

# HealthCare WiMiX Report

November 06, 2007  
10:33:35

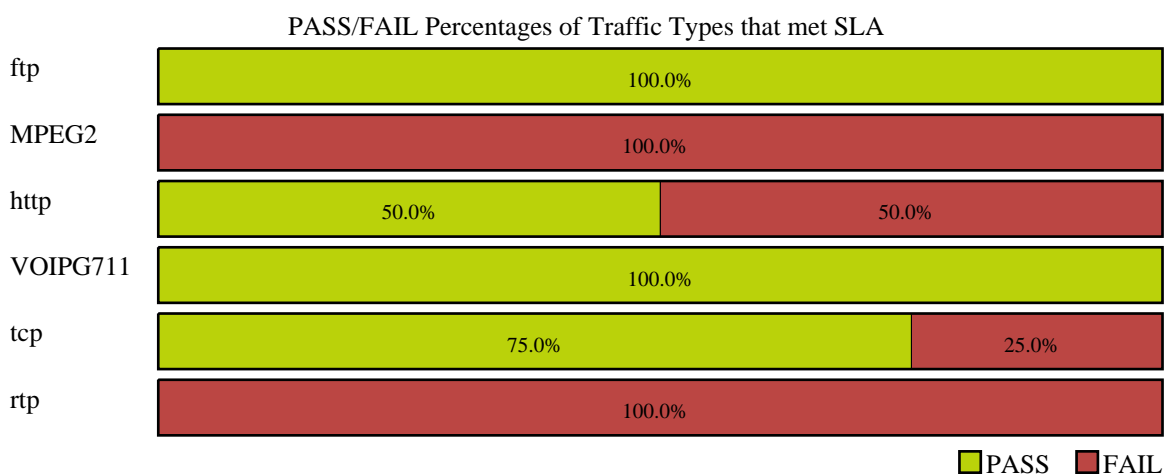
Device Tested:  
AP Model:  
AP SW Version:  
WLAN Switch Model:  
WLAN Switch Version:



## Overview

The WiMix Real-World Deployment Test accurately replicates the complex interaction of clients, servers and traffic profiles in wireless LANs. By creating usage profiles and traffic mixtures that were found to be representative in various network environments, the test measures and reports key application layer metrics that affect end-user Quality of Experience. The test also reports if the Service Level Agreement criteria set by the user for the different application layer traffic types have been met. The real-world networks replicated include: health-care, education, airports, warehouses, retail, hot spots, and service provider managed services. Each deployment model is characterized by a mix of clients, servers, client locations and behavior, traffic mix and other characteristics. These clients and servers can be configured to use different security schemes, run various higher layer applications, and utilize different QoS functions of the network. Users may also create their own application and client mixes if so desired.

