Easy to use GUI, No Confusing Licenses

# EDS-1G

## Ethernet Delay Simulator
## 10/100/1000 Copper or Fiber


## FEATURES / BENEFITS

√ Hardware Architecture Providing High Throughput Performance and Repeatable Results

√ Interface - 10/100/1000 and available in copper or fiber

√ Very Precise Emulation of Network Delays / Impairments

√ Validate and Optimize your Network before Deployment to avoid Costly Application issues

√ Easy to use - 10/100/1000 Ethernet GUI interface

√ Bandwidth - 300bps to 1000Gbps in 1bps increments

√ Delay - 0 ms to 10 sec. in 0.1ms increments, settings for Constant, Uniform and Normal

√ Packet Loss, Re-Ordering, Background Traffic

√ Other Features - Roaming Delay Feature, Real time traffic graph and Network Statistics

√ Approvals - UL, CSA, CE, CCC, FCC and RoHS

√ 1U Sturdy Rack Mount Enclosure, 90-240VAC

## DESCRIPTION

The EDS-1G is an Ethernet Delay Simulator allowing users to test/stage critical network equipment by altering bandwidth, latency, packet loss, congestion and other important link impairments over 10/100/1000 copper or fiber Ethernet.

The EDS-1G can emulate two individual links simultaneously at rates up to 2 GbE, making it ideal for multiple test configurations.

The EDS-1G is a must have test tool for product development / demonstrations, network validation, VoIP, benchmark testing, video / IPTV simulation and website performance.

The EDS-1G hardware architecture is very powerful and is coupled with custom software presenting an easy to use GUI interface. The EDS-1G has no cumbersome software or confusing licenses to deal with for secure operation.

The EDS-1G can act as a bridge or a router in the users network. The user configures the unit via the GUI interface using a standard web browser. The GUI is fast and simple to use. All commands and settings are displayed prominently. Simply set the band width, delay and any traffic impairments if required. The user is presented with the results in real time and in a graph.

By using the EDS-1G in place of or in series with a real data link a wide variety of error conditions can be introduced under controlled and testable conditions. The unit is an excellent choice for validating, evaluating new products and technologies.

The EDS-1G is housed in a sturdy 1U high metal enclosure which can be rack mounted. It is powered by an integrated 90-240V 50/60Hz power supply.

The EDS-1G has a three year warranty that includes basic user support. During the three year support period users also receive normal maintenance software releases free of charge. We do offer customization for special requirements.

In the event of repair, we offer a 24-48 hour turnaround on warranty repairs.

# SPECIFICATIONS

**Typical Application**
Interconnection of two or four 10/100/1000 Ethernet devices simulating bandwidth, latency, packet loss and congestion on two independent LAN channels

**Data Interface**
10/100/1000, copper or fiber up to 4 ports and two independent 2-Port Delay engines

**Data Rates**
300bps - 1000Mbps in 1bps increments, bi-directional or split speed on each LAN port

**Configuration Port(s)**
Two Independent 10/100/1000 Ports

**Password Protection**
Implemented via user 10/100/1000 MGMT Ports

**LAN Link Throughput**
Full Line Rates on Packets larger than 512K

**Emulated Latency**
0 ms to 8 sec. in 0.1ms increments, settings for constant, uniform or normal

**Emulation Profiles**
Each link is capable of five independent delay scheules via the profile scheduler

**Packet Loss**
0 to 100% in increments of 0.001%

**Background Traffic**
0 to 100% in increments of 0.001%
Burst from 0 to 10000

**Packet Re-ordering**
Settings for Probability % and Delay 0 to 8000 ms

**Duplication**
Settings for 0 to 100% (min 0.001)

**Queue Depth**
Range of 65 to 100,000 selectable for Packets, kilo-bytes or miliseconds

**Framing Overhead**
Settings for HDR + FCS, HDR + FCS, preamble, pad and Custom

**Custom Profiles**
Settings for five user defined profiles with run time scheduler time settings or free run

**Power Source**
AC Mains: 90-240VAC @ 10%, 50/60Hz

**Environmental**
Operating Temperature....32º to 104º F (0º to 40º C)
Relative Humidity.....5 to 85% Non-Condensing
Altitude.....0 to 10,000 feet

