VULCAN 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.
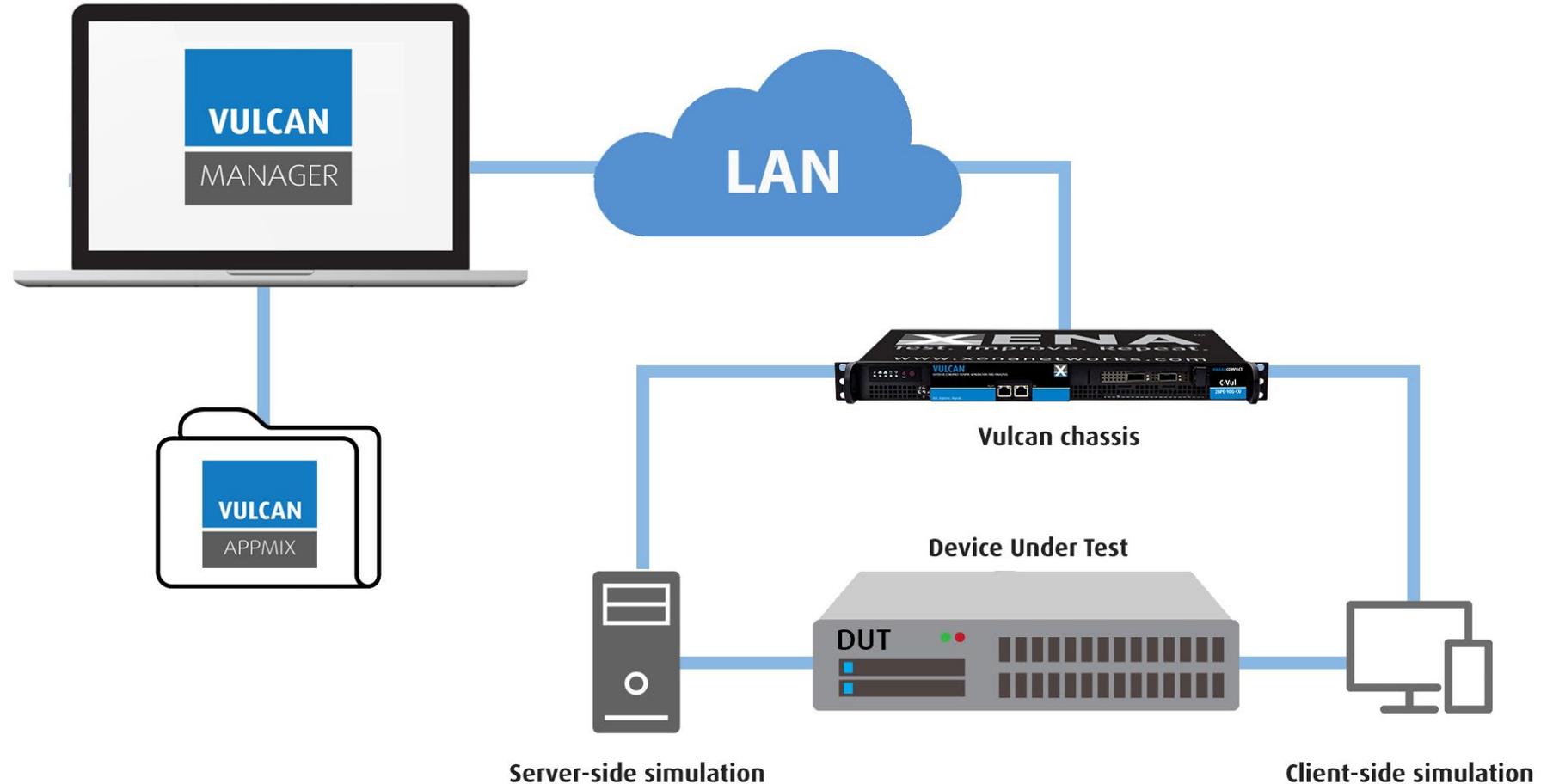
HARDWARE

Vulcan is available in two chassis.

The high-performance 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 which 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.

VulcanBay

VulcanCompact

SOFTWARE

VulcanManager is a free Windows-based application used for configuring, generating and analyzing stateful Ethernet traffic up to 40Gbps. 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.

Also included is VulcanAppMix, a library of application traffic and protocols in pcap format that makes it easy to set up large-scale realistic traffic from various applications, using pre-defined and customizable mix templates.

TYPES OF TESTS

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.

- Gateway subnet to subnet routing
- Network Address Translation
- Traffic filtering and shaping
- Deep Packet Inspection
- Intrusion Detection and Prevention Systems
- Application traffic replay

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.

- Large scale generation and analysis of TCP and UDP flows
- High performance CPS and CC stress testing
- Analysis of TCP throughput, and Round-Trip Time latency
- High performance SSL 3.0 and TLS 1.0, 1.1, 1.2 stress testing
- Support for different TLS cipher suites and certificate key sizes.
- Scalable application traffic replay

TYPES OF TESTS

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.

