Simena Network Emulator NE1000

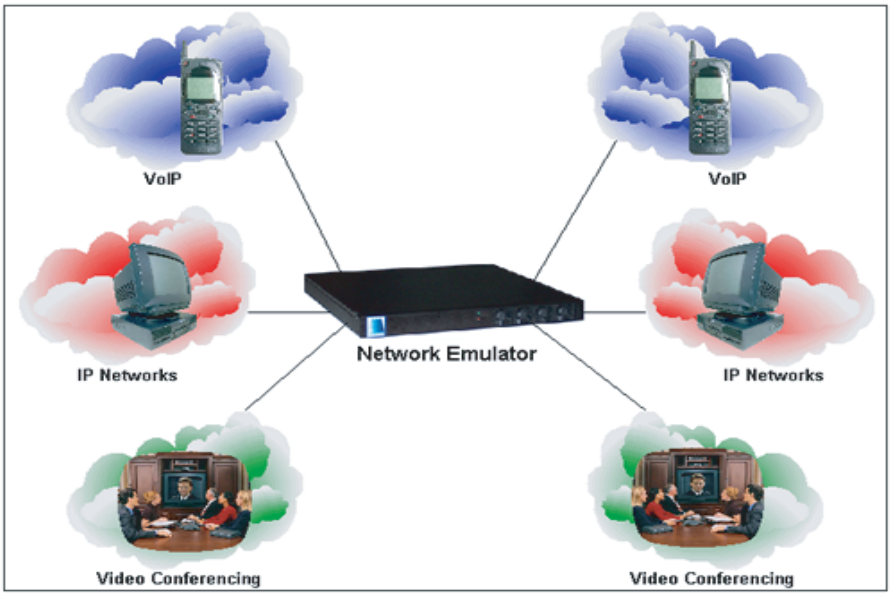
Networks in a box!

Product Description

Simena Network Emulators enable network software developers and network engineers, in their test environment, to determine how their product or service would perform under several network conditions such as speed, latency, congestion, etc. They emulate these conditions by capturing and processing data packets transparently; connected devices function as if connected to a production network.

Network Emulators can be used with any network protocol (IP, IPX, AppleTalk, etc.) and network interface. Since they operate at the link-layer they do not require any network configuration changes on client workstations or application servers.

Simena Network Emulators which utilize patent-pending technologies, come in three different models to meet various user requirements and budget. Its processors can handle detailed functional and effective performance tests. NE1000 is the mid-level model of the family. It has two Gigabit Ethernet ports for emulations and one Fast Ethernet port for the management. Its 19" wide, 15" deep and one RU height allows NE1000 to be rack mountable or used as a desktop unit.



Key Benefits

- ☐ Quickens network testing of the applications, network equipment or services.
- ☐ Increases the success by delivering fully tested products and services.
- ☐ Minimizes costs and time associated with traditional testing processes, by finding and eliminating bugs faster.
- ☐ Provides detailed quality assurance (QA) of network applications and equipment.
- ☐ Minimizes bandwidth costs by accurately determining bandwidth requirements for deployment of new applications.
- ☐ Analyses realistic VoIP or video conference performance characteristics in a laboratory environment.

General Features

- ☐ NE1000 supports all network protocols and applications.
- ☐ Supports all server hardware and operating systems.
- ☐ Works at Ethernet level not IP level (i.e. switching instead of routing).
- ☐ Does not require a dedicated host or special GUI application.
- ☐ Easy to learn, configure and use via a web browser interface.
- ☐ Does not need any modifications in network configuration.
- ☐ Provides flexible unidirectional emulations.
- ☐ Supports several types of packet filters.
- ☐ Supports 64 DiffServ filter levels.
- ☐ Provides up to four simultaneous multiple emulations.
- ☐ Displays throughput in bits/second and packets/second in both directions of the traffic.
- ☐ Provides wire-mode operation.
- ☐ Provides web based remote management.
- ☐ Allows saving, loading and deleting multiple configurations.
- ☐ Provides on-line hypertext user guide.
- ☐ Provides real-time throughput graphs.
- ☐ Provides real-time packet analysis with filters.