**Dimensions**
Height ..... 1.70 inches (43 mm)
Width ..... 17.20 inches (437 mm)
Depth ..... 9.8 inches (249 mm)

**Gross Weight**
12 lbs (5.44 kg)

**Warranty**
Three Years, Return To Factory

**Regulatory Approvals**
UL, CSA, CE, CCC, FCC and RoHS

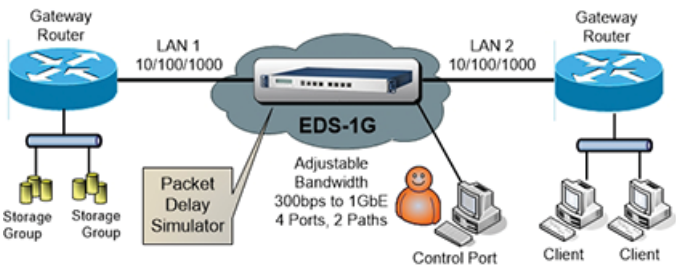
**ORDERING INFORMATION**
Main Unit Part Number: 207000
Model: EDS-1G
Description: Ethernet Delay Simulator

Part Number: 226000
Model: 4-Port 1G Copper
Description: 4-Port 10/100/1000 Copper Interface

Part Number: 226008
Model: 4-Port 1G Fiber
Description: 4-Port 10/100/1000 Fiber Interface

**Other East Coast Datacom, Inc Products**
EDS-10G, 10/100/1000, 10G & 40G Chassis
PDS-1G, Portable Delay Simulator
EDS-BGP, BGP Network Delay Simulator
RDS-PLUS, Serial / TELCO Delay Simulator

