

Sunbelt Software VIPRE® Enterprise Version 3.1:

Anti-virus Scanning Performance and System Resource Utilization Comparison Versus McAfee VirusScan Enterprise 8.7i and Symantec Endpoint Protection 12 Small Business Edition

EXECUTIVE SUMMARY

IT system administrators need to balance the security requirements of the enterprise with usability of PCs. As the threat landscape evolves, PC security solutions have become resource hungry to the point that the PC becomes unusable during periods of security scanning. Tests show that Sunbelt Software's VIPRE Enterprise endpoint security solution offers better scanning performance with minimal system resource usage compared to McAfee VirusScan Enterprise and Symantec Endpoint Protection products.

THE BOTTOM LINE

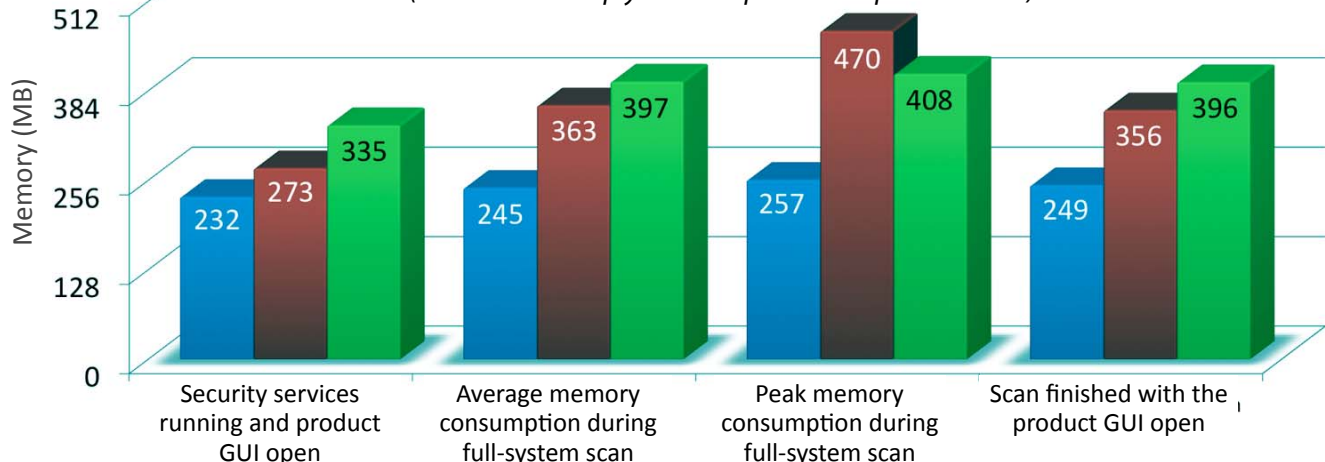
Sunbelt VIPRE Enterprise:

- Consumes up to 38% and 45% less memory compared to the Symantec and McAfee products tested respectively
- Offers up to 2.6x and 3.6x faster scanning speed in a full-system scan, compared respectively to the Symantec and McAfee products tested

Memory Consumption on a Test PC with Products Under Test Under Various Usage Scenarios

(As Reported by PerfMon on a PC running Microsoft Windows XP SP3)

(Lower values imply lower impact on PC performance)



■ Sunbelt VIPRE Enterprise 3.1 ■ McAfee VirusScan Enterprise 8.7i ■ Symantec Endpoint Protection 12 Small Business Edition
Note: Memory consumption shown includes both operating system and the product under test. The test PC was equipped with a 2.6GHz Intel Celeron CPU, 512 MB RAM and running Microsoft Windows XP SP3 with Microsoft Office 2003 and the product under test in its default configuration, resulting in about 18 GB of total data on the hard disk.

Source: Tolly, July 2009

Figure 1



SUMMARY OF FINDINGS

Tolly engineers evaluated the scanning performance and system resource utilization of Sunbelt Software VIPRE Enterprise 3.1 (referred to as Sunbelt VIPRE, hereafter) antivirus product aimed at Small and Medium Enterprises, against McAfee VirusScan Enterprise 8.7i and Symantec Endpoint Protection 12.0 Small Business Edition.

