Spirent’s revolutionary CyberFlood security and application testing solution is now available as a virtual platform offering you simplified use, by consolidating multiple test functions into a completely virtual test environment.

CyberFlood virtual offers validation of security posture, Quality of Service (QoS) and Quality of Experience (QoE) through quick and simple to use tests of cybersecurity assessment and performance of network infrastructures.

Applications

• Test SDN environments directly from within a virtual environment with multiple unbounded traffic generation endpoints

• Scale test solutions to handle vast amounts of traffic based on your needs

• Verify NFV security effectiveness with real attacks and exploits

• Test DDoS mitigation services and Next Generation Firewalls

• Generate application load traffic from a growing database of over 10,000 user scenarios and application flows to verify application ID policies and performance

• Validate performance and security with Amazon Web Service (AWS) environments and Azure

• Test with zero-day and up-to-date malware scenarios

• Replay custom traffic at scale

• Advanced Fuzz testing to find unknown vulnerabilities creating millions of possible test scenarios quickly and easily

Software Defined Networking reduces infrastructure cost and overhead by opening a new world of flexibility, scale and performance for enterprises. The convergence of network and application infrastructures into a single extensible and flexible platform requires improved levels of understanding of network security effectiveness and performance. Spirent CyberFlood Virtual is a flexible solution that offers proactive and realistic testing of content aware networks and security infrastructure that is easily hosted on users premises or compatible cloud based infrastructures.
User Realism with CyberFlood

CyberFlood utilizes TestCloud™ for access to thousands of applications so you can generate traffic with authentic payloads for realistic security, performance load and functional testing. CyberFlood creates tests with the latest apps from the Spirent TestCloud, while also providing the ability for users to import their own applications to recreate custom application at scale.

Quickly test with recent attacks and their variants like Wannacry, Petya, Crisis, Nemucod, Spora, Cerber and more. CyberFlood provides access to an always up-to-date database of thousands of attacks, real malware profiles and vectors, so you can test any mix of attacks and applications at scale. Quickly and easily determine how security polices work to defend against attacks while allowing legitimate user traffic to pass through as unimpeded as possible. Test with high scale volumetric and protocol DDoS to verify mitigation policies are up to task.

Find Unknown Vulnerability with Advanced Fuzzing

CyberFlood’s extensive scalability, performance and security test solutions offers options for advanced fuzzing that provides virtually unlimited number of fuzz test cases for over 80 popular and current protocols including TLS v1.3. The CyberFlood advanced fuzzing options allow testing by delivering invalid, unexpected, or random data while its hyper-realistic L4-L7 traffic generator can further stress the system under test with extreme load of legitimate and malicious attacks.

Features & Benefits

• **Ease of Use**—Extremely easy to use and highly intuitive graphical user-interface that allows for difficult configurations to be set up instantly; from setting up global IPs from a world view map to drag and drop protocols, CyberFlood makes security and performance testing easy.

• **Economical**—CyberFlood Virtual comes in a number of license simple annual subscription options to meet your use case and performance needs. From basic performance testing to a full suite of security testing with updated content you can choose the right solutions for your needs.

• **Cloud Assessment**—CyberFlood Virtual can be installed on specific cloud infrastructures, such as AWS, to validate and verify performance of default an/or third party cloud based security or traffic inspection solutions.

• **Network Security Testing**—Provides extensive testing for secure network communication, vulnerability assessment with an ever growing and up-to-date database of over 3,000 exploit profiles and over 30,000 malware samples.
  - Verify the ability of the network security devices to detect and mitigate thousands of known and zero day attacks.
  - With CyberFlood fuzzing test the resiliency of network devices and deployed protocols by verifying the ability to deal with millions of unexpected and malicious inputs.
  - Test network device capabilities to inspect traffic for malware, infected hosts, unwanted URLs and spam and take appropriate action.

• **Applications**—With CyberFlood, users can quickly and easily test with the latest and most popular applications and attacks (updated continuously), all with unparalleled realism and scalability. Users can push their solutions to the limit while ensuring the infrastructure will stand up to real-world demands.

• **Advanced HTTPs Testing**—CyberFlood Virtual provides extensive coverage to test and stress HTTPs traffic at scale. Highly configurable with cipher type, cert size and a variety of other parameters allows users to make highly realistic HTTPs and mixed traffic tests quickly and easily.