**Ethernet Delay Simulator, EDS-1G**
Emulates Bandwidth, Latency, Loss and Congestion




***TYPICAL APPLICATION***


## EAST COAST DATACOM, INC.

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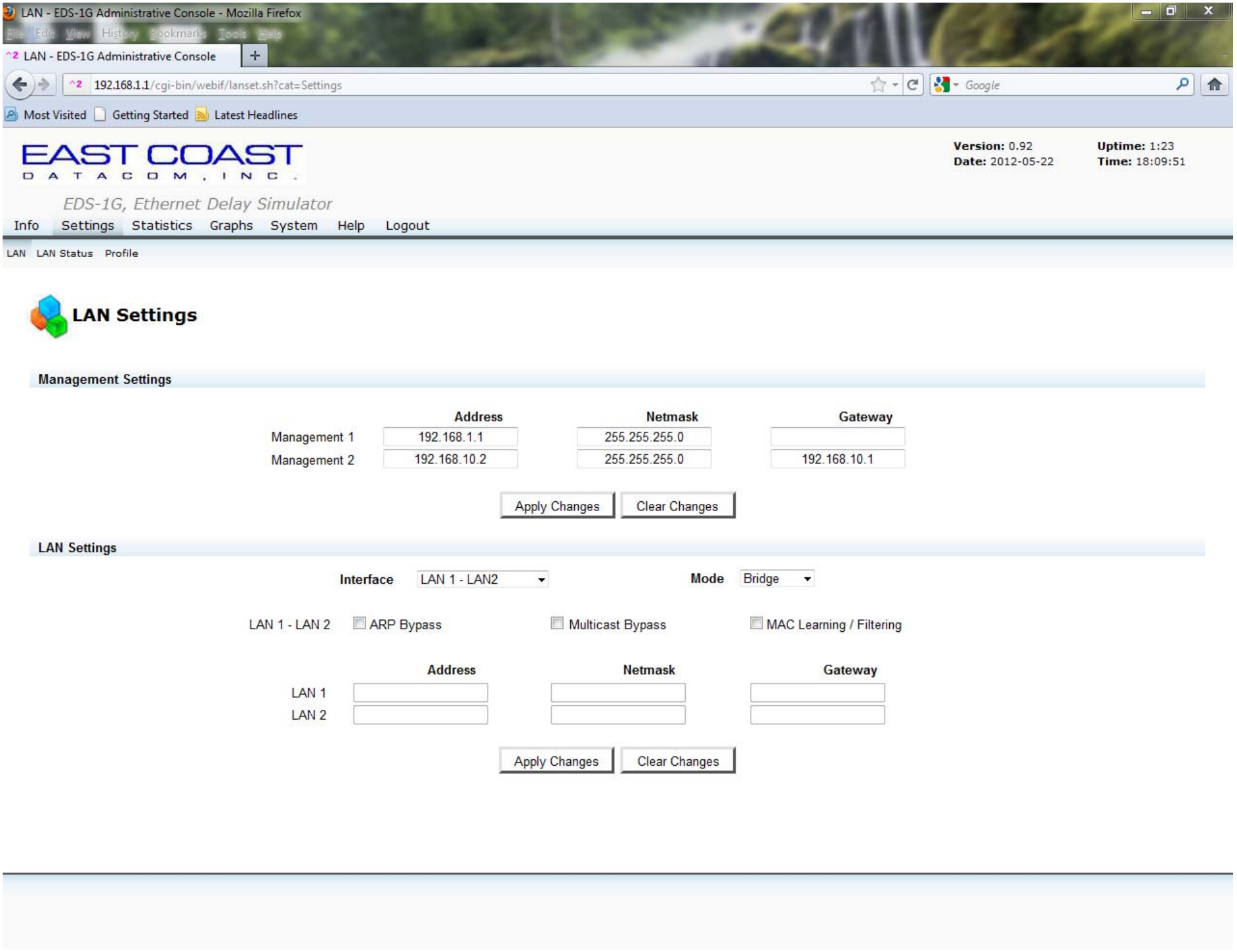
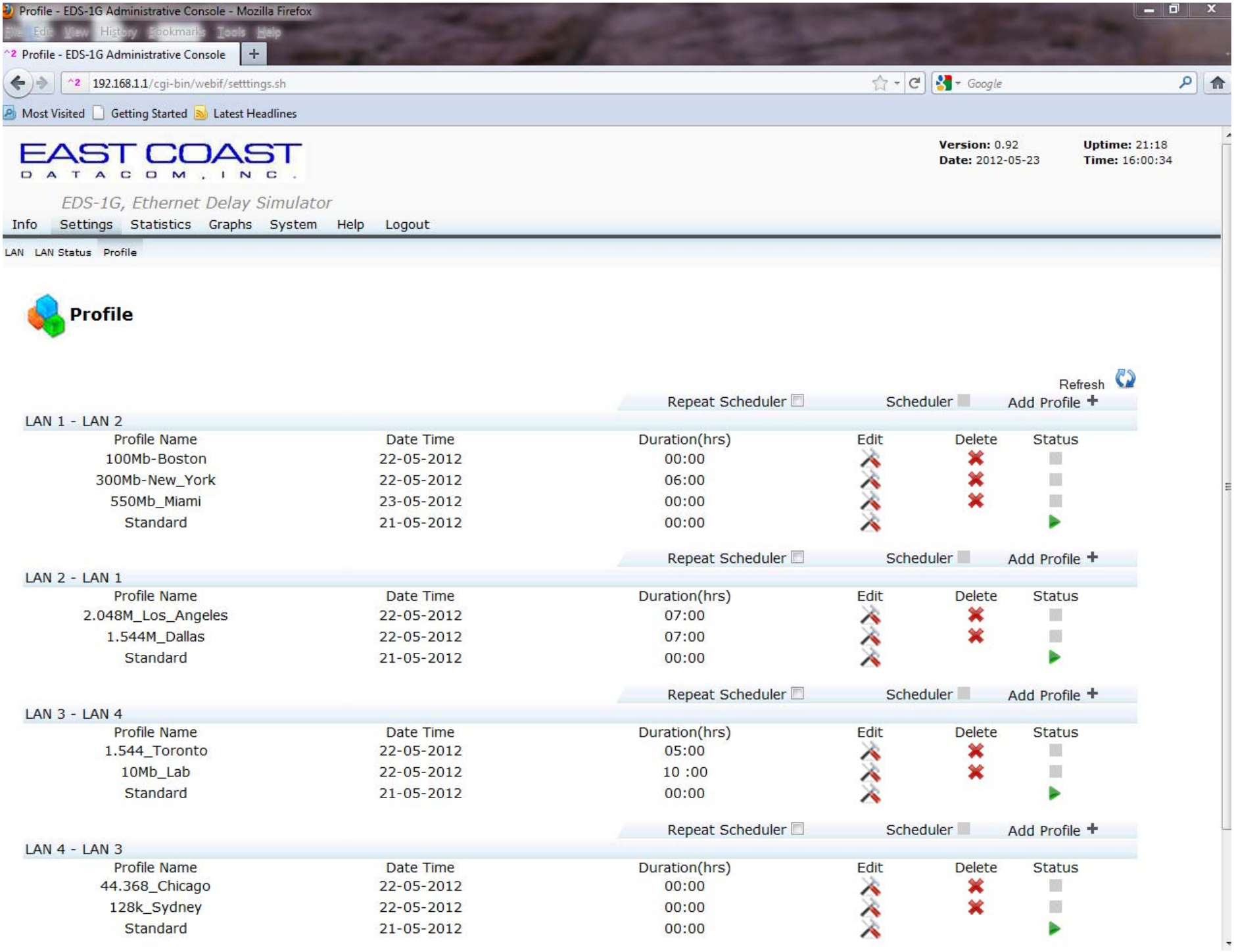
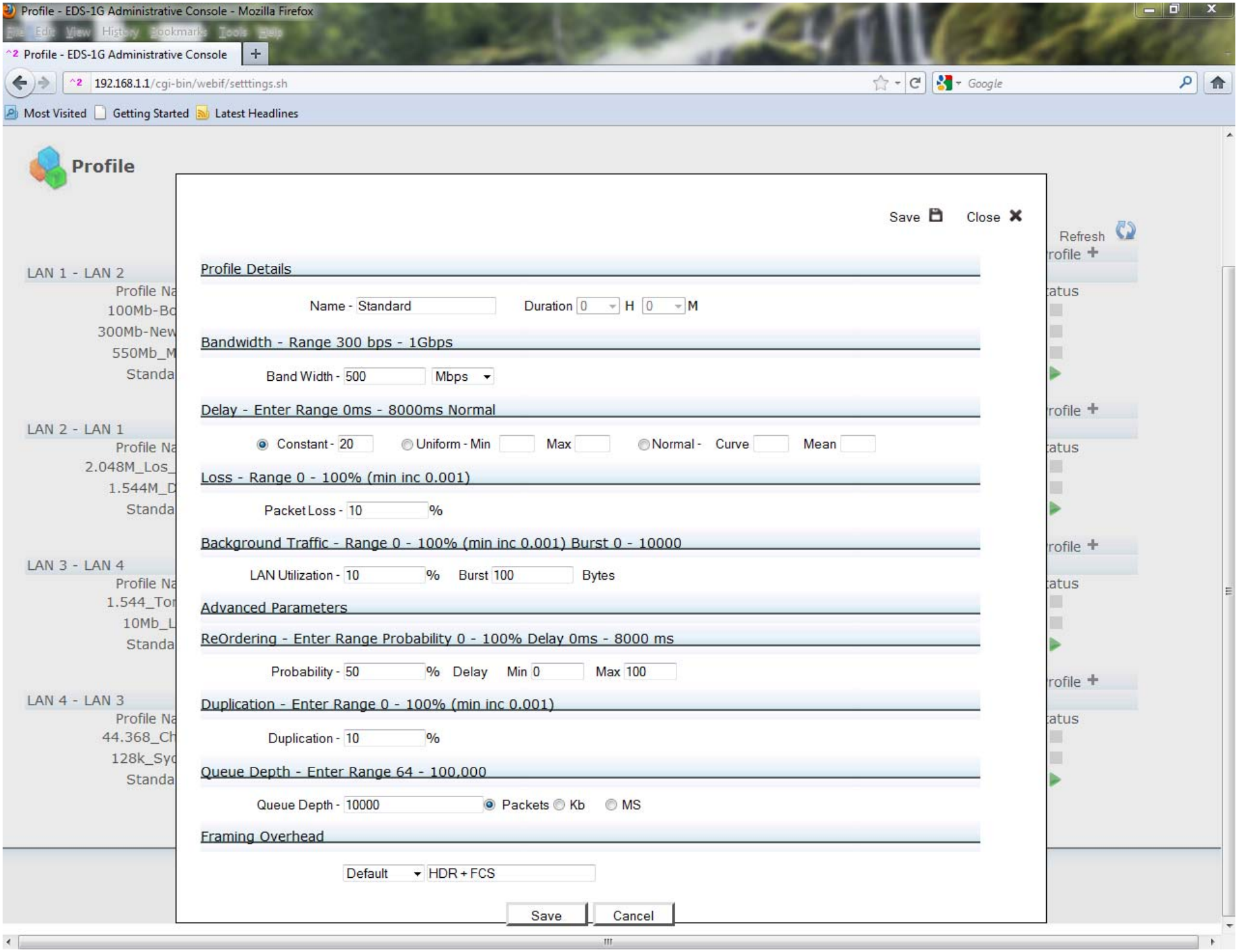