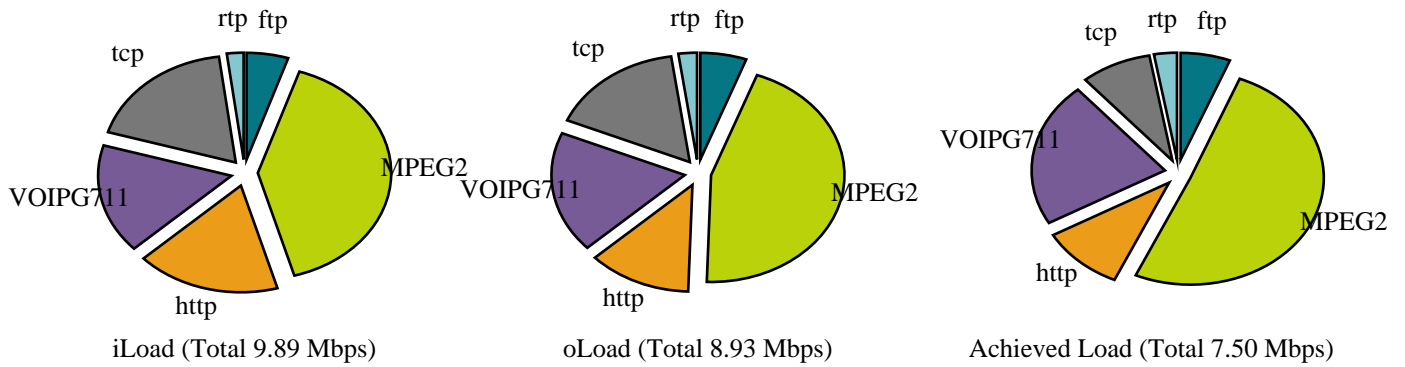
## Result Summary



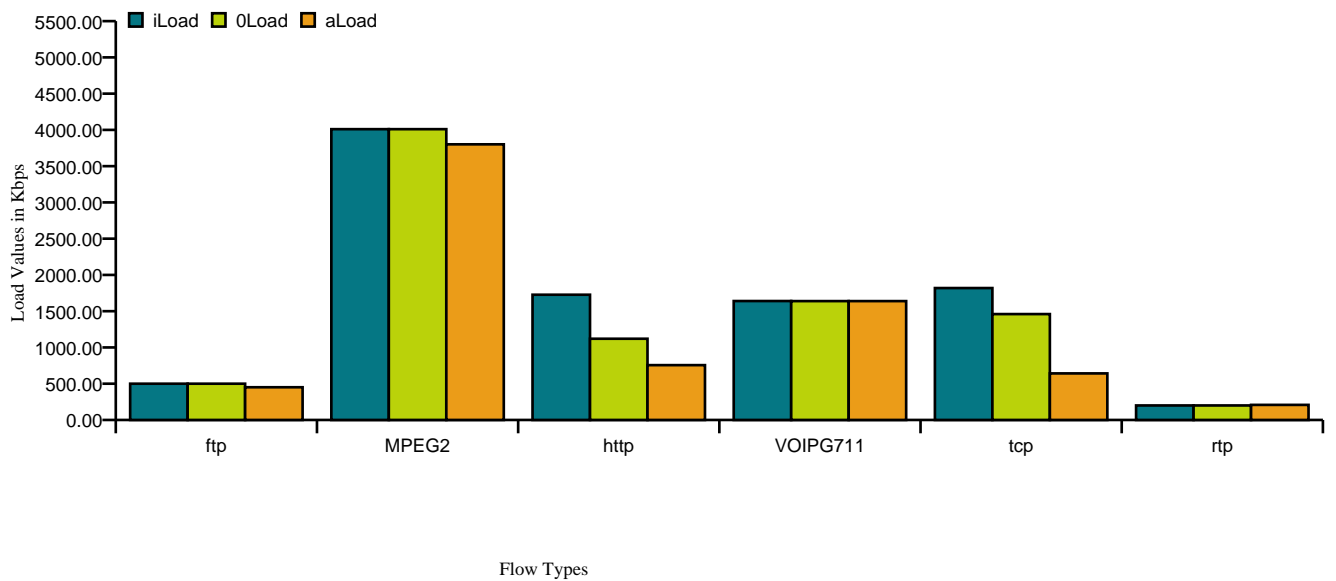
The summary table below shows the per flow average performance measurements of each traffic type

Flow Type	Num Flows	Layer7 Results	ILOAD (Kbps)	OLOAD (Kbps)	Fwd Rate (Kbps)	Latency (msec)	Jitter (msec)	% Packet Loss
VOIPG711	18	MOS Score: 4.2, R-Value: 85.2	91.1	91.1	91.1	31.9	1.3	0.0
MPEG2	2	MDI Score - 88.54 msecs :6.45	2005.2	2005.2	1900.7	130.5	2.6	6.5
ftp	1	File Transfer Time: 22.17 secs, Goodput: 450.97 Kbps	499.8	499.8	-	-	-	0.0
http	2	Goodput - 377.97 Kbps	863.4	560.0	-	-	-	9.0
tcp	4	Goodput - 160.4 Kbps	454.6	365.0	-	-	-	6.3
rtp	1	-	200.0	199.9	207.5	520.4	3.8	11.1

The Total Intended Load is 9.89 Mbps, offered load is 8.93 Mbps and achieved load is 7.50 Mbps



