Pantheon Report

Generated at 2018-01-02 13:16:50 (UTC).

Data path: Brazil Ethernet (*remote*) →AWS Brazil 1 Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

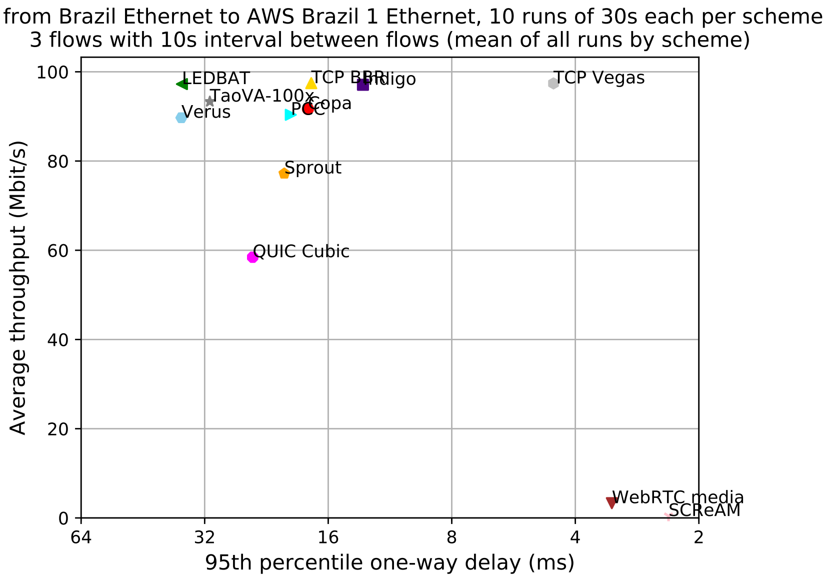
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

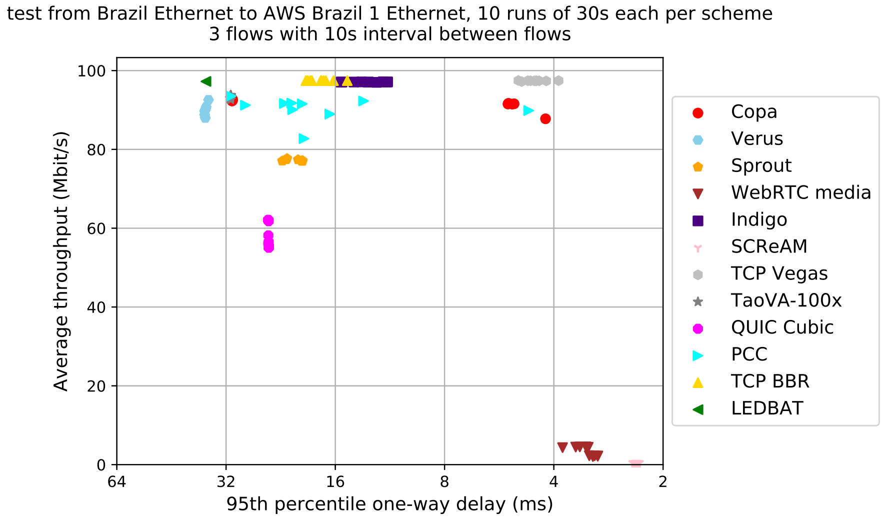
Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 904a5750834816b1e46a2c86405d707788d27c16
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ dcaef6b00654e660f73f7ed679d2eab61ce08639
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```



test from Brazil Ethernet to AWS Brazil 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Brazil Ethernet to AWS Brazil 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows

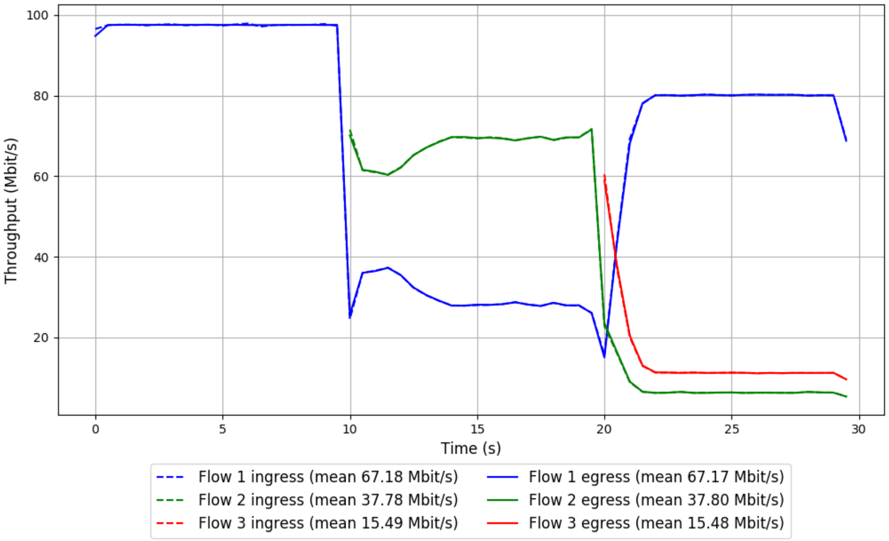
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	67.62	33.77	22.30	17.46	17.22	22.30	0.08	0.03	0.16
TCP Cubic	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEDBAT	1	61.65	41.61	30.04	36.24	36.38	36.43	0.06	0.19	0.47
PCC	10	68.66	27.48	10.39	18.22	21.51	22.79	0.03	0.10	0.17
QUIC Cubic	10	1.01	65.12	45.85	2.66	24.42	24.48	0.00	0.09	0.29
SCReAM	10	0.22	0.22	0.22	2.37	2.37	2.37	0.00	0.10	0.00
WebRTC media	10	1.22	1.51	0.63	3.87	3.15	3.44	0.03	0.00	0.13
Sprout	10	43.28	37.88	26.49	18.88	20.22	22.29	0.04	0.08	0.20
TaoVA-100x	10	58.29	40.51	31.94	30.30	31.11	31.20	0.06	0.14	0.41
TCP Vegas	10	47.49	45.41	59.50	6.76	4.41	4.51	0.01	0.02	0.06
Verus	10	52.34	40.83	30.83	35.43	36.52	36.70	0.07	0.16	0.39
Copa	10	59.75	36.63	32.06	17.15	17.98	18.52	0.04	0.09	0.24
FillP	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indigo	10	60.30	37.62	36.16	12.59	13.27	15.00	0.02	0.05	0.14

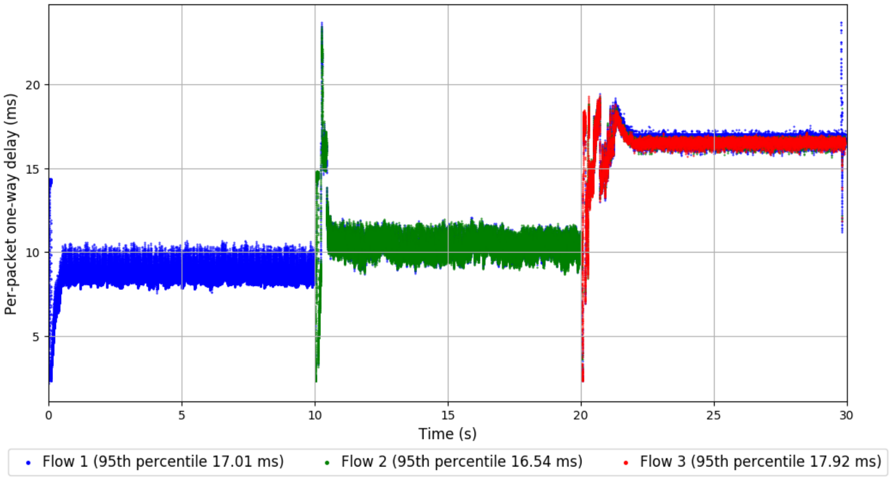
```
Run 1: Statistics of TCP BBR

Start at: 2018-01-02 07:20:32
End at: 2018-01-02 07:21:02
Local clock offset: 0.092 ms
Remote clock offset: -0.254 ms

# Below is generated by plot.py at 2018-01-02 12:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 16.999 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 67.17 Mbit/s
95th percentile per-packet one-way delay: 17.009 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 37.80 Mbit/s
95th percentile per-packet one-way delay: 16.544 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 15.48 Mbit/s
95th percentile per-packet one-way delay: 17.921 ms
Loss rate: 0.15%
```

Run 1: Report of TCP BBR — Data Link



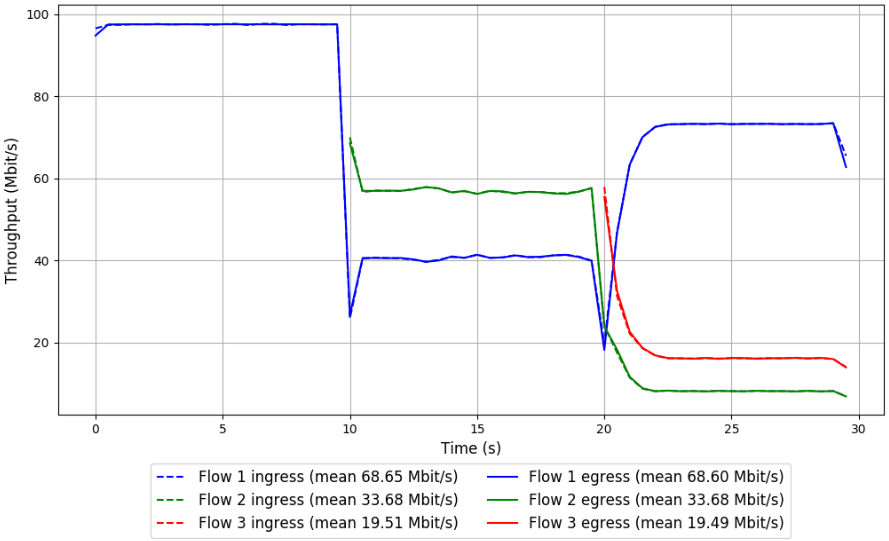


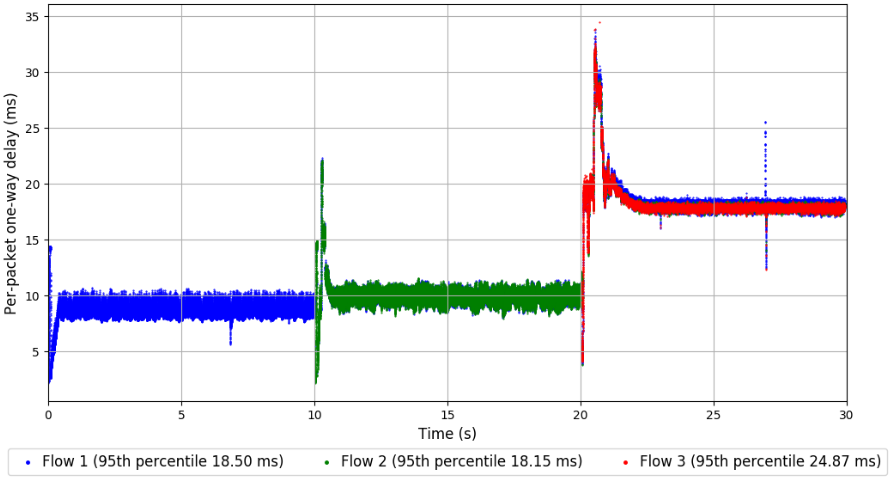
```
Run 2: Statistics of TCP BBR

Start at: 2018-01-02 07:37:29
End at: 2018-01-02 07:37:59
Local clock offset: 0.034 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-01-02 12:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 18.766 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 68.60 Mbit/s
95th percentile per-packet one-way delay: 18.496 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 33.68 Mbit/s
95th percentile per-packet one-way delay: 18.146 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 19.49 Mbit/s
95th percentile per-packet one-way delay: 24.868 ms
Loss rate: 0.17%
```

Run 2: Report of TCP BBR — Data Link



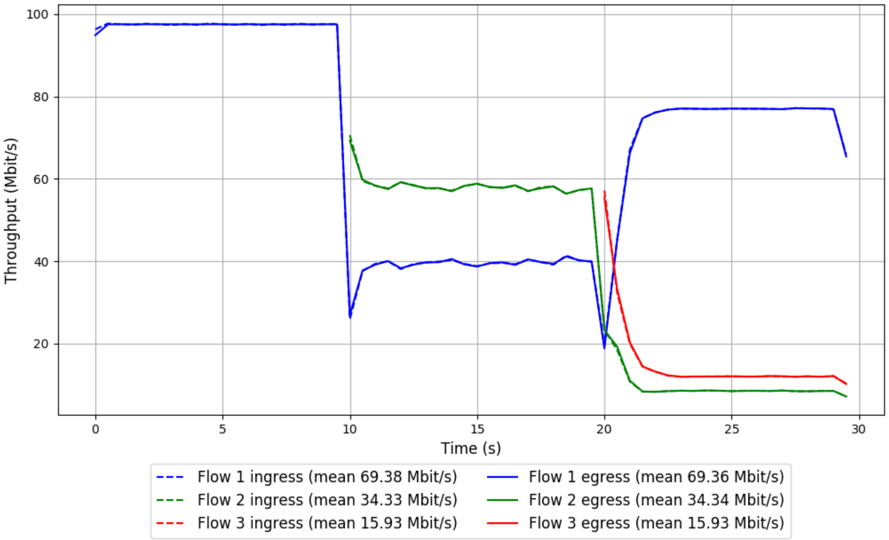


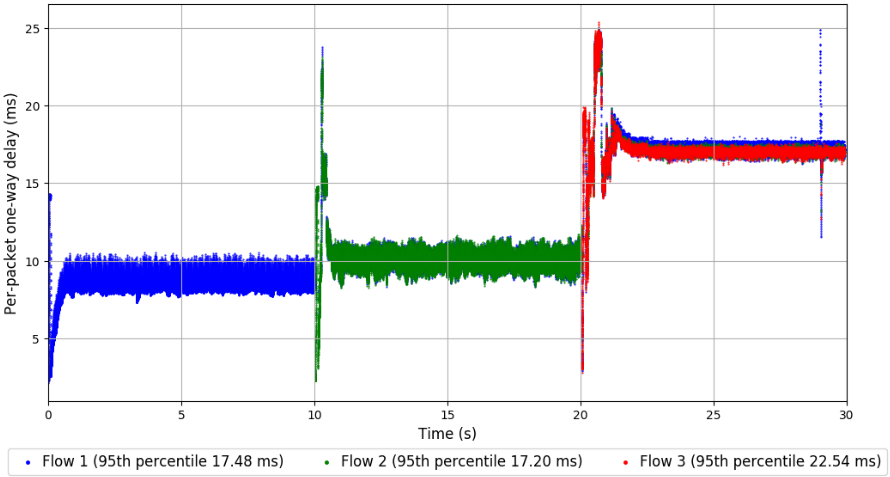
```
Run 3: Statistics of TCP BBR

Start at: 2018-01-02 07:54:26
End at: 2018-01-02 07:54:56
Local clock offset: -0.06 ms
Remote clock offset: 0.265 ms

# Below is generated by plot.py at 2018-01-02 12:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 17.485 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 69.36 Mbit/s
95th percentile per-packet one-way delay: 17.484 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 34.34 Mbit/s
95th percentile per-packet one-way delay: 17.202 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 15.93 Mbit/s
95th percentile per-packet one-way delay: 22.544 ms
Loss rate: 0.15%
```

Run 3: Report of TCP BBR — Data Link



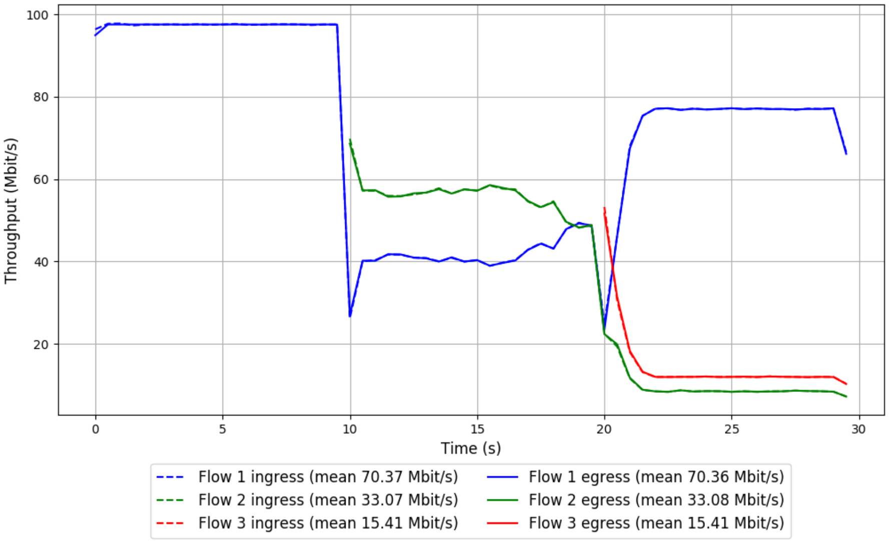


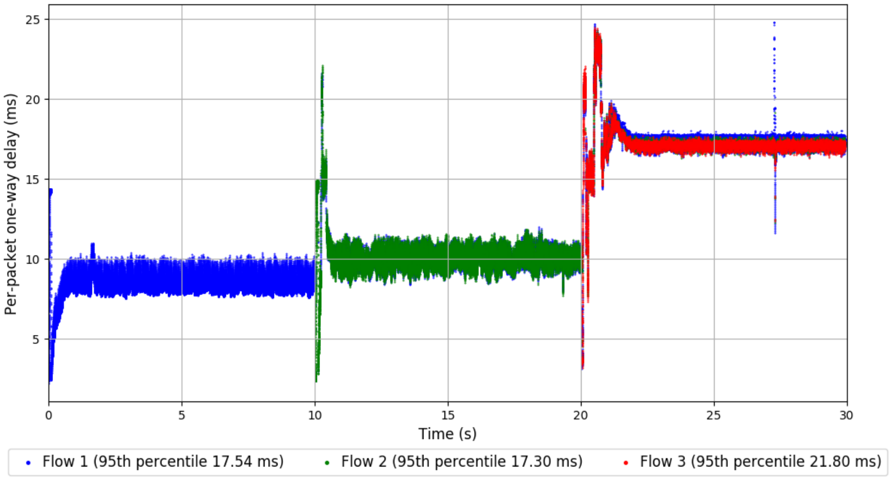
```
Run 4: Statistics of TCP BBR

Start at: 2018-01-02 08:11:23
End at: 2018-01-02 08:11:53
Local clock offset: -0.038 ms
Remote clock offset: 0.464 ms

# Below is generated by plot.py at 2018-01-02 12:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 17.548 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 70.36 Mbit/s
95th percentile per-packet one-way delay: 17.541 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 17.298 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 21.796 ms
Loss rate: 0.16%
```

Run 4: Report of TCP BBR — Data Link



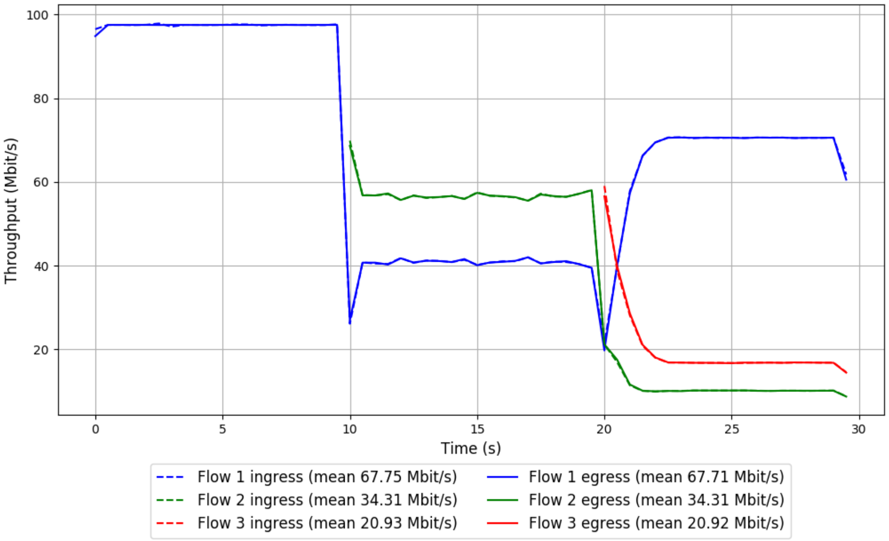


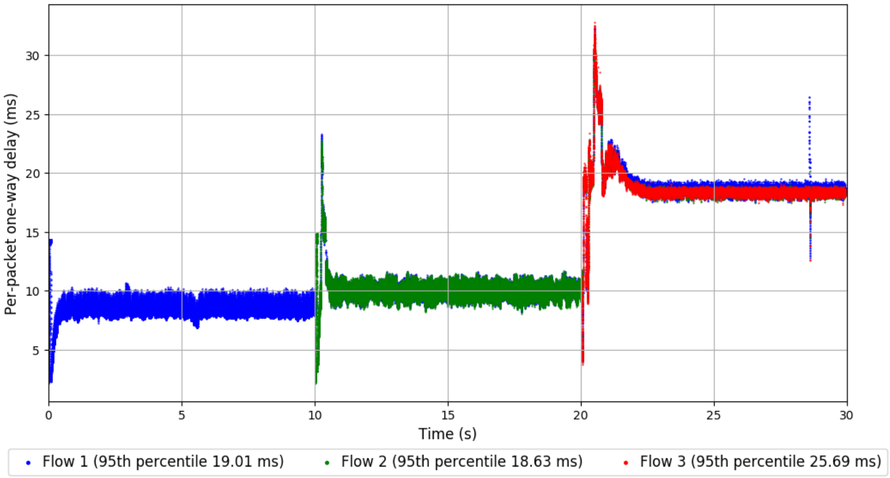
```
Run 5: Statistics of TCP BBR

Start at: 2018-01-02 08:28:20
End at: 2018-01-02 08:28:50
Local clock offset: -0.092 ms
Remote clock offset: 0.618 ms

# Below is generated by plot.py at 2018-01-02 12:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 19.286 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 67.71 Mbit/s
95th percentile per-packet one-way delay: 19.008 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 34.31 Mbit/s
95th percentile per-packet one-way delay: 18.627 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 20.92 Mbit/s
95th percentile per-packet one-way delay: 25.691 ms
Loss rate: 0.17%
```

Run 5: Report of TCP BBR — Data Link



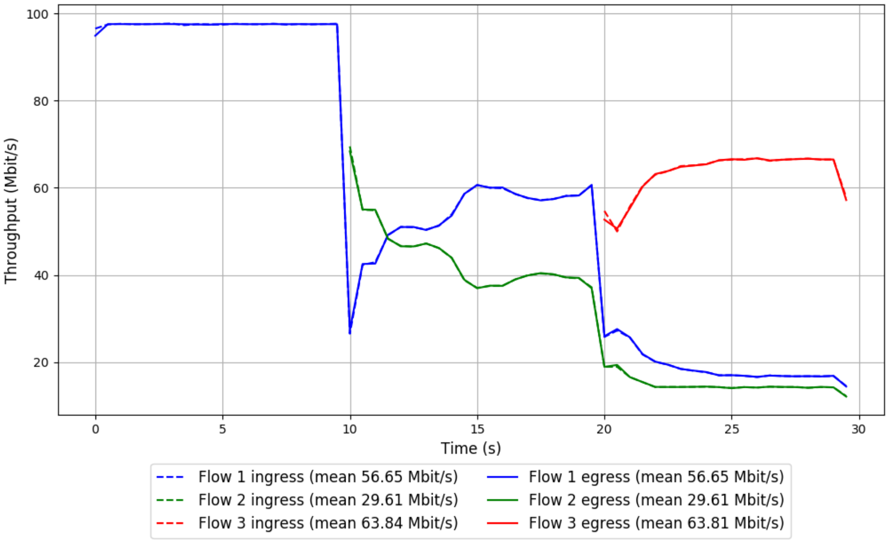


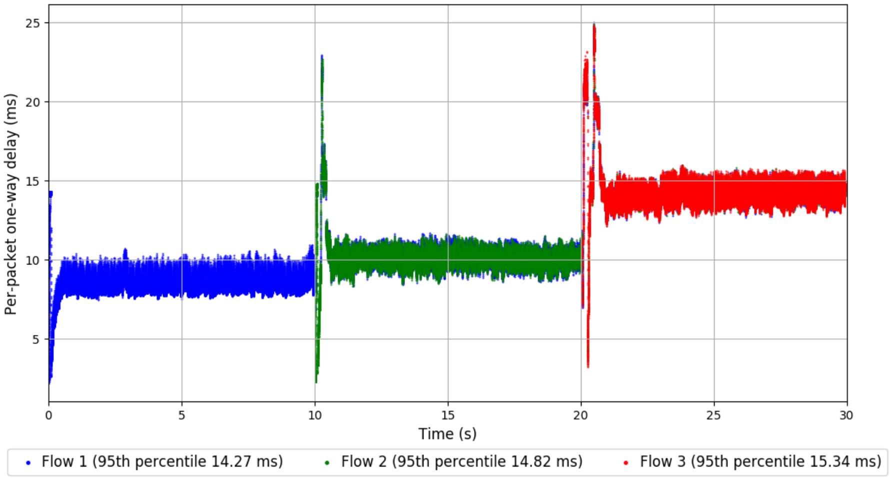
```
Run 6: Statistics of TCP BBR

Start at: 2018-01-02 08:45:17
End at: 2018-01-02 08:45:47
Local clock offset: -0.131 ms
Remote clock offset: 0.725 ms

# Below is generated by plot.py at 2018-01-02 12:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 14.831 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 56.65 Mbit/s
95th percentile per-packet one-way delay: 14.271 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 14.824 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 63.81 Mbit/s
95th percentile per-packet one-way delay: 15.339 ms
Loss rate: 0.19%
```

