CyberFlood Advanced Mixed Traffic

Introduction

The new CyberFlood Advanced Mixed Traffic brings new levels of advanced L4-7 testing capabilities to VIAVI's flagship security and performance assessment solution, now including advanced **AI inference testing** capabilities. These web-based advanced functions allow users to make custom and highly configurable tests and assessments quickly and easily.

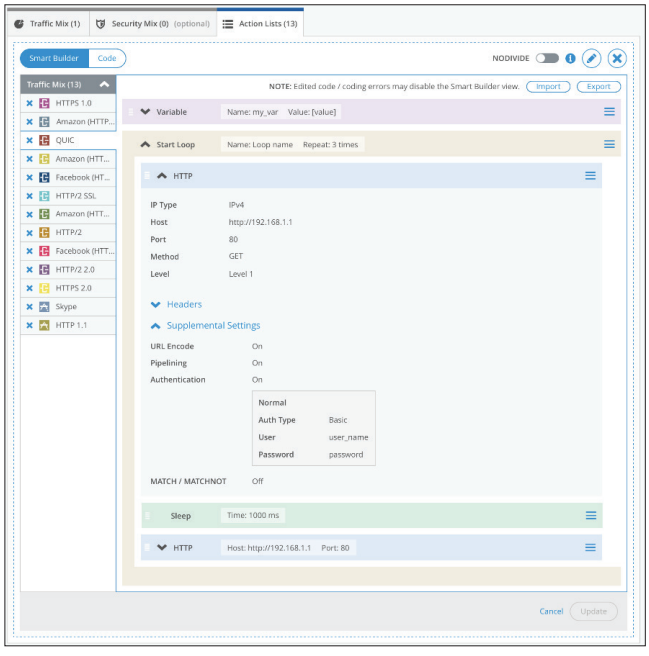
Advanced Mixed Traffic provides user action lists that allow tests and assessments to be created that execute a set of user application interactions for **HTTP, HTTP/2, HTTP/3, HTTPS, SMTP, POP3, IMAP4, FTP, DNS over TLS/HTTPS, SMB, NFS and Voice and Streaming Video protocols.** Additionally, users can mix action list-oriented traffic with the database of CyberFlood TestCloud scenarios, creating comprehensive real-world load traffic conditions.

The configurability of action lists allows for assessments to be two-armed where CyberFlood acts as both client and server, or one-arm testing where CyberFlood acts as emulated clients to assess actual services – such as web applications, email services and more.

Advanced Mixed Traffic can perform Web application testing including Web services, ERP and CRM applications with extended application testing capabilities to support cookie, session ID, dynamic link, automatic follow redirect, additional header, think time, variable think time and variable assignment The action list capability in CyberFlood Advanced Mixed Traffic provides a modern interface making it easier for the creation, editing and modification of comprehensive test plans.

Advanced Mixed Traffic allows for variable parametrization allowing for different application operands for URL strings, authentication and many other protocol settings allowing for dynamic application assessments.

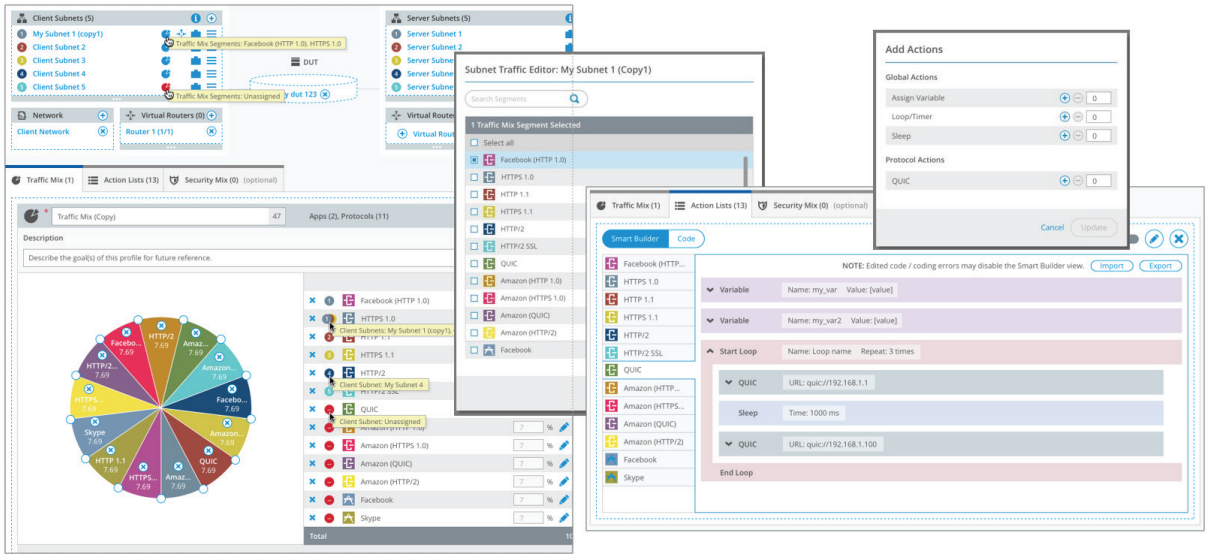
Users have control over network subnetting emulation and can map specific protocols to subnets allowing the segmentation of network load traffic. IP addresses can be entered or DHCP can be used to populate IP addresses from available DHCP services to create tests that align directly with the user's environment. Virtual routers can also be employed to add emulated router hops on the client and or the server side creating exacting emulated network topologies. In addition users can simulate Internet data traffic using static IPv4/IPv6 addresses, VLAN, stacked VLANs (Q-in-Q), PPPoE/PPP and VxLAN.