iLoad, oLoad and aLoad per Traffic Type



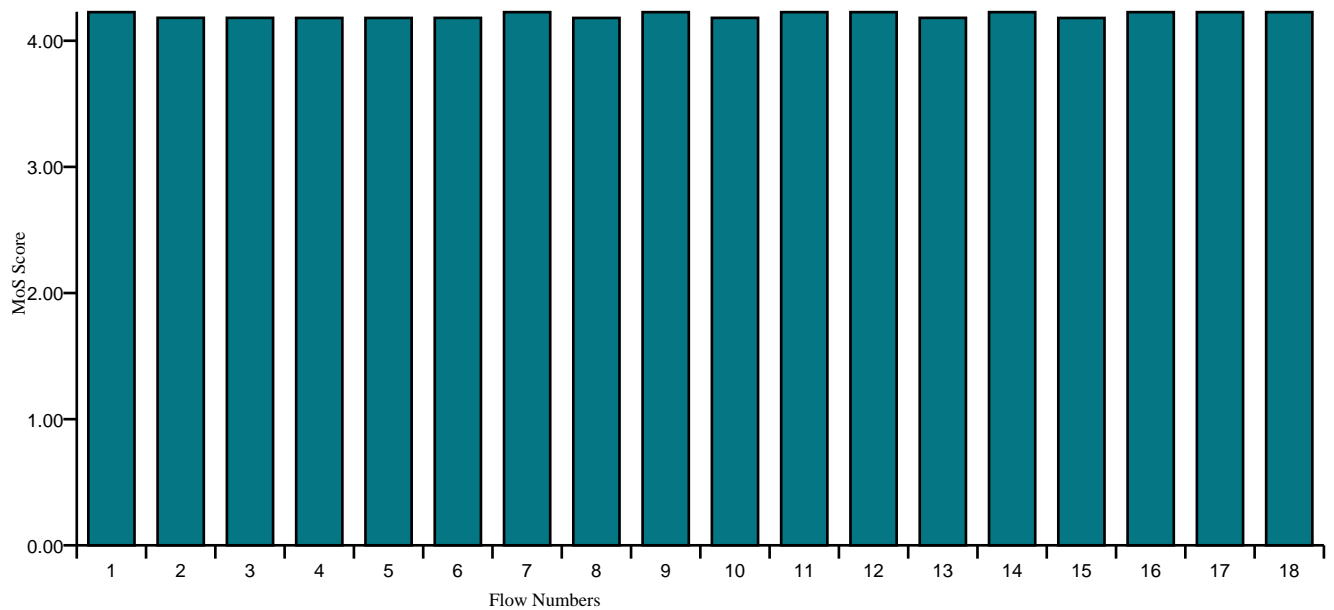
## Test Topology

The test topology is shown below. Traffic is transmitted in the direction of the arrows. The test client port identifiers and IP addresses are indicated in the boxes, together with the security mode and channel number for WLAN clients

## Graphs

The Graphs below show the per traffic flow performance measurements of each traffic type

MoS Score for all G711 flows

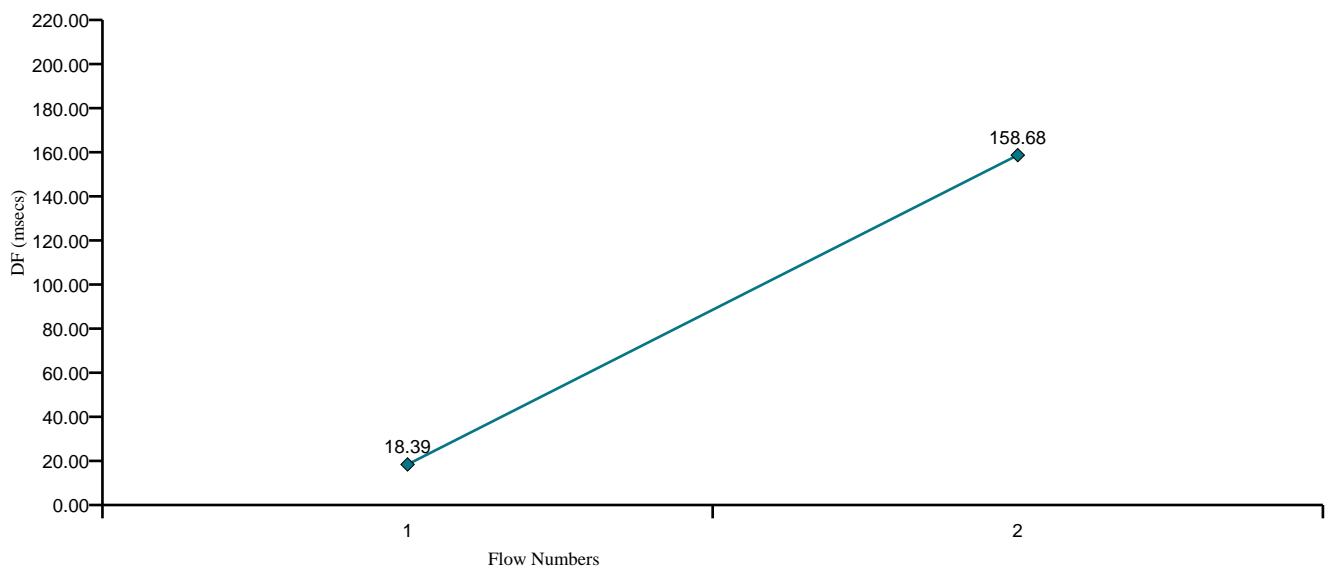


The following table shows more information about each flow of this traffic type for debugging purposes.