All the products were tested using their default configuration options and

security policies with real-time virus and spyware protection and email protection services enabled. Other functionality in the McAfee and Symantec products including desktop firewall and intrusion prevention features were disabled for the scope of this test.


Impact on PC Performance

As shown in Figures 1, 2 and 3, when providing real-time and email anti-virus protection, Sunbelt VIPRE consistently had the least impact on the PC performance in terms of memory and CPU utilization, compared to the McAfee and Symantec products tested.

Sunbelt Software, Inc.

VIPRE Enterprise 3.1

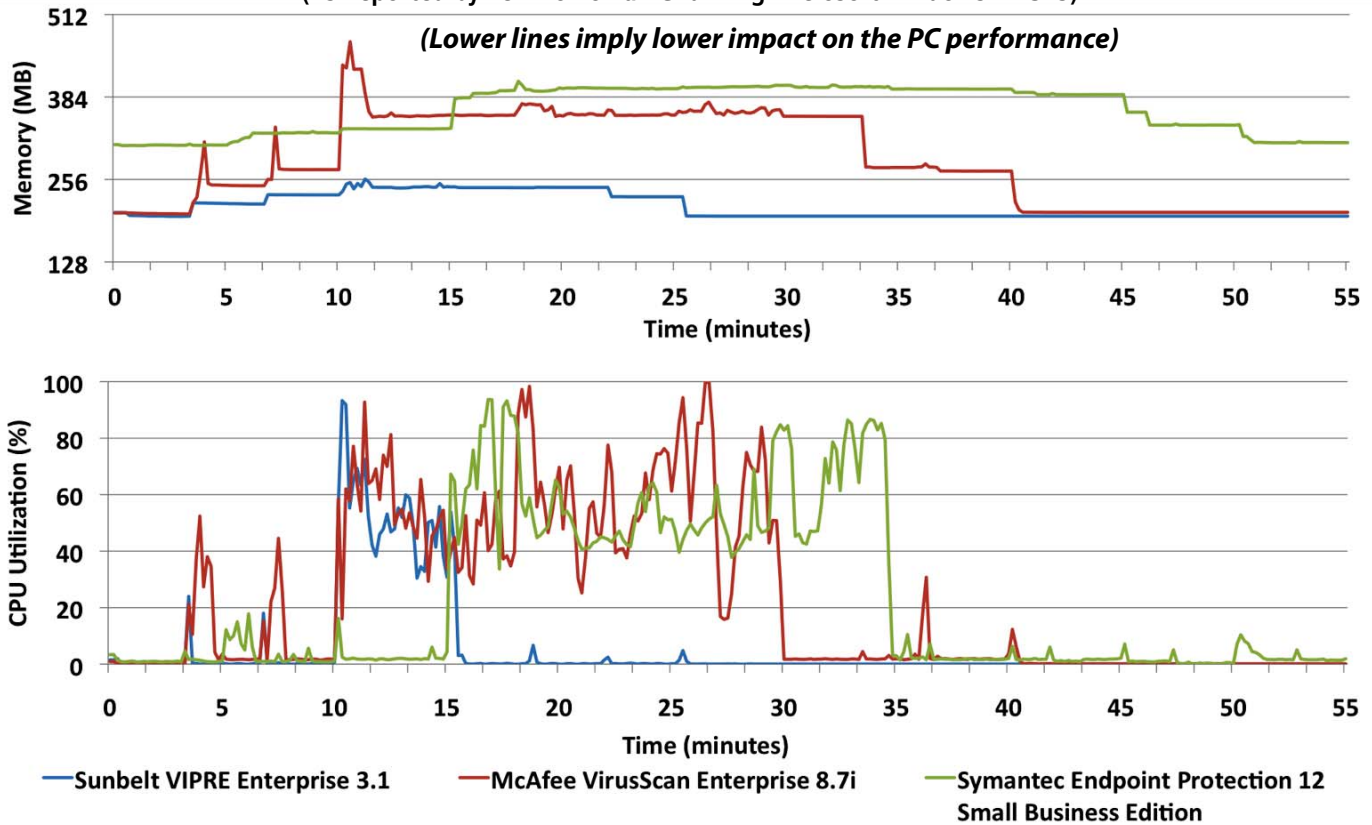
Anti-virus Scanning Performance and System Resource Utilization