Run 6: Report of TCP BBR — Data Link



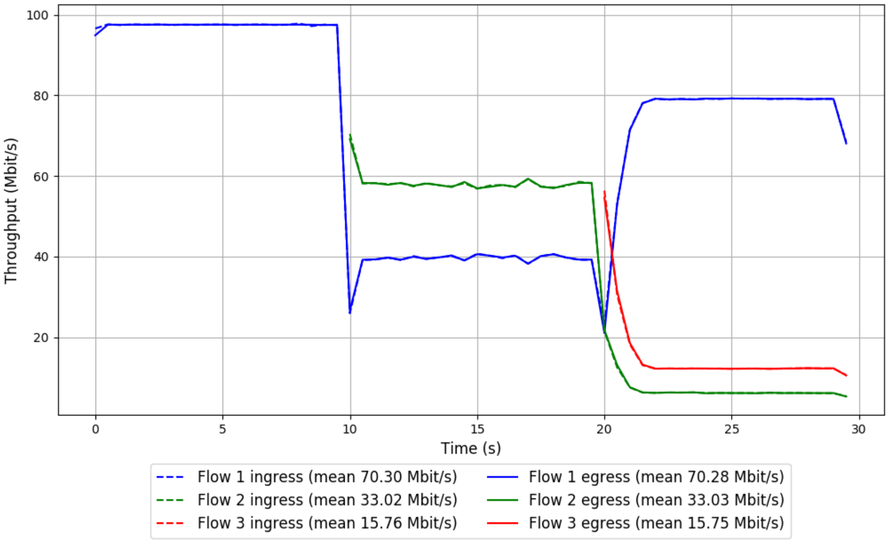


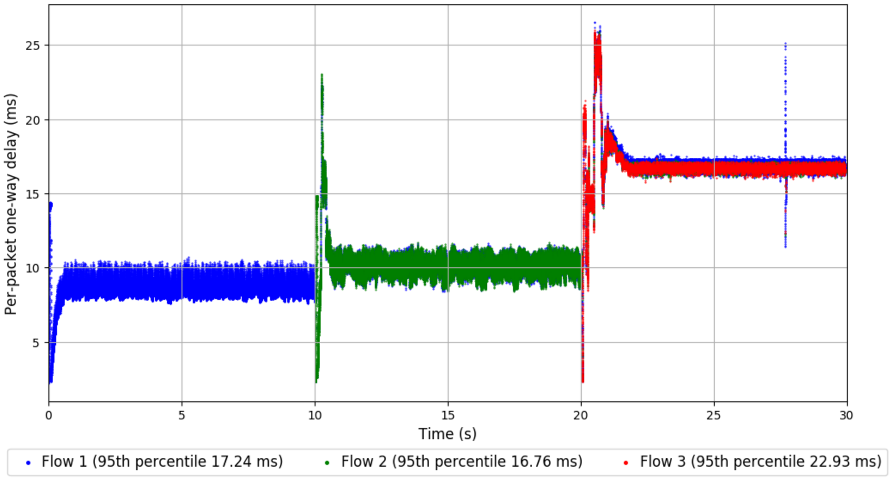
```
Run 7: Statistics of TCP BBR

Start at: 2018-01-02 09:02:15
End at: 2018-01-02 09:02:45
Local clock offset: -0.151 ms
Remote clock offset: 0.738 ms

# Below is generated by plot.py at 2018-01-02 12:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 17.236 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 70.28 Mbit/s
95th percentile per-packet one-way delay: 17.237 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.03 Mbit/s
95th percentile per-packet one-way delay: 16.761 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 15.75 Mbit/s
95th percentile per-packet one-way delay: 22.928 ms
Loss rate: 0.15%
```

Run 7: Report of TCP BBR — Data Link



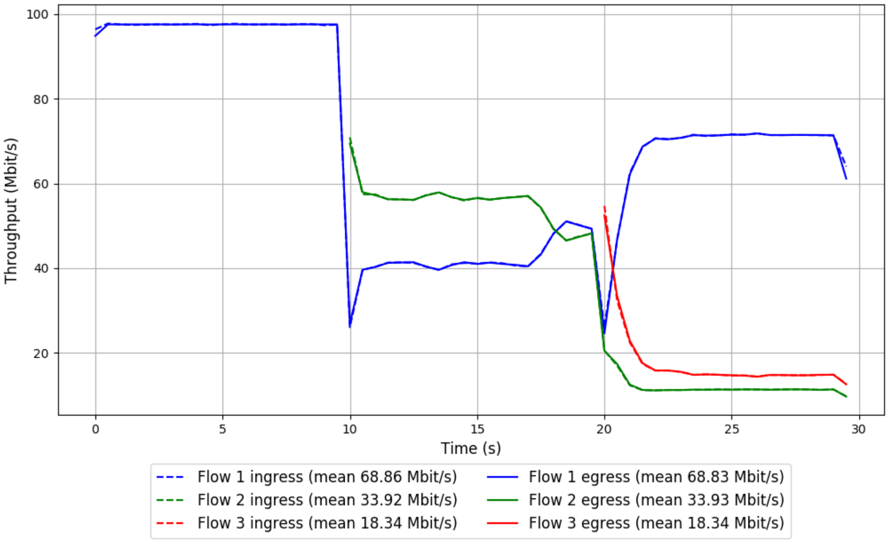


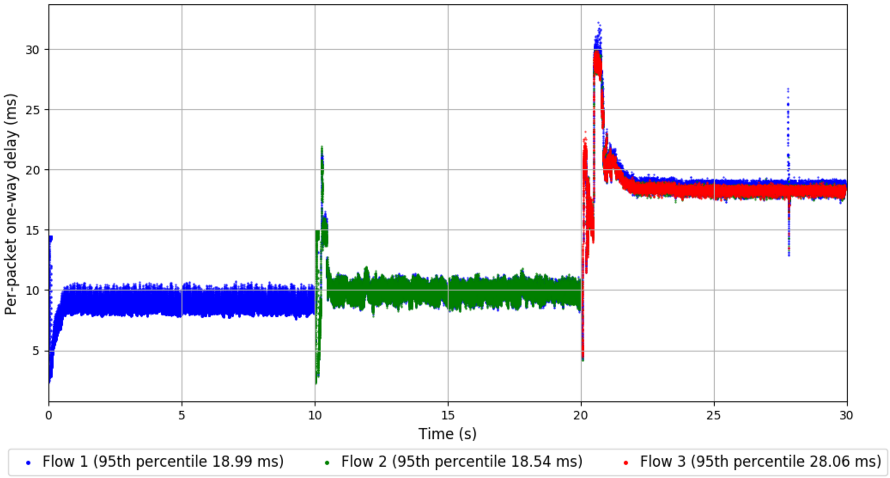
```
Run 8: Statistics of TCP BBR

Start at: 2018-01-02 09:19:14
End at: 2018-01-02 09:19:44
Local clock offset: -0.195 ms
Remote clock offset: 0.639 ms

# Below is generated by plot.py at 2018-01-02 12:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 19.056 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 68.83 Mbit/s
95th percentile per-packet one-way delay: 18.987 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 33.93 Mbit/s
95th percentile per-packet one-way delay: 18.544 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 28.057 ms
Loss rate: 0.17%
```

Run 8: Report of TCP BBR — Data Link



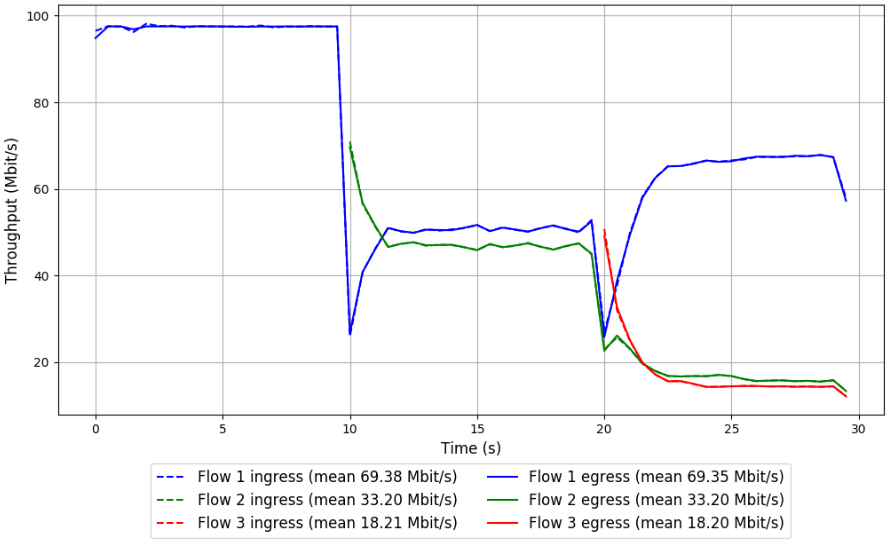


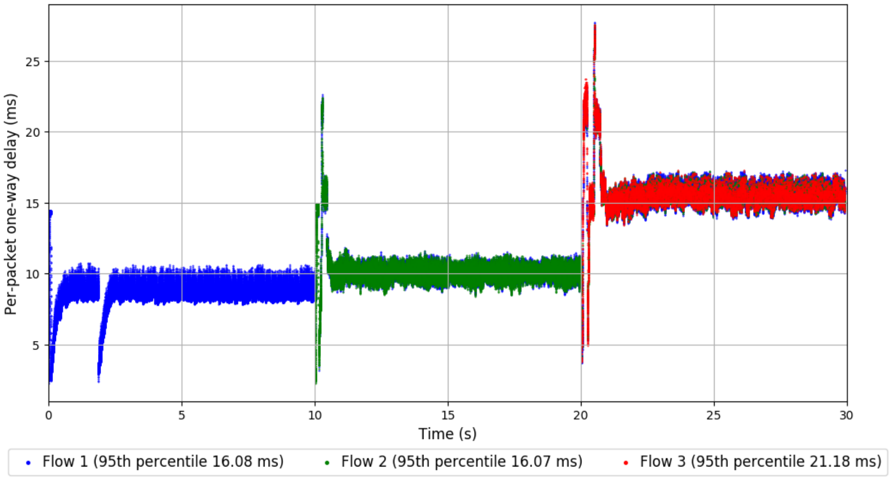
```
Run 9: Statistics of TCP BBR

Start at: 2018-01-02 09:36:11
End at: 2018-01-02 09:36:41
Local clock offset: -0.263 ms
Remote clock offset: 0.632 ms

# Below is generated by plot.py at 2018-01-02 13:01:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 16.189 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 69.35 Mbit/s
95th percentile per-packet one-way delay: 16.081 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 33.20 Mbit/s
95th percentile per-packet one-way delay: 16.072 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 18.20 Mbit/s
95th percentile per-packet one-way delay: 21.175 ms
Loss rate: 0.15%
```

Run 9: Report of TCP BBR — Data Link



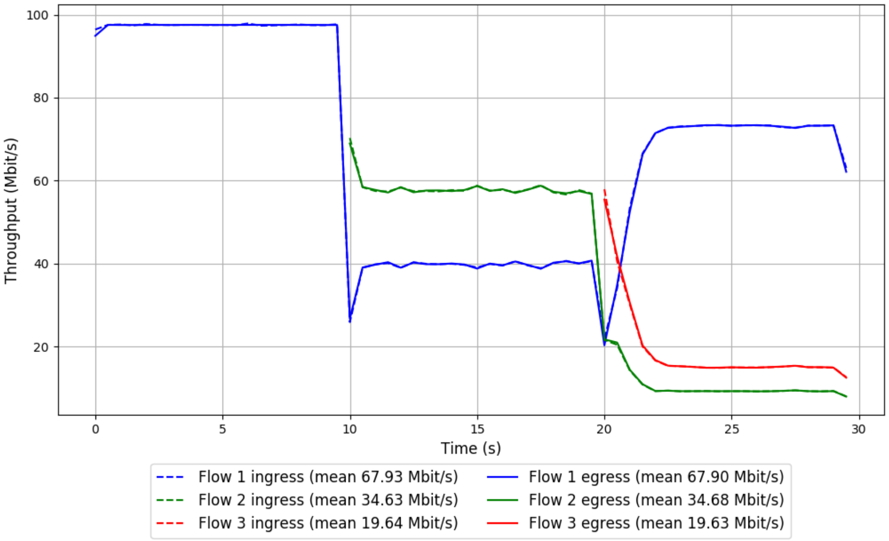


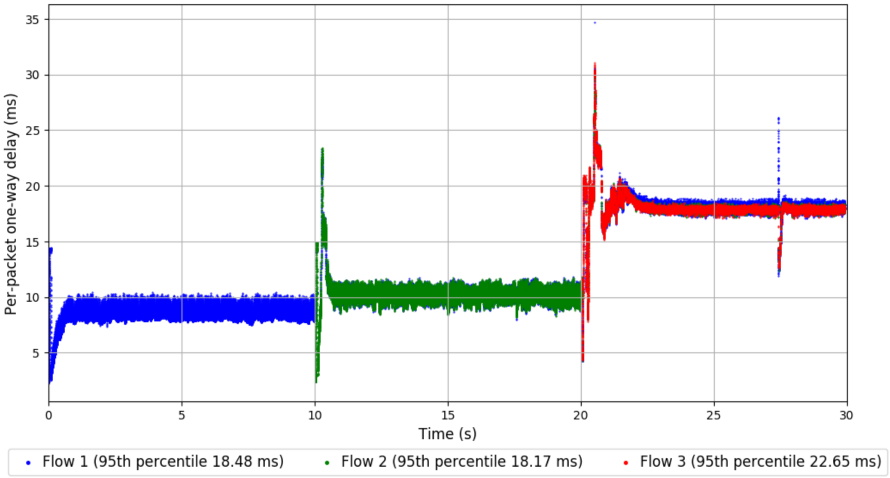
```
Run 10: Statistics of TCP BBR

Start at: 2018-01-02 09:53:08
End at: 2018-01-02 09:53:38
Local clock offset: -0.312 ms
Remote clock offset: 0.677 ms

# Below is generated by plot.py at 2018-01-02 13:01:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 18.570 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 67.90 Mbit/s
95th percentile per-packet one-way delay: 18.475 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 34.68 Mbit/s
95th percentile per-packet one-way delay: 18.169 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 19.63 Mbit/s
95th percentile per-packet one-way delay: 22.651 ms
Loss rate: 0.16%
```

Run 10: Report of TCP BBR — Data Link





```
Run 1: Statistics of TCP Cubic

Start at: 2018-01-02 07:16:05
End at: 2018-01-02 07:16:35
Local clock offset: 0.107 ms
Remote clock offset: -0.263 ms
```

Run 1: Report of TCP Cubic — Data Link

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```
Run 2: Statistics of TCP Cubic

Start at: 2018-01-02 07:33:02
End at: 2018-01-02 07:33:32
Local clock offset: 0.069 ms
Remote clock offset: -0.147 ms
```

Run 2: Report of TCP Cubic — Data Link

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```
Run 3: Statistics of TCP Cubic

Start at: 2018-01-02 07:49:58
End at: 2018-01-02 07:50:28
Local clock offset: 0.006 ms
Remote clock offset: 0.198 ms
```

Run 3: Report of TCP Cubic — Data Link

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```
Run 4: Statistics of TCP Cubic

Start at: 2018-01-02 08:06:56
End at: 2018-01-02 08:07:26
Local clock offset: -0.036 ms
Remote clock offset: 0.343 ms
```

Run 4: Report of TCP Cubic — Data Link

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```
Run 5: Statistics of TCP Cubic

Start at: 2018-01-02 08:23:53
End at: 2018-01-02 08:24:23
Local clock offset: -0.055 ms
Remote clock offset: 0.508 ms
```

Run 5: Report of TCP Cubic — Data Link

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```
Run 6: Statistics of TCP Cubic

Start at: 2018-01-02 08:40:50
End at: 2018-01-02 08:41:20
Local clock offset: -0.172 ms
Remote clock offset: 0.688 ms
```

Run 6: Report of TCP Cubic — Data Link

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```
Run 7: Statistics of TCP Cubic

Start at: 2018-01-02 08:57:47
End at: 2018-01-02 08:58:17
Local clock offset: -0.126 ms
Remote clock offset: 0.725 ms
```

Run 7: Report of TCP Cubic — Data Link

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```
Run 8: Statistics of TCP Cubic

Start at: 2018-01-02 09:14:47
End at: 2018-01-02 09:15:17
Local clock offset: -0.255 ms
Remote clock offset: 0.735 ms
```

Run 8: Report of TCP Cubic — Data Link

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```
Run 9: Statistics of TCP Cubic

Start at: 2018-01-02 09:31:44
End at: 2018-01-02 09:32:14
Local clock offset: -0.248 ms
Remote clock offset: 0.678 ms
```

Run 9: Report of TCP Cubic — Data Link

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```
Run 10: Statistics of TCP Cubic

Start at: 2018-01-02 09:48:41
End at: 2018-01-02 09:49:11
Local clock offset: -0.372 ms
Remote clock offset: 0.732 ms
```

Run 10: Report of TCP Cubic — Data Link

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```
Run 1: Statistics of LEDBAT

Start at: 2018-01-02 07:23:52
End at: 2018-01-02 07:24:22
Local clock offset: 0.075 ms
Remote clock offset: -0.224 ms
```

Run 1: Report of LEDBAT — Data Link

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```
Run 2: Statistics of LEDBAT

Start at: 2018-01-02 07:40:49
End at: 2018-01-02 07:41:19
Local clock offset: 0.048 ms
Remote clock offset: 0.049 ms
```

Run 2: Report of LEDBAT — Data Link

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```
Run 3: Statistics of LEDBAT

Start at: 2018-01-02 07:57:46
End at: 2018-01-02 07:58:16
Local clock offset: 0.01 ms
Remote clock offset: 0.281 ms
```

Run 3: Report of LEDBAT — Data Link

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```
Run 4: Statistics of LEDBAT

Start at: 2018-01-02 08:14:43
End at: 2018-01-02 08:15:13
Local clock offset: -0.122 ms
Remote clock offset: 0.485 ms
```

Run 4: Report of LEDBAT — Data Link

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```
Run 5: Statistics of LEDBAT

Start at: 2018-01-02 08:31:40
End at: 2018-01-02 08:32:10
Local clock offset: -0.088 ms
Remote clock offset: 0.635 ms
```

Run 5: Report of LEDBAT — Data Link

Figure is missing

Figure is missing

```
Run 6: Statistics of LEDBAT

Start at: 2018-01-02 08:48:37
End at: 2018-01-02 08:49:07
Local clock offset: -0.101 ms
Remote clock offset: 0.661 ms
```

Run 6: Report of LEDBAT — Data Link

Figure is missing

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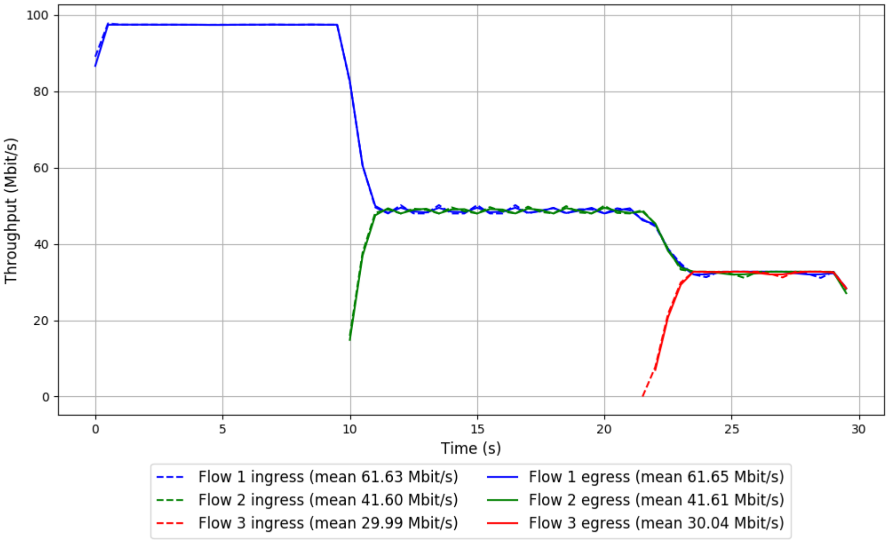
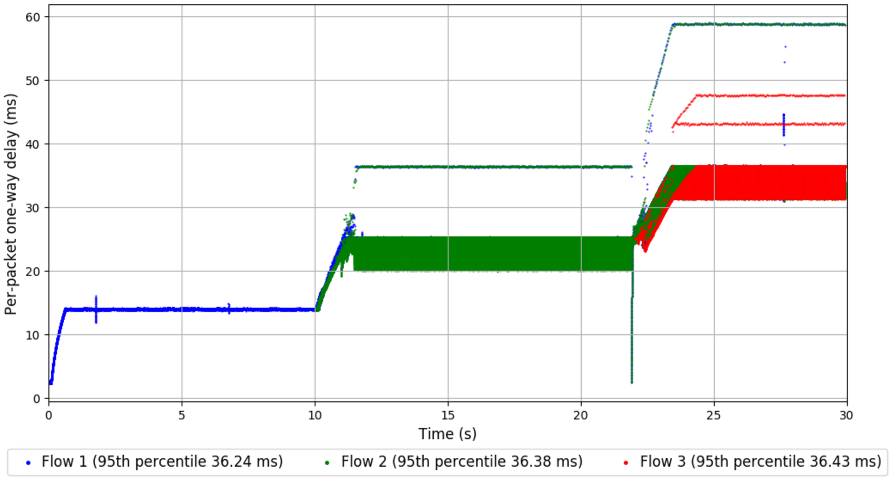
```
Run 7: Statistics of LEDBAT

Start at: 2018-01-02 09:05:35
End at: 2018-01-02 09:06:05
Local clock offset: -0.164 ms
Remote clock offset: 0.713 ms

# Below is generated by plot.py at 2018-01-02 13:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.25 Mbit/s
95th percentile per-packet one-way delay: 36.356 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 36.237 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 41.61 Mbit/s
95th percentile per-packet one-way delay: 36.383 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 30.04 Mbit/s
95th percentile per-packet one-way delay: 36.428 ms
Loss rate: 0.47%
```

Run 7: Report of LEDBAT — Data Link





```
Run 8: Statistics of LEDBAT

Start at: 2018-01-02 09:22:34
End at: 2018-01-02 09:23:04
Local clock offset: -0.217 ms
Remote clock offset: 0.696 ms
```

Run 8: Report of LEDBAT — Data Link

Figure is missing

Figure is missing

```
Run 9: Statistics of LEDBAT

Start at: 2018-01-02 09:39:31
End at: 2018-01-02 09:40:01
Local clock offset: -0.331 ms
Remote clock offset: 0.693 ms
```

Run 9: Report of LEDBAT — Data Link

Figure is missing

Figure is missing

```
Run 10: Statistics of LEDBAT

Start at: 2018-01-02 09:56:28
End at: 2018-01-02 09:56:58
Local clock offset: -0.341 ms
Remote clock offset: 0.746 ms
```