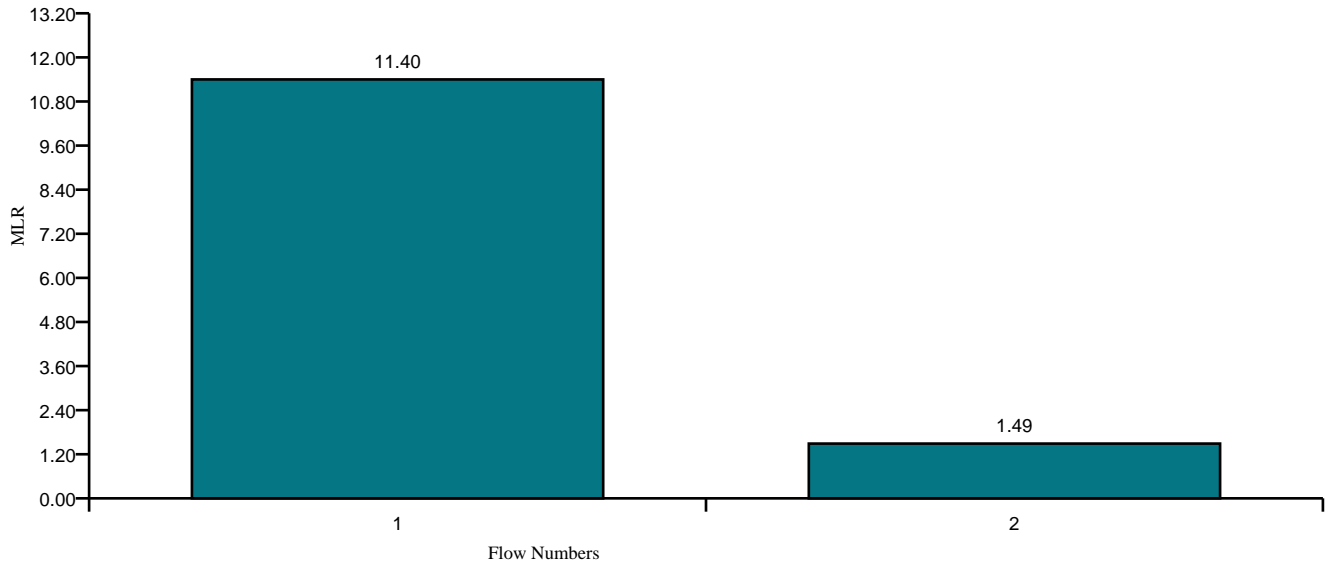
Flow Num	IP	MAC	Port	Network	Direction
1	172.16.205.184 to 172.16.1.200	00:02:00:1a:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
2	172.16.1.200 to 172.16.205.182	00:01:00:10:01:c8 to 00:02:00:18:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
3	172.16.1.200 to 172.16.205.183	00:01:00:10:01:c8 to 00:02:00:19:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
4	172.16.1.200 to 172.16.205.188	00:01:00:10:01:c8 to 00:02:00:1e:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
5	172.16.1.200 to 172.16.205.189	00:01:00:10:01:c8 to 00:02:00:1f:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
6	172.16.1.200 to 172.16.205.186	00:01:00:10:01:c8 to 00:02:00:1c:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink

Flow Num	IP	MAC	Port	Network	Direction
7	172.16.205.186 to 172.16.1.200	00:02:00:1c:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
8	172.16.1.200 to 172.16.205.187	00:01:00:10:01:c8 to 00:02:00:1d:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
9	172.16.205.190 to 172.16.1.200	00:02:00:20:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
10	172.16.1.200 to 172.16.205.184	00:01:00:10:01:c8 to 00:02:00:1a:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
11	172.16.205.185 to 172.16.1.200	00:02:00:1b:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
12	172.16.205.182 to 172.16.1.200	00:02:00:18:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
13	172.16.1.200 to 172.16.205.185	00:01:00:10:01:c8 to 00:02:00:1b:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
14	172.16.205.188 to 172.16.1.200	00:02:00:1e:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
15	172.16.1.200 to 172.16.205.190	00:01:00:10:01:c8 to 00:02:00:20:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
16	172.16.205.189 to 172.16.1.200	00:02:00:1f:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
17	172.16.205.183 to 172.16.1.200	00:02:00:19:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
18	172.16.205.187 to 172.16.1.200	00:02:00:1d:00:00 to 00:01:00:10:01:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink

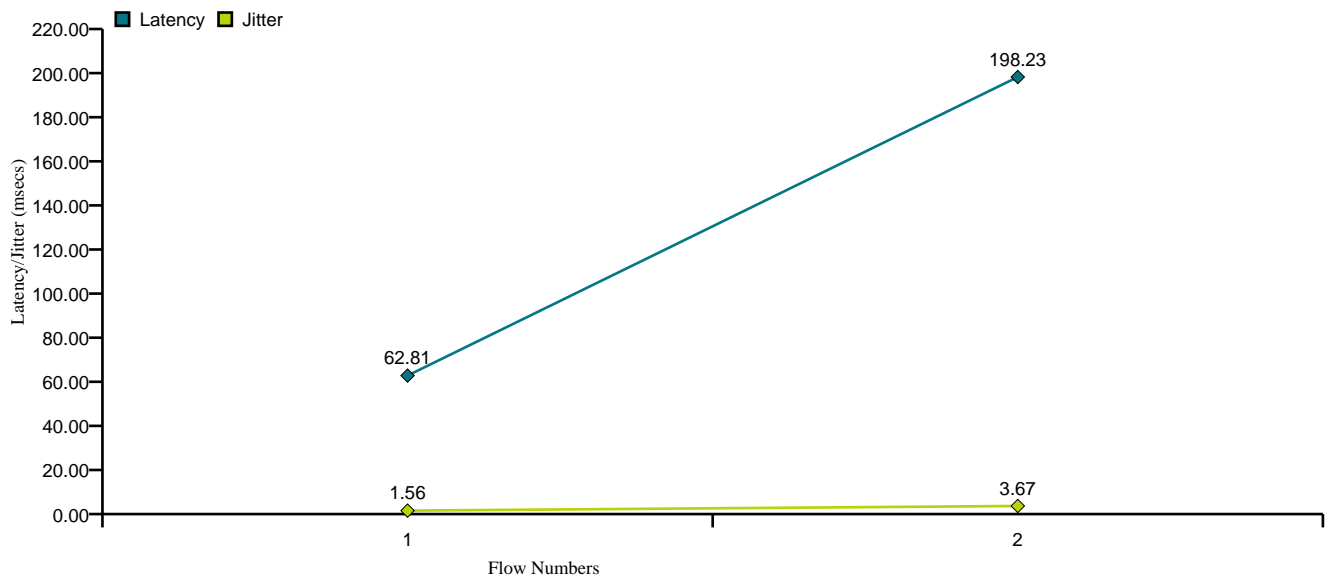
Delay Factor for MPEG2 flows



### Media Loss Ratio (MLR) for MPEG2 Flows



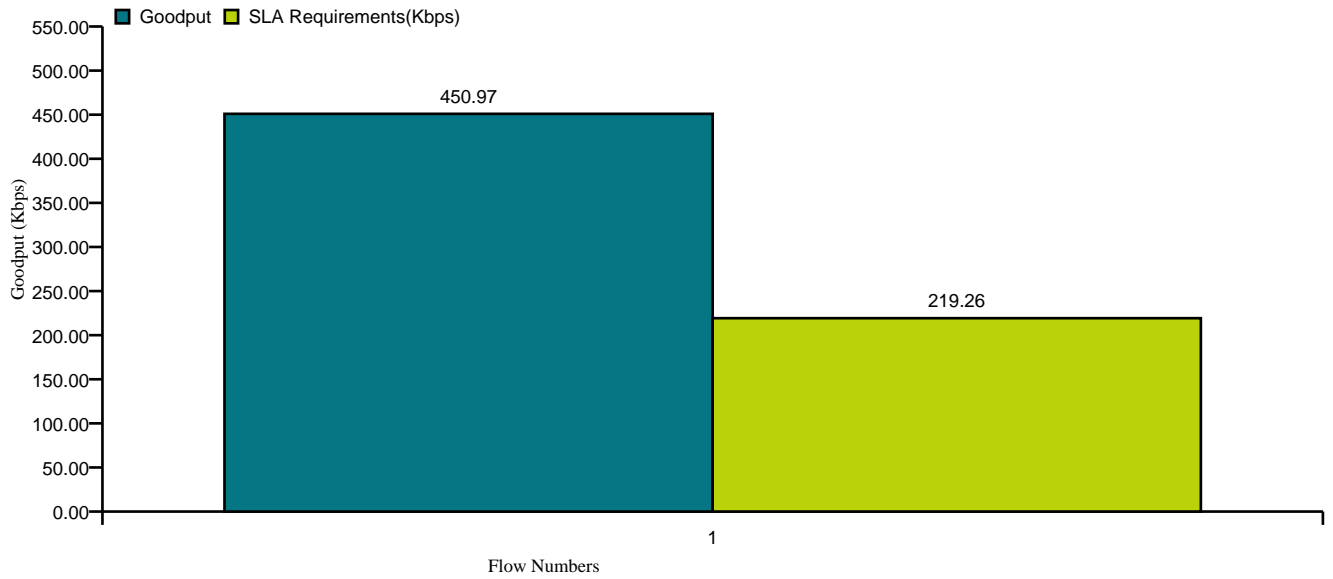
### Latency and Jitter for MPEG2 flows



The following table shows more information about each flow of this traffic type for debugging purposes.

Flow Num	IP	MAC	Port	Network	Direction
1	172.16.6.200 to 224.1.1.1	00:01:00:10:06:c8 to 01:00:5e:01:01:01	wt-tga-15-26_port1 to All Wireless Ports	vw_open, 00:18:74:89:fa:40	Multicast