CyberFlood Advanced Mixed Traffic
Test Action List Example

Advanced Mixed Traffic provides other use cases including media testing and service verification from the user's point of view with realistic voice calling (SIP over TCP and SIP over UDP), and Video Streaming Video. Video streaming includes Flash Streaming using RTMP/RTMPT, Unicast Streaming Quicktime RTSP/RTP, Unicast Streaming Real Network RTSP/RTP, Unicast Streaming Microsoft MMS, Multicast Streaming IGMPv2, IGMPv3, MLDv2 and HTTP Adaptive Bitrate streaming for Apple, DASH, Microsoft, and Adobe.

Enabling users by assigning subnets to pie slices and configuring the actions list



CyberFlood Advanced Mixed Traffic Test Topology Configuration

AI Inference Testing

The optional AI Inference Testing option for CyberFlood AFT delivers scalable, high-fidelity client emulation to generate realistic AI inference workloads. It simulates real user interactions with LLMs, LLM APIs, and backend inference services using advanced stateful session modeling. Each client profile offers extensive configurability, including:

- Customizable LLMs and API endpoints
- Authentication options
- Dynamic prompt generation
- Configurable conversation depth and multi-turn interactions

This enables precise, repeatable testing of AI inference performance under real-world conditions.

CyberFlood's dynamic load generation and advanced load profile definition enable test engineers to model massive concurrencies and bursty inference traffic, emulating realistic production-scale user and application behavior. Combined with the flexibility to define extensive lists of prompts of varying length, conversational turns, and keywords, this ensures the testing reveals memory pressure thresholds, GPU saturation, and inference throughput degradation points, as well as basic response accuracy via keyword match.

IPSec and SSL VPN Support

Advanced Mixed Traffic provides users the ability to realistically test their **IPSec and SSL VPN*** gateways and cloud—based VPN deployments. IPSec in Advanced Mixed Traffic provides complete performance assessment of gateways for both site to site and remote access tunnels to quickly understand and correct deficiencies before deployment. The use of real application protocols over encrypted tunnels is the best way to truly understand the gateway's overall capacities and effect on user experience.

CyberFlood Advanced Mixed Traffic also allows you to create comprehensive test plans with varied traffic and user actions including:

- Hundreds of thousands of TestCloud Apps supporting action list-oriented traffic with SmartApps.
- PPPoE/PPP configuration to validate user authentication and network access at scale
- Optional licensed Security Testing capabilities to validate security devices and polices with built-in security mixes. Add emulated applications, attacks, and malware from a database of hundreds of thousands of scenarios to Advanced Mixed Traffic test cases
- Comprehensive topologies assessment Subnet Per Protocol (server)
- Full development action list editor to create precise user activities at scale
- Realism configuration for in-line impairment, adding real-world conditions for lab test cases
- DHCP support for hyper-realistic test case creation

VIAVI Services

Education Services

- **Web-based training:** 24x7 hardware and software training
- **Instructor-led training:** Hands-on methodology and product training

Ordering Information

Part Number	Description
CF-SW-ADV-C100-C200	Advanced Mixed Traffic for C100/C200 Appliance
CFV-SW-ADV	Advanced Mixed Traffic for CyberFlood Virtual

- Advanced Mixed Traffic comes as a standard option on the CF30 and CF400 appliances.
- AI Inference testing is a licensable option and is currently only for CyberFlood Virtual as a preview feature, other platforms will be supported in future releases.
- Other options are available please contact VIAVI sales for more information.

* SSL VPN is currently supported for Cisco and Palo Alto Networks devices

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