Applications	Emulations	Filters
* Client/Server * iSCSI * Bandwidth computation * SANs * SLA Conformance * ToS and Diff Serv * Video conference * VoIP * VPN * Wireless IP * Database access * Propriety applications * Multi tiered web * xDSL access * Cable modem access * Quality assurance * Product evaluation	* Unidirectional simultaneous emulations * Bidirectional emulation * Unidirectional emulation * Distributed emulation * Fixed, uniform distributed, and normal distributed latency * Fixed, dynamic and burst packet loss * Limitless bandwidth emulation with 1000 bps granularity * Fixed and periodic duplicate packet * Periodic and random out of order packet * Congestion * Carrier loss * Queue size * Fragmentation * BER * Jumbo frames	* Ethernet source address * Ethernet destination address * Ethernet payload type * IP Source Address * IP Destination Address * IP payload type * TCP/UDP Source Port * TCP/UDP Destination Port * IP Protocol * Diff Serv

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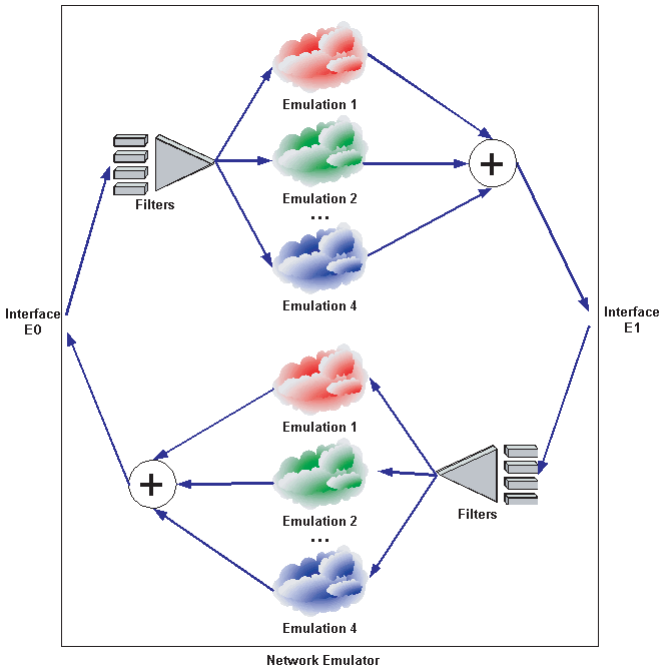
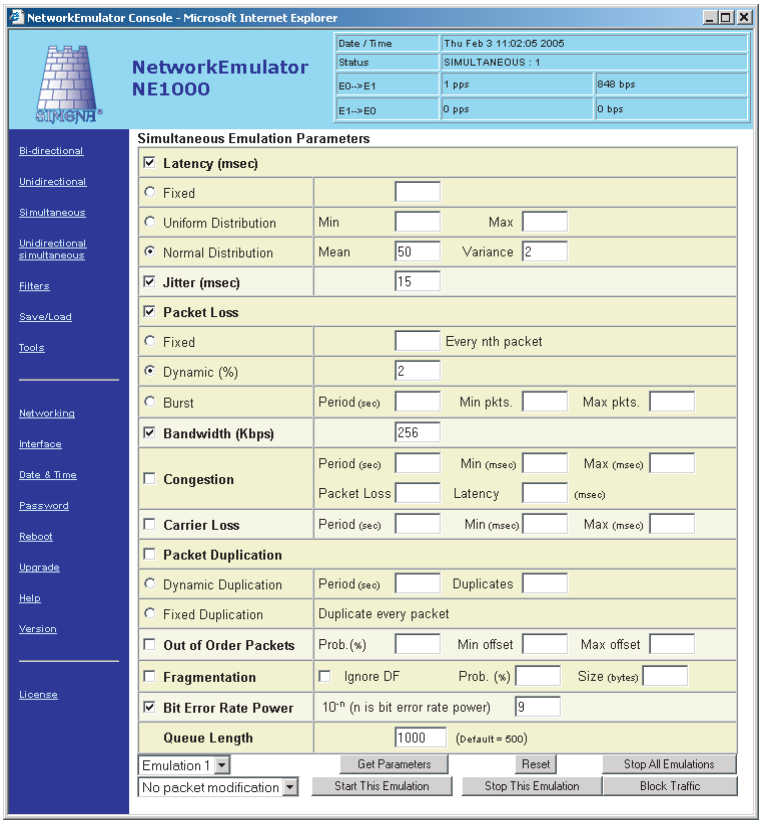
For more information call: 571.323.1500 e-mail: info@simena.net visit website: www.simena.net



Network Emulator

Web Based GUI

Network Emulator provides easy to use Web based Graphical User Interface (GUI) which lets the users access it from anywhere in the network. Clear and easy navigation menu enables them to start using the unit within five minutes. The GUI also provides complete management functions. Initial setup of the Network Emulator can also be accomplished by the GUI by accessing the unit's factory default IP address.



NE1000 Specifications

I/O Interfaces
- ☐ Two 10/100/1000BaseTX emulation ports
- ☐ One 10/100BaseTX management port
- ☐ RS-232 system console port

Indicators
- ☐ Power LED
- ☐ Ethernet activity LEDs
- ☐ Link speed LEDs

Dimension
- ☐ 19" (W) x 15" (D) x 1.75" (H)

Power
- ☐ 110/220 VAC, 50Hz to 60Hz

Operating Environment
- ☐ Temperature: 5 °C to 40 °C
- ☐ Humidity: 20% to 90% RH

Filters

NE1000 has extensive packet filtering capabilities. Filters allow users to pick specific packets to expose to network impairments. Packets matching filter rules are subject to network conditions, whereas not matching ones will be forwarded in wire-mode.

Simultaneous Emulations

NE1000 allows users to emulate up to four different network characteristics simultaneously. By the help of filters assigned to emulation instances, users can divide the traffic into several groups and apply various network impairments on them. This capability does not require any change in the network connections since all of the traffic goes through the same network interfaces.

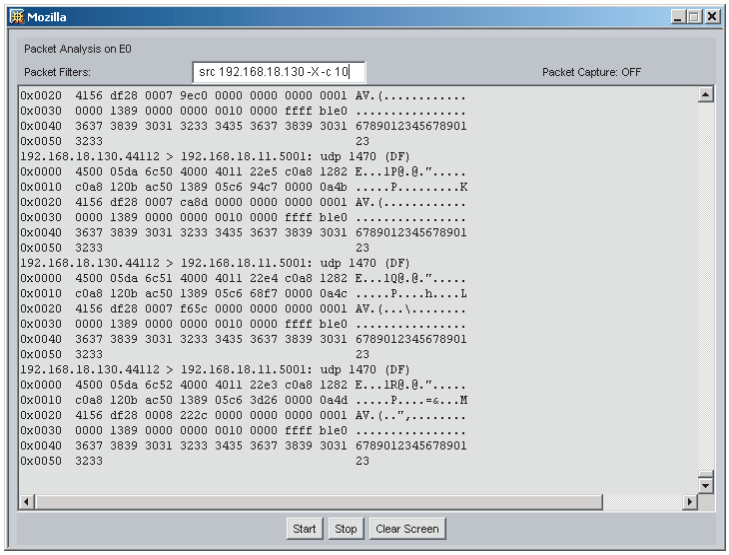
Online User Guide

Although Network Emulator is very easy to learn and to use, it also provides an online user guide for complex emulations and administration tasks. The hypertext index lets the user navigate the guide easily. In addition, convenient pop-up window can be used as a desktop reference.

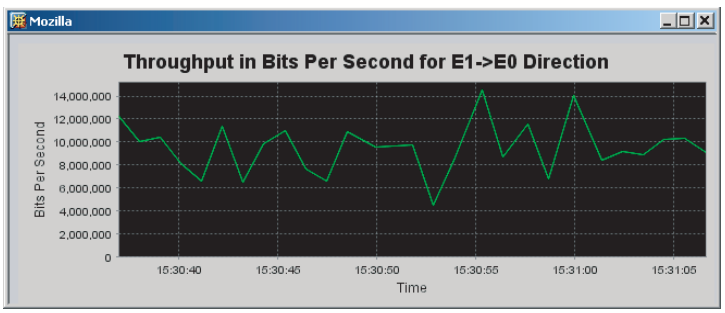
Plug & Play Setup

Since Network Emulator works at the Ethernet level, it does not require any change on the application servers or on the network configurations. Network Emulator starts forwarding the traffic between its two ports within seconds after powered on. The user only needs to setup the management interface's IP address. This can be accomplished via the Web interface by accessing the system's factory shipped IP address.

Real-Time Statistics



Network Emulator provides packet decoding capabilities with packet filtering in real-time on both network interface. Users can pick and choose which packets needs be decoded on which network interface via simple user interface.



Users can also easily display real-time throughput in bits/sec. and packets/sec. on each port in both tabular or graphical format. Throughput numbers are very accurate as they are collected from the Network Emulator's kernel application. In other words, while the emulation is heavily taking place the throughput numbers would still be very reliable.

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