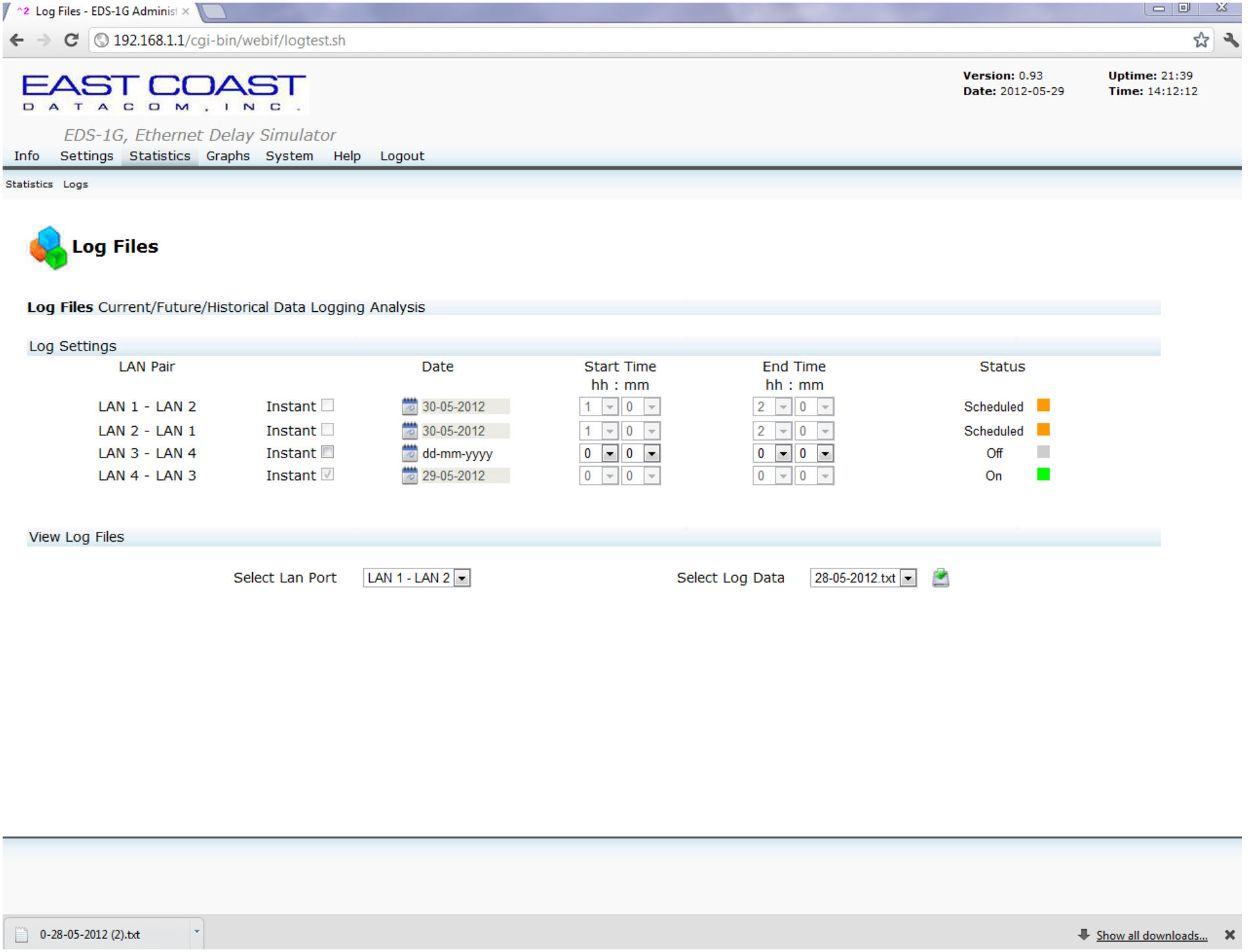
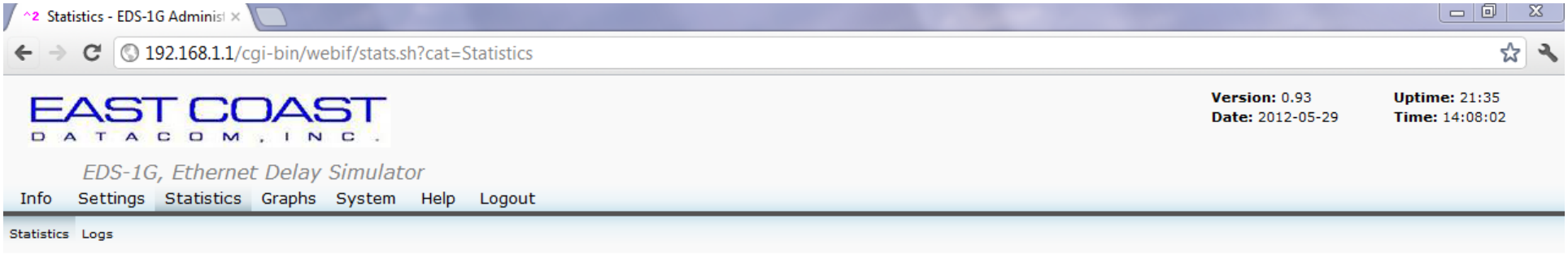
**TEL: (321) 637-9922** **WEB SITE: www.ecdata.com** **FAX: (321) 637-9980**