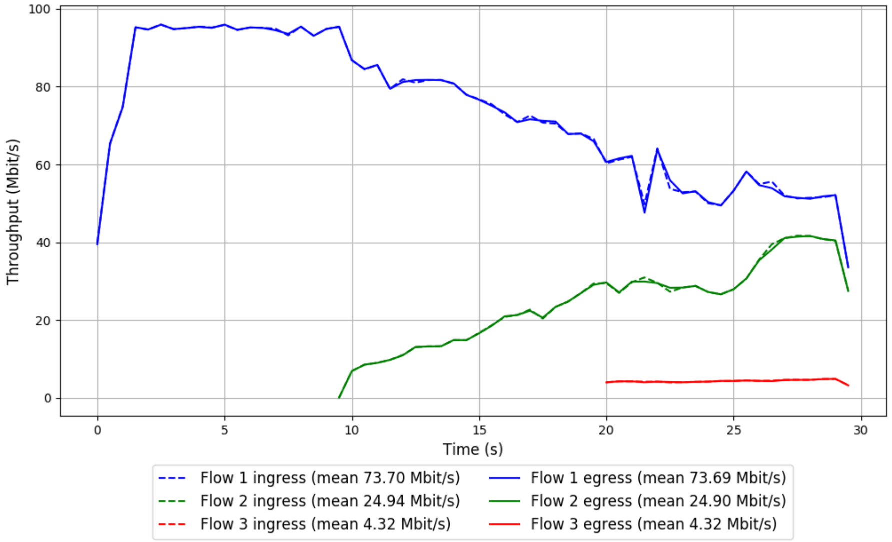
Run 10: Report of LEDBAT — Data Link

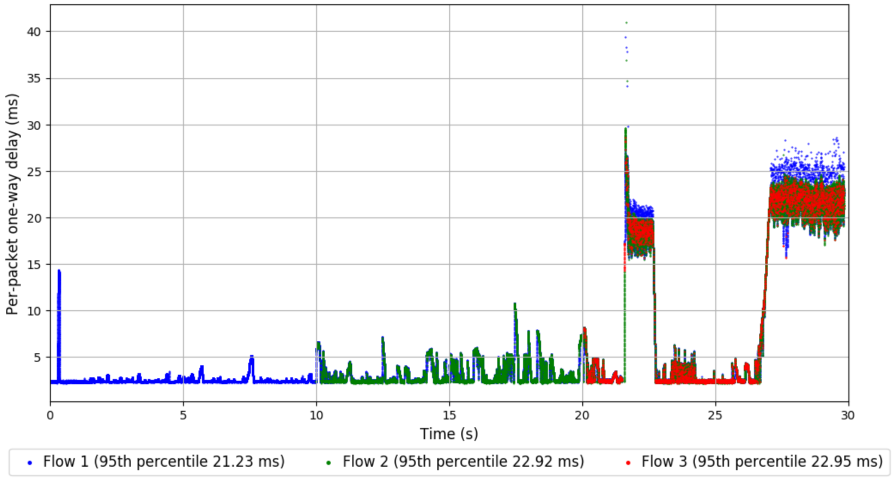
Figure is missing

Figure is missing

```
Run 1: Statistics of PCC

Start at: 2018-01-02 07:22:45
End at: 2018-01-02 07:23:15
Local clock offset: 0.113 ms
Remote clock offset: -0.235 ms

# Below is generated by plot.py at 2018-01-02 13:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.67 Mbit/s
95th percentile per-packet one-way delay: 22.100 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 73.69 Mbit/s
95th percentile per-packet one-way delay: 21.232 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 24.90 Mbit/s
95th percentile per-packet one-way delay: 22.916 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 22.945 ms
Loss rate: 0.26%
```

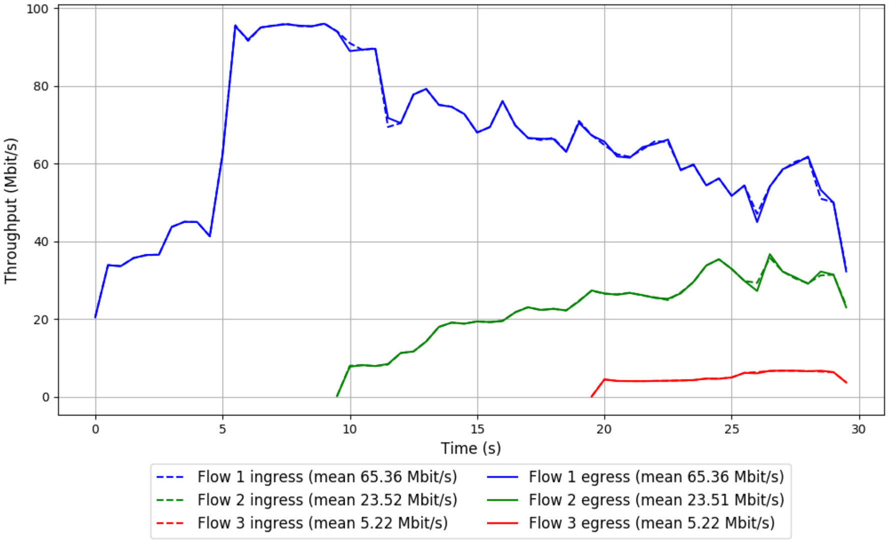
Run 1: Report of PCC — Data Link

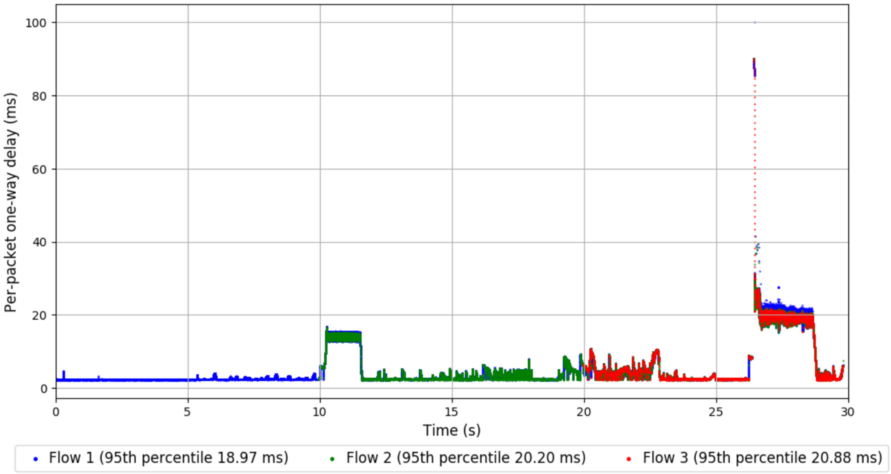




```
Run 2: Statistics of PCC

Start at: 2018-01-02 07:39:42
End at: 2018-01-02 07:40:12
Local clock offset: 0.069 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-01-02 13:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.74 Mbit/s
95th percentile per-packet one-way delay: 19.515 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 65.36 Mbit/s
95th percentile per-packet one-way delay: 18.968 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 23.51 Mbit/s
95th percentile per-packet one-way delay: 20.202 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 5.22 Mbit/s
95th percentile per-packet one-way delay: 20.881 ms
Loss rate: 0.08%
```

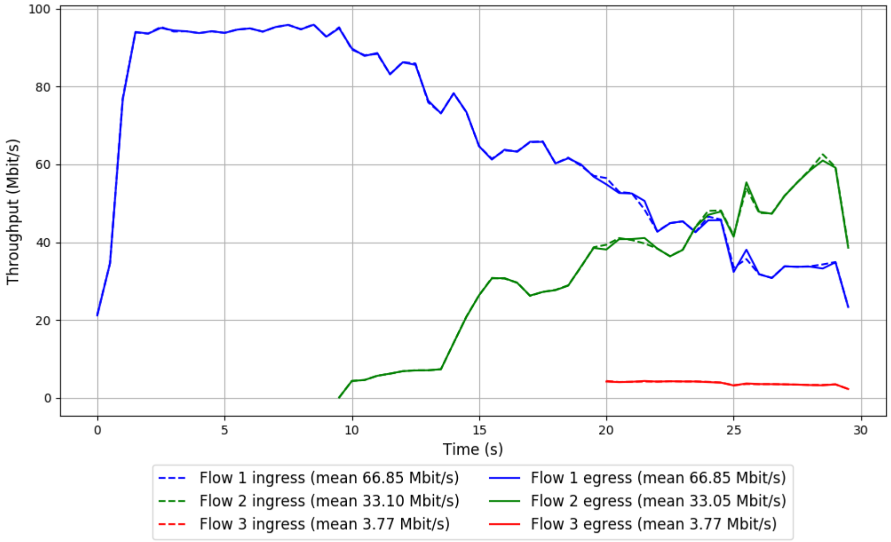
Run 2: Report of PCC — Data Link

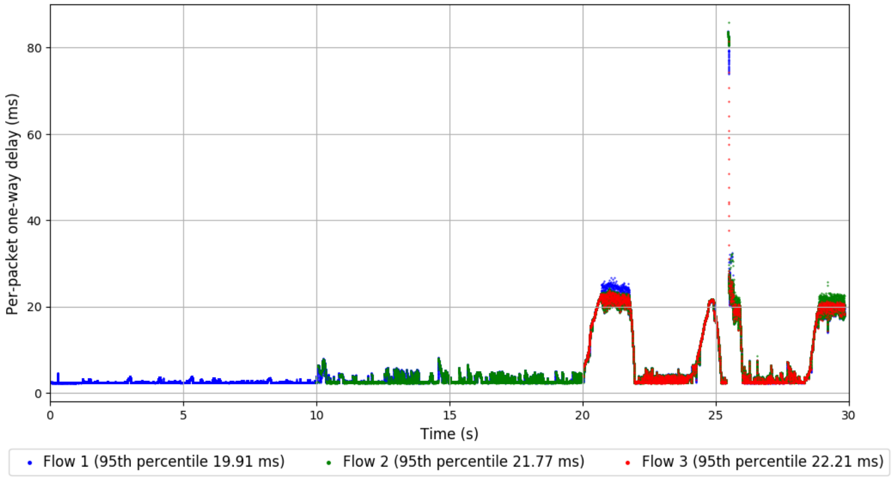




```
Run 3: Statistics of PCC

Start at: 2018-01-02 07:56:39
End at: 2018-01-02 07:57:09
Local clock offset: -0.006 ms
Remote clock offset: 0.21 ms

# Below is generated by plot.py at 2018-01-02 13:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.08 Mbit/s
95th percentile per-packet one-way delay: 20.973 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 66.85 Mbit/s
95th percentile per-packet one-way delay: 19.910 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 33.05 Mbit/s
95th percentile per-packet one-way delay: 21.775 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 22.206 ms
Loss rate: 0.20%
```

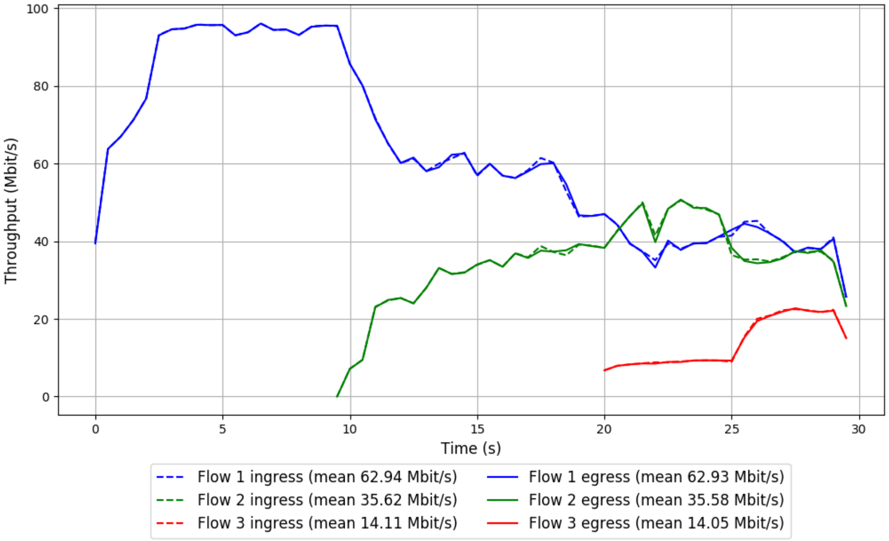
Run 3: Report of PCC — Data Link

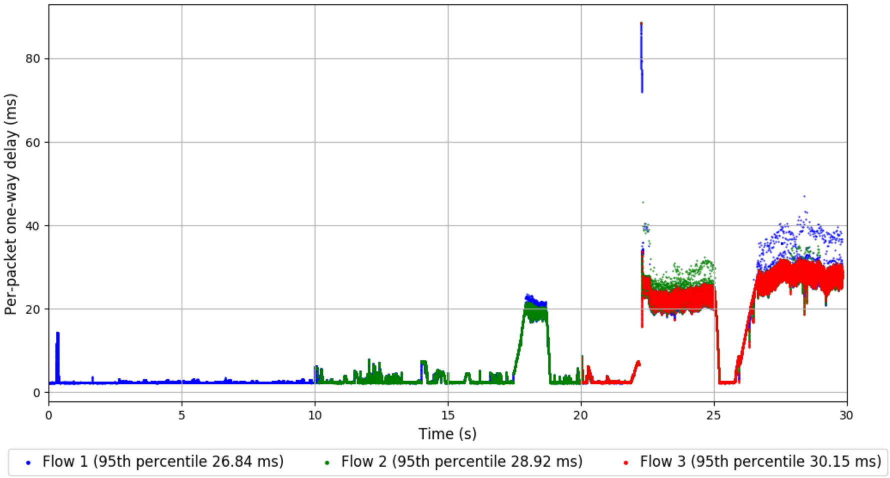




```
Run 4: Statistics of PCC

Start at: 2018-01-02 08:13:36
End at: 2018-01-02 08:14:06
Local clock offset: -0.056 ms
Remote clock offset: 0.437 ms

# Below is generated by plot.py at 2018-01-02 13:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.21 Mbit/s
95th percentile per-packet one-way delay: 28.298 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 62.93 Mbit/s
95th percentile per-packet one-way delay: 26.837 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 35.58 Mbit/s
95th percentile per-packet one-way delay: 28.922 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 30.154 ms
Loss rate: 0.48%
```

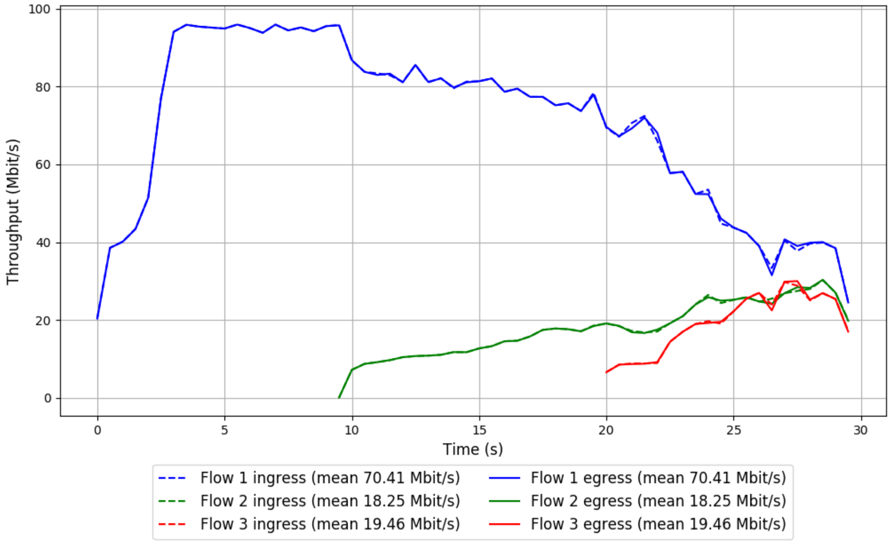
Run 4: Report of PCC — Data Link

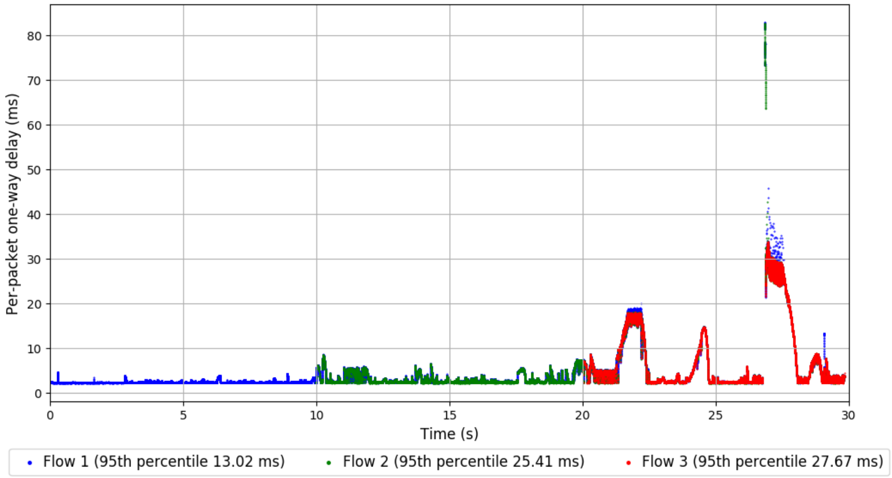




```
Run 5: Statistics of PCC

Start at: 2018-01-02 08:30:33
End at: 2018-01-02 08:31:03
Local clock offset: -0.096 ms
Remote clock offset: 0.628 ms

# Below is generated by plot.py at 2018-01-02 13:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.96 Mbit/s
95th percentile per-packet one-way delay: 16.569 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 70.41 Mbit/s
95th percentile per-packet one-way delay: 13.016 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 18.25 Mbit/s
95th percentile per-packet one-way delay: 25.410 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 19.46 Mbit/s
95th percentile per-packet one-way delay: 27.666 ms
Loss rate: 0.08%
```

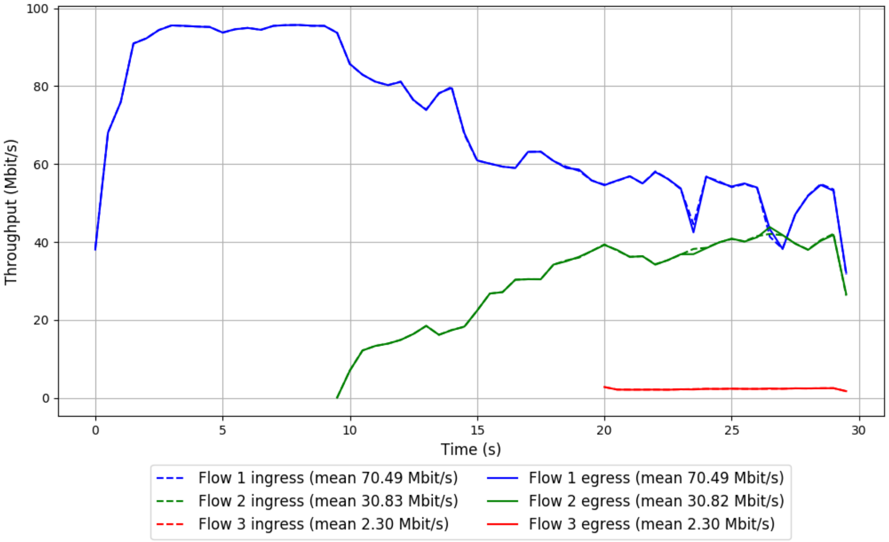
Run 5: Report of PCC — Data Link

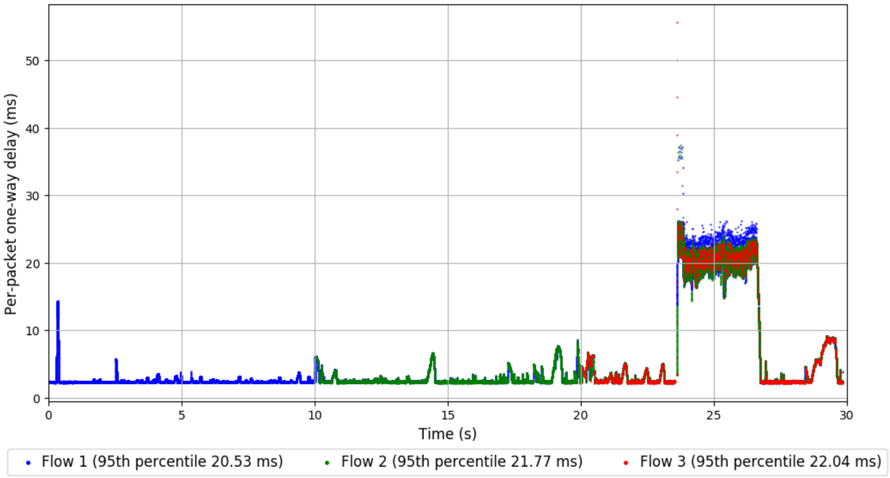




```
Run 6: Statistics of PCC

Start at: 2018-01-02 08:47:30
End at: 2018-01-02 08:48:00
Local clock offset: -0.129 ms
Remote clock offset: 0.725 ms

# Below is generated by plot.py at 2018-01-02 13:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.75 Mbit/s
95th percentile per-packet one-way delay: 21.095 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.49 Mbit/s
95th percentile per-packet one-way delay: 20.527 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 21.769 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 22.038 ms
Loss rate: 0.05%
```

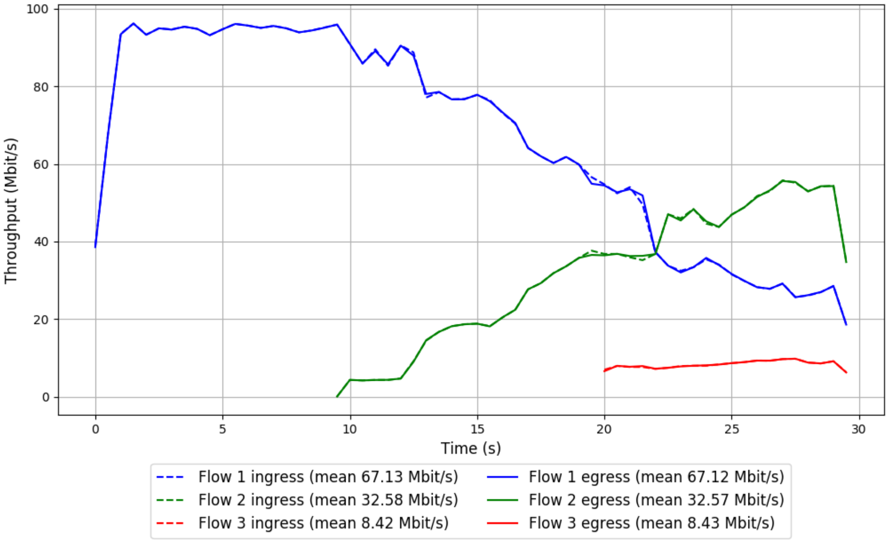
Run 6: Report of PCC — Data Link

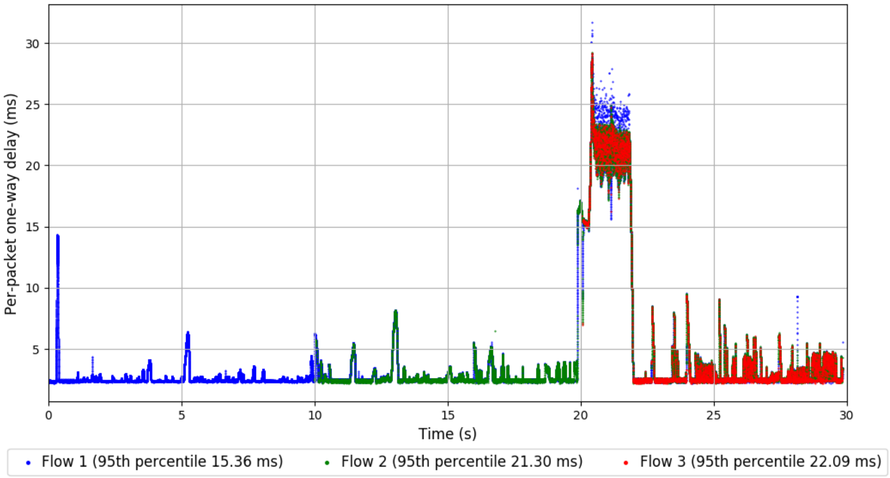




```
Run 7: Statistics of PCC

Start at: 2018-01-02 09:04:28
End at: 2018-01-02 09:04:58
Local clock offset: -0.176 ms
Remote clock offset: 0.664 ms

# Below is generated by plot.py at 2018-01-02 13:02:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.56 Mbit/s
95th percentile per-packet one-way delay: 19.734 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 67.12 Mbit/s
95th percentile per-packet one-way delay: 15.364 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 32.57 Mbit/s
95th percentile per-packet one-way delay: 21.300 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 22.085 ms
Loss rate: 0.06%
```

