



**APPOSITE**  
TECHNOLOGIES



## Netropy® Virtual Edition

### Emulate Realistic Network Conditions in Virtual Environments to Guarantee Application Quality

NetropyVE lets you test any virtual application as if it's running over a wide area network. Recreate real-world network conditions, such as bandwidth limits, excessive latency/jitter, loss, and other impairments, to optimize the performance of applications and virtualized network functions (VNF).

NetropyVE runs as a Virtual Machine (VM) and can be used to impair specific traffic flows—all within the virtual environment.

By intelligently mimicking network conditions you can ensure the solutions you are designing and deploying work as expected when rolled out to your users.

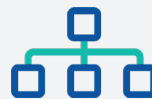
### Rigorously Evaluate Applications in Different Stages and Environments



**Application Design**



**DevOps**



**Network Design**



**Application Performance**



**Cellular Networks**



**SD-WAN**



**Storage Networks**



**Satellite Communications**

## FEATURES

**Scalability:** Route multiple VMs through a single NetropyVE instance

**Packet filtering:** Assign packets to different links by IP address, VLAN, or any other packet identifier.

**Bandwidth:** Precisely emulate links up to 1 Gbps.

**Latency:** Emulate delay and jitter of 10 seconds or more in each direction, in increments of 0.01 ms.

**Loss and corruption:** Set random, burst, or periodic packet loss to test the effects of corruption on voice and video applications.

**Capture and replay:** Record the delay and loss

characteristics of a production network as they vary second-by-second and replay them through the Netropy emulator.

**Background noise:** Test how applications perform over a congested network with the background utilization and PCAP replay features.

**Traffic monitoring:** View and download up to 24 hours of throughput graphs and link statistics.

**Automation:** Automate testing with comprehensive API.

**Cost-effective:** Get the functionality and performance you need at a price you can afford.

Capacity	
Test Ports	2 1-Gig ethernet (virtual network adapters)
Max. Agg. Throughput	2 Gbps
Emulation engines	1 @ 1 Gigabit
Maximum Packet Rate	Processor Dependent
Maximum Frame Size	9KB
Emulation Capabilities	
Packet Classification	IP source & destination address range (IPv4 or IPv6), VLAN, TCP or UDP port number, IP ToS, MAC address, MPLS label, or any other packet contents
Bandwidth	100 bps – 100 Gbps in 1 bps increments (depending on model)
Delay	0 ms – 10,000 ms or greater in each direction in 0.01 ms increments; constant, uniform, normal distributions; replay recorded loss, accumulate & burst
Loss & Corruption	random, burst, periodic, BER, Gilbert-Elliott, or recorded loss; data corruption; network outage
Background Utilization	0 – 100% in increments of 0.1%; PCAP replay
Queueing & Prioritization	RED or tail drop queue management; priority or round robin queuing
Additional Parameters	Packet Reordering, Packet Duplication, MTU and Fragmentation, Queue Depth, Framing Overhead
Additional Details	
Requirements	EXSI 5.5 and above, 2 VCPUs, and 8 Gigabytes of ram and 1G of hard drive space.
Security	SSL and SSH for secure management; per-user locking of engine configuration
Support and maintenance	Support is included with product license and software maintenance
Ordering Information	
Part Number	NVE
Product license - 1 year	NVE-1YR
Product license - 3 years	NVE-3YR

## THE CHALLENGES

Networks are imperfect—how will your application perform in the real world? Get the most realistic, geographically distributed understanding of your app's quality.

Customers access applications over many different network types, each with different performance characteristics. Safeguard application performance on any network.

Optimize network designs for improved ROI by finding out how work-loads will behave at different locations. Which applications or storage systems need to be deployed at the network edge?

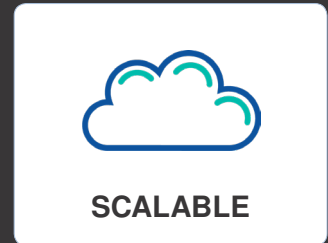
## Virtualized Network Emulation



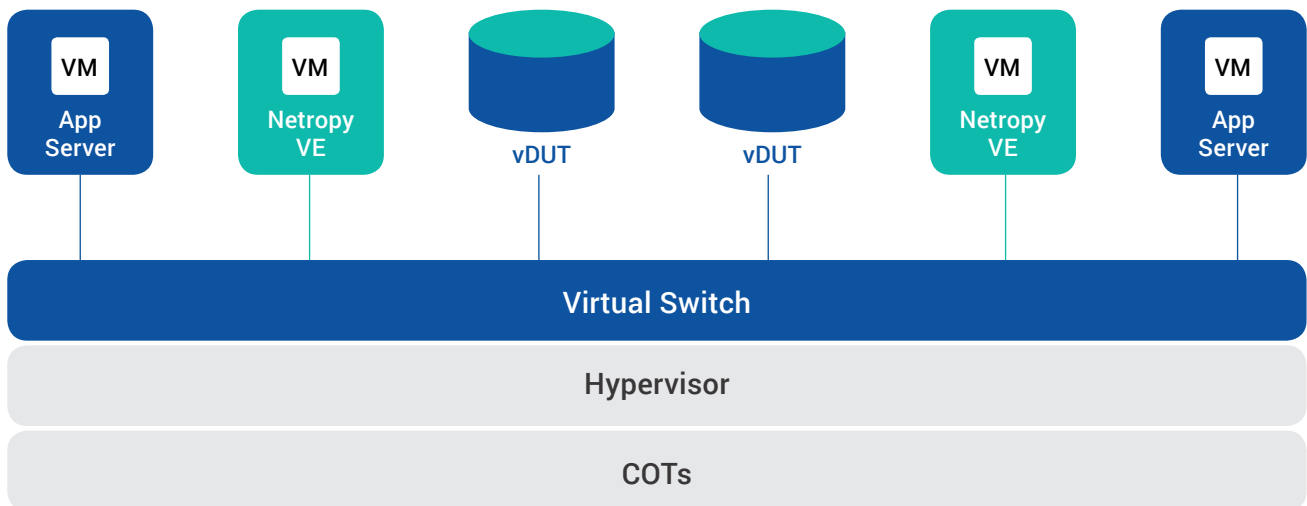
Each virtual machine can be assigned a unique WAN access profile, and then controlled to insert latency, jitter, packet loss, and congestion to assess application performance under changing



Change impairments and view results in real time. Configure settings using a browser or automate with CLI. Even profile live networks and import those conditions into network emulation.



Supported on VMware ESXi and KVM platforms. A floating license system allows NetropyVE to be easily moved to different hosts. Route multiple VMs through a single NetropyVE instance.



## Network Emulation Made Easy

Many software development teams run their tests in a cloud or private datacenter where they do not have the ability to install an appliance. With NetropyVE, it is now possible to install WAN emulation between virtual resources. For high bandwidth applications, Netropy appliances are available supporting all speeds up to 100 Gbps.



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