

## EXECUTIVE SUMMARY

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In Q3 of 2008, NSS Labs performed comprehensive testing of the Solidcore S3 Control - Embedded software against our Host Malware Protection test methodology, under the use case of a standalone, embedded point of sale system. This report contains the conclusions and associated data from a series of exacting tests performed on a Microsoft Windows system running the Solidcore S3 Control - Embedded software in our real-world test lab, and provides readers with empirically validated evidence about the product's features and capabilities.

Solidcore S3 Control - Embedded ships as a standalone solution which is installed on an embedded device after a *gold image* is created, and scanned using traditional antivirus/anti-malware software. The system under test was running Windows XP Professional with service pack 2, and typical applications for a Point of Sale Terminal: Retailix Point of Sale software, Internet Explorer 7, and Mozilla Firefox 3. S3's command line interface made implementation straightforward and surprisingly simple.

While Solidcore S3 Control - Embedded is not a traditional Anti-Malware product, it nevertheless provides extremely strong malware protection as an effect of its application control functionality. S3 prevented the unauthorized execution of 100% of the 15,557 malware samples. However, 14 viruses were written in such a way that upon failure to execute they repeated the attempt; causing the virus to enter into an infinite loop and the system into a race condition. Thus, while these viruses did not achieve their intended goal in damaging the system, they were able to effectively DoS the system. Since no files were modified, rebooting the system returned it to its operable state. Thus, Solidcore achieved a 100% score in maintaining host integrity and 99.98% in malware protection.

The performance impact was overall negligible. S3 consumed 19 MB of Memory, but since S3 is only called when an application starts, there was no additional CPU utilization. The change in boot time was the most noticeable, adding an additional 15.9690 sec or 67.5%. However, the overall time to boot the test system was still only 39 sec, and well within reason for an embedded system with this level of security.

Overall, we found the Solidcore S3 Control - Embedded to be an extremely effective malware protection solution for embedded systems, and provide equal if not better protection than most traditional antivirus products, albeit with some operational caveats. As a result, we are pleased to award **NSS Approved** to the Solidcore S3 Control - Embedded product for Host Malware Protection.



The full document is available for download at: <http://www.NSSLabs.com>