VIAVI Solutions

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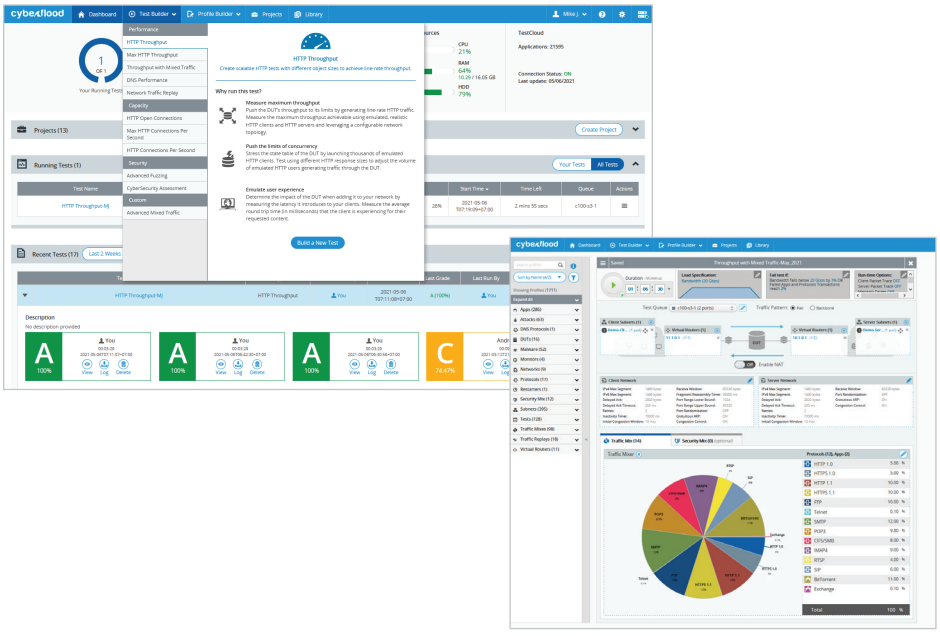
DATASHEET

Spirent CyberFlood Container

Application Performance Testing Solution

Cloud-native networking is a promising transformation poised to deliver highly scalable, resilient, agile, and secure network connectivity. The convergence of network and application infrastructures into a single extensible and flexible platform requires improved levels of understanding of network effectiveness and performance.

Spirent CyberFlood Container is a flexible solution that offers proactive and realistic testing of cloud-native networks and services. CyberFlood delivers scalable, realistic application workload emulation across on-premises, VM, public cloud and container environments to tune performance and user experience of content-aware cloud-native networking solutions.



Spirent's revolutionary CyberFlood application testing solution is now available as a containerized test agent, consolidating multiple test functions into a completely cloud-native test environment.

CyberFlood Container offers validation Quality of Experience (QoE) through quick and simple-to-use performance tests for content aware networks.

Applications

- Test Cloud-native networks directly from within a containerized environment with multiple unbounded traffic generation test agents
- Benchmark the performance & elastic scalability of NGFW, WAF, IPS/IDS, LB CNFs with real application workloads
- Right-size the cloud infrastructure, cloud-instance and optimize with the right NIC drivers, Linux distributions and CNIs
- Validate the performance and scale of cloud-native services, such as ingress controllers, by emulating external to cluster traffic emulation (north-south)
- Validate complex distributed, hybrid, containerized deployments of CNFs
- Complete API support to seamlessly integrate into any CI/CD "pipeline" to provide automated, repeatable testing at any deployment phase of new services

