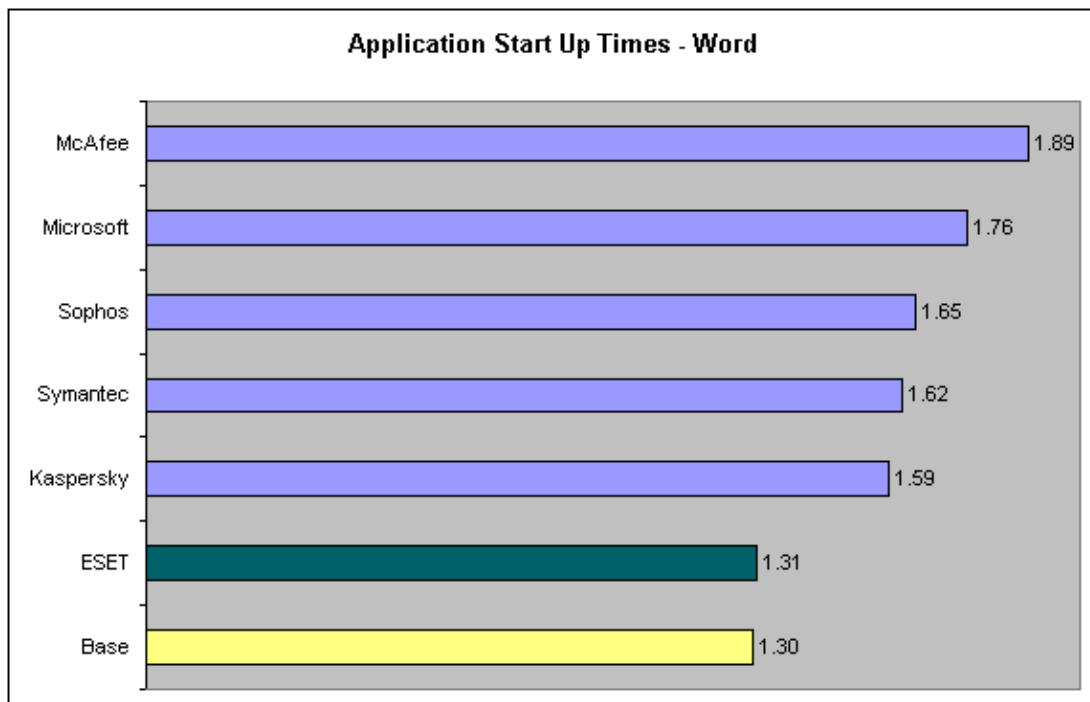


# ESET Smart Security Business Edition Comparative Testing

## Results

Test IV – Application Start Up Times.

Word.



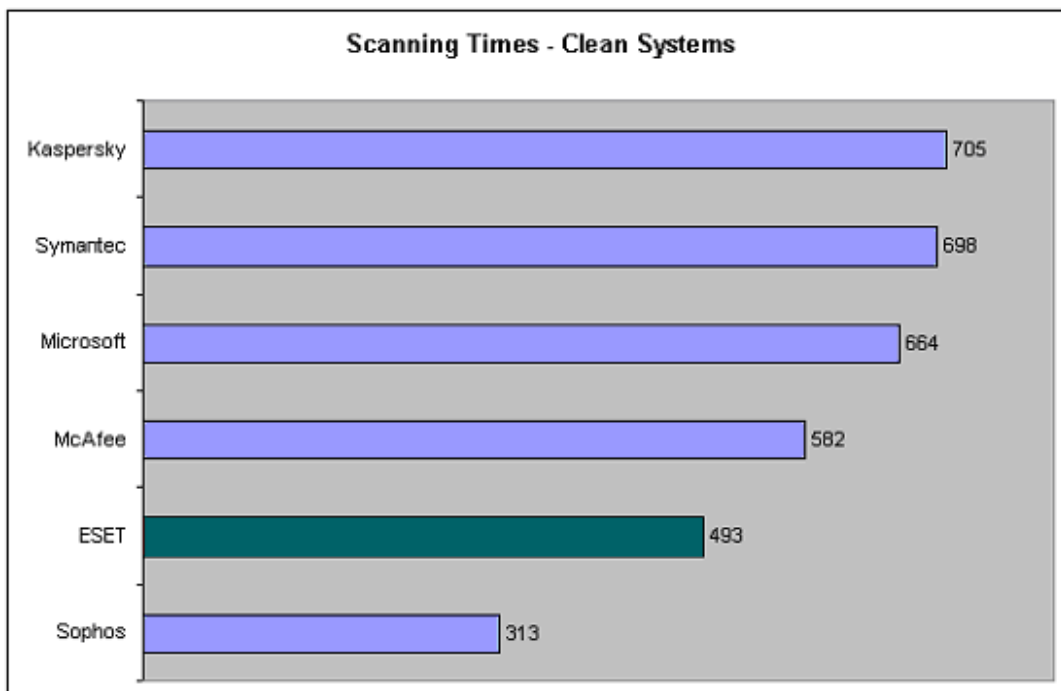
# ESET Smart Security Business Edition Comparative Testing