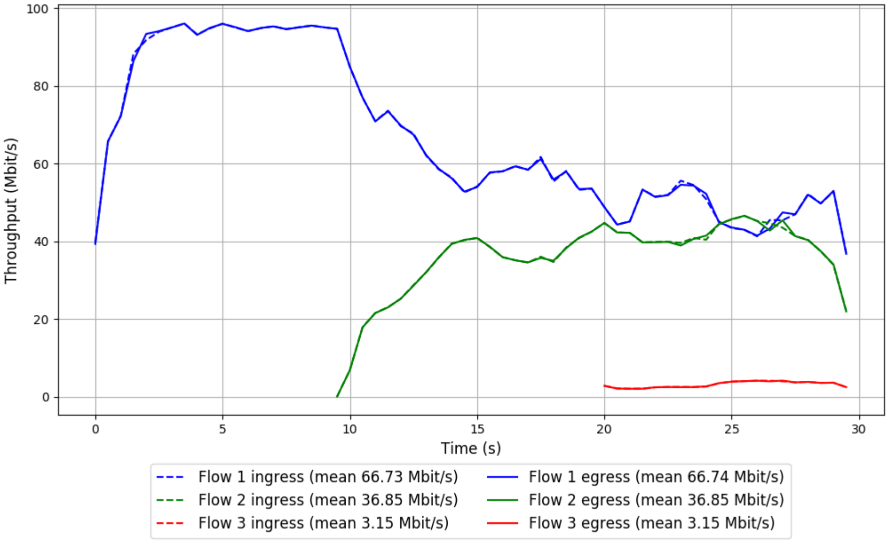
Run 7: Report of PCC — Data Link

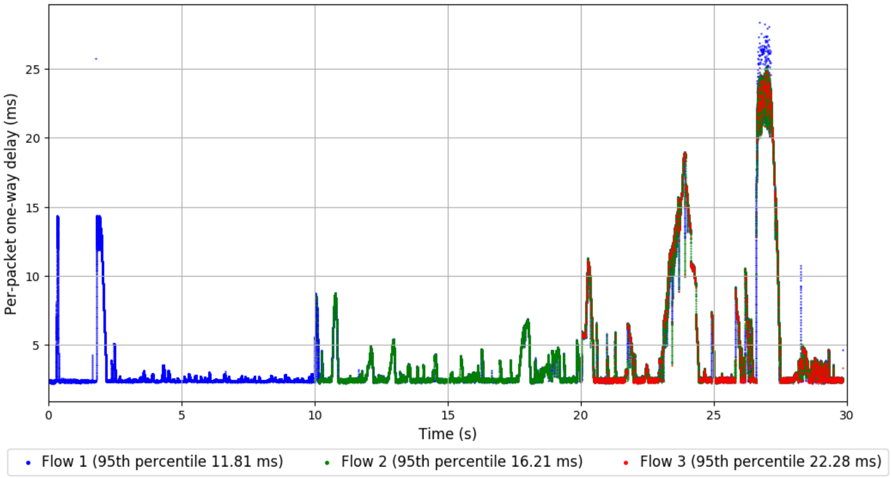




```
Run 8: Statistics of PCC

Start at: 2018-01-02 09:21:27
End at: 2018-01-02 09:21:57
Local clock offset: -0.221 ms
Remote clock offset: 0.625 ms

# Below is generated by plot.py at 2018-01-02 13:02:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 13.375 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 66.74 Mbit/s
95th percentile per-packet one-way delay: 11.810 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 36.85 Mbit/s
95th percentile per-packet one-way delay: 16.209 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 22.282 ms
Loss rate: 0.04%
```

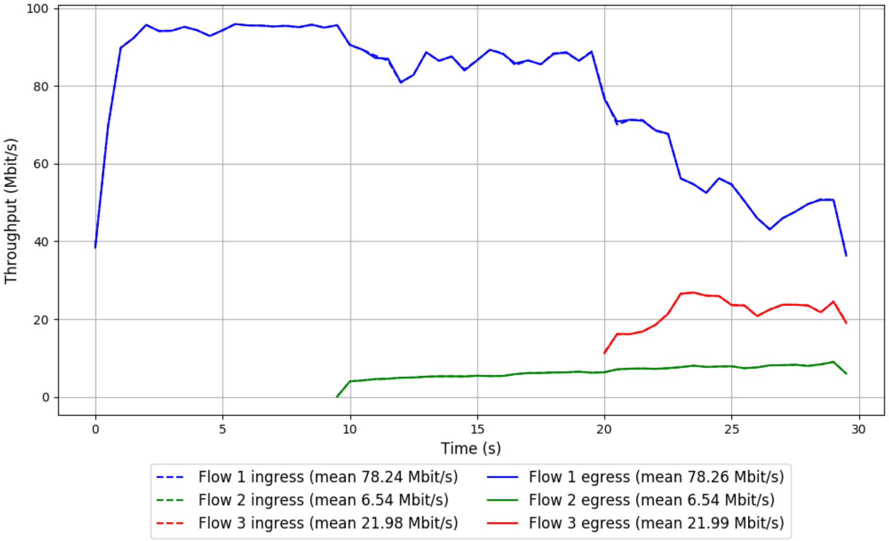
Run 8: Report of PCC — Data Link

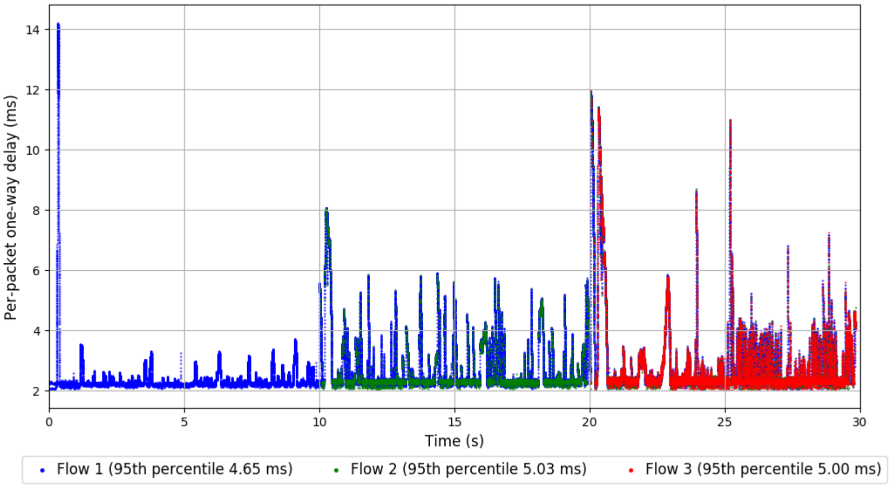




```
Run 9: Statistics of PCC

Start at: 2018-01-02 09:38:24
End at: 2018-01-02 09:38:54
Local clock offset: -0.348 ms
Remote clock offset: 0.709 ms

# Below is generated by plot.py at 2018-01-02 13:02:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.85 Mbit/s
95th percentile per-packet one-way delay: 4.692 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 78.26 Mbit/s
95th percentile per-packet one-way delay: 4.650 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 6.54 Mbit/s
95th percentile per-packet one-way delay: 5.029 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 21.99 Mbit/s
95th percentile per-packet one-way delay: 4.997 ms
Loss rate: 0.09%
```

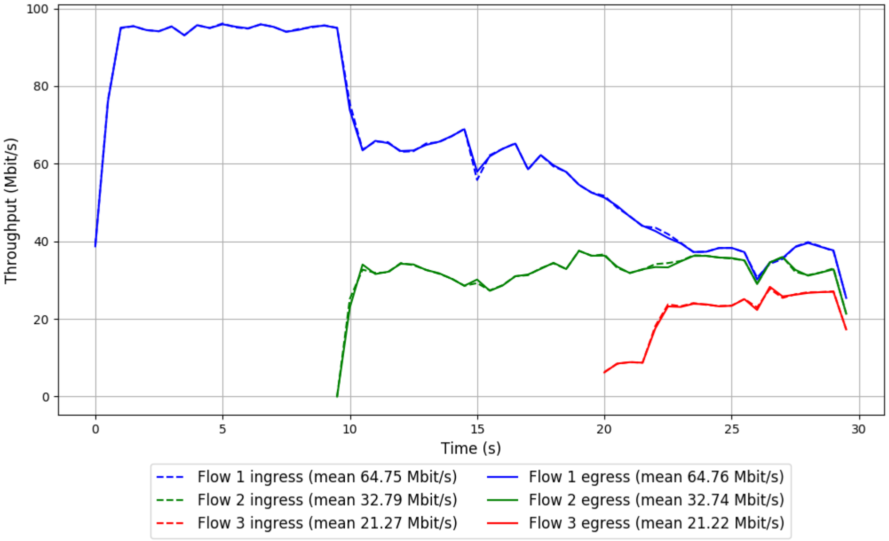
Run 9: Report of PCC — Data Link

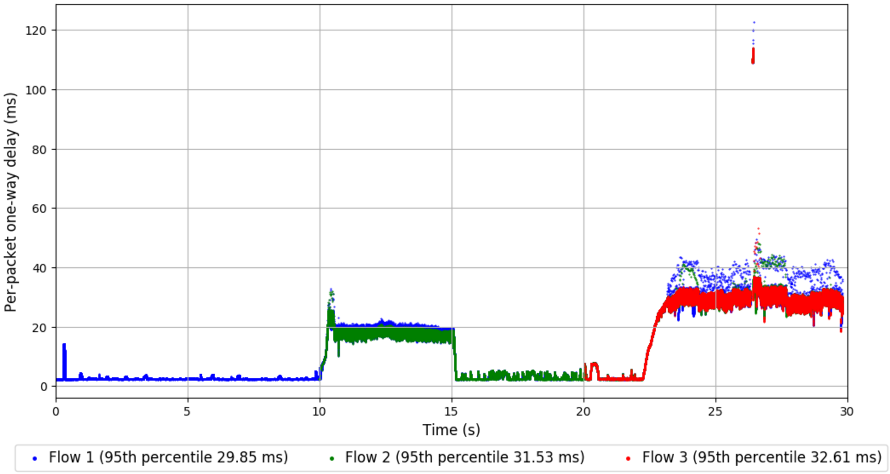




```
Run 10: Statistics of PCC

Start at: 2018-01-02 09:55:21
End at: 2018-01-02 09:55:51
Local clock offset: -0.302 ms
Remote clock offset: 0.753 ms

# Below is generated by plot.py at 2018-01-02 13:02:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.51 Mbit/s
95th percentile per-packet one-way delay: 31.009 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 64.76 Mbit/s
95th percentile per-packet one-way delay: 29.847 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 32.74 Mbit/s
95th percentile per-packet one-way delay: 31.531 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 21.22 Mbit/s
95th percentile per-packet one-way delay: 32.614 ms
Loss rate: 0.39%
```

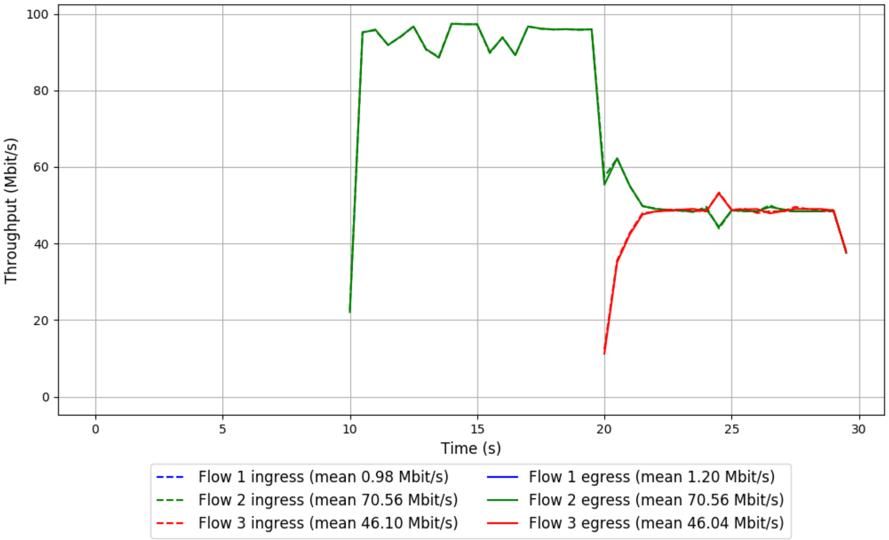
Run 10: Report of PCC — Data Link

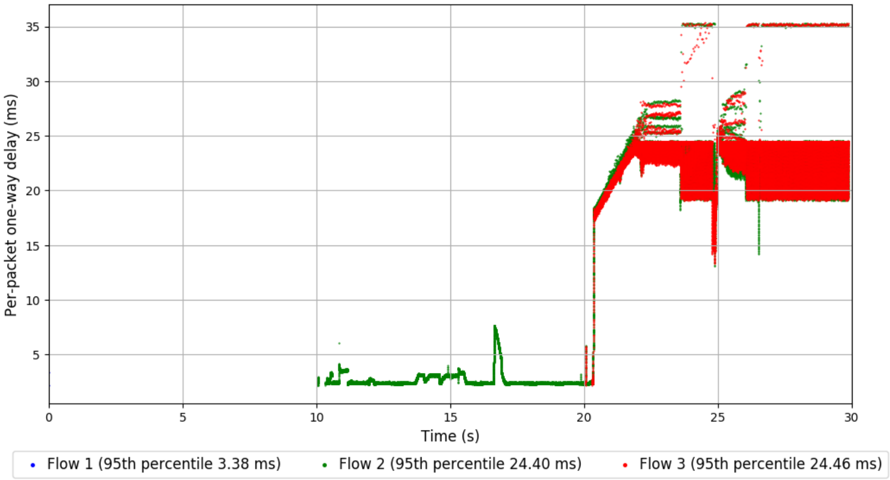




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-02 07:18:18
End at: 2018-01-02 07:18:48
Local clock offset: 0.102 ms
Remote clock offset: -0.267 ms

# Below is generated by plot.py at 2018-01-02 13:02:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.09 Mbit/s
95th percentile per-packet one-way delay: 24.431 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 3.375 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.56 Mbit/s
95th percentile per-packet one-way delay: 24.404 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 46.04 Mbit/s
95th percentile per-packet one-way delay: 24.463 ms
Loss rate: 0.25%
```

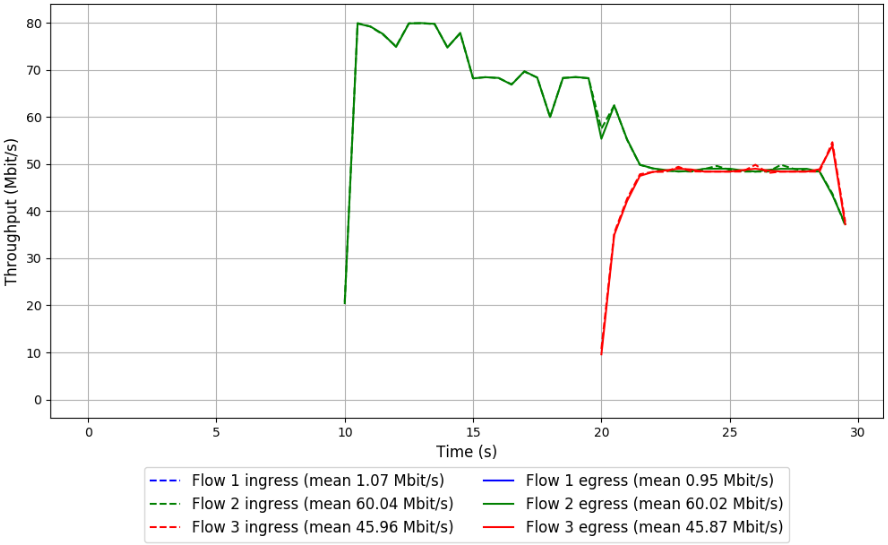
Run 1: Report of QUIC Cubic — Data Link

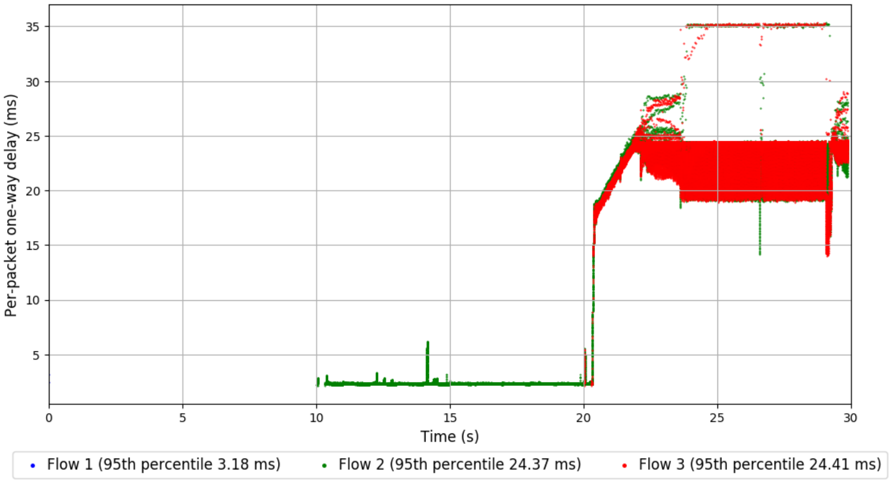




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-01-02 07:35:16
End at: 2018-01-02 07:35:46
Local clock offset: -0.022 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-01-02 13:02:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.07 Mbit/s
95th percentile per-packet one-way delay: 24.388 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 3.178 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 24.366 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 45.87 Mbit/s
95th percentile per-packet one-way delay: 24.413 ms
Loss rate: 0.32%
```

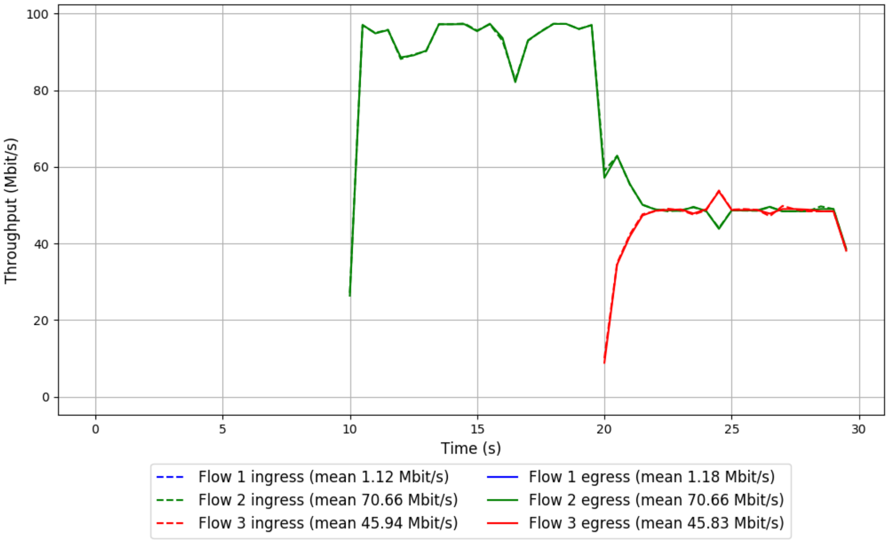
Run 2: Report of QUIC Cubic — Data Link

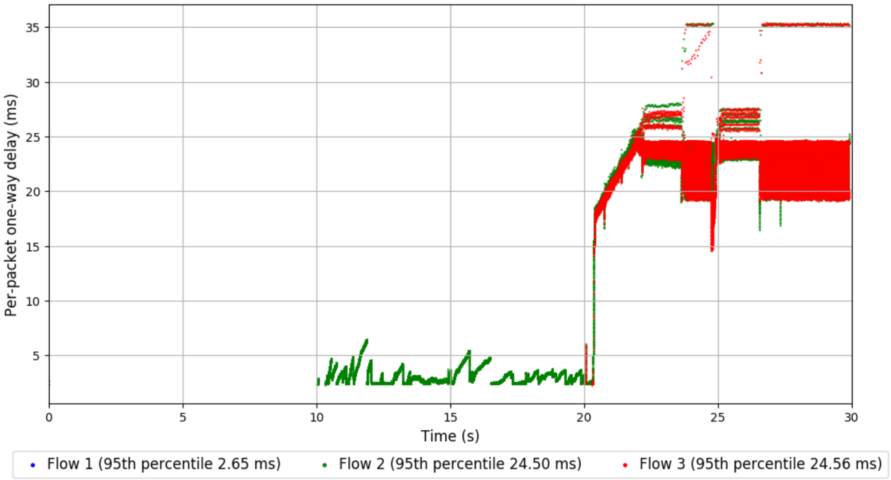




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-01-02 07:52:12
End at: 2018-01-02 07:52:42
Local clock offset: 0.022 ms
Remote clock offset: 0.16 ms

# Below is generated by plot.py at 2018-01-02 13:02:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.12 Mbit/s
95th percentile per-packet one-way delay: 24.525 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 2.645 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.66 Mbit/s
95th percentile per-packet one-way delay: 24.499 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 45.83 Mbit/s
95th percentile per-packet one-way delay: 24.557 ms
Loss rate: 0.27%
```

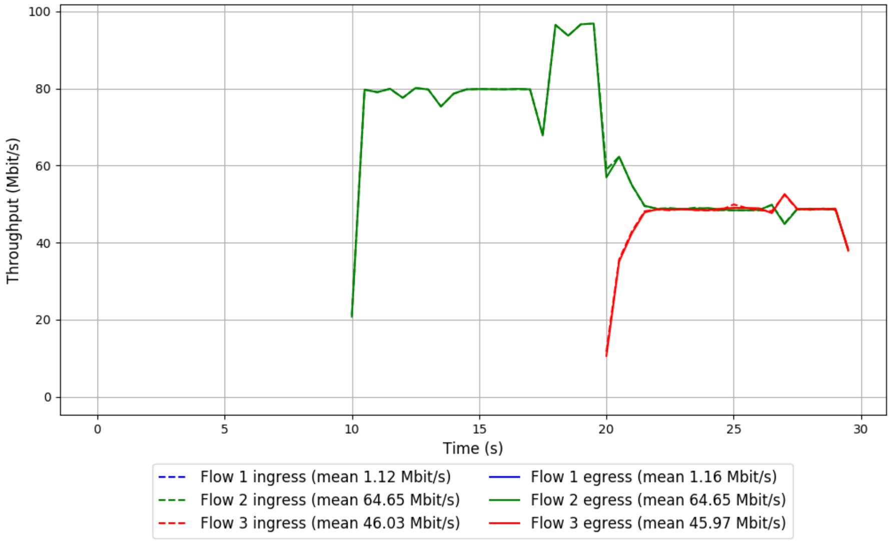
Run 3: Report of QUIC Cubic — Data Link

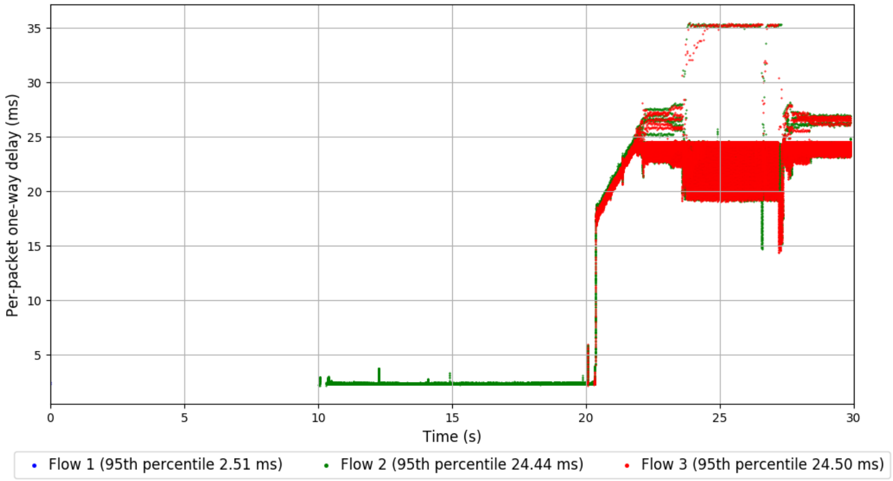




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-01-02 08:09:09
End at: 2018-01-02 08:09:39
Local clock offset: -0.056 ms
Remote clock offset: 0.407 ms

# Below is generated by plot.py at 2018-01-02 13:03:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.18 Mbit/s
95th percentile per-packet one-way delay: 24.467 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 2.508 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.65 Mbit/s
95th percentile per-packet one-way delay: 24.441 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 45.97 Mbit/s
95th percentile per-packet one-way delay: 24.503 ms
Loss rate: 0.29%
```

