APPOSITE TECHNOLOGIES

Netropy® Cloud Edition

WAN Emulation Built for the Cloud

Netropy Cloud Edition, NetropyCE, runs as an Amazon Machine Image (AMI) on AWS to performance test any application in the cloud. Easily replicate global networks in a single AWS region and introduce real-world network conditions like bandwidth limitations, latency, and packet loss using NetropyCE's intuitive GUI or restful API. Measure the impact these network characteristics have on performance to benchmark and optimize mission-critical applications.

Reduce costs by building your test environment in the cloud. Intelligently mimic realistic network conditions so you can be confident the solutions you are designing and deploying work as expected when rolled out to your users.

Emulate Real-world Networks in the Cloud for Accurate, Affordable Performance Testing of Distributed Applications.

SCALABLE

NetropyCE can emulate a global network in a single virtual private cloud (VPC). Save money by running tests contained in one VPC instead of paying to send traffic between geographically dispersed AWS regions.

FLEXIBLE

Change impairments and view results in real time. Configure settings using a browser or automate with RESTful API. Profile live networks and import those conditions into the cloud network.

POWERFUL

Simulate complex network topologies to get the most realistic understanding of your app's performance. Quickly benchmark, troubleshoot, and optimize your mission-critical applications under the most challenging conditions.

Scalability: Deploy a global test network with multiple instances in a single virtual private cloud (VPC).

Multiple Links: Simulate up to 20 separate WAN links in each instance.

Bandwidth: Precisely emulate links up to 1 Gbps and 20 Gbps in the future.

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

Automation: Automate testing with comprehensive, RESTful API.

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

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.

Cost-effective: Only pay when you are using it. AWS and Apposite charge hourly rates to use NetropyCE.
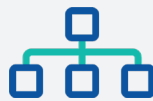
USE CASES

5G Cellular	Storage Networks	Network Design	Application Performance	Cloud Migrations

Network design

Replicate an entire global network in a single AWS region, or virtual private cloud (VPC). Then. easily simulate real-world network conditions like bandwidth constraints, latency, and packet loss all in the cloud.

Application Performance

See how applications perform under a variety of network conditions prior to roll-out and avoid unpleasant surprises and panic fixes later.

Storage

Validate storage to multiple locations in a single VPC instead of paying to send traffic between geographically dispersed AWS regions.

5G Testing

Replay network conditions experienced in new 5G networks to benchmark the performance of mobile applications or to evaluate the scalability of new 5G networking devices.

Cloud Migration

Prepare for cloud migration projects by building and testing your network architecture inside the cloud. Anticipate how network constraints such as bandwidth limitations and latency will impact a large data transfer without the risk of losing data.

Troubleshooting

Pinpoint the cause of reported problems and complaints, then validate potential solutions without disrupting the production network.

SPECIFICATIONS

Specifications	NetropyCE 1G	NetropyCE 20G (Coming Soon)
Capacity		
Test Ports	2 1-Gig Ethernet	2 20-Gig Ethernet
Max. Agg. Throughput	2 Gbps	40 Gbps
Emulation engines	1 @ 1 Gigabit	1 @ 20 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	
Bandwidth	1 Gbps in 1 bps increments	20 Gbps in 1 bps increments
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	C5.XLarge Instance	Any instance that has 20Gbps, 2 CPUs & 8 GB RAM or more
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		
Purchasing	NetropyCE is available for purchase on our AWS marketplace profile at an hourly usage rate.	

About Apposite Technologies

Apposite Technologies makes WAN emulation easy by offering professional-quality network emulation tools at affordable prices. Apposite's award-winning Netropy and Linktropy WAN emulation appliances simulate bandwidth, latency, loss, congestion, and other network impairments with fine-grained precision to provide accurate simulations of any type of wide-area network. Netropy and Linktropy WAN emulators are widely deployed by leading enterprises, application and equipment developers, telecoms carriers, and government and military organizations around the world. Apposite Technologies – WAN Emulation Made Easy

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TECHNOLOGIES

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