## Results

### Test V: Scanning Times.

The following three graphs show the average time each product took to scan the contents of the entire hard drive of a clean system, with the addition of CAB archives and with the addition of infected files. There are no numbers for a base system, because no scan can be performed without an antivirus scanner installed. Results are shown in seconds. Lower results are better.

### Scanning Times -Clean Systems. Results in Seconds.

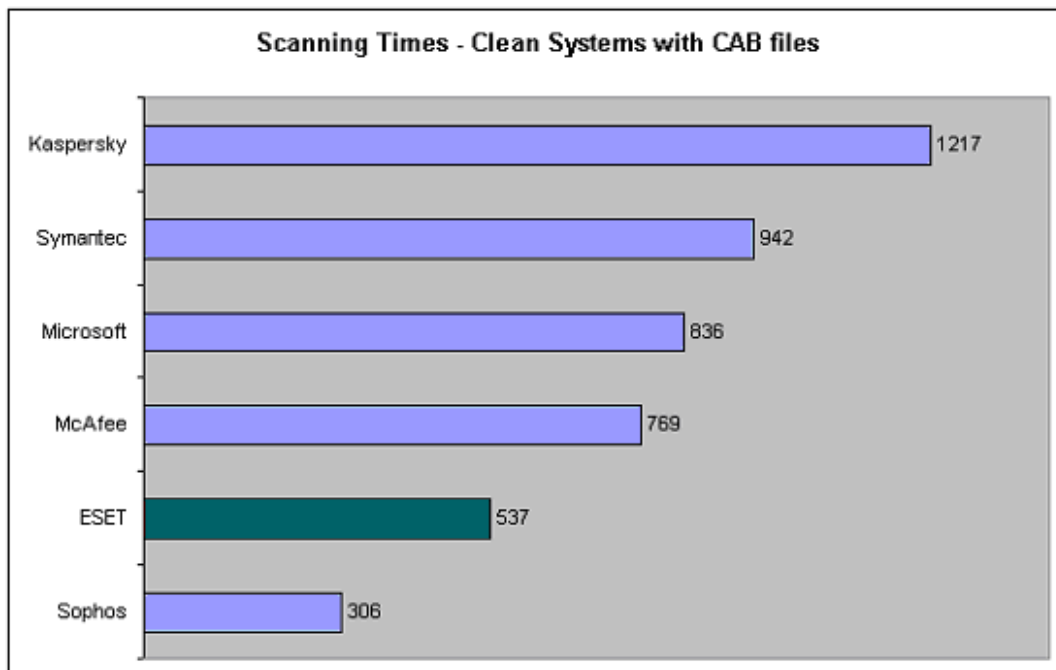


# ESET Smart Security Business Edition Comparative Testing

## Results

Test V: Scanning Times.

Scanning Times – Clean Systems with CAB files. Results in Seconds.