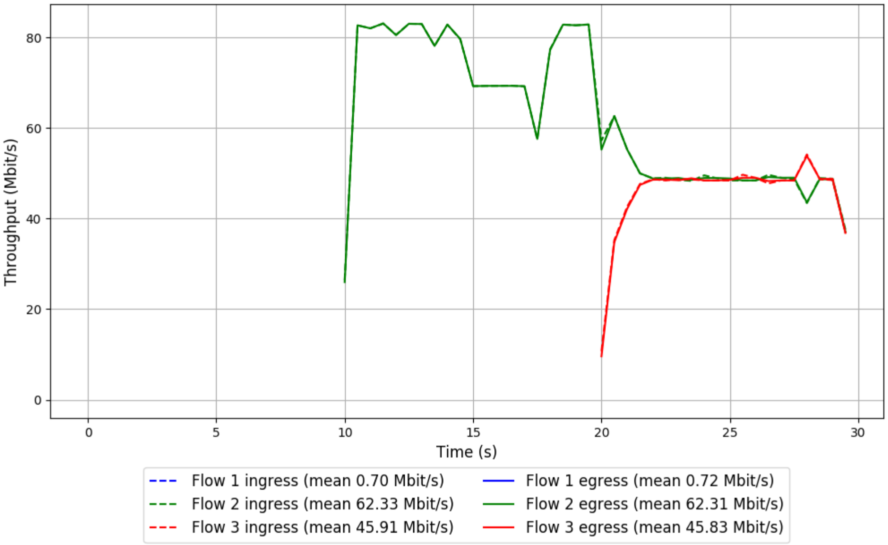
Run 4: Report of QUIC Cubic — Data Link

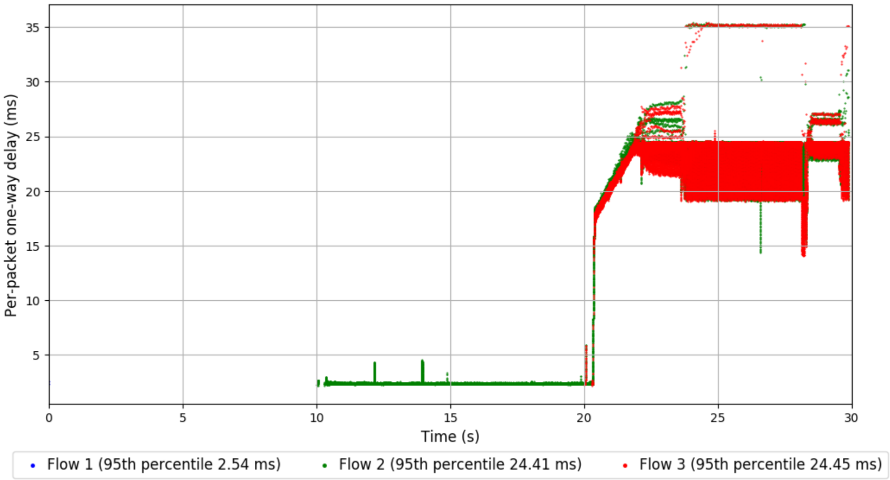




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-01-02 08:26:06
End at: 2018-01-02 08:26:36
Local clock offset: -0.089 ms
Remote clock offset: 0.594 ms

# Below is generated by plot.py at 2018-01-02 13:03:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.58 Mbit/s
95th percentile per-packet one-way delay: 24.427 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 2.539 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.31 Mbit/s
95th percentile per-packet one-way delay: 24.408 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 45.83 Mbit/s
95th percentile per-packet one-way delay: 24.447 ms
Loss rate: 0.23%
```

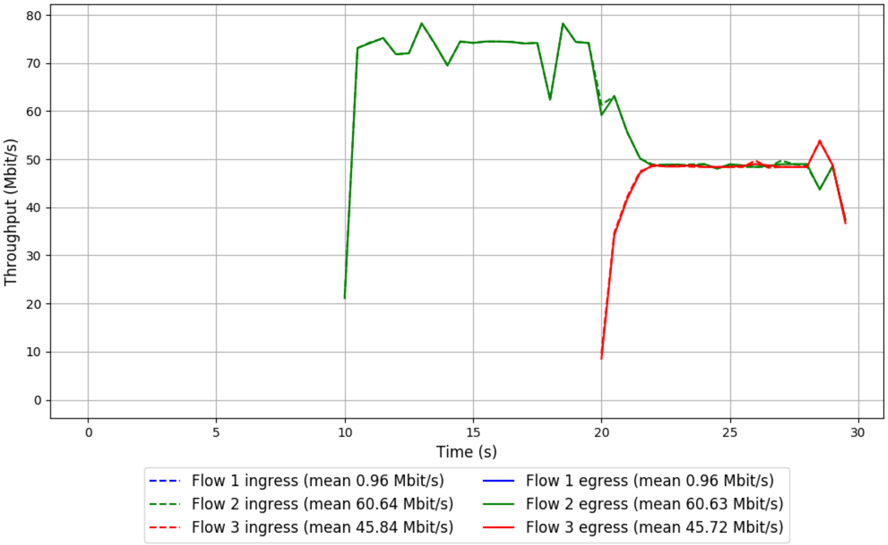
Run 5: Report of QUIC Cubic — Data Link

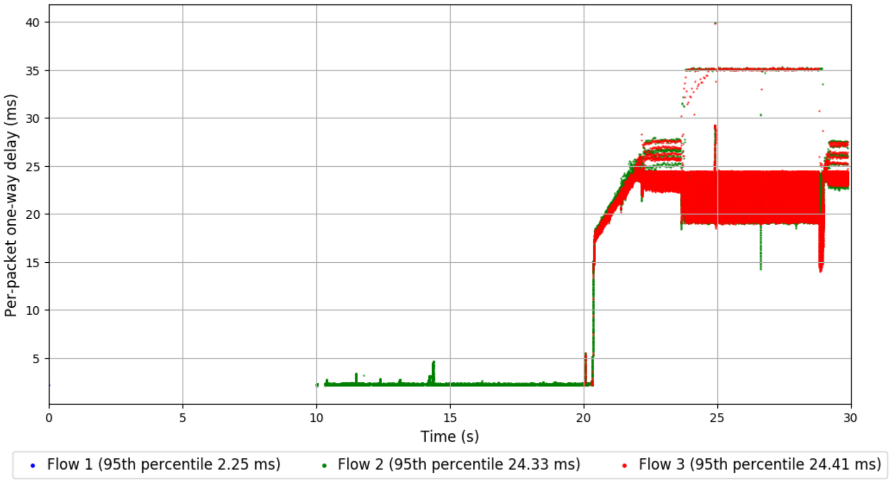




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-01-02 08:43:04
End at: 2018-01-02 08:43:34
Local clock offset: -0.196 ms
Remote clock offset: 0.704 ms

# Below is generated by plot.py at 2018-01-02 13:03:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.43 Mbit/s
95th percentile per-packet one-way delay: 24.363 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 2.245 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.63 Mbit/s
95th percentile per-packet one-way delay: 24.328 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 45.72 Mbit/s
95th percentile per-packet one-way delay: 24.406 ms
Loss rate: 0.32%
```

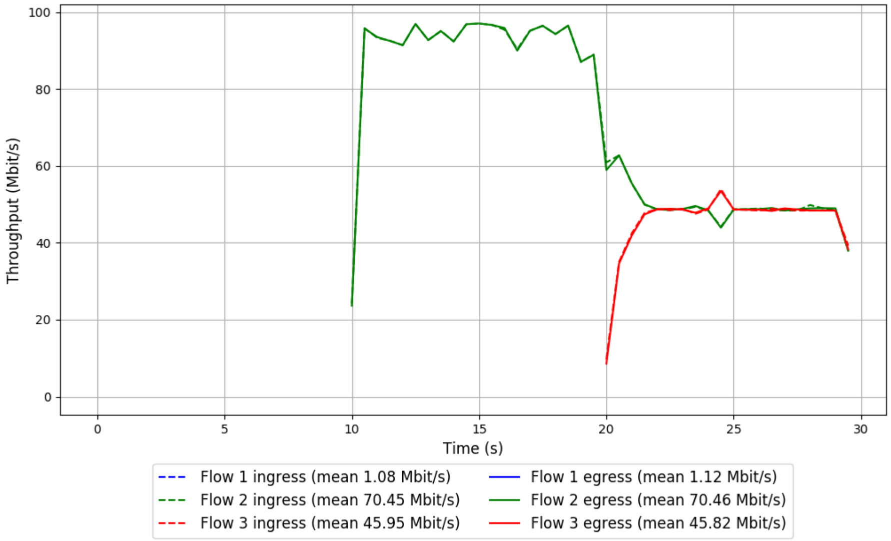
Run 6: Report of QUIC Cubic — Data Link

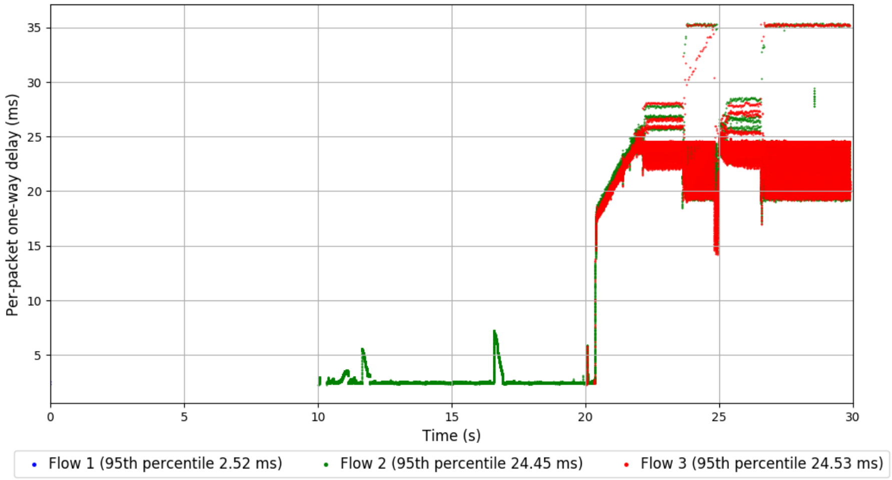




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-01-02 09:00:01
End at: 2018-01-02 09:00:31
Local clock offset: -0.161 ms
Remote clock offset: 0.66 ms

# Below is generated by plot.py at 2018-01-02 13:03:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.97 Mbit/s
95th percentile per-packet one-way delay: 24.486 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 2.517 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 24.455 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 45.82 Mbit/s
95th percentile per-packet one-way delay: 24.527 ms
Loss rate: 0.34%
```

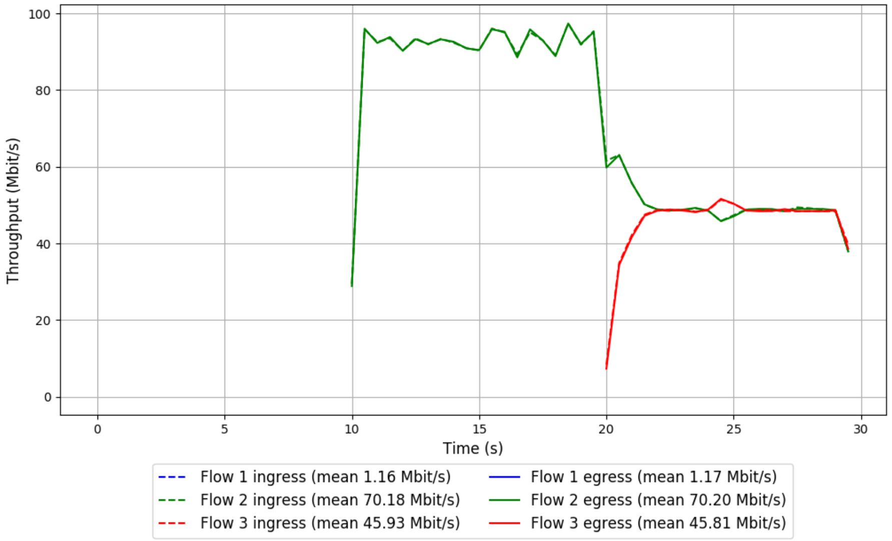
Run 7: Report of QUIC Cubic — Data Link

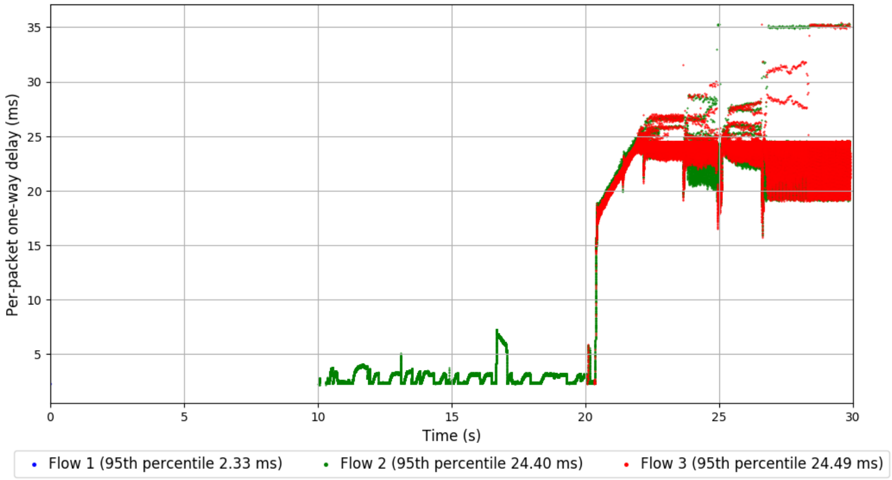




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-01-02 09:17:01
End at: 2018-01-02 09:17:31
Local clock offset: -0.211 ms
Remote clock offset: 0.707 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.76 Mbit/s
95th percentile per-packet one-way delay: 24.436 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 2.327 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.20 Mbit/s
95th percentile per-packet one-way delay: 24.399 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 45.81 Mbit/s
95th percentile per-packet one-way delay: 24.494 ms
Loss rate: 0.32%
```

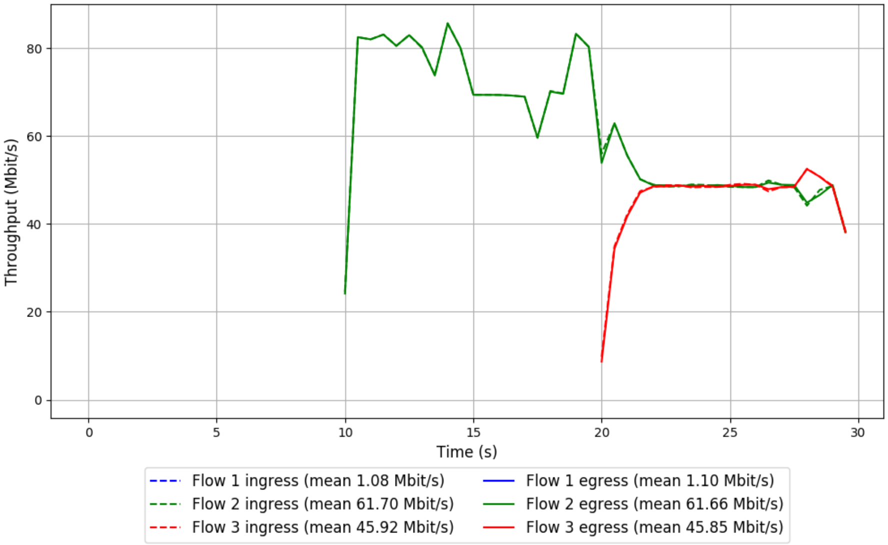
Run 8: Report of QUIC Cubic — Data Link

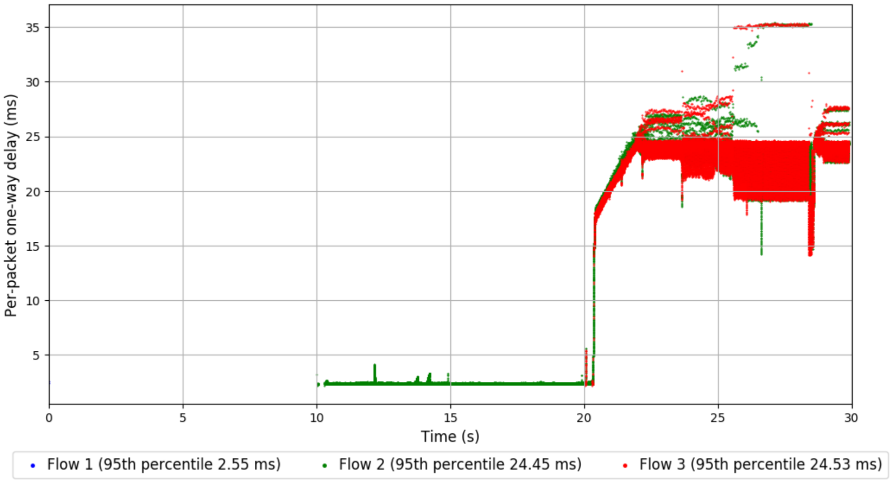




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-01-02 09:33:58
End at: 2018-01-02 09:34:28
Local clock offset: -0.232 ms
Remote clock offset: 0.703 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.15 Mbit/s
95th percentile per-packet one-way delay: 24.481 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 2.551 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 24.449 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 45.85 Mbit/s
95th percentile per-packet one-way delay: 24.533 ms
Loss rate: 0.30%
```

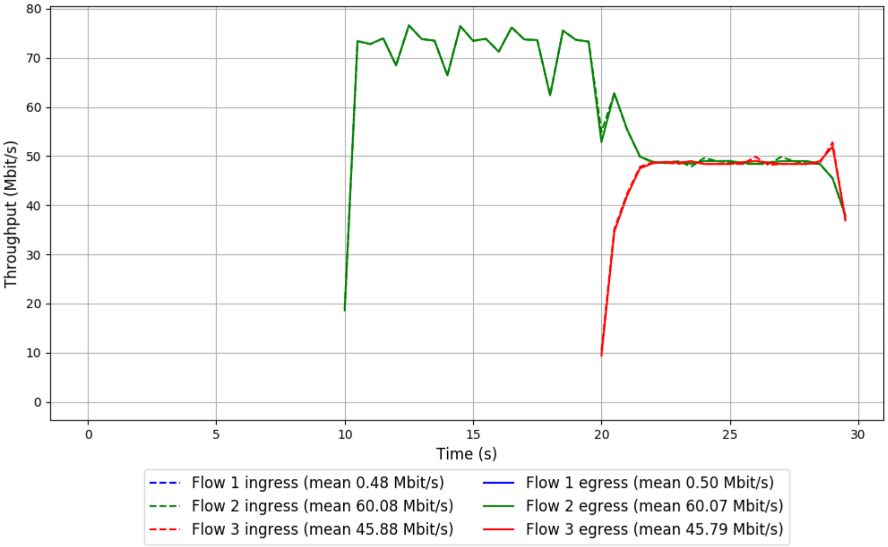
Run 9: Report of QUIC Cubic — Data Link

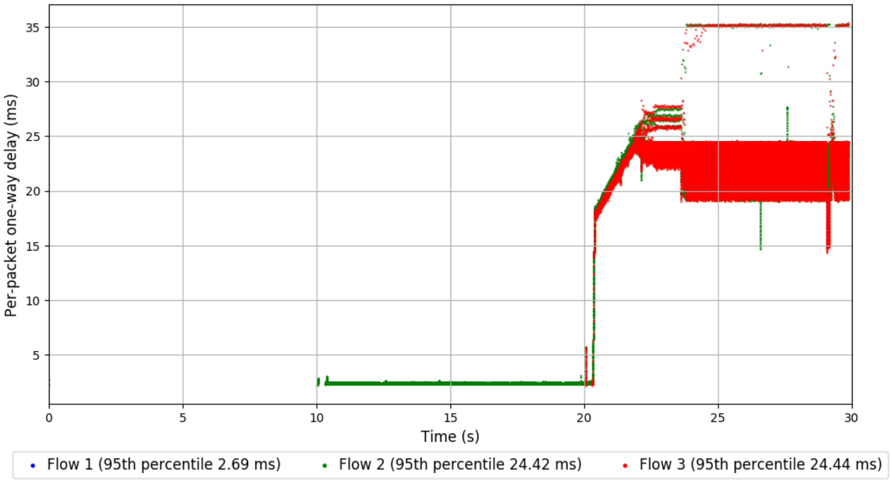




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-01-02 09:50:55
End at: 2018-01-02 09:51:25
Local clock offset: -0.324 ms
Remote clock offset: 0.723 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.06 Mbit/s
95th percentile per-packet one-way delay: 24.431 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 2.688 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.07 Mbit/s
95th percentile per-packet one-way delay: 24.420 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 45.79 Mbit/s
95th percentile per-packet one-way delay: 24.444 ms
Loss rate: 0.23%
```

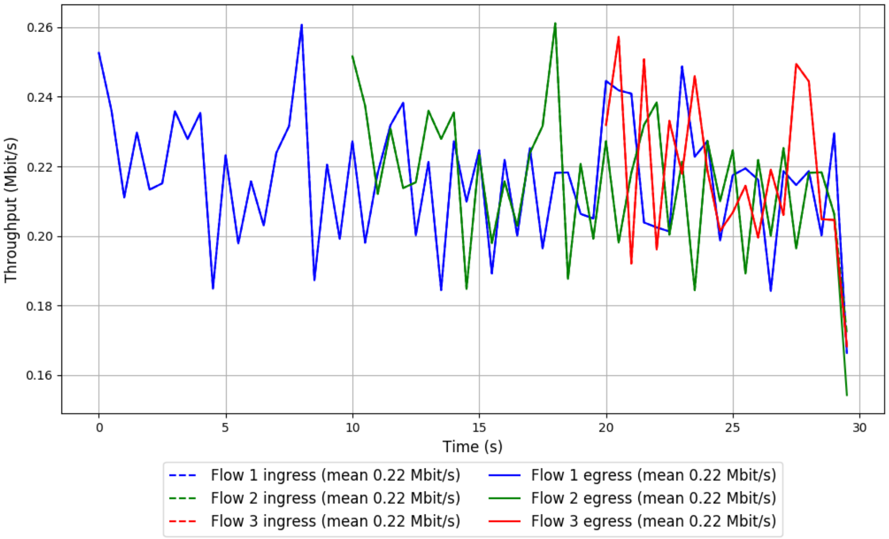
Run 10: Report of QUIC Cubic — Data Link

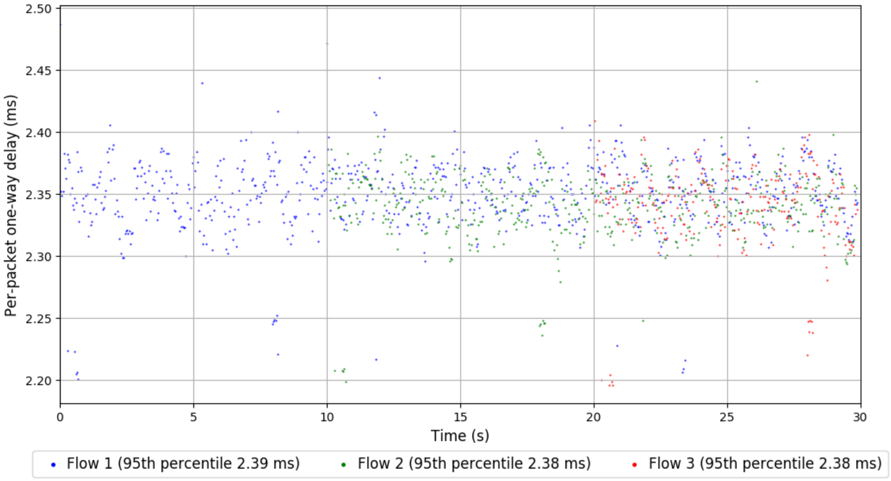




```
Run 1: Statistics of SCReAM

Start at: 2018-01-02 07:21:41
End at: 2018-01-02 07:22:11
Local clock offset: 0.103 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.384 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.387 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.383 ms
Loss rate: 0.00%
```

