

# VULCAN

Probably the world's best Stateful  
Ethernet Traffic Generation and  
Analysis platform

## OVERVIEW

Vulcan makes it easy to generate stateful traffic over Ethernet and then analyze how firewalls, wireline & wireless networks, NICs, packet brokers, NAT routers, bandwidth-shapers and so on perform in a wide range of real-world scenarios.

**Performance Testing:** Layer 1 throughput and application goodput measurements reveals bottlenecks causing retransmissions and loss that can help optimizing network devices and infrastructures. The responsiveness of a network device is characterized as sessions per sec., as well as application transactions per sec. Capacity is characterized by how many simultaneous sessions/traffic flows it can handle.

**QoS and Service Validation:** Vulcan makes it easy to test the capacity and performance of WANs (& SD-WANs) of service providers and large enterprise networks – where the focus is more on system-wide performance.

**Functional Testing:** Use VulcanManager to define test cases targeting specific functionality. With the built-in high-performance TCP, UDP and application library VulcanAppMix, simple to very complex traffic scenarios spanning over multiple test ports can be configured.

**Security Testing:** With Vulcans TLS features and application replay, performance and behavior of security devices can be verified. In focus for such test are both the ability to detect security breach, but also to verify that the implemented security means works as expected under high load.

## HARDWARE



The high-performance VulcanBay is a 19" rack-mountable chassis comes in three port configurations: 12x10GE ports, 12x25GE ports or a combination of 8x25GE + 2x40GE ports. VulcanBay supports testing up to 40GE with 28 million Concurrent Connections (CC) or 6 million Connections Per Second (CPS) and 7 million Transactions Per Second (TPS).



The smaller VulcanCompact can test up to 25GE with 14 million TCP Concurrent Connections (CC), 5 million TCP Connections Per Second (CPS) and 2.8 million Transactions Per Second (TPS) and 550,000 Concurrent TLS Sessions.

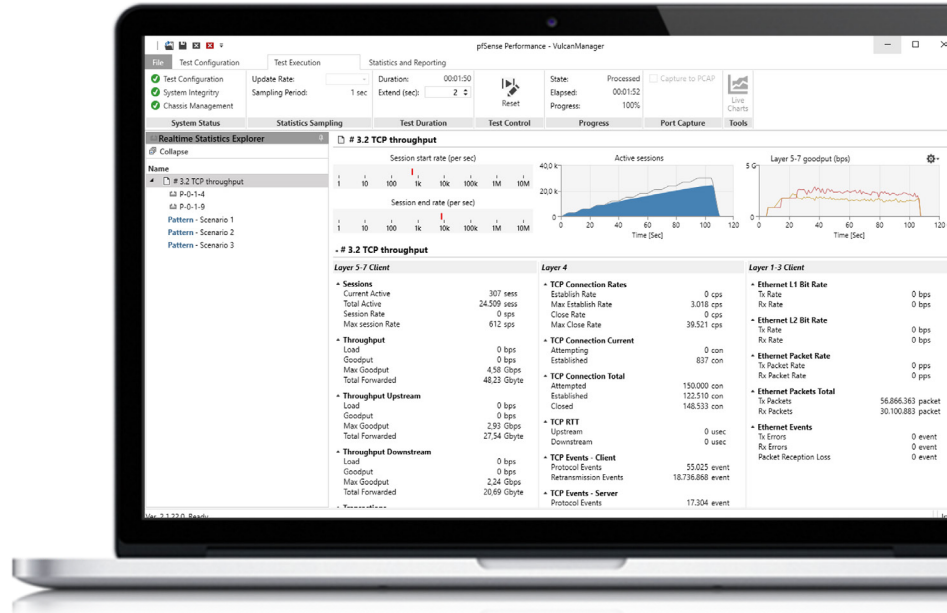
## KEY FEATURES

- Responsive and easy to use management software
- Highly scalable UDP/TCP layer 4 traffic generation
- High performance TLS testing suite
- Use your own application traffic or AppMix to create and scale realistic application traffic
- 1U and 2U rack mounting hardware with a wide range of port speeds offers low entry and yet a scalable solution
- Ease of use
- Free software (incl. VulcanManager and VulcanAppMix)
- Free tech support product lifetime

## SOFTWARE

VulcanManager is user-friendly Windows-based client used to configure, generate and analyze stateful traffic over Ethernet at speeds up to 40GE. You can easily use it to customize payload and connection profiles, and do PCAP application emulation.

VulcanManager supports TLS 1.2 performance testing (e.g. handshakes per second, TLS throughput, concurrent TLS connections etc.) with different cipher suites and certificate key sizes on a DUT that decrypts traffic on one side and encrypts on the other.



VulcanAppMix (VAM) is a library of application traffic and protocols in pcap format. VAM makes it easy to set up large-scale realistic traffic from various applications, using pre-defined and customizable mix templates. Up to 200 pre-defined application scenarios can be played simultaneously, each covering a one-client-to-multiple-servers communications scenario that can be scaled up to millions of connections with real-world traffic.

## SYSTEM DIAGRAM