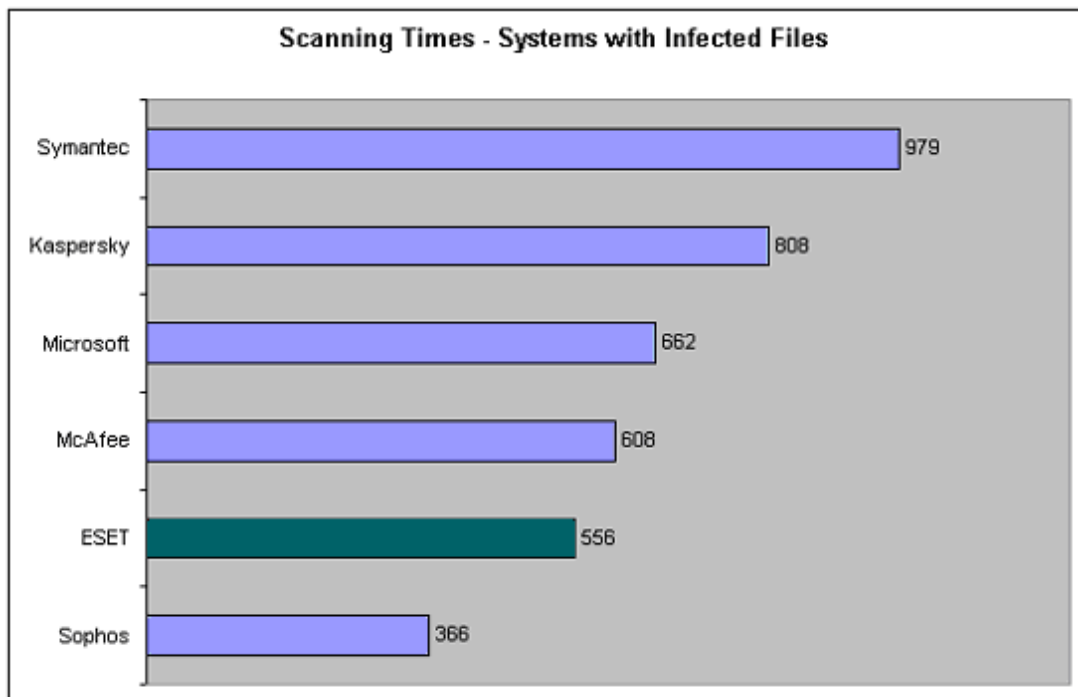


# ESET Smart Security Business Edition Comparative Testing

## Results

Test V: Scanning Times.

Scanning Times – Machines with Infected Files. Results in Seconds.



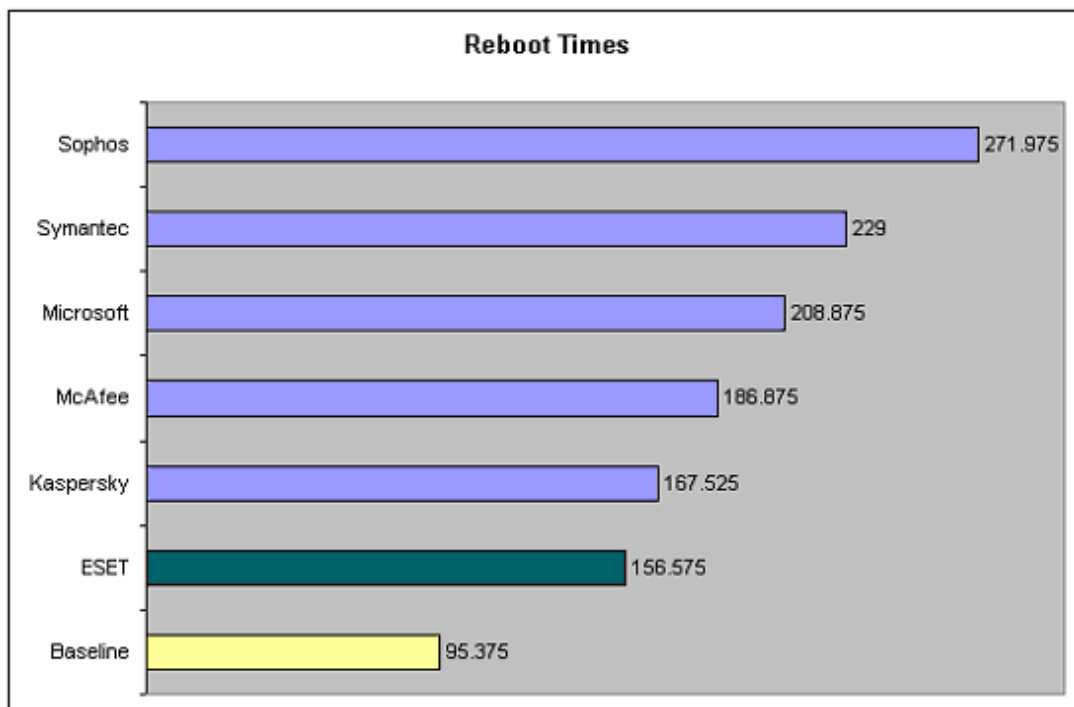
# ESET Smart Security Business Edition Comparative Testing

## Results

### Test VI – Reboot Times.

The following graph shows the average reboot time for the system with each of the products installed. Results are shown in seconds. Lower results are better.