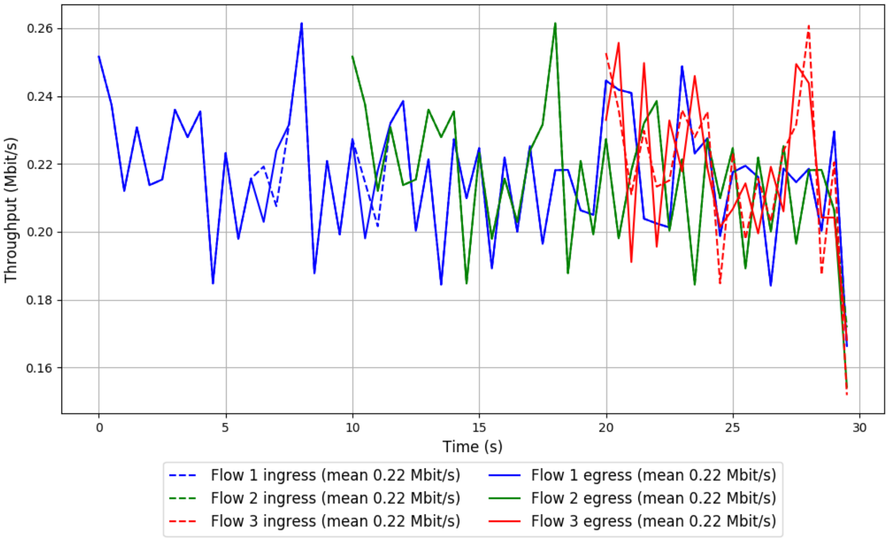
Run 1: Report of SCReAM — Data Link

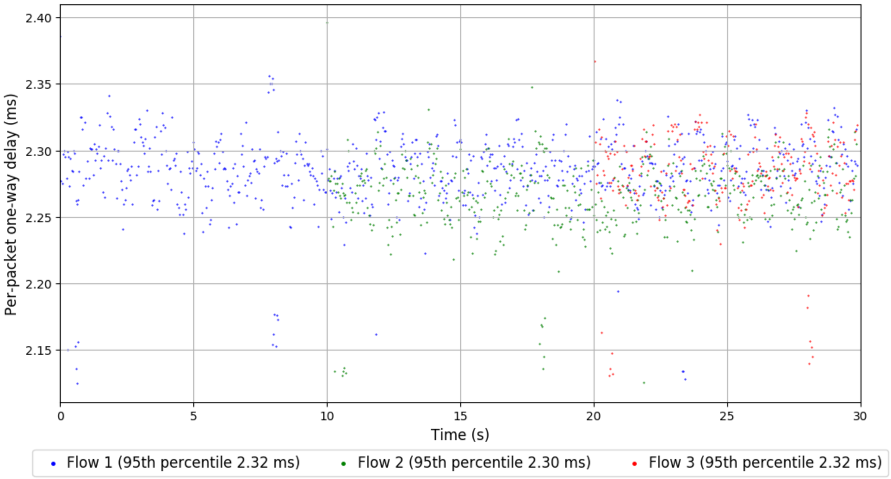




```
Run 2: Statistics of SCReAM

Start at: 2018-01-02 07:38:38
End at: 2018-01-02 07:39:08
Local clock offset: -0.023 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.318 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.322 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.303 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.319 ms
Loss rate: 0.00%
```

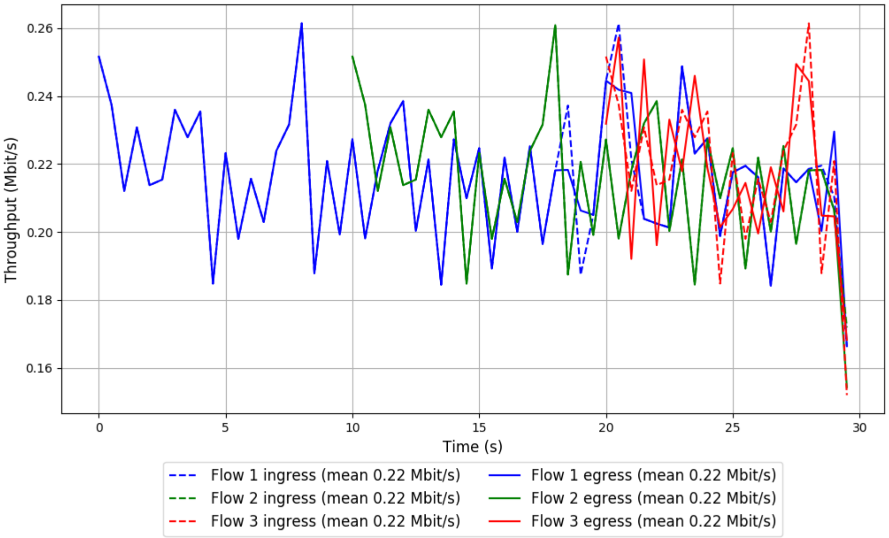
Run 2: Report of SCReAM — Data Link

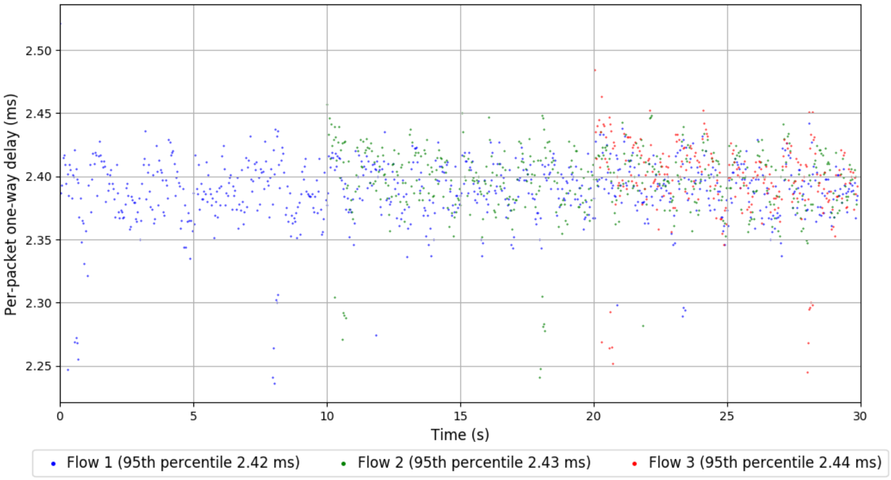




```
Run 3: Statistics of SCReAM

Start at: 2018-01-02 07:55:35
End at: 2018-01-02 07:56:05
Local clock offset: -0.015 ms
Remote clock offset: 0.205 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.429 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.422 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.432 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.437 ms
Loss rate: 0.00%
```

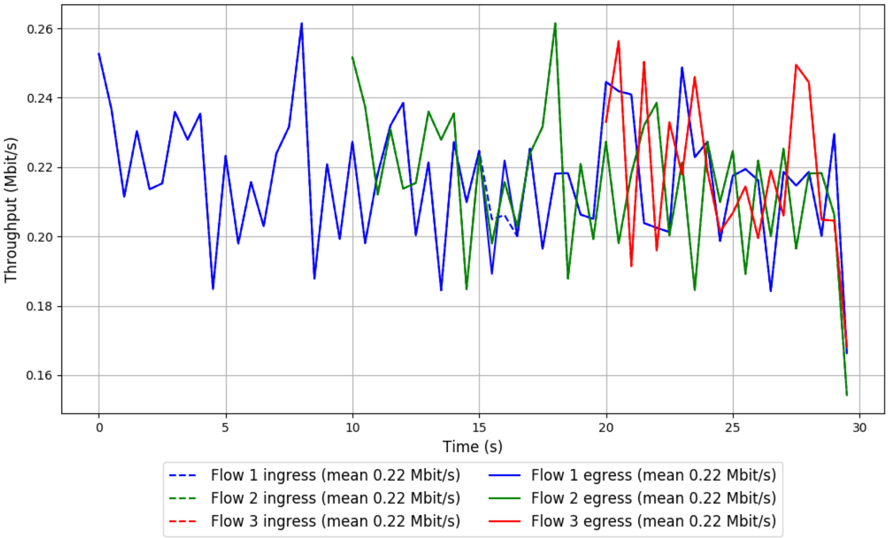
Run 3: Report of SCReAM — Data Link

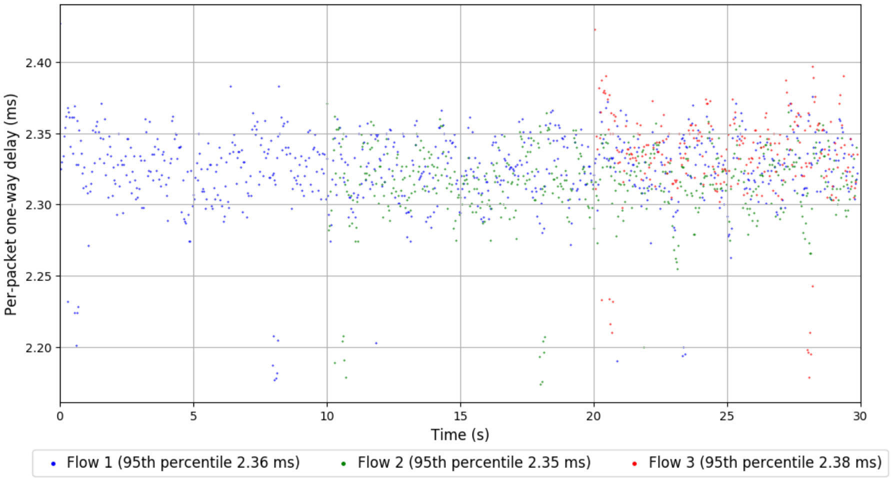




```
Run 4: Statistics of SCReAM

Start at: 2018-01-02 08:12:32
End at: 2018-01-02 08:13:02
Local clock offset: -0.06 ms
Remote clock offset: 0.466 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.352 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.00%
```

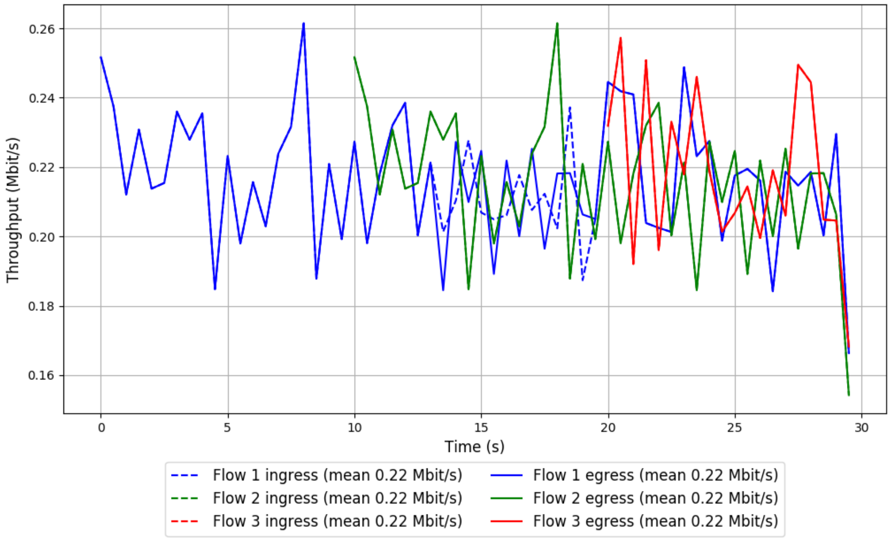
Run 4: Report of SCReAM — Data Link

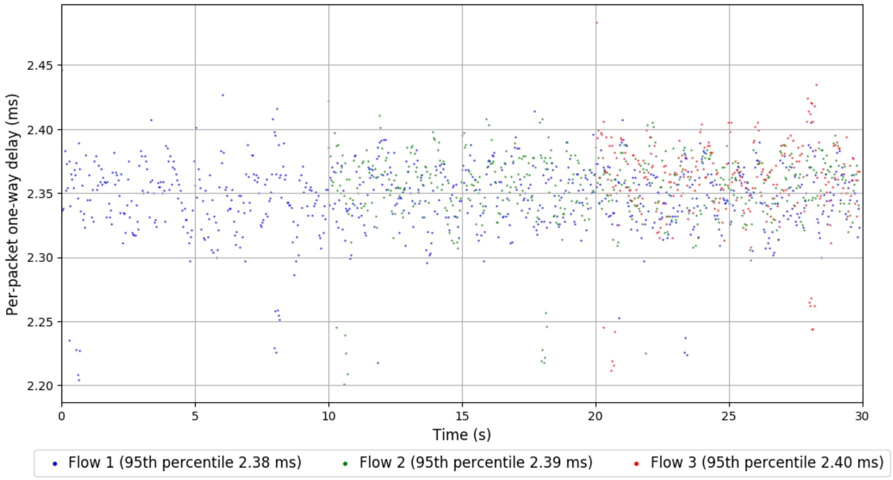




```
Run 5: Statistics of SCReAM

Start at: 2018-01-02 08:29:29
End at: 2018-01-02 08:29:59
Local clock offset: -0.078 ms
Remote clock offset: 0.62 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.390 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.385 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.405 ms
Loss rate: 0.00%
```

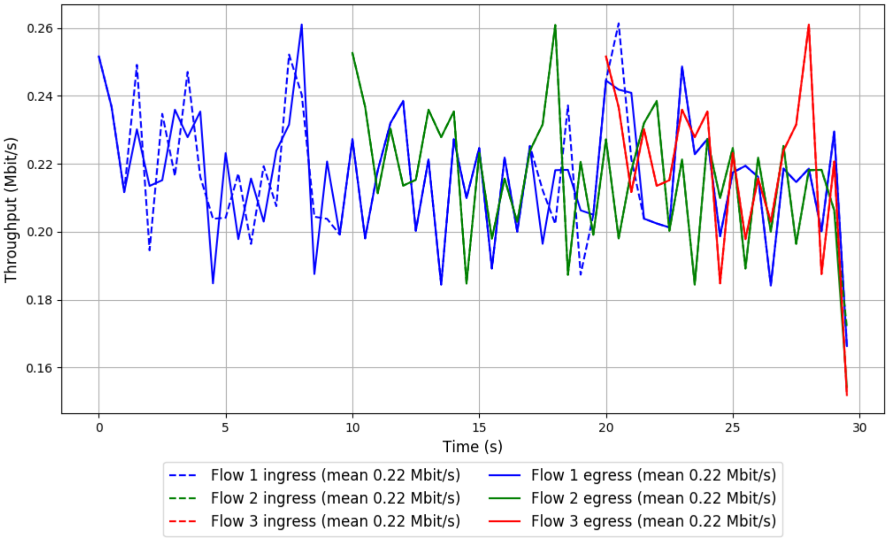
Run 5: Report of SCReAM — Data Link

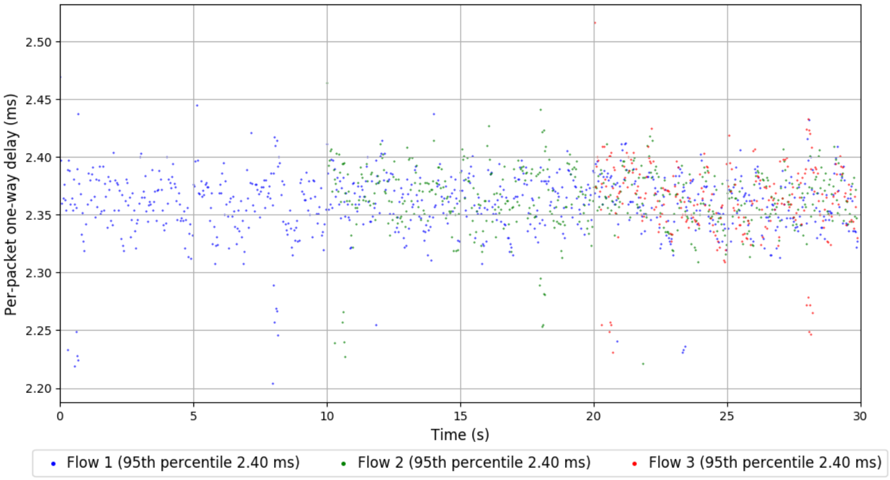




```
Run 6: Statistics of SCReAM

Start at: 2018-01-02 08:46:26
End at: 2018-01-02 08:46:56
Local clock offset: -0.105 ms
Remote clock offset: 0.712 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.400 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.397 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.401 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 0.00%
```

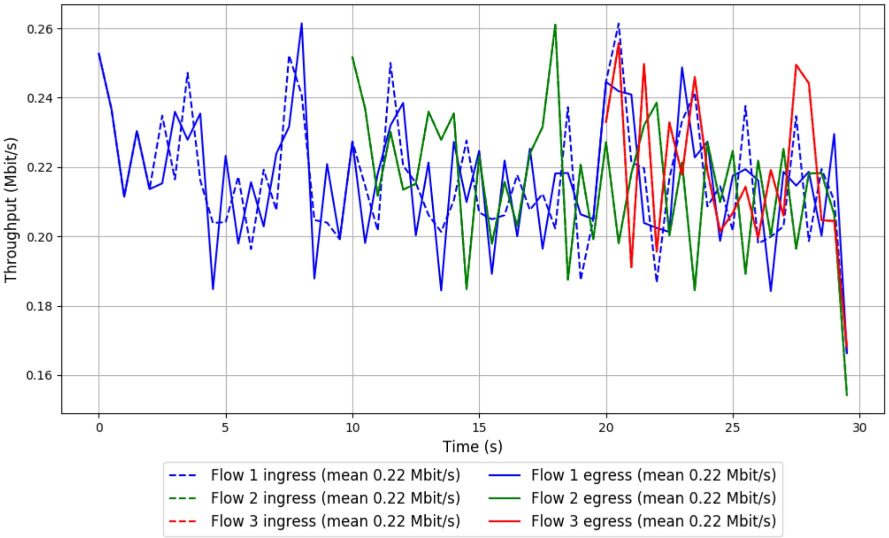
Run 6: Report of SCReAM — Data Link

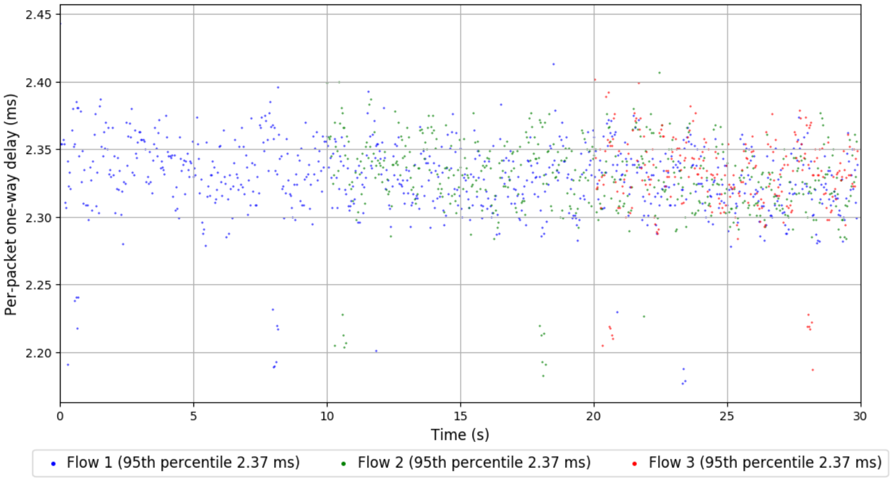




```
Run 7: Statistics of SCReAM

Start at: 2018-01-02 09:03:24
End at: 2018-01-02 09:03:54
Local clock offset: -0.228 ms
Remote clock offset: 0.652 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.370 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.369 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.369 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.373 ms
Loss rate: 0.00%
```

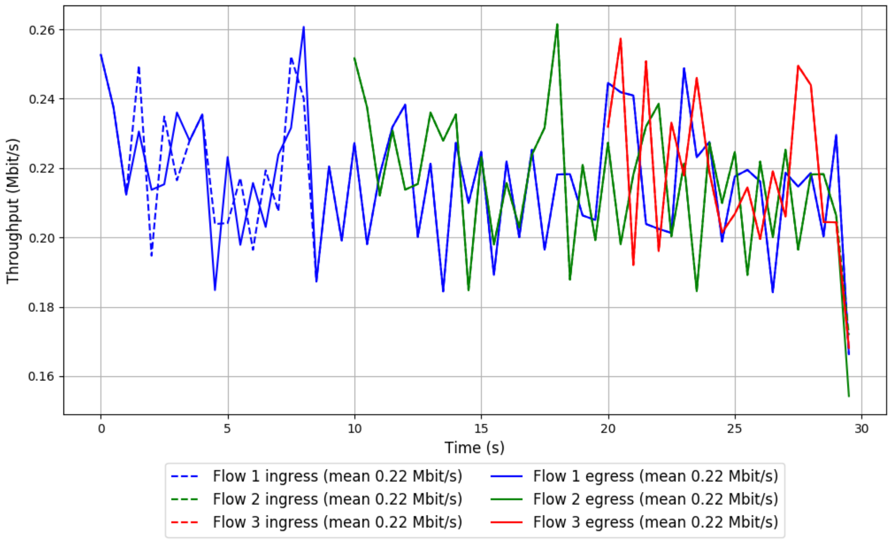
Run 7: Report of SCReAM — Data Link

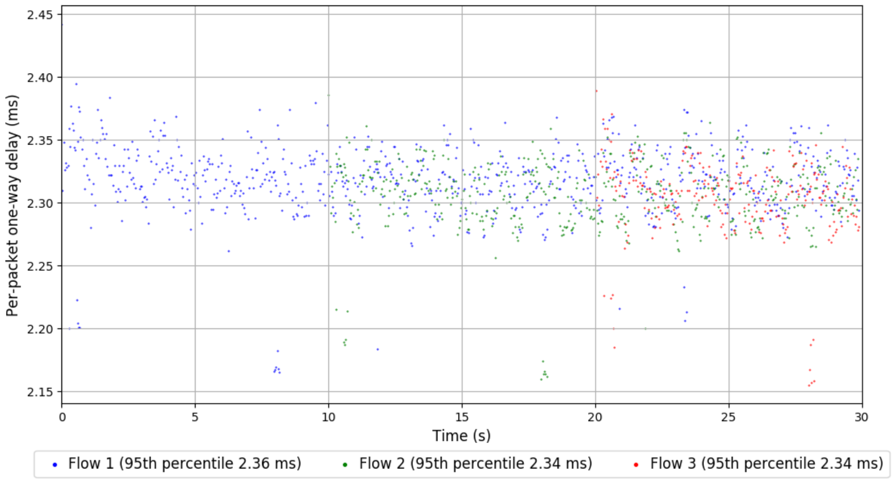




```
Run 8: Statistics of SCReAM

Start at: 2018-01-02 09:20:23
End at: 2018-01-02 09:20:53
Local clock offset: -0.218 ms
Remote clock offset: 0.712 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.351 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.342 ms
Loss rate: 0.00%
```

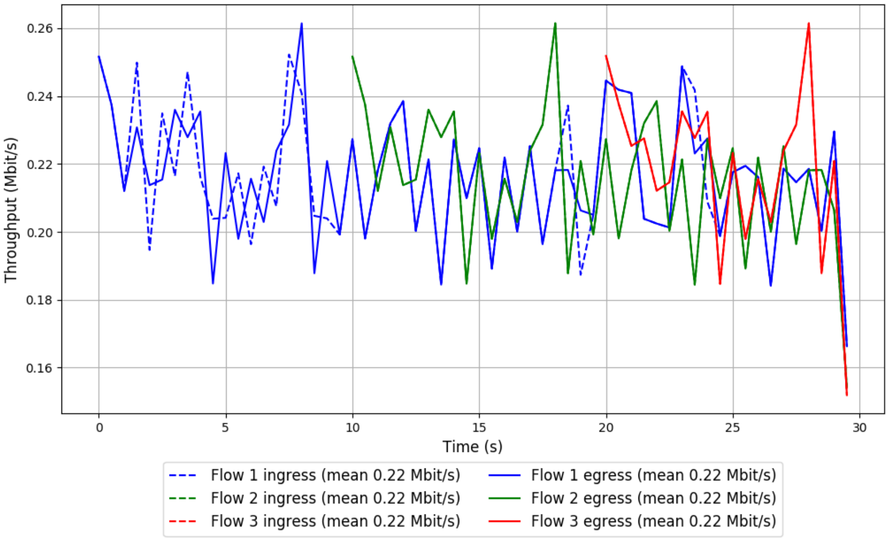
Run 8: Report of SCReAM — Data Link

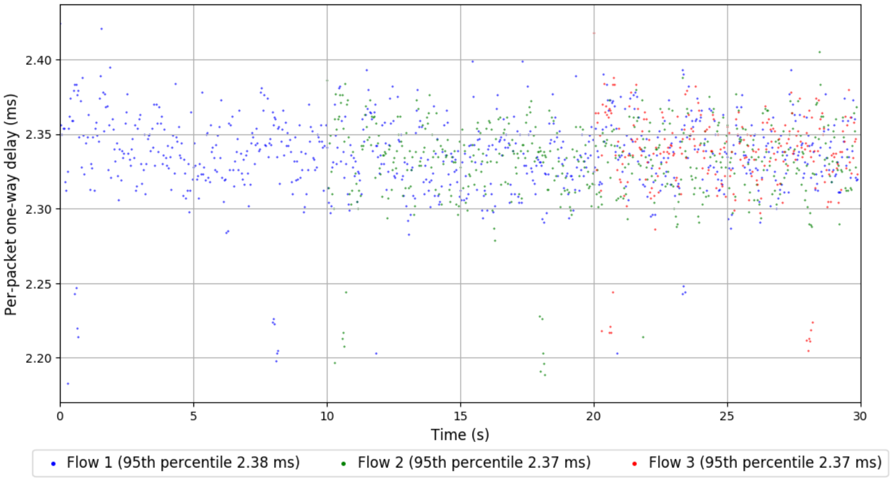




```
Run 9: Statistics of SCReAM

Start at: 2018-01-02 09:37:20
End at: 2018-01-02 09:37:50
Local clock offset: -0.258 ms
Remote clock offset: 0.698 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.376 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.368 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.374 ms
Loss rate: 0.00%
```

