APPOSITE TECHNOLOGIES

Apposite's award-winning Linktropy® and Netropy® WAN emulators simulate bandwidth, latency, jitter, loss, congestion, and other network impairments to test application performance in the lab.

Linktropy WAN Emulators

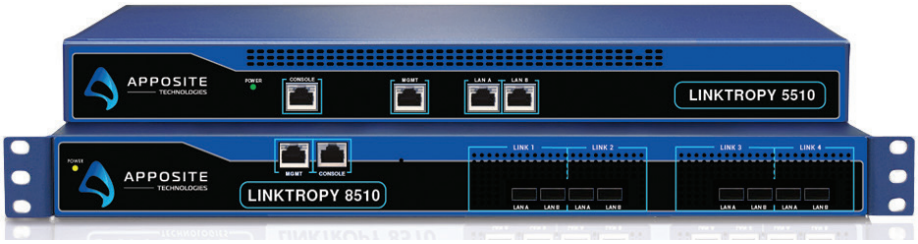
Enterprise-class WAN emulators to simulate a single WAN link through each pair of physical interfaces.

Linktropy 5510

One pair of GigE ports to emulate WAN links up to 1 Gbps

Linktropy 8510

Four pairs of GigE ports to emulate four independent WAN links



Linktropy Mini Emulators

Portable, low-cost emulators to simulate basic network conditions for application development and customer demonstrations.

Linktropy Mini2:

Link speeds up to 100 Mbps

Linktropy Mini-G:

Link speeds up to 1 Gbps

Netropy Network Emulators

Advanced enterprise-class network emulators to simulate up to 15 separate virtual WAN links, each with their own bandwidth, range, VLAN, or other packet identifier. Netropy also offers advanced modeling and administrative capabilities for complex scenarios or multiuser environments delay, and loss characteristics, through each pair of physical ports. Packets can be assigned to different links by IP address

Netropy N61

Emulates 15 separate WAN links through one pair of GigE ports

Netropy N91

Emulates up to 60 WAN links through four pairs of GigE ports

Netropy 10G1

Emulates one 10 Gbps link or 15 lower speed links through one pair of 10G SFP+ or RJ45 ports

Netropy 10G4

Emulates four 10 Gbps links or 30 lower speed links through four pairs of 10G SFP+ ports

Netropy 10G2

Emulates two 10 Gbps links or 30 lower speed links through two pairs of 10G SFP+ ports

Netropy 40G

World's first 40 Gbps WAN Emulator

Netropy 100G

Max emualtion: 100Gbps emulated WAN links: 2 100GbE Max packet rate: 32 million form factor: 2U

NetropyVE

Software version of 1 Gbps WAN emulator for virtual and cloud environments.

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

Specifications	Linktropy Mini2 / Mini-G	Linktropy 5510 / 8510	Netropy N61 / N91 / 10G1 / 10G2 / 10G4 / 40G / 100G
Capacity			
Maximum Emulation Rate	Mini2: 100 Mbps Mini-G: 1 Gbps	5510: 1 Gbps 8510: 1 Gbps	N61: 1Gbps 10G1: 10Gbps 10G4: 10Gpbs N91: 1Gbps 10G2: 10Gbps 40G: 40Gbps 100G: 100Gbps
Emulated WAN Links (per port pair)	1	1	15
Emulation Ports	Mini2: 2 10/100baseT Mini-G: 2 GigE	Test	N61:2 GigE 10G1:2 10GbE 10G4:8 10GbE N91:8 GigE 10G2:4 10GbE 40G:2 40GbE 100G: 2 100Gbe
Maximum Packet Rate 64 byte packets (packets per second)	Mini2: 80,000 Mini-G: 350,000	Test	N61: 3 mil 10G1: 29 mil 10G4: 119 mil N91: 12 mil 10G2: 59.5 mil 40G: 32 mil 100G: 32 mil
Test Lab Level Precision	✗	✓	✓
Link Impairments			
Packet Filtering	N/A	N/A	Source and dest. IP address (IPv4 or IPv6), VLAN, TCP/UDP port numbers, MAC address, MPLS label, any arbitrary packet field
Bandwidth Emulation	300 bps to 1 Gbps (depending on model)	300 bps to 1 Gbps	100 bps to 100Gbps (depending on model)
Latency & Jitter	0 ms – 10,000 ms constant, uniform, normal		0 ms – 10,000 ms constant, uniform, normal, exponential, accumulate & burst
Packet Loss	Random, BER	Random, BER	Random, Periodic, Burst, BER, Gilbert-Elliot
Data Corruption	✗	✗	✓
Network Outage	✗	✗	✓
Packet Reordering	✗	✓	✓
Packet Duplication	✗	✓	✓
Queue Management	Tail drop	Tail Drop	Tail drop, RED
Access Link Rate Control	Out-bound	Out-bound	In-bound and Out-Bound
Live Condition Capture and Replay	✗	✓	✓
Background Traffic	✗	Random	Random, PCAP replay
ToS Prioritization	✗	✗	FIFO, Strict Priority, Round Robin
MTU and Fragmentation	✗	✗	✓
Installation and Operation			
Form Factor	Portable 6” x 6”	5510: 1U 8510: 1U	N61: 1U 10G1: 1U 10G4: 2U N91: 1U 10G2: 2U 40G: 1U 100G: 2U
Throughput Graphs	Previous 10 minutes	Previous 10	24 hours
Statistics Download	✗	Gigabit	24 hours
Full CLI	✗	✓	✓
SSL and SSH Secure Management	✗	✓	✓
Jumbo Frame Support	Mini2: ✗ Mini-G: ✓	✓	✓
LDAP User Authentication	✗	✗	✓
DHCP, DNS, NTP	✗	✗	✓
Multiple Users With Configuration Locking	✗	✗	✓
Self-Monitoring Indicators and Logs	✗	✗	✓

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