### Reboot Times.



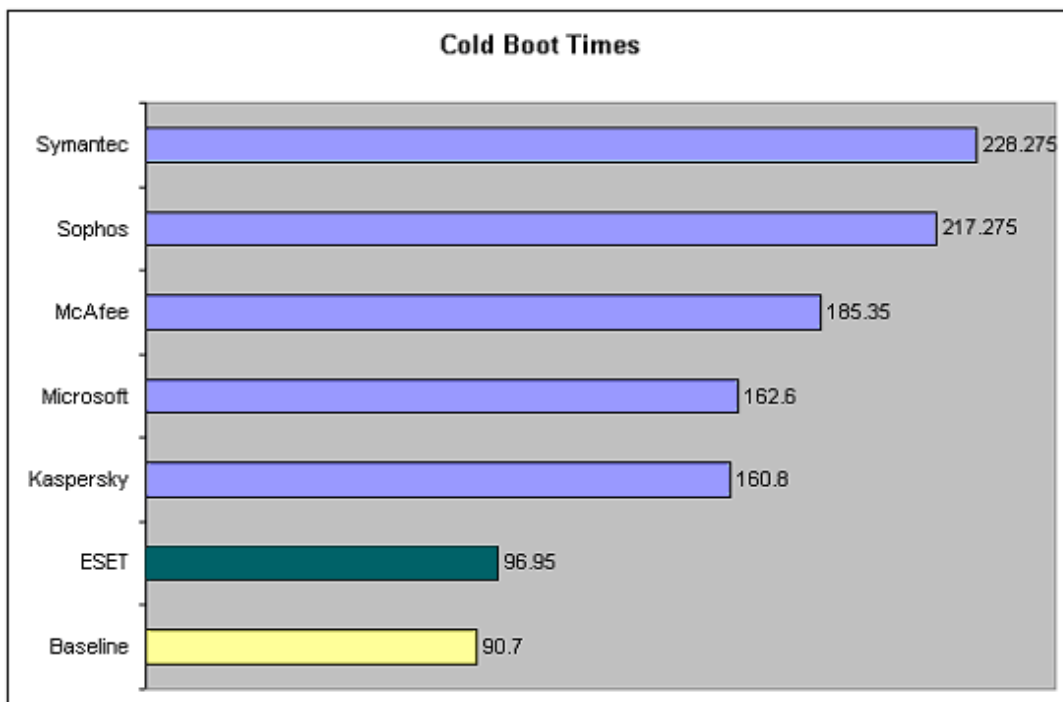
# ESET Smart Security Business Edition Comparative Testing

## Results

### Test VI – Reboot Times.

The following graph shows the average cold boot time for the system with each of the products installed. Results are shown in seconds. Lower results are better.

### Cold Boot Times.



# ESET Smart Security Business Edition Comparative Testing

## Conclusion

These tests were conducted in order to reflect the impact that the presence of each installed solution might have upon everyday activities of a normal user, (starting the system; opening commonly used applications; moving and accessing data). Each system was installed with default options. Commit charge was included as a measure of the system resources used by each product during its operations.

By comparing the baseline results with those of each product it can be seen to what degree each solution degrades the system performance in the various categories. The obvious exception to this is Test V; it is impossible to run a scan on a baseline system that does not have a scanner installed.

Results should be considered together, and an end user should consider what is most important to their particular requirements when considering the solutions compared here.

Based upon the tests conducted on the specific versions during the test period, it can be seen that ESET had the lowest Commit Charge, and caused least delay to system and application start up times overall.

# ESET Smart Security Business Edition Comparative Testing

## West Coast Labs Disclaimer

*While West Coast Labs is dedicated to ensuring the highest standard of security product testing in the industry, it is not always possible within the scope of any given test to completely and exhaustively validate every variation of the security capabilities and / or functionality of any particular product tested and / or guarantee that any particular product tested is fit for any given purpose.*

*Therefore, the test results published within any given report should not be taken and accepted in isolation. Potential customers interested in deploying any particular product tested by West Coast Labs are recommended to seek further confirmation that the said product will meet their individual requirements, technical infrastructure and specific security considerations.*

*All test results represent a snapshot of security capability at one point in time and are not a guarantee of future product effectiveness and security capability. West Coast Labs provide test results for any particular product tested, most relevant at the time of testing and within the specified scope of testing and relative to the specific test hardware, software, equipment, infrastructure, configurations and tools used during the specific test process.*

*West Coast Labs is unable to directly endorse or certify the overall worthiness and reliability of any particular product tested for any given situation or deployment.*

## Revision History

Issue	Description of Changes	Date Issued
1.0	ESET comparative Report	16 <sup>th</sup> October 2008

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