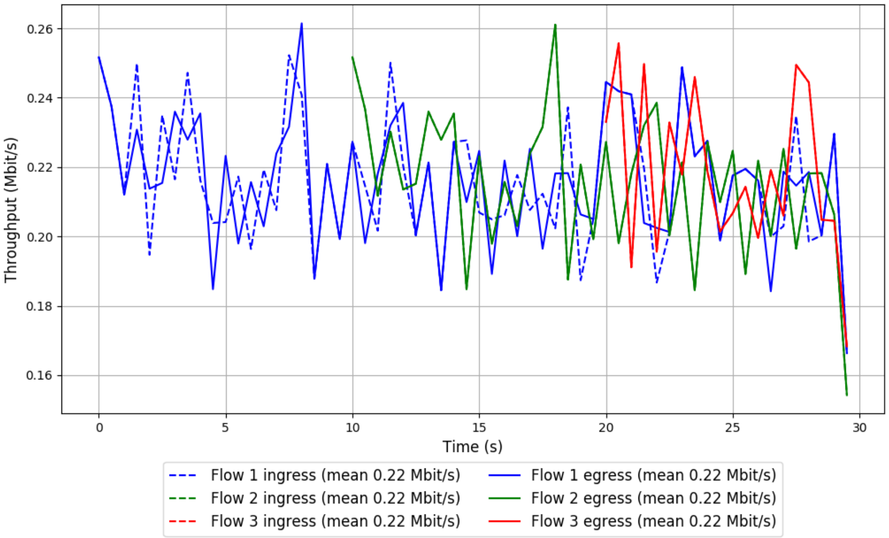
Run 9: Report of SCReAM — Data Link

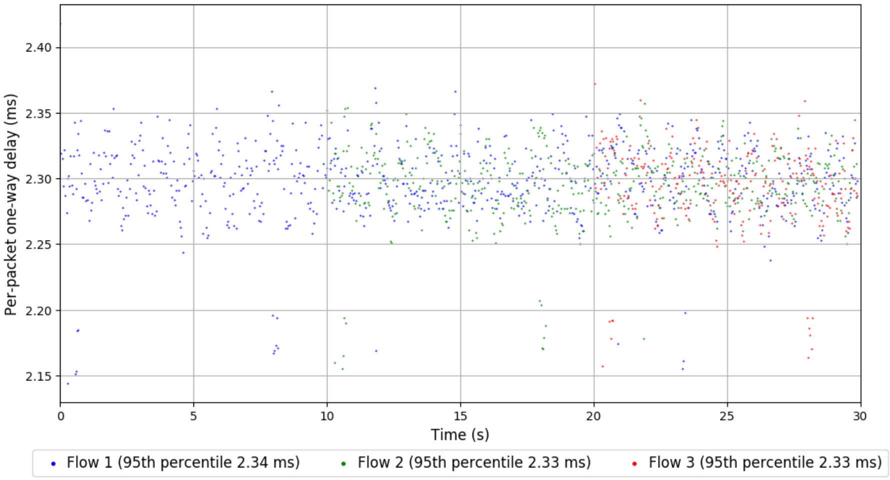




```
Run 10: Statistics of SCReAM

Start at: 2018-01-02 09:54:17
End at: 2018-01-02 09:54:47
Local clock offset: -0.354 ms
Remote clock offset: 0.733 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.334 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.331 ms
Loss rate: 0.00%
```

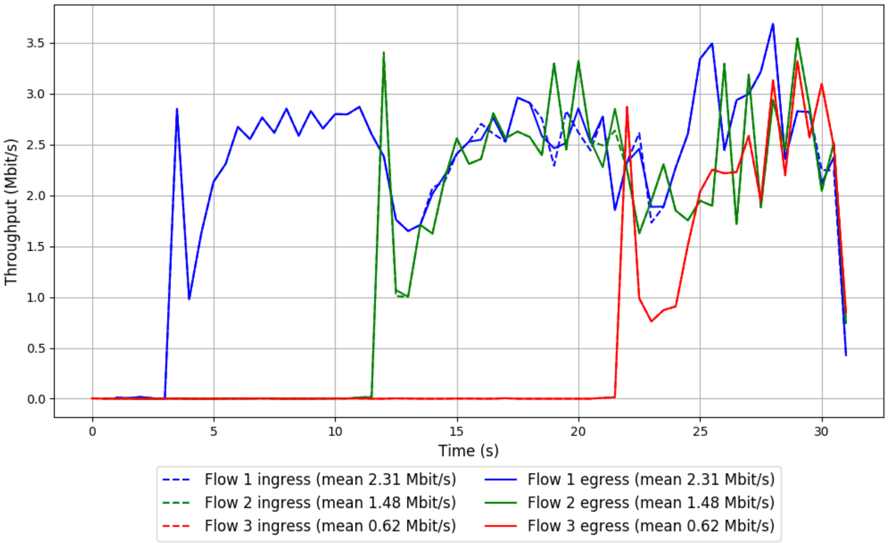
Run 10: Report of SCReAM — Data Link

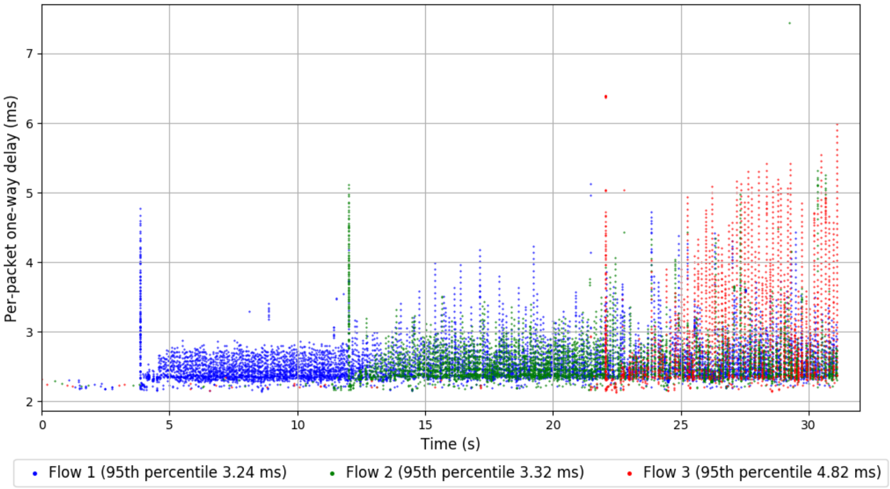




```
Run 1: Statistics of WebRTC media

Start at: 2018-01-02 07:27:21
End at: 2018-01-02 07:27:51
Local clock offset: 0.056 ms
Remote clock offset: -0.173 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 3.784 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 3.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 3.319 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 4.817 ms
Loss rate: 0.00%
```

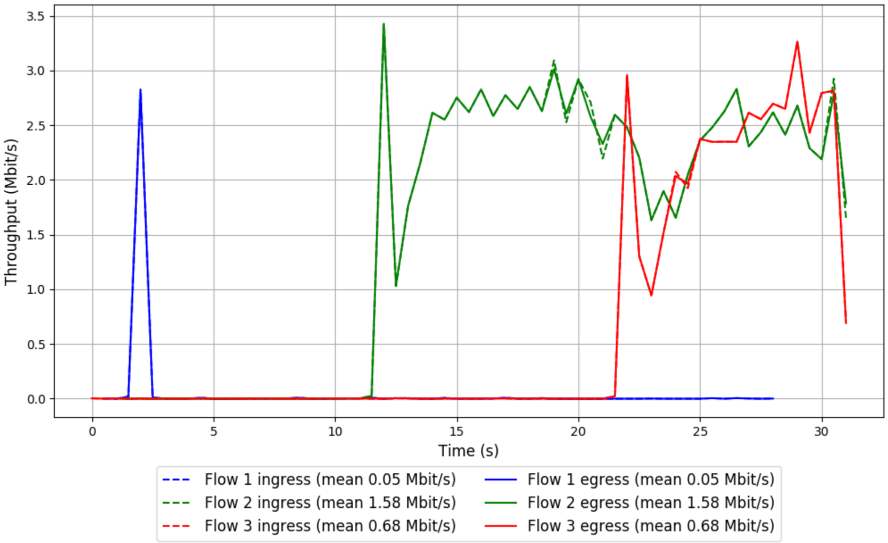
Run 1: Report of WebRTC media — Data Link

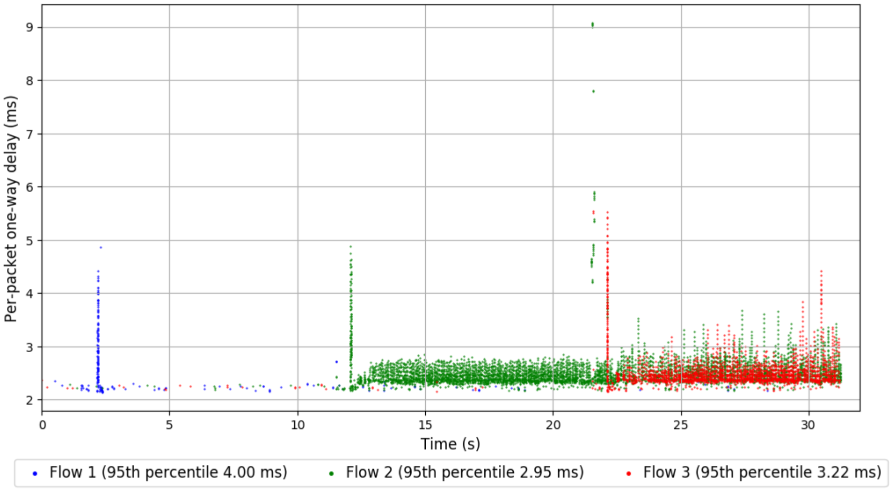




```
Run 2: Statistics of WebRTC media

Start at: 2018-01-02 07:44:18
End at: 2018-01-02 07:44:48
Local clock offset: 0.011 ms
Remote clock offset: 0.097 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 3.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.000 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 2.953 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 3.223 ms
Loss rate: 0.01%
```

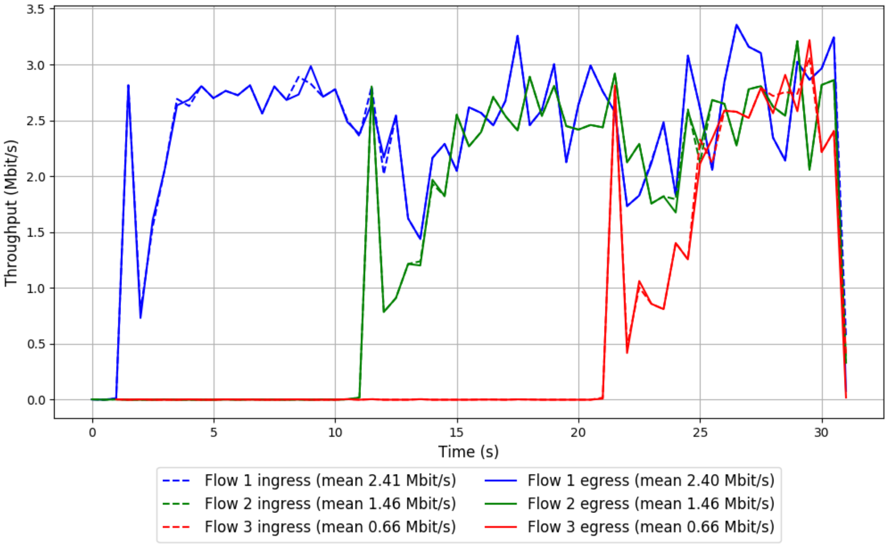
Run 2: Report of WebRTC media — Data Link

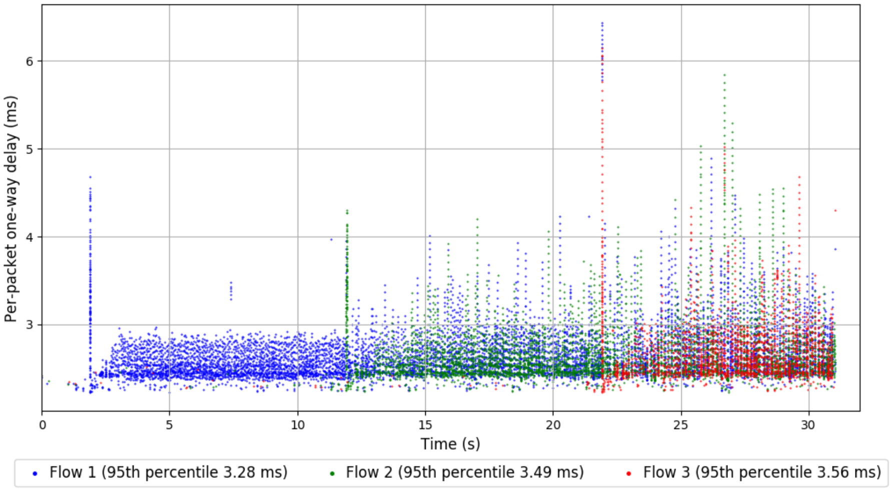




```
Run 3: Statistics of WebRTC media

Start at: 2018-01-02 08:01:15
End at: 2018-01-02 08:01:45
Local clock offset: -0.016 ms
Remote clock offset: 0.262 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 3.392 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 3.282 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 3.492 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 3.565 ms
Loss rate: 0.93%
```

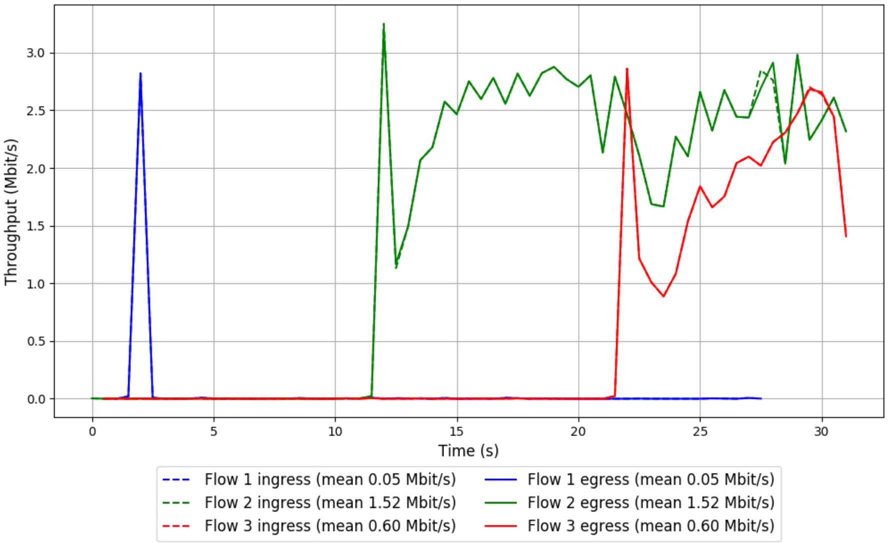
Run 3: Report of WebRTC media — Data Link

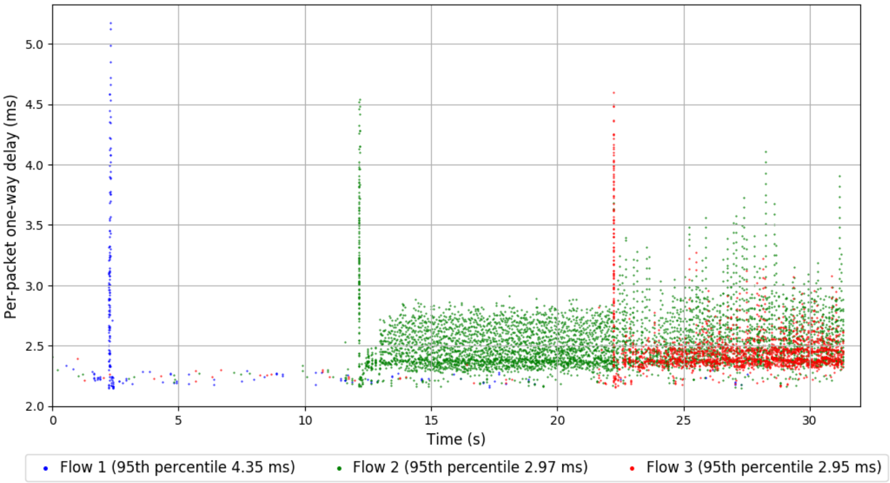




```
Run 4: Statistics of WebRTC media

Start at: 2018-01-02 08:18:12
End at: 2018-01-02 08:18:42
Local clock offset: -0.047 ms
Remote clock offset: 0.525 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 3.028 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.349 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 2.973 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 2.953 ms
Loss rate: 0.05%
```

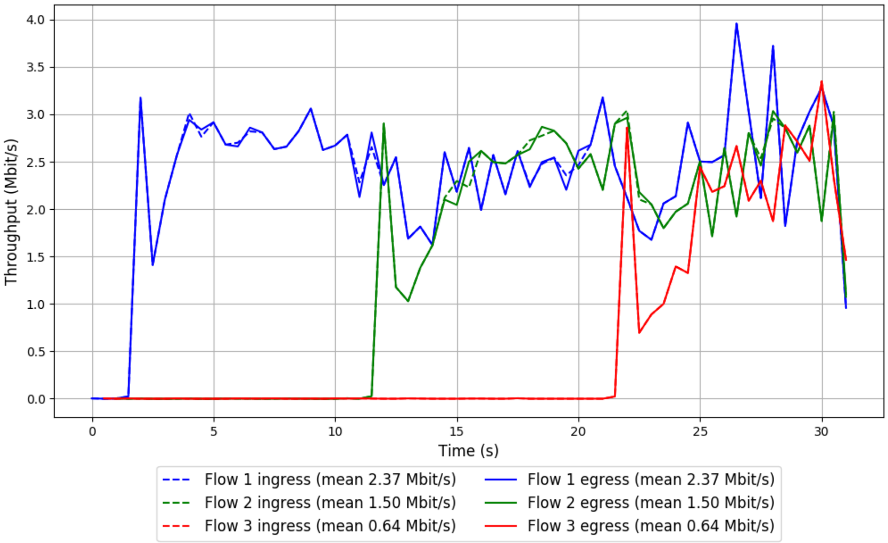
Run 4: Report of WebRTC media — Data Link

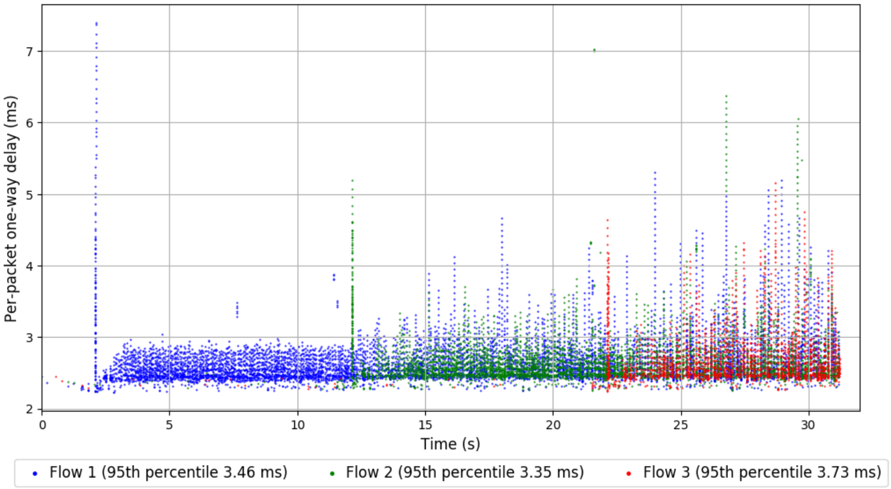




```
Run 5: Statistics of WebRTC media

Start at: 2018-01-02 08:35:09
End at: 2018-01-02 08:35:39
Local clock offset: -0.075 ms
Remote clock offset: 0.575 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 3.481 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.463 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 3.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 3.730 ms
Loss rate: 0.00%
```

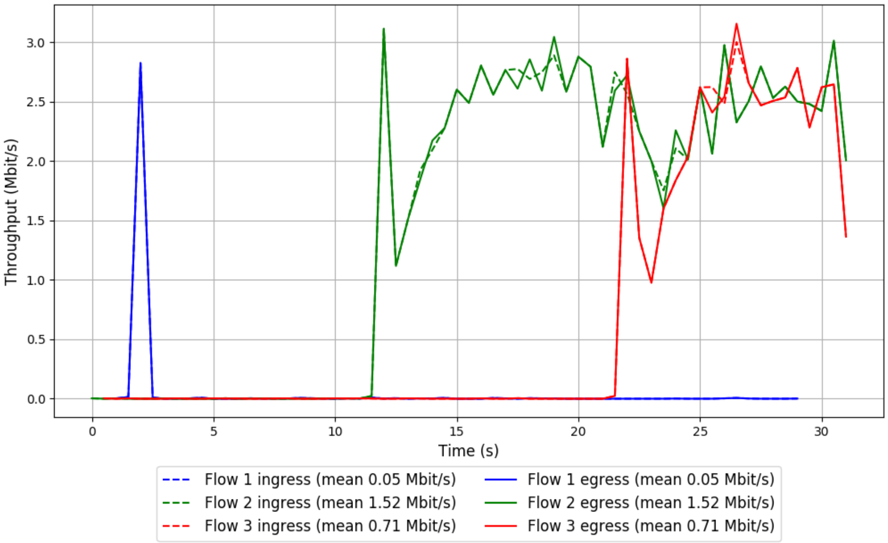
Run 5: Report of WebRTC media — Data Link

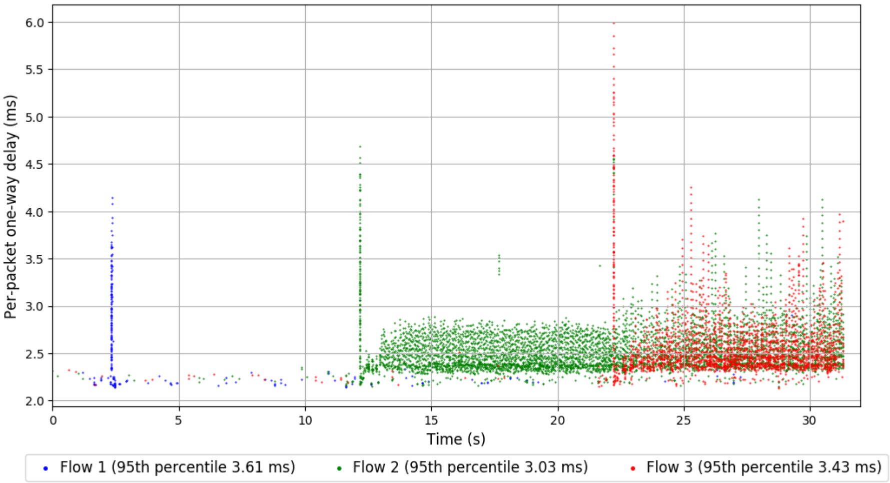




```
Run 6: Statistics of WebRTC media

Start at: 2018-01-02 08:52:07
End at: 2018-01-02 08:52:37
Local clock offset: -0.141 ms
Remote clock offset: 0.723 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 3.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.608 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 3.027 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 3.431 ms
Loss rate: 0.00%
```