2	172.16.5.200 to 172.16.205.200	00:01:00:10:05:c8 to 00:02:00:29:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink

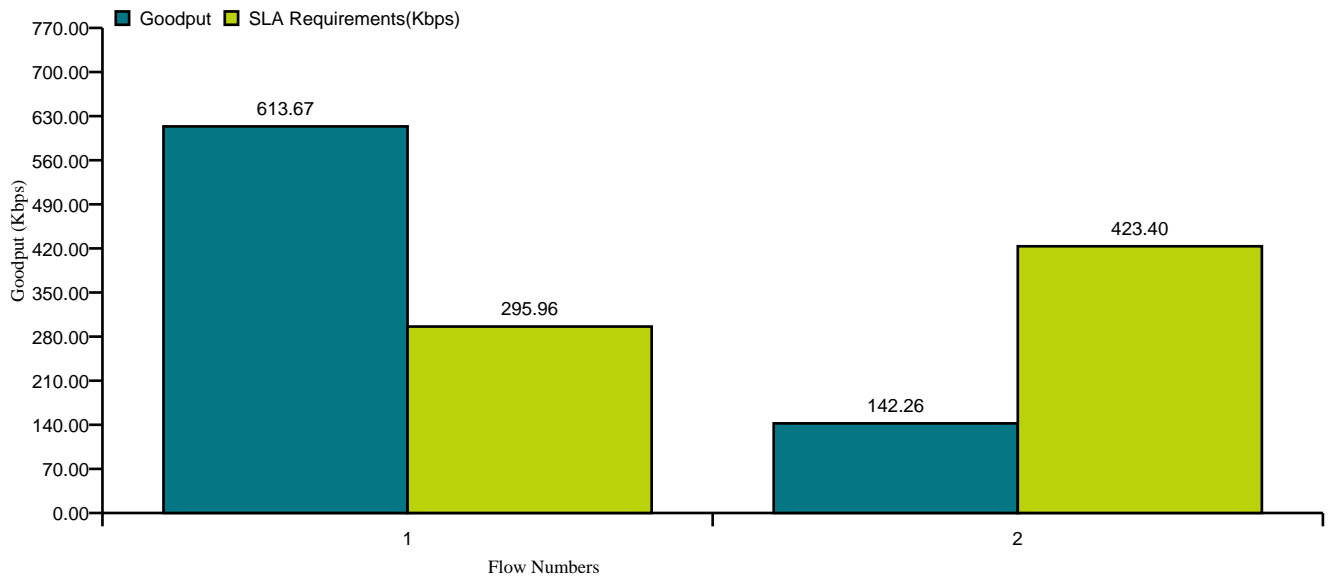
### FTP Goodput



The following table shows more information about each flow of this traffic type for debugging purposes.

Flow Num	IP	MAC	Port	Network	Direction
1	172.16.2.200 to 172.16.205.193	00:01:00:10:02:c8 to 00:02:00:23:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink

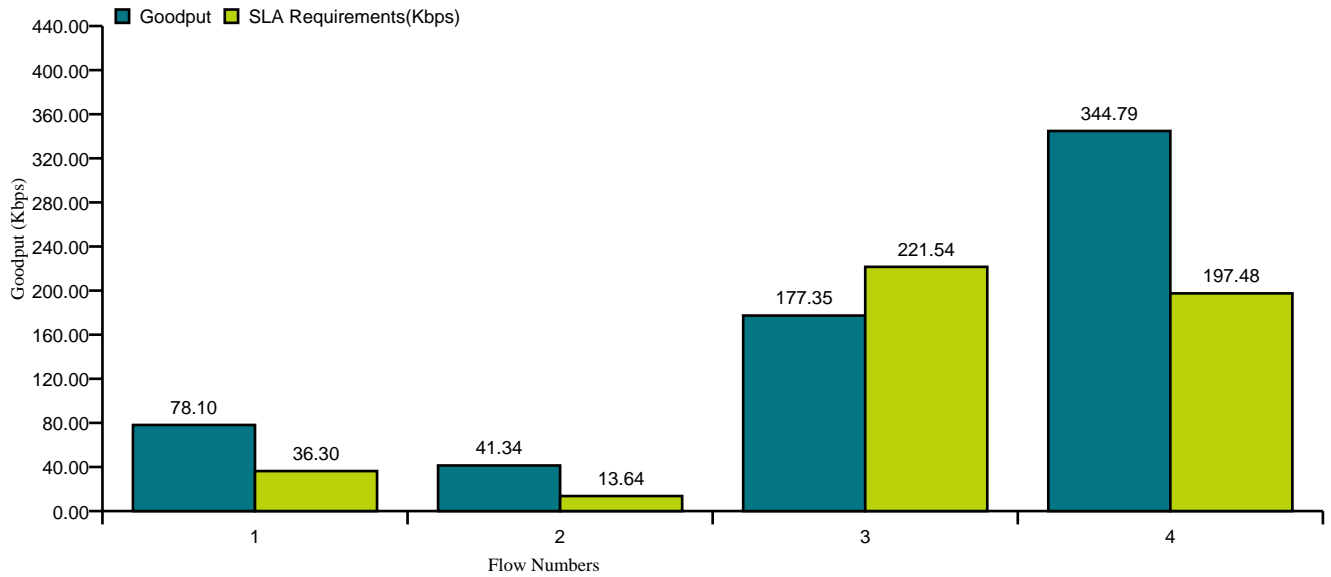
### HTTP Goodput



The following table shows more information about each flow of this traffic type for debugging purposes.

Flow Num	IP	MAC	Port	Network	Direction
1	172.16.205.195 to 172.16.3.200	00:02:00:22:00:00 to 00:01:00:10:03:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
2	172.16.3.200 to 172.16.205.194	00:01:00:10:03:c8 to 00:02:00:21:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink

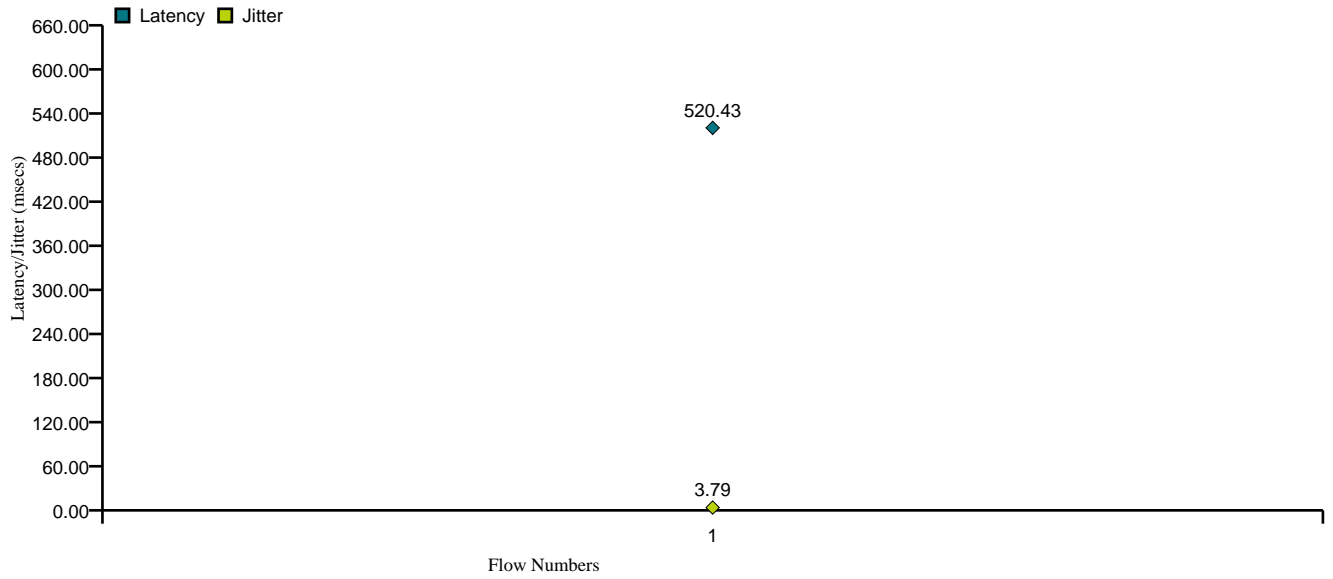
TCP Goodput



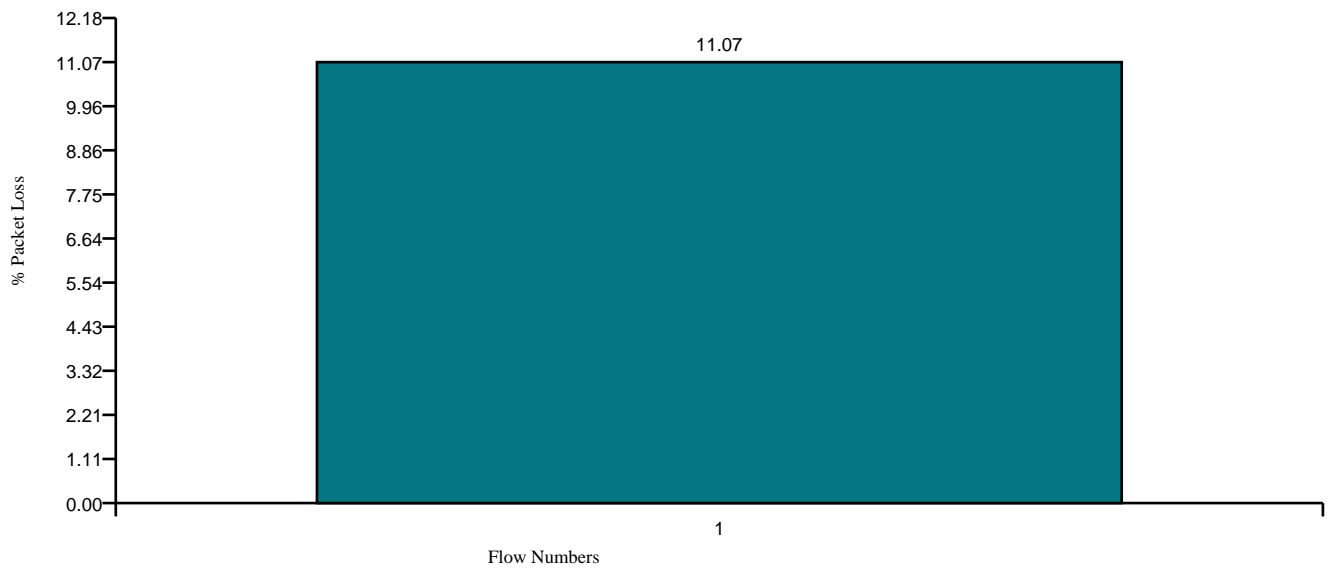
The following table shows more information about each flow of this traffic type for debugging purposes.

Flow Num	IP	MAC	Port	Network	Direction
1	172.16.8.200 to 172.16.205.192	00:01:00:10:08:c8 to 00:02:00:26:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
2	172.16.205.191 to 172.16.8.200	00:02:00:25:00:00 to 00:01:00:10:08:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink
3	172.16.8.200 to 172.16.205.199	00:01:00:10:08:c8 to 00:02:00:2a:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink
4	172.16.205.198 to 172.16.7.200	00:02:00:24:00:00 to 00:01:00:10:07:c8	wt-tga-15-26_port2 to wt-tga-15-26_port1	vw_open, 00:18:74:89:fa:40	Uplink

### Latency and Jitter for RTP flows



### Percentage Packet Loss for RTP flows



The following table shows more information about each flow of this traffic type for debugging purposes.

Flow Num	IP	MAC	Port	Network	Direction
1	172.16.4.200 to 172.16.205.197	00:01:00:10:04:c8 to 00:02:00:27:00:00	wt-tga-15-26_port1 to wt-tga-15-26_port2	vw_open, 00:18:74:89:fa:40	Downlink

### Test Parameters



The table below shows the input parameters for the test

Parameter	Value
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### Access Point Information

Port Name	Channel	BSSID	SSID	Min RSSI	Avg RSSI	Max RSSI
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### Other Information

Results Directory      C:\Program Files\VeriWave\VCE\Results\20071106-103315  
WaveVCE Version      2.4.VCE-9, 2007.11.01.14  
WaveTest Version      2.4.2.1, 2007.08.13.12