• CyberFlood virtual can also be used with the Avalanche application testing solution

• **NetSecOPEN**—NetSecOPEN is a network security industry group where network security vendors, tool vendors, labs and enterprises collaborate to create open and transparent testing standards.
## Technical Specifications

### Virtual Environments

| Virtual Instances | VMWARE ESXi 5.5, 6.0, 6.5  
|                   | KVM on Linux (64-bit only, bare metal)  
|                   |  
| Virtual Cores     | License the number of CPU cores to size CyberFlood to meet your specific scale and performance needs.  
|                   | Minimum requirements  
|                   | • 2 Ghz or greater CPUs  
|                   | • 4 x vCPUs per virtual instance  
|                   | • 8G RAM per virtual instance  
|                   | • 60GB HDD provisioning  
|                   | • AWS instance type is m4.xlarge  
| Virtual Controller| VMWARE ESXi 5.1 to 6.5  
|                   | KVM on Linux (64-bit only, bare metal)  
|                   | • 2 x vCPUs  
|                   | • CyberFlood Controller to be used for AWS  

### Licensing

| CyberFlood Performance Testing license | Comes with HTTP/HTTPs bandwidth, connectivity and rate testing, advanced mixed traffic testing, custom traffic replay and DNS  
| CyberFlood Security and Performance Testing Software license | Comes with All CyberFlood options covering CyberSecurity Assessment for malware and attacks, DDoS testing and all performance testing software options  
| CyberFlood TestCloud subscription | Allows options for always up-to-date download-able content for application scenarios, attacks/exploits and malware  
| Avalanche Support | CyberFlood Virtual instances support Avalanche for deep session web testing  

### CyberFlood Features

| Advanced Fuzzing | CyberFlood provides powerful options for fuzz testing over more than 80 protocols  
| Web Based Interface | Easy to use multi-user web-based interface makes setting up and executing comprehensive tests fast, easy and consistent  
| Application Scenarios | Over 10,000 current and popular application and user scenarios  
| Attack and Exploits | Over 3,000 attacks and exploits covering areas such as SQL injection, cross site scripting, targeted OS, in-line device, endpoint services and more  
| Malware | Over 30,000 recent and zero-day malware samples including command and control behavior and binary, malware transfer scenarios  
| DDoS | Test security mitigation policies by using different DDoS attacks to confirm its ability to detect and block them successfully with a suite of volumetric and protocol DDoS attacks that can be configured for stand-alone attack tests or mixed with normal user traffic to verify impact on performance  
| HTTPS/TLS Testing | Support for SSLv3, TLS v1.0, TLS v1.2, and TLS v1.3 with selectable certificate and cipher suites  
| CyberSecurity Assessment | Quickly create tests that verify the effectiveness of IDS, IPS NGFW and other security solutions with and without user load of traffic  
| HTTP/HTTPS Connections Tests | Open thousands to millions of new connections per second to ensure your DUT can handle the new connection rate of your network  
| HTTP/HTTPS Bandwidth Tests | Find the maximum throughput achievable using emulated, realistic HTTP clients and HTTP servers and leveraging a configurable network topology  
| HTTP/HTTPS Open Connection Tests | Open millions of concurrent TCP connections within the state table of your DUT to find the maximum concurrency it can support. Leverage HTTP as the protocol for added realism during this test  
| Mixed Traffic Tests | Measure the impact on application performance when using real-world built-in applications or extended with the power of TestCloud. Individually measure the bandwidth and success rate of each application added to the test to confirm the impact of the network under test  
| Traffic Replay | Replay your own traffic profiles at scale to determine the impact of customer traffic flows on network devices and services  
| DNS Tests | Overload your DUT by sending hundreds of thousands of DNS queries per second for it to process and traverse through it as well as for it to process the corresponding events that occur on the DNS responses  

Logical Topology

Requirements

The web browser minimum requirements to access CyberFlood controller are:

- Google Chrome (v34.0.1847.131)
- Firefox web browser (version 29.0)
- And minimum screen resolution is 1280 x 800

Spirent Services

Professional Services

- Test lab optimization: Test automation engineering services
- Service deployment and service-level optimization: Vendor acceptance testing, SLA benchmarking, infrastructure and security validation
- Device scalability optimization: POC high scalability validation testing

Education Services

- Web-based training: 24x7 hardware and software training
- Instructor-led training: Hands-on methodology and product training
- Certifications: SCPA and SCPE certifications

Implementation Services

- Optimized new customer productivity with up to three days of on-site assistance

Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>CyberFlood Virtual Performance License 1 Year</td>
<td>CFV-PERF-1Y</td>
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<tr>
<td>Includes: DNS Test Methodology, Throughput With Mixed Apps (Default Protocols), HTTP Open Conns Testing Methodology, Max HTTP Throughput Testing, Traffic Replay, No Content</td>
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<td>CyberFlood Virtual Security Performance License 1 Year</td>
<td>CFV-SECPERF-1Y</td>
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<td>CyberFlood Virtual Instance 2 Core Pairs 1 Year - Qty 16</td>
<td>CFV-VCORES-02-X16-1Y</td>
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Other CyberFlood Virtual options and multi year options are available, please contact Spirent sales for more information.

Contact Us

For more information, call your Spirent sales representative or visit us on the web at www.spirent.com/ContactSpirent.

www.spirent.com

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