Tested July 2009

System Resource Utilization (Operating System plus Product Under Test) Over Time

(As Reported by PerfMon on a PC running Microsoft Windows XP SP3)



Note: These waveforms show system resource utilization on the test PC when the product under test goes from a disabled state to enabled state at idle to full-system scan to remediation and then to an idle state again. The test PC was equipped with a 2.6GHz Intel Celeron CPU, 512 MB RAM and running Microsoft Windows XP SP3 with Microsoft Office 2003 and the product under test in its default configuration.

Source: Tolly, July 2009

Figure 2



Sunbelt VIPRE consumed the least amount of system resources irrespective of the state of activity on the PC:

whether at idle, or while using the product's GUI-based management interface, or during an on-demand full-

system scan, or during remediation of risks found from the scan. Test results show that Sunbelt VIPRE makes better

Detailed Summary of System Resource Utilization
(As Reported by PerfMon on a PC running Microsoft Windows XP SP3)

Task	Average Memory Consumption (MB)					Average CPU Utilization (%)		
	Sunbelt VIPRE Enterprise 3.1	McAfee VirusScan Enterprise 8.7i	Delta*	Symantec Endpoint Protection 12 Small Business Edition	Delta*	Sunbelt VIPRE Enterprise 3.1	McAfee VirusScan Enterprise 8.7i	Symantec Endpoint Protection 12 Small Business Edition
Baseline (without protection services running)	200	203	1.5%	202**	0.6%	0.4	0.2	1.3
Real-time and email protection services started	219	249	12.2%	326	32.9%	1.3	12.3	3.8
Open the product GUI	232	273	15%	335	30.6%	1.1	8.0	2.5
Running full-system scan	245	363	32.5%	397	38.3%	52.4	56.9	57.6
Peak load during a full-system scan	257	470	45.4%	408	37.2%	93.3	100.0	93.7
Scan completed, GUI open	249	356	30.1%	396	37.2%	0.7	15.6	2.3
During remediation	249	275	9.4%	388	35.8%	0.2	4.3	1.9
Close the product GUI (protection services still running)	235	269	12.8%	345	31.8%	0.3	2.0	0.9
Real-time and email protection services stopped	204	206	1%	315	35.2%	0.3	1.1	2.9

Note:

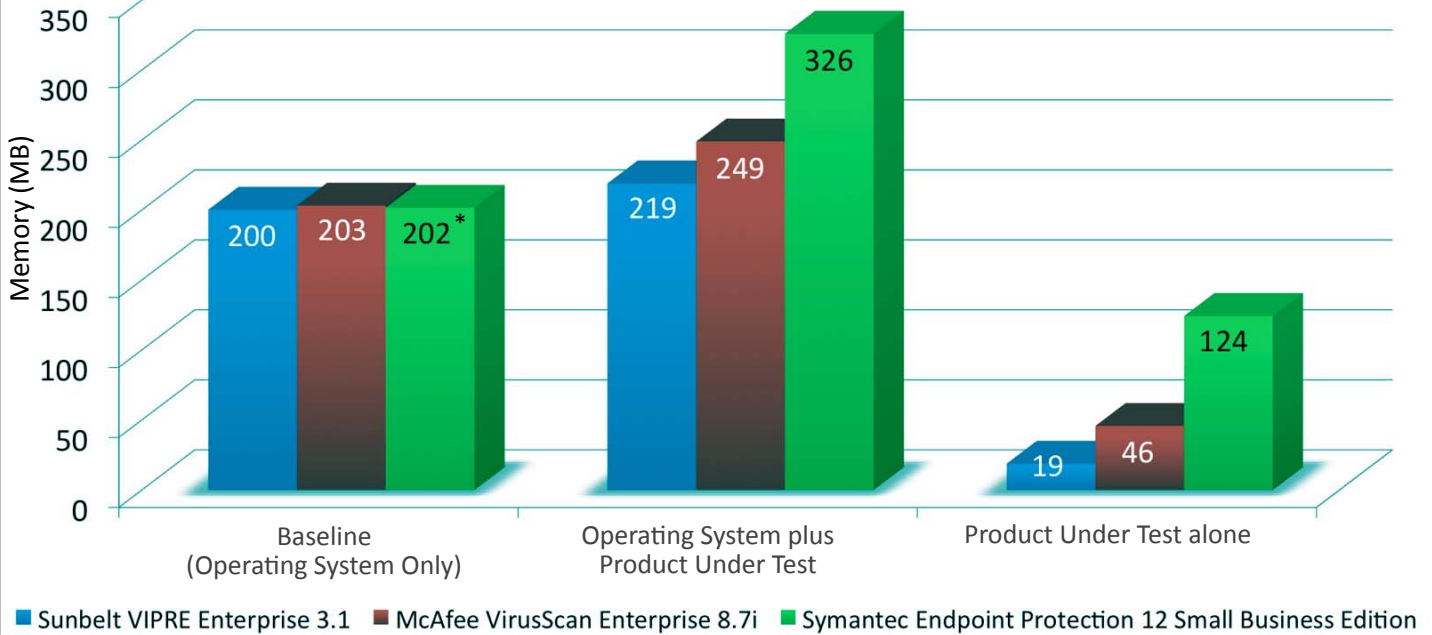
- * The 'Delta' column indicates the additional memory utilized by the McAfee or Symantec product compared to Sunbelt VIPRE Enterprise. The formula used to calculate Delta is: $\Delta_{B \text{ over } A} = [(B-A) / B] * 100$
- ** Symantec's security services cannot be terminated by the user. Two services: 'Symantec CMC SMC GUI' and 'Symantec CMC SMC' run at all times, resulting in a baseline memory consumption of 309 MB for Symantec Endpoint Protection. All services for Sunbelt and McAfee products could be terminated to form the baseline PC configuration. Hence engineers estimated the real baseline memory consumption without any security services running to be the average of the memory consumption of the Sunbelt and McAfee products, which was ~202 MB.
- The test PC was equipped with a 2.6GHz Intel Celeron CPU, 512 MB RAM and running a clean install of Microsoft Windows XP SP3 with Microsoft Office 2003 and the product under test in its default configuration.

Source: Tolly, July 2009

Figure 3

Memory Consumption of Products Under Test at Idle State (As Reported by PerfMon on a PC Running Microsoft Windows XP SP3)

(Lower values imply lower impact on PC performance)



Notes:

The test PC was equipped with a 2.6 GHz Intel Celeron CPU, 512 MB RAM and running Microsoft Windows XP SP3 operating system with Microsoft Office 2003 and the product under test in its default configuration. Baseline had only the operating system running.

* The Symantec product always has two services running on the endpoint PC, which cannot be disabled by the user completely, thus resulting in a higher baseline memory consumption than Sunbelt and McAfee products. Hence, its baseline memory consumption was estimated to be the average consumption of the Sunbelt and McAfee product installations.

Source: Tolly, July 2009

Figure 4

use of system resources to provide better end-user experience, with lower impact on user-productivity, compared to the McAfee VirusScan Enterprise and Symantec Endpoint Protection products.

Memory Consumption

Test results show that Sunbelt VIPRE consistently exhibits lower memory consumption than the comparable Symantec and McAfee products tested, even when all the products were configured with their default security policies, and real-time anti-virus

protection and email protection services enabled.

As shown in figures 3 and 4, Sunbelt VIPRE consumed 12% to 33% less memory than the McAfee and Symantec products respectively, while the PC is idle, with the security services configured to provide real-time and email protection.