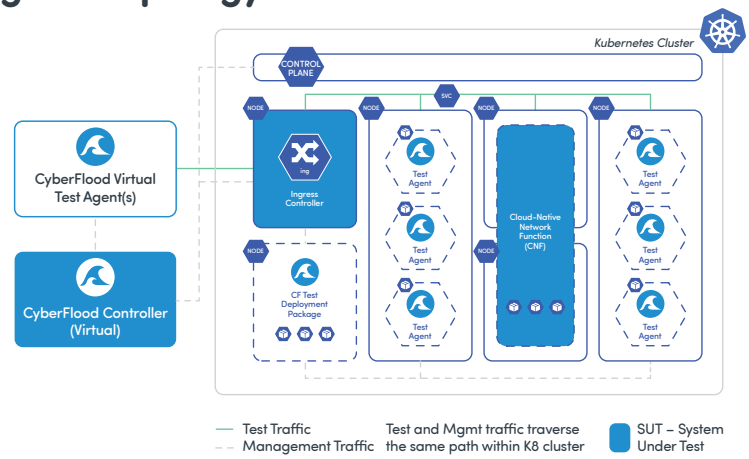
Features & Benefits

- **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 performance testing easy.
- **Economical—**CyberFlood Container comes in a number of simple annual subscription licensing options to meet your use case and performance needs. From basic performance testing to a full suite of application testing with updated content, you can choose the right solutions for your needs.
- **Cloud-Native Assessment—**CyberFlood Container can be installed on specific cloud-native infrastructures, such as open-source Kubernetes OpenShift, AWS EKS and VMWare Tanzu to validate and benchmark performance infrastructure services as ingress controller and service mesh, in addition to third-party cloud-native content-aware network functions.
- **Flexible—**Combine with CyberFlood Virtual and Containers to validate distributed, hybrid deployments. Horizontally scale the performance by increasing the number of test agents.
- **Applications—**With CyberFlood, users can quickly and easily test with the latest and most popular applications (updated continuously), all with unparalleled realism and scalability. Users can push their solutions to the limit while ensuring their content aware networks will stand up to real-world demands.
- **Advanced HTTPS Testing—**CyberFlood provides extensive coverage to test and stress HTTPS traffic at scale. Easily configurable cipher types, cert sizes and a variety of other parameters allow users to create highly realistic HTTPS and mixed traffic tests quickly and easily.
- **Test the Future of Encryption—**CyberFlood is the first to bring quantum-safe cryptography to performance testing. With support for NIST's FIPS 203/204/205 PQC cipher suites and hybrid KEMs such as X25519Kyber768, CyberFlood validates readiness, identifies compatibility risks, and helps you plan for next-gen security upgrades—without compromising performance or QoE.
- **Expansive Use Cases—**Test capacity, performance, and scale of next generation cloud-native environments, such as edge-cloud and SASE. Validate a wide cross section of performance and user experience factors.
- **AI/LLM Policy and Security Validation—** CyberFlood tests 36 GenAI apps with editable prompts to detect LLM threats such as prompt injection and measures policy impact on performance and QoE.

Technical Specifications	
Virtual Environments	
Cloud-Native Platforms	Open-source Kubernetes OpenShift AWS EKS VMware TKG
Virtual Cores	License the number of CPU cores to size CyberFlood to meet your specific scale and performance needs. Minimum requirements: • 1 x vCPUs per container test agent • 2G RAM per container test agent
Virtual Controller	VMware ESXi 6.5, 6.7, 7.0 KVM on Linux (64-bit only, bare metal) • 2 x vCPUs, 320G HDD, and 16GB of RAM • CyberFlood Controller is available for AWS, Azure, and Google Cloud (GCP)
Licensing	
CyberFlood Performance Testing license	Comes with HTTP/HTTPS bandwidth, connectivity and rate testing, advanced mixed traffic testing, custom traffic replay and DNS
CyberFlood TestCloud subscription	Allows options for always up-to-date download-able content for application scenarios
CyberFlood Features	
Web Based Interface	Easy to use multi-user web-based interface makes setting up and executing comprehensive tests fast, easy and consistent
Application Scenarios*	Hundreds of thousands of current and popular application and user scenarios
HTTPS/TLS Testing	Support for TLS v1.2 and TLS v1.3 with selectable certificate and cipher suites
Advanced Mixed Traffic Assessment*	Create custom and highly configurable tests and assessments with user action lists that execute a set of user application interactions for HTTP, HTTP/2, HTTP/3, HTTPS, SMTP, POP3, IMAP4, FTP, DNS over TLS and HTTPS, and other protocols
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, as well as process the corresponding events that occur on the DNS responses

* Supported in subsequent release

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

Description	Part Number
CyberFlood Virtual & Container Performance License 1 Year Includes: DNS Test Methodology, Throughput with Mixed Apps (Default Protocols), HTTP/HTTPS Bandwidth, HTTP Open Conns Testing Methodology, Traffic Replay and Advanced Mix Traffic	CF-PERF-BNDL-SUB
CyberFlood Container 4 Cores 1YR SUB	CFC-VCORES-04-SUB
CyberFlood Container 8 Cores 1YR SUB	CFC-VCORES-08-SUB
CyberFlood Container 16 Cores 1YR SUB	CFC-VCORES-16-SUB
CyberFlood Container 32 Cores 1YR SUB	CFC-VCORES-32-SUB
CyberFlood Virtual & Container Bundle 4 Cores 1YR SUB	CF-VCORES-BNDL-04-SUB
CyberFlood Virtual & Container Bundle 8 Cores 1YR SUB	CF-VCORES-BNDL-08-SUB
CyberFlood Virtual & Container Bundle 16 Cores 1YR SUB	CF-VCORES-BNDL-16-SUB
CyberFlood Virtual & Container Bundle 32 Cores 1YR SUB	CF-VCORES-BNDL-32-SUB

CyberFlood Container is also available in perpetual licensing options and multi-year options.
Security Testing options and other bundles are also available. Please contact Spirent Sales for more information.

ALSO AVAILABLE

Optional Advanced Security Testing Capabilities

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