VulcanAppMix

Layer 4-7 Application Library

Xena VulcanAppMix is 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.

From Simulated Packets to Realistic Applications

The boom in mobile and desktop applications is pouring huge amounts of traffic onto the network. This is driving an unprecedented need for network bandwidth, performance, and intelligence. The traditional approach where traffic is simply handled based on connections is not sufficient. Enterprise and service provider networks now require application-layer awareness to identify and prioritize traffic to deliver quality of experience (QoE).

Next-generation firewalls (NGFW) and other network security devices with application-awareness utilize deep packet inspection (DPI) technologies to identify different applications, discover content type within the application (e.g. graphics, text, and virus), and identify end users or even devices.

Thus, simple simulated traffic is no longer enough to verify the performance and functionality of these intelligent network devices. Enterprise, equipment manufacturers, and service providers now require more complex and application-oriented test solutions.

VulcanAppMix Library

VulcanAppMix delivers highly scalable application emulation based on a pre-defined library of application traffic and protocols. Enabled by Xena's L4-7 VulcanManager, 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.

This enables it to validate the performance of both single devices to complex arrays of equipment – firewalls, traffic shapers, routers, deep-packet inspection equipment, capture devices and more – from different manufacturers.
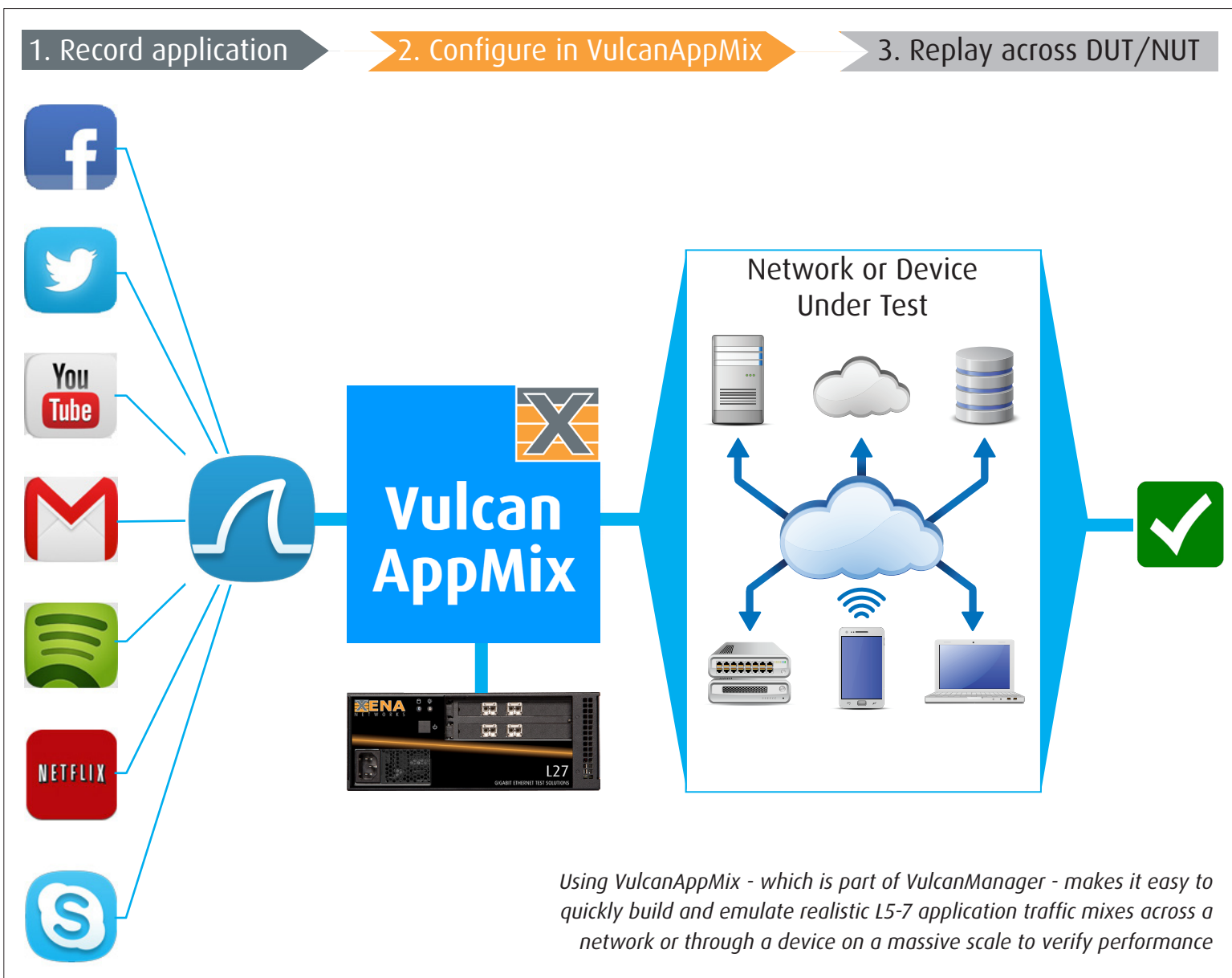
VulcanAppMix makes it easy to emulate realistic network traffic covering video, voice and data on a very large scale. The traffic can be shaped to match any mix of well-known protocols, web applications or user network traffic to realistically simulate very specific test scenarios. VulcanAppMix organizes the library into protocols and applications. The former offers traffic of a single protocol, the latter a mix of several protocols. Examples of protocols include HTTP/S, FTP, SMTP, IMAP, MQTT, BitTorrent, SMB, FIX, etc., while application examples range from Facebook, Twitter, Skype, Netflix, Gmail, Google+ and other popular applications.

VulcanAppMix provides a variety of traffic mix profiles containing various common application traffic for different network environments. Adding or removing applications into the profiles allow users to create numerous customized test environments for specific requirements.

Top Features

- Uses VulcanManager to provide an up-to-date extensive pre-defined application traffic library for application emulation
- Well researched, pre-defined application traffic mixes for quick and easy emulation of enterprise network traffic characteristics
- Protocol-oriented and application-oriented libraries
- Scalable high-performance application emulation up to millions of concurrent connections, connections per second, transactions per second, users and throughput

1. Record application → 2. Configure in VulcanAppMix → 3. Replay across DUT/NUT

Network or Device Under Test

Vulcan AppMix

Using VulcanAppMix - which is part of VulcanManager - makes it easy to quickly build and emulate realistic L5-7 application traffic mixes across a network or through a device on a massive scale to verify performance

VulcanAppMix provides a variety of traffic mix profiles containing various common application traffic for different network environments:

- Enterprise Mix
- Web Mix
- Finance Mix
- Data Center Mix

Adding or removing applications in the profiles lets users create numerous customized test environments for specific requirements. And via VulcanManager, users can scale the application mixes up to millions. As a result, VulcanAppMix is ideal for:

1. Verifying the performance and capacity of content-aware networks with realistic application traffic mixes
2. Validating the performance impact of different traffic management policies.
3. Validating the accuracy of identification engines in application-aware devices.

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