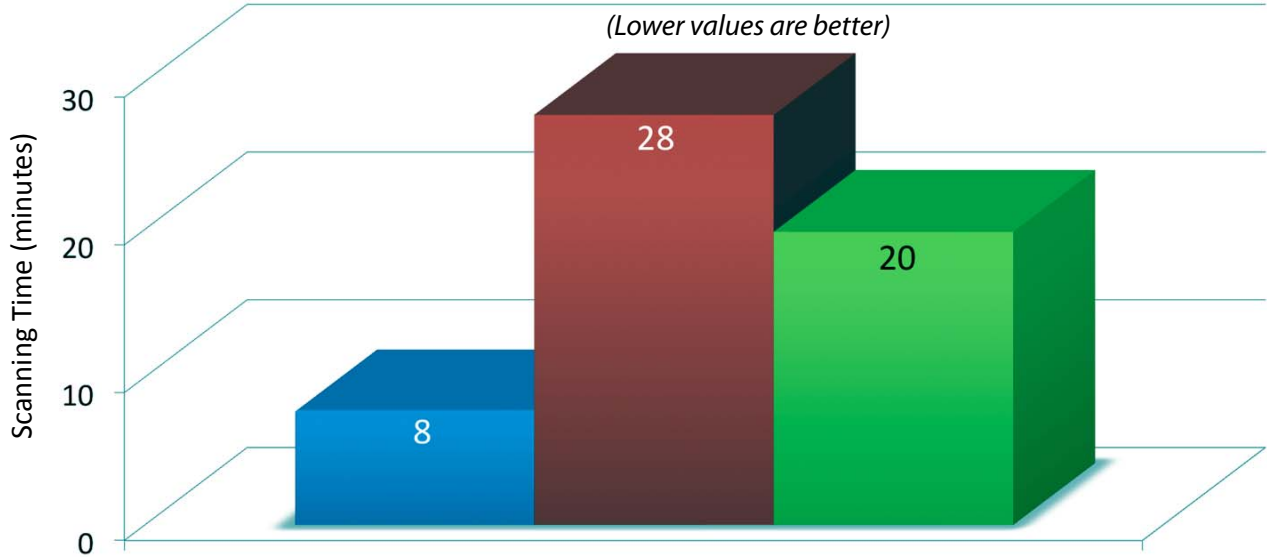
While running an on-demand, full-system scan using the default security configuration, Sunbelt VIPRE used just 12 MB more on an average, and 25 MB at the peak. Compared to this, McAfee

had the largest memory usage increase, at 90 MB more on average, and 197 MB more at the peak; while the Symantec product used 62 MB more on average, and 73 MB more at the peak.

Compared to the McAfee and Symantec products tested, Sunbelt VIPRE makes more efficient use of system resources, thereby leaving more system resources available for user productivity tasks and improving the user-experience.

Furthermore, as more system resources can be dedicated towards productive

Full-System Scanning Time of Products Under Test
 (As Reported by PerfMon on a PC running Microsoft Windows XP SP3)



■ Sunbelt VIPRE Enterprise 3.1 ■ McAfee VirusScan Enterprise 8.7i ■ Symantec Endpoint Protection 12 Small Business Edition

Note: The test PC was equipped with a 2.6GHz Intel Celeron CPU, 512 MB RAM and about 18 GB of total data on the hard disk resulting from an installation of Microsoft Windows XP SP3, Microsoft Office 2003 and the product under test in its default configuration.

Source: Tolly, July 2009

Figure 5

tasks, the enterprise can prolong the useful life of its PCs rather than upgrading the hardware to make room for resource-hungry security solutions.

Scanning Speed

Engineers documented the time it took for each of the products under test to perform an on-demand, full-system scan using all the default security options. Where required, engineers modified the default configuration to specify all file and content types to be scanned, without any exclusions.

The test results showed once again that Sunbelt VIPRE had the best performance by demonstrating the fastest scanning speed among the products tested.

As shown in Figure 5 above, Sunbelt VIPRE took 2.6x and 3.6x less time compared to the Symantec and McAfee products respectively, to scan approximately 18 GB of data.

During the scanning window, Sunbelt VIPRE was once again the least CPU-intensive, but all the products were roughly within 1% to 5% of CPU utilization relative to one another.

Faster scanning speed, lower CPU utilization and lower memory consumption while performing an exhaustive, on-demand security scan means that a PC protected by the Sunbelt VIPRE Enterprise product can provide better user-experience through low impact on system resources.