•Gateway subnet to subnet routing

•Network Address Translation

•Traffic filtering and shaping

•Lossless traffic capture for in-depth PCAP analysis of the network behavior of the DUT/SUT.

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.

•Intrusion Detection and Prevention System

•Deep Packet Inspection

•TLS/SSL

XENA™
Test. Improve. Repeat.
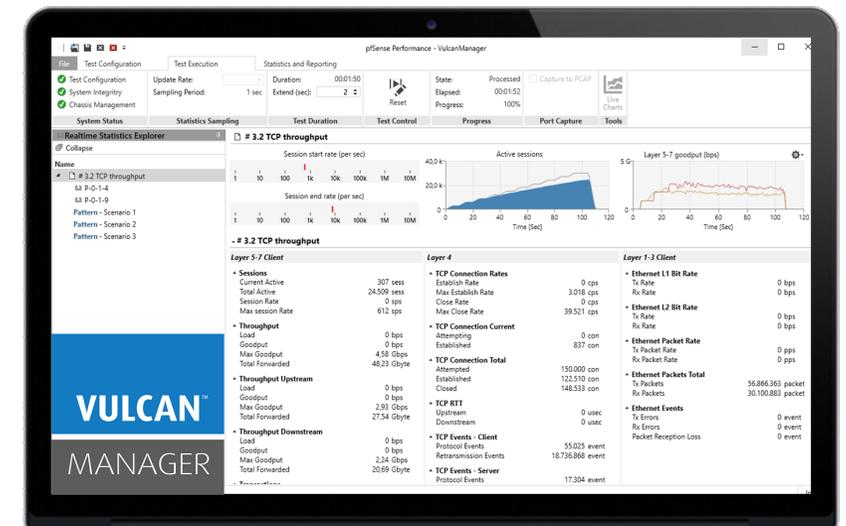
DOCUMENTATION

All the documentation about Vulcan products:

General	Factsheet	Webpage	
VulcanManager	Datasheet	Webpage	User Manual
VulcanAppMix	Datasheet	Webpage	
VulcanBay	Datasheet	Webpage	Quick Start Guide
VulcanCompact	Datasheet	Webpage	Quick Start Guide
	Knowledge Base	Application Notes	White Papers
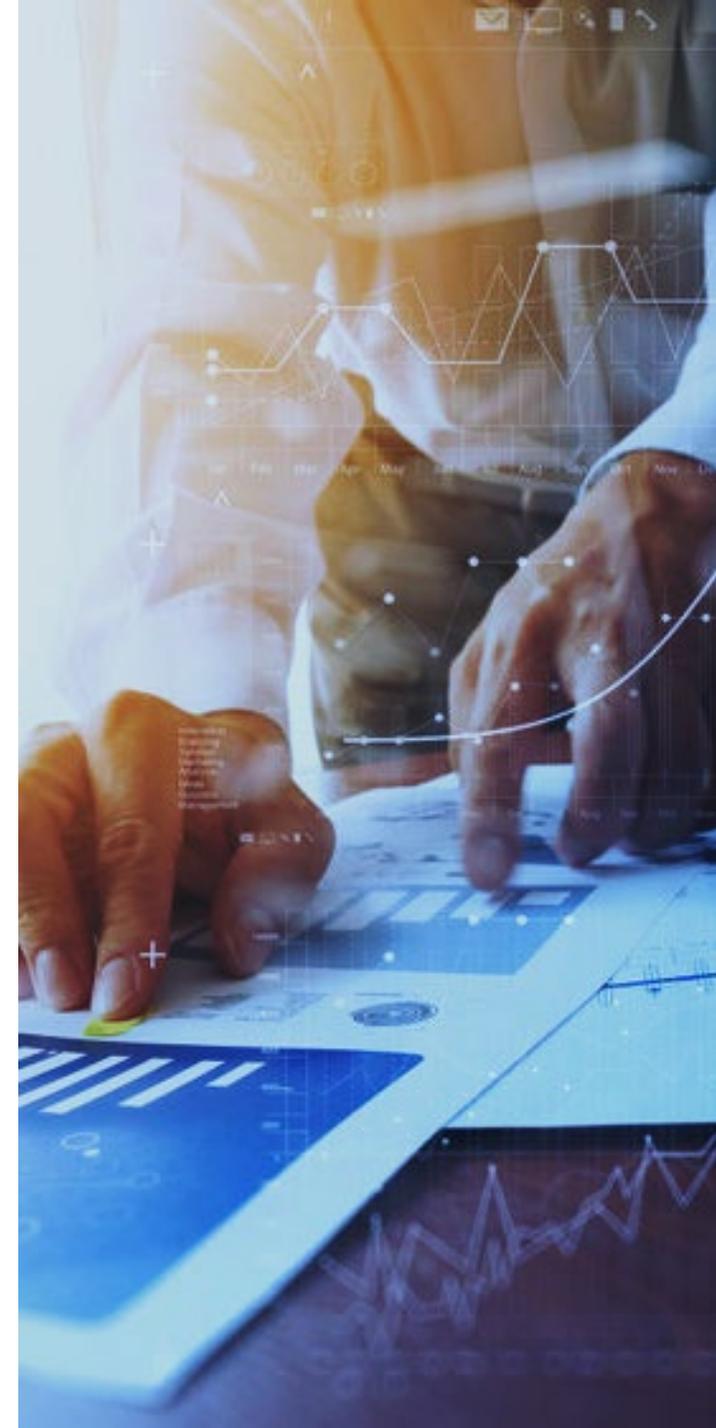
XENA VALUE PACK