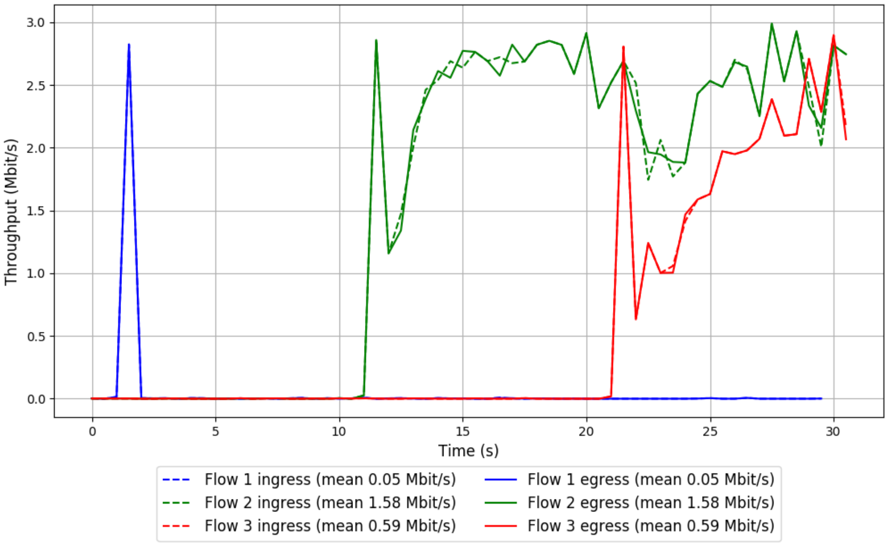
Run 6: Report of WebRTC media — Data Link

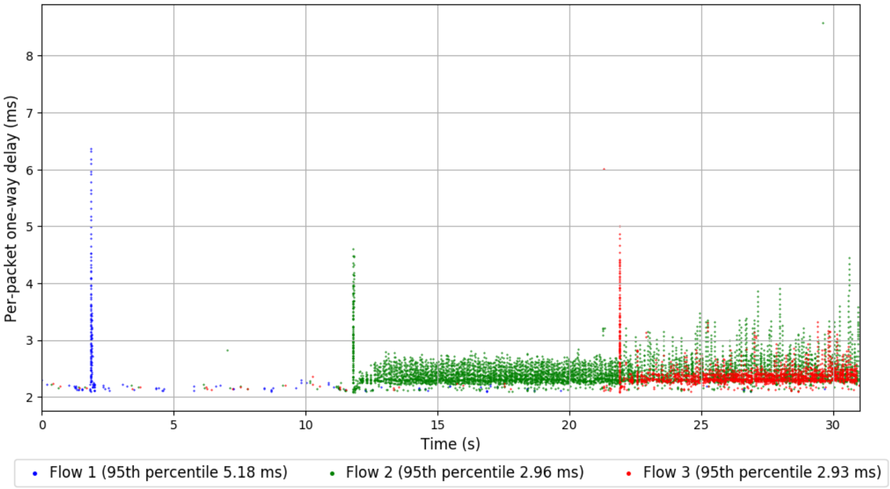




```
Run 7: Statistics of WebRTC media

Start at: 2018-01-02 09:09:06
End at: 2018-01-02 09:09:36
Local clock offset: -0.236 ms
Remote clock offset: 0.713 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 3.026 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.177 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 2.964 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 2.928 ms
Loss rate: 0.26%
```

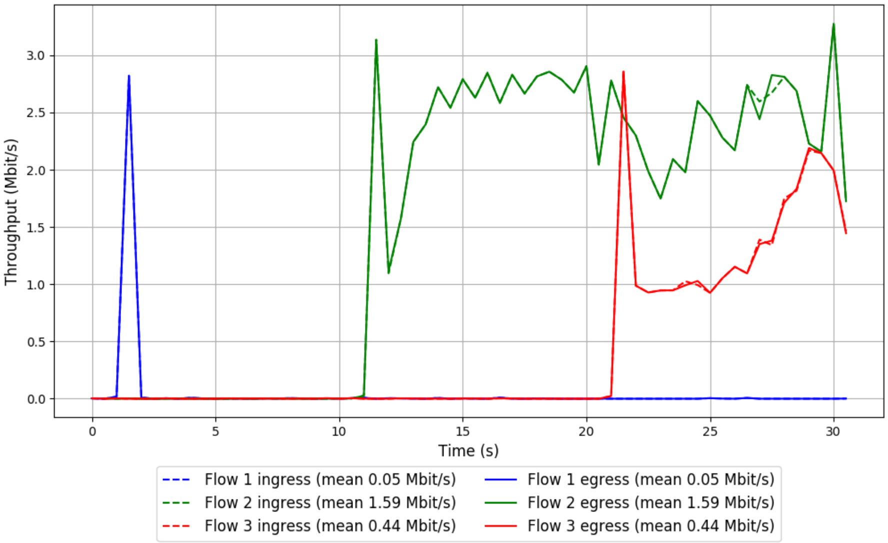
Run 7: Report of WebRTC media — Data Link

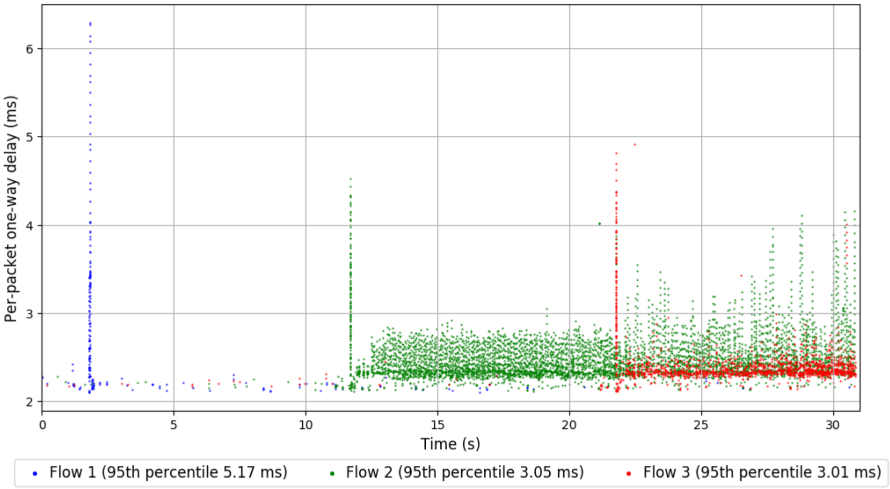




```
Run 8: Statistics of WebRTC media

Start at: 2018-01-02 09:26:03
End at: 2018-01-02 09:26:33
Local clock offset: -0.288 ms
Remote clock offset: 0.685 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 3.122 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.168 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 3.053 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.008 ms
Loss rate: 0.07%
```

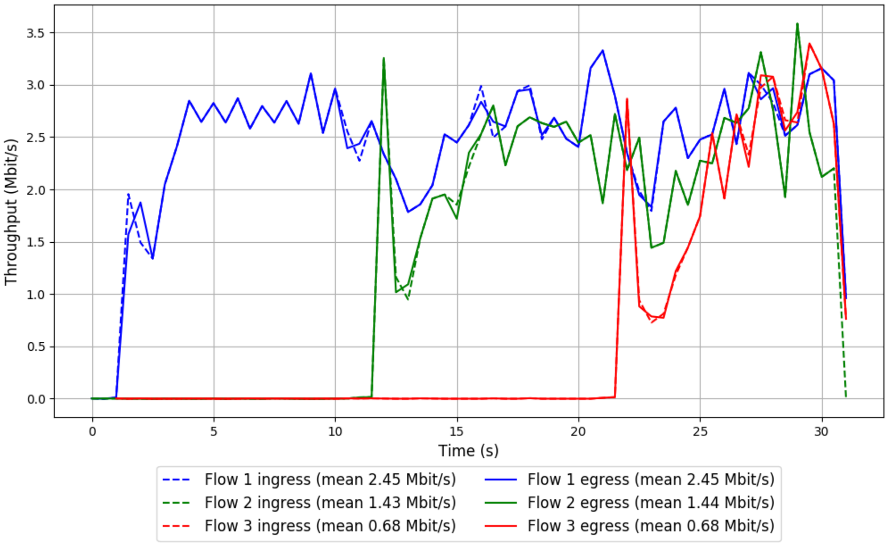
Run 8: Report of WebRTC media — Data Link

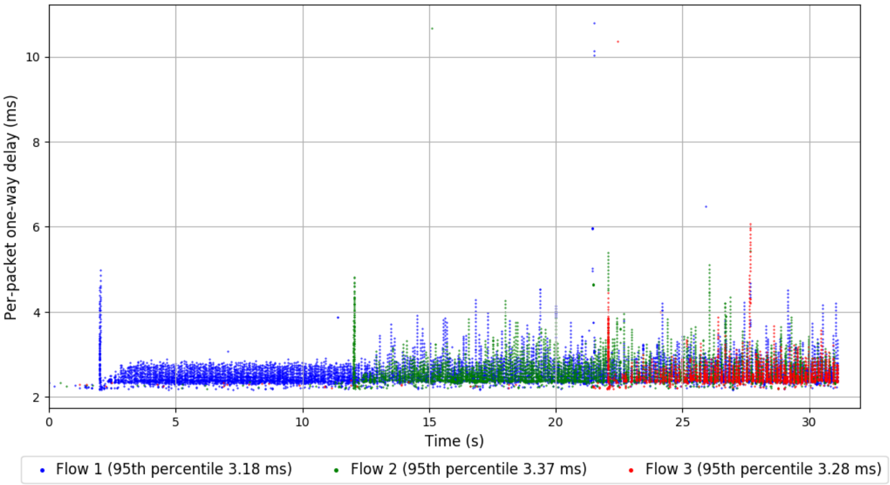




```
Run 9: Statistics of WebRTC media

Start at: 2018-01-02 09:43:00
End at: 2018-01-02 09:43:30
Local clock offset: -0.274 ms
Remote clock offset: 0.689 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 3.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 3.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 3.372 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 3.281 ms
Loss rate: 0.01%
```

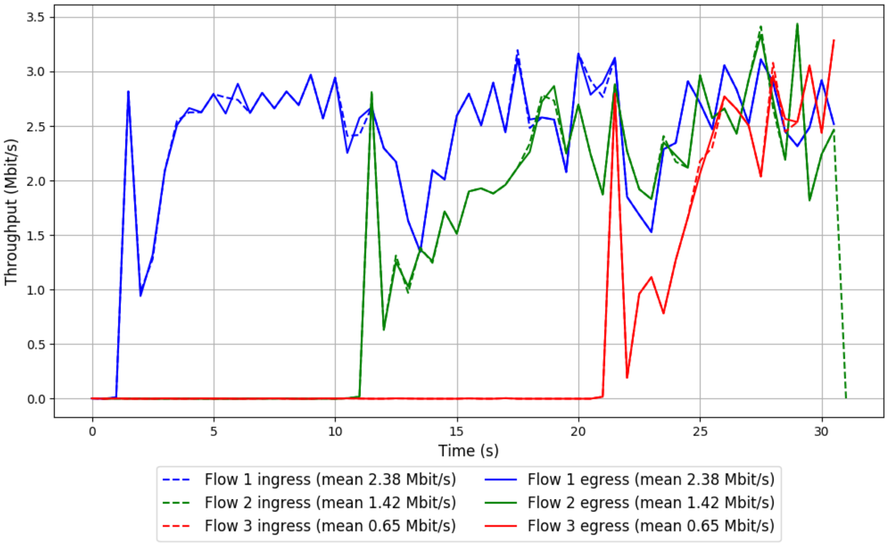
Run 9: Report of WebRTC media — Data Link

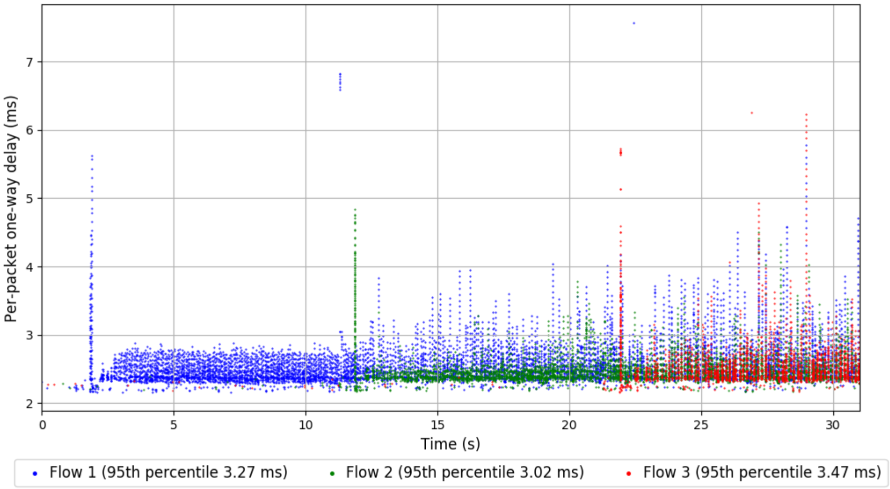




```
Run 10: Statistics of WebRTC media

Start at: 2018-01-02 09:59:57
End at: 2018-01-02 10:00:27
Local clock offset: -0.343 ms
Remote clock offset: 0.749 ms

# Below is generated by plot.py at 2018-01-02 13:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 3.216 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 3.272 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 3.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 3.471 ms
Loss rate: 0.00%
```

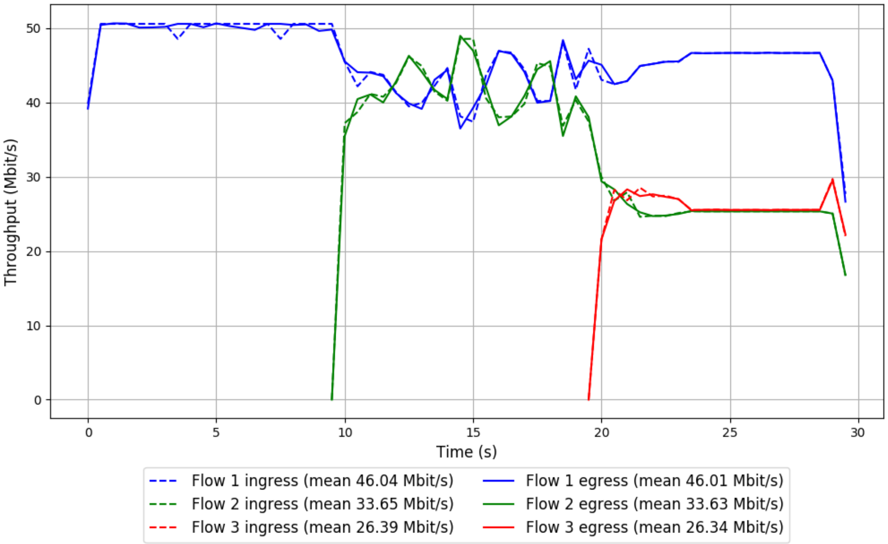
Run 10: Report of WebRTC media — Data Link

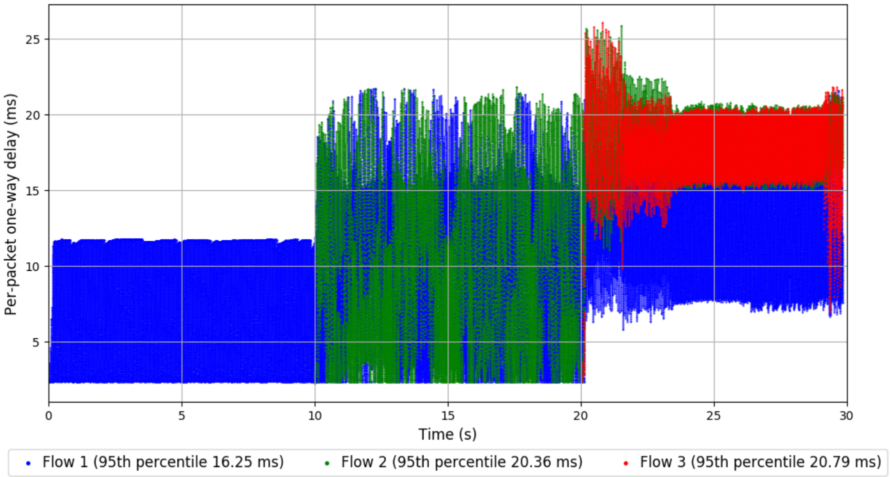




```
Run 1: Statistics of Sprout

Start at: 2018-01-02 07:28:25
End at: 2018-01-02 07:28:55
Local clock offset: 0.051 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-01-02 13:04:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.06 Mbit/s
95th percentile per-packet one-way delay: 19.712 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 46.01 Mbit/s
95th percentile per-packet one-way delay: 16.248 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 33.63 Mbit/s
95th percentile per-packet one-way delay: 20.364 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 26.34 Mbit/s
95th percentile per-packet one-way delay: 20.787 ms
Loss rate: 0.18%
```

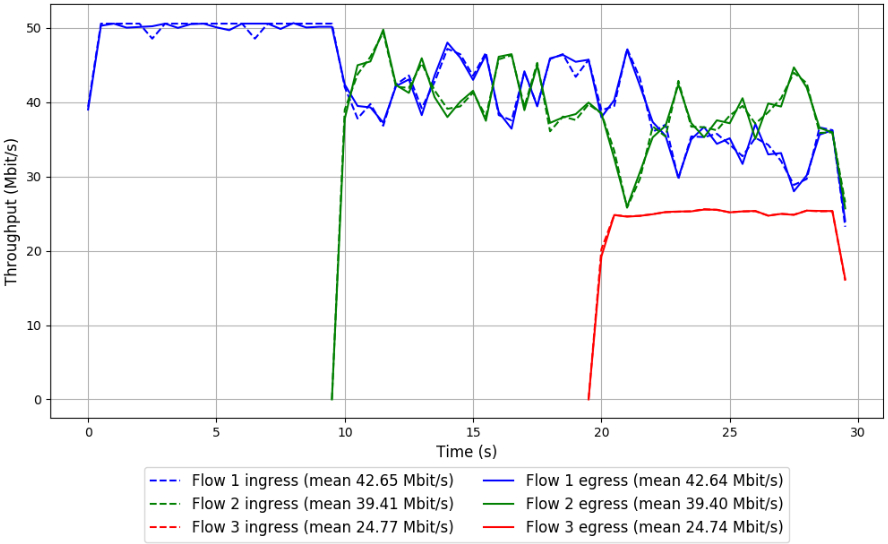
Run 1: Report of Sprout — Data Link

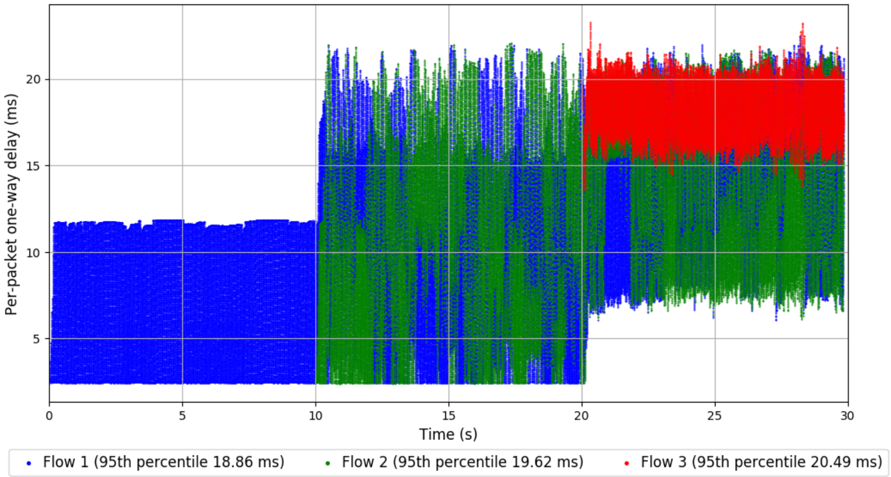




```
Run 2: Statistics of Sprout

Start at: 2018-01-02 07:45:22
End at: 2018-01-02 07:45:52
Local clock offset: 0.025 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-01-02 13:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.01 Mbit/s
95th percentile per-packet one-way delay: 19.713 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 42.64 Mbit/s
95th percentile per-packet one-way delay: 18.864 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 19.617 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 20.494 ms
Loss rate: 0.16%
```

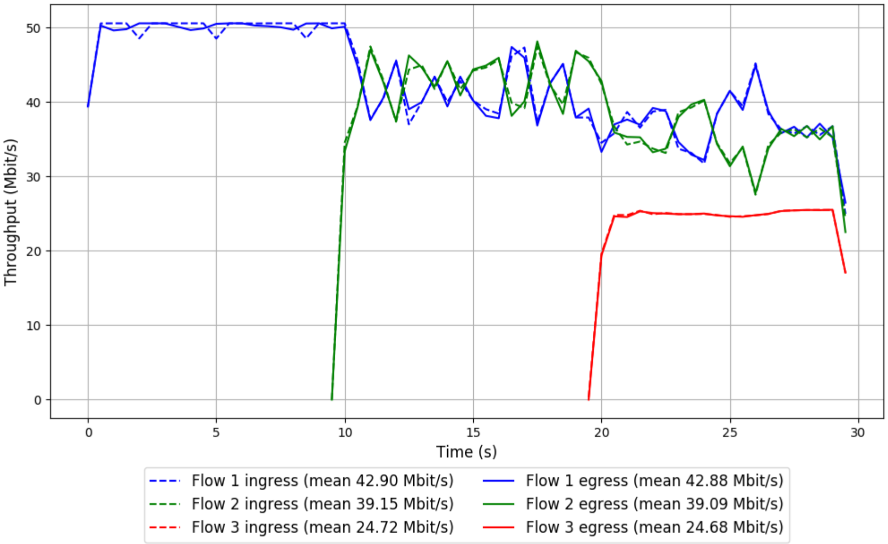
Run 2: Report of Sprout — Data Link

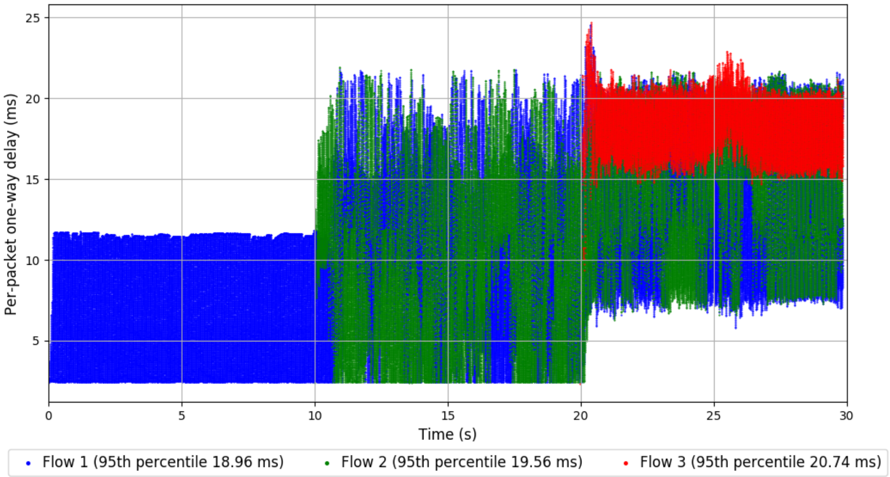




```
Run 3: Statistics of Sprout

Start at: 2018-01-02 08:02:19
End at: 2018-01-02 08:02:49
Local clock offset: -0.021 ms
Remote clock offset: 0.272 ms

# Below is generated by plot.py at 2018-01-02 13:04:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 19.773 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 42.88 Mbit/s
95th percentile per-packet one-way delay: 18.965 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 19.563 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 20.740 ms
Loss rate: 0.20%
```

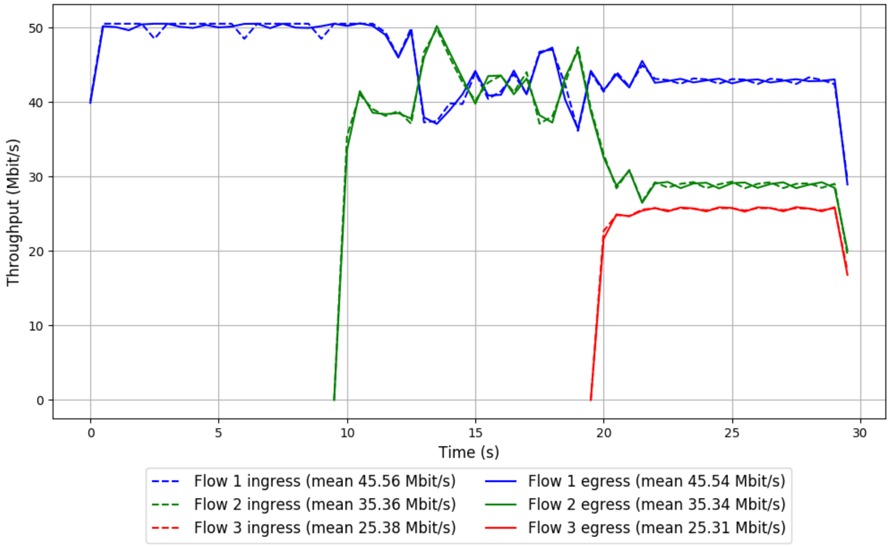
Run 3: Report of Sprout — Data Link

