

This Former Spirent Business is Now Part of VIAVI

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Spirent CyberFlood

Malware | Applications and Security Test Solutions

A Proper Test and Stress Security Solution

Robust testing of security systems in lab or sandboxed settings requires test equipment that can generate real malware payloads and emulate network traffic from already-infected systems. A variety of security systems are used to detect and prevent malware. These include:

- Firewalls and network intrusion prevention systems (IPS)
- Content filtering and data loss prevention systems
- In-line sandboxing and advanced AI-based malware detection solutions
- Cloud based security services

Newer security technologies on these systems go further and can detect breaches by identifying already infected endpoints within the protected network. This is often done using various types of network-based behavioral profile analyses.

Even with all these security systems and capabilities in place, malware still manages to infect target systems. In order to stop malware, all security systems must be carefully tested and validated using a wide range of malware-based attacks to ensure they are working properly. Complete testing of security systems also requires a proper testing methodology that considers performance, availability, security and scale. Collectively these four variables, when viewed holistically, provide for reliable test results.

Testing with Malware — Combining Quality and Quantity

As an option to Spirent's CyberFlood application performance testing solution, the Malware testing solution provides the means to verify your network's ability to defend against today's sophisticated malware constructs with an up-to-date database of malware samples and from a variety of test vectors.

Up-to-date Malware Database

Testing with a mostly obsolete database of malware is of no use. Spirent continually provides newly found and zero-day malware constructs that are automatically made available for testing via our TestCloud™ content subscription, providing thousands of malware and propagation samples for vast test coverage.

Extensive Malware Types

In addition to providing an ever growing database of malware content, Spirent provides coverage for a wide area of malware types including: Worms—Viruses—Trojans—Spyware—Root Kits—File Infectors—Adware—Bots—Backdoors—and more.

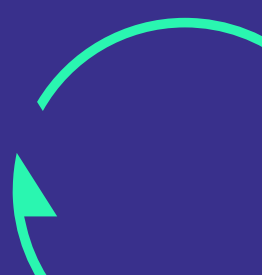
Background

According to data compiled by cybercrime coalitions, such as Anti-Phishing Working Group, malware has infected nearly a third of the world's computers. What's worse is the numbers continue to grow, based on ongoing research from McAfee, AV-Test and others, showing over 30 million malware infestations were detected by malware programs in 2023 alone.

Businesses may face long-term impacts, such as loss of competitive position or outright organizational failure. Many instances of infection by malware result in advanced persistent threats (APTs) entering the protected network.

Testing malware countermeasures with outdated and unrealistic samples is not only ineffective; it's a dangerous business practice.

Potentially, one can be exposed to today's more intelligent and nefarious malware. Spirent's CyberFlood Malware option provides current and up-to-date samples, along with hyper-realistic application traffic, to properly test and stress security solutions.



Malware Test Vector Coverage

- Test the binary transfer of Malware via HTTP, email and other transports—Determine what is blocked or not, and what security polices work the most effectively in your environment.
- Command and Control Call Back—By emulating live infected host behavior, you can test that policies are picking up on “phone home” and other malware messaging behavior.
- Test under high load of hyper-realistic application traffic to add further realism and pressure to security services and devices. This determines security solutions impact on the performance of actual user traffic.
- After client-initiated messaging, test attack scenarios where CyberFlood emulated servers attack clients with specific vulnerabilities.

Malware Testing

Quickly setup and execute audit tests to determine how well security services and polices report or block malicious content. Test configuration can concentrate on specific malware constructs or the entire database can be used to verify malware detection on a broad level.

- Test malware sent upstream only or bi-directionally.
- Realistically stress the system with legitimate traffic.
- Understand the impact of malware detection against legitimate traffic and user experience.
- Malware traffic can be emulated from multiple subnets, including regional IP ranges, creating true real-world conditions.
- New malware samples are continually added, providing the latest and zero-day level exploits for you to test with.

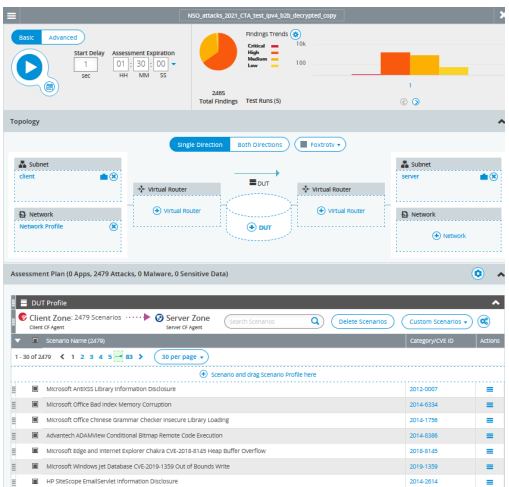
Scenarios, Zones and Devices Summary



Assessment Plan Data

Scenario Name (ATTN)	Category/CVE ID	Start Time	Result
FirstType PostScript Type1 Postscript Code Execution	2011-0228	2022-05-20 T14:32	Blocked
Microsoft SharePoint Server Callback Function Cross-Site Scripting	2013-0080	2022-05-20 T14:32	Blocked
Microsoft Edge JavaScriptEngine Use-after-free	2017-0603	2022-05-20 T14:32	Blocked
VLC Media Player ASX File Instruction Field Parsing Help Overflow	2015-4233	2022-05-20 T14:32	Blocked
Microsoft HTTP.sys HTTP 2.0 Denial of Service	2016-0150	2022-05-20 T14:32	Blocked
Microsoft Windows TrueType Font File Parsing Remote Code Execution	2012-4766	2022-05-20 T14:33	Blocked
Microsoft Windows Certified Access Gateway Null Session Cookie Denial of Service	2011-2012	2022-05-20 T14:33	Blocked
HP Data Protector Multiple Products LogCentralization SQL Injection	2011-3156	2022-05-20 T14:33	Blocked
Microsoft Office PowerPoint BuffersOverflowConsumer Record Memory Corruption	2011-0855	2022-05-20 T14:33	Blocked
Apple QuickTime Targa File Buffer Overflow	2012-3755	2022-05-20 T14:33	Blocked
Aerospike Database Server al_simon_simon_test_by_get_bonded Stack Buffer Overflow	2016-9054	2022-05-20 T14:34	Blocked

At-a-glance test grade reports showcase levels of Pass/Fail criteria for each new test run



Flexible test configuration

Ordering Information

Description	Part Number
CyberFlood Malware Content-1Yr	CF-C-ADVMALWARE-1Y
CyberFlood Attacks Content-1Yr	CF-C-ATTACKS-1Y
CyberFlood TestCloud Apps Content-1Yr	CF-C-TESTCLOUD-1Y

TestCloud is also available in multi-year and bundled package across the entire CyberFlood hardware and virtual product lines. Please contact Spirent Sales for more information.

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