TEST SETUP AND METHODOLOGY

Tolly engineers tested the following small and medium enterprise (SME)-class security products: Sunbelt VIPRE Enterprise 3.1, McAfee VirusScan Enterprise 8.7i and Symantec Endpoint Protection 12 Small Business Edition. All products have been updated to the latest available patches and signatures prior to the start of testing.

Sunbelt VIPRE Enterprise and Symantec Endpoint Protection were implemented in a client-server model, with a central server component used to provision, configure and manage the client-side



security software agents deployed on the client PCs. The McAfee VirusScan Enterprise product was implemented as a standalone, client-side installation for ease of testing, although the product does offer centralized management and configuration abilities similar to the Sunbelt and Symantec products.

The client PC was equipped with a 2.4 GHz Intel Celeron CPU, 512 MB of RAM, two physical hard disks of 90 GB and 250 GB respectively, and running Microsoft Windows XP SP3. Additionally, Microsoft Office 2003 was also installed. The total volume of data on the disk was approximately 18 GB.

The products under test were configured to scan all physical disks, using the default security policies modified where necessary to mandate scanning all file and content types. System resource utilization was measured using Perfmon counters built into Windows. Engineers also enabled real-time anti-virus protection and email protection on all products.

Engineers started out by establishing a baseline configuration for the PC, where the product under test was installed, but was disabled. Engineers measured the memory and CPU utilization in this state for five minutes to obtain an average baseline memory and CPU consumption.

Note: Since Symantec Endpoint Protection cannot be completely disabled by the user, two processes were always running in the background, leading to a higher baseline memory consumption. To overcome this issue, engineers calculated the average memory consumption of the Sunbelt VIPRE and McAfee VirusScan products, and used that as the estimated baseline memory consumption for Symantec.

Next, the product under test was activated by enabling its security services, and once again, engineers measured the memory and CPU utilization for a five minute duration. Then, the GUI-based client console of the product was launched, and measurements were taken

again for five minutes.

Next, engineers started a full-system scan, and measured the memory and CPU utilization over the scanning period. Once the scan was completed, the console was left idle for another five minutes for another set of CPU and memory measurements. Then, engineers performed the suggested remediation action, and took the measurements for another five minute duration.

Next, engineers closed the GUI console, and took measurements over a five minute duration to observe any resource utilization variations.

Finally, engineers terminated the security services of the product under test, and took another set of CPU and memory measurements over a five minute duration to observe any variation in resource utilization. All the tests were repeated twice on each product under test, to ensure repeatability of results. Final measurements were obtained by averaging the data from the two runs.

About Sunbelt Software

Sunbelt Software, Inc. develops Windows-based security software to protect against viruses, spam, spyware and other malware threats.

Headquartered in Tampa Bay (Clearwater), Florida and founded in 1994, Sunbelt provides high-performance enterprise and consumer Windows security software including anti-malware, anti-spyware, anti-virus, email security, and malware analysis tools.

Leading products include the CounterSpy® and VIPRE® endpoint security product lines, VIPRE Email Security, Sunbelt Exchange Archiver™, CWSandbox™, and Threat Track™.

For more information about Sunbelt Software, please visit the company's website at www.sunbeltsoftware.com. To learn more about current activities, products, and ideas at Sunbelt, please visit Sunbelt's corporate blog at www.sunbeltblog.com.

Source: Sunbelt Software, Inc.



About Tolly

The Tolly Group companies have been delivering world-class IT services for 20 years. Tolly is a leading global provider of third-party validation services for vendors of IT products, components and services.

You can reach the company via E-mail at sales@tolly.com, or via telephone at +1 561.391.5610.

Visit Tolly on the Internet at:
<http://www.tolly.com>

Interaction with Competitors

In accordance with The Tolly Group's Fair Testing Charter, Tolly representatives contact competing vendors to participate in the testing. Since the competing vendor products in this test were being tested in their default configuration, Tolly personnel did not engage the representatives of McAfee, Inc. and Symantec Corporation.



For more information on the Tolly Fair Testing Charter, visit:
<http://www.tolly.com/FTC.aspx>

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