LAN - EDS-1G Administrative Console - Mozilla Firefox
LAN - EDS-1G Administrative Console
192.168.1.1/cgi-bin/webif/lanset.sh?cat=Settings
Most Visited
Getting Started
Latest Headlines
EAST COAST
DATACOM, INC.
Version: 0.92
Date: 2012-05-22
Uptime: 1:23
Time: 18:09:51
EDS-1G, Ethernet Delay Simulator
Info
Settings
Statistics
Graphs
System
Help
Logout
LAN
LAN Status
Profile
LAN Settings
Management Settings
Address
Netmask
Gateway
Management 1
192.168.1.1
255.255.255.0
Management 2
192.168.10.2
255.255.255.0
192.168.10.1
Apply Changes
Clear Changes
LAN Settings
Interface
LAN 1 - LAN2
Mode
Bridge
LAN 1 - LAN 2
ARP Bypass
Multicast Bypass
MAC Learning / Filtering
Address
Netmask
Gateway
LAN 1
LAN 2
Apply Changes
Clear Changes


Profile - EDS-1G Administrative Console - Mozilla Firefox
Profile - EDS-1G Administrative Console
192.168.1.1/cgi-bin/webif/setttings.sh
Most Visited
Getting Started
Latest Headlines
EAST COAST
DATACOM, INC.
Version: 0.92
Date: 2012-05-23
Uptime: 21:18
Time: 16:00:34
EDS-1G, Ethernet Delay Simulator
Info
Settings
Statistics
Graphs
System
Help
Logout
LAN
LAN Status
Profile
Profile
Refresh
Repeat Scheduler
Scheduler
Add Profile
LAN 1 - LAN 2
Profile Name
Date Time
Duration(hrs)
Edit
Delete
Status
100Mb-Boston
22-05-2012
00:00
300Mb-New_York
22-05-2012
06:00
550Mb_Miami
23-05-2012
00:00
Standard
21-05-2012
00:00
LAN 2 - LAN 1
2.048M_Los_Angeles
22-05-2012
07:00
1.544M_Dallas
22-05-2012
07:00
LAN 3 - LAN 4
1.544_Toronto
22-05-2012
05:00
10Mb_Lab
22-05-2012
10 :00
LAN 4 - LAN 3
44.368_Chicago
22-05-2012
00:00
128k_Sydney
22-05-2012
00:00