3 years' SW updates included
When you buy any of our Valkyrie, Chimera, Vulcan or Vantage solutions, all the software licenses are included – plus you can download all the updates released during the next 3 years.

3 years' HW warranty included
We cover the cost of fixing hardware problems for 3 years after purchase

Technical support also included
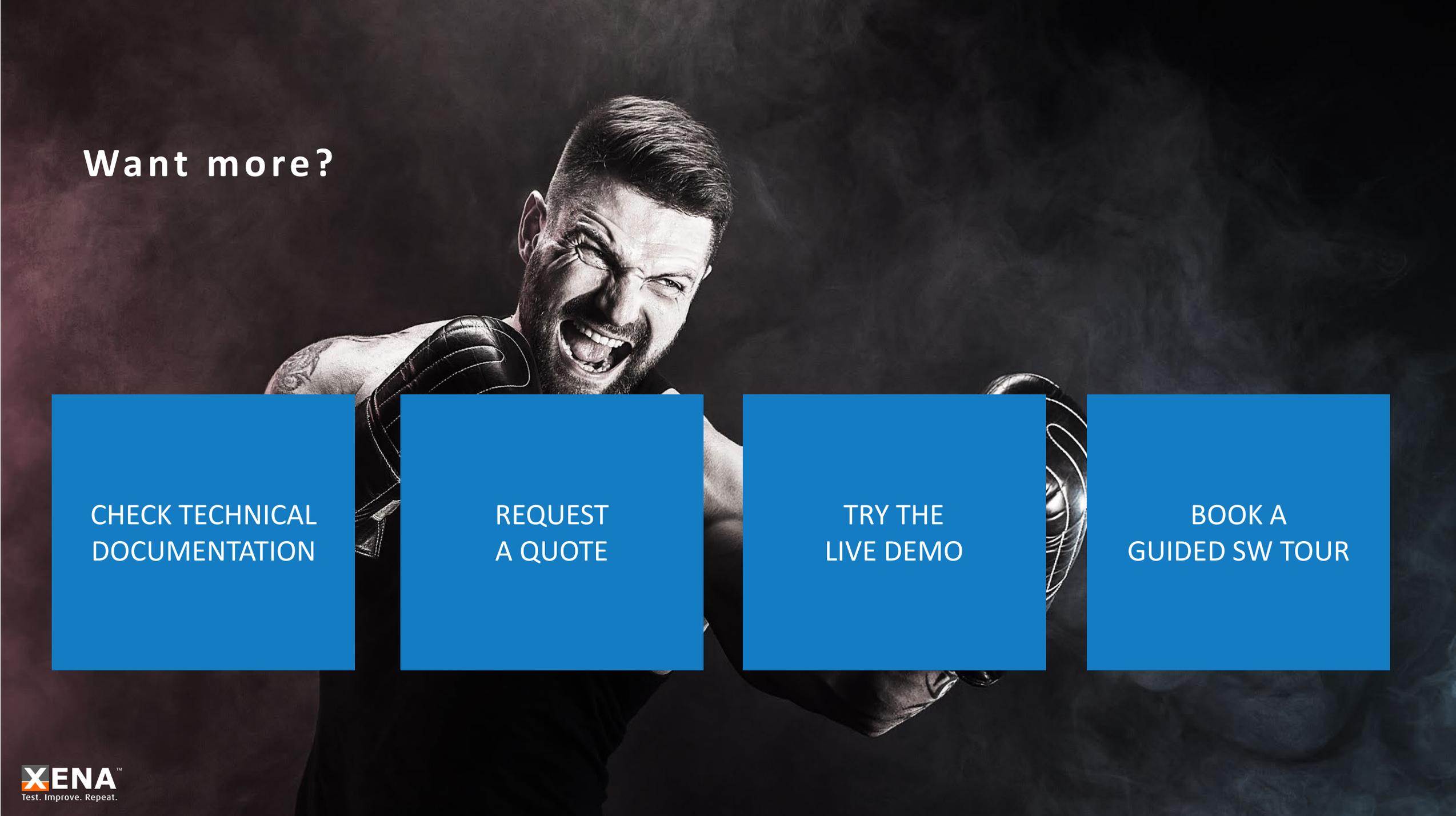Xena offers free online/email support for the lifetime of the product.

Free product training
We strive to make user-friendly solutions and provide comprehensive technical documentation. But if you'd also like some one-on-one technical training, we're happy to oblige.

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