Profile - EDS-1G Administrative Console - Mozilla Firefox
Profile - EDS-1G Administrative Console
192.168.1.1/cgi-bin/webif/setttings.sh
Most Visited
Getting Started
Latest Headlines
Profile
Save
Close
Refresh
Profile Details
Name - Standard
Duration 0 H 0 M
Bandwidth - Range 300 bps - 1Gbps
Band Width - 500 Mbps
Delay - Enter Range 0ms - 8000ms Normal
Constant - 20
Uniform - Min
Max
Normal -
Curve
Mean
Loss - Range 0 - 100% (min inc 0.001)
Packet Loss - 10 %
Background Traffic - Range 0 - 100% (min inc 0.001) Burst 0 - 10000
LAN Utilization - 10 %
Burst 100 Bytes
Advanced Parameters
ReOrdering - Enter Range Probability 0 - 100% Delay 0ms - 8000 ms
Probability - 50 %
Delay Min 0 Max 100
Duplication - Enter Range 0 - 100% (min inc 0.001)
Duplication - 10 %
Queue Depth - Enter Range 64 - 100,000
Queue Depth - 10000
Packets
Kb
MS
Framing Overhead
Default
HDR + FCS
Save
Cancel
LAN 1 - LAN 2
LAN 2 - LAN 1
LAN 3 - LAN 4
LAN 4 - LAN 3


^2 Log Files - EDS-1G Administ
192.168.1.1/cgi-bin/webif/logtest.sh
EAST COAST
DATACOM, INC.
Version: 0.93
Date: 2012-05-29
Uptime: 21:39
Time: 14:12:12
EDS-1G, Ethernet Delay Simulator
Info Settings Statistics Graphs System Help Logout
Statistics Logs
Log Files
Log Files Current/Future/Historical Data Logging Analysis
Log Settings
LAN Pair
Date
Start Time hh : mm
End Time hh : mm
Status
LAN 1 - LAN 2 Instant 30-05-2012 1 0 2 0 Scheduled
LAN 2 - LAN 1 Instant 30-05-2012 1 0 2 0 Scheduled
LAN 3 - LAN 4 Instant dd-mm-yyyy 0 0 0 0 Off
LAN 4 - LAN 3 Instant 29-05-2012 0 0 0 0 On
View Log Files
Select Lan Port LAN 1 - LAN 2
Select Log Data 28-05-2012.txt
0-28-05-2012 (2).txt
Show all downloads...




## Statistics

| | LAN 1 - LAN 2 | | LAN 2 - LAN 1 | | LAN 3 - LAN 4 | | LAN 4 - LAN 3 | |
|---|---|---|---|---|---|---|---|---|
| GBytes | Forwarded | Background | Forwarded | Background | Forwarded | Background | Forwarded | Background |
| Bytes | 380.69 Gb | 0 Gb | 380.67 Gb | 0 Gb | 380.66 Gb | 0 Gb | 380.64 Gb | 0 Gb |
| Frames | 269987465 | 0 | 269971843 | 0 | 269964113 | 0 | 269956576 | 0 |
| | Packet Drop | | Packet Drop | | Packet Drop | | Packet Drop | |
| Loss | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| | Packet Duplication | | Packet Duplication | | Packet Duplication | | Packet Duplication | |
| Frames | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 0.00 % | 0 % | 0.00 % | 0 % | 0.00 % | 0 % | 0.00 % | 0 % |
| | ReOrdering | | ReOrdering | | ReOrdering | | ReOrdering | |
| Frames | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 0.00 % | 0 % | 0.00 % | 0 % | 0.00 % | 0 % | 0.00 % | 0 % |
| | Queue | | Queue | | Queue | | Queue | |
| Bytes | 46012Kbit | 0bit | 46012Kbit | 0bit | 46012Kbit | 0bit | 46012Kbit | 0bit |
| Frames | 0 Gb | 0 Gb | 0 Gb | 0 Gb | 0 Gb | 0 Gb | 0 Gb | 0 Gb |
| | | | | | | | | |
| Profile | Standard | | Standard | | Standard | | Standard | |
| Bandwidth | 100 Mbps | | 100 Mbps | | 100 Mbps | | 100 Mbps | |
| Delay (ms) | Constant 100 | | Constant 100 | | Constant 100 | | Constant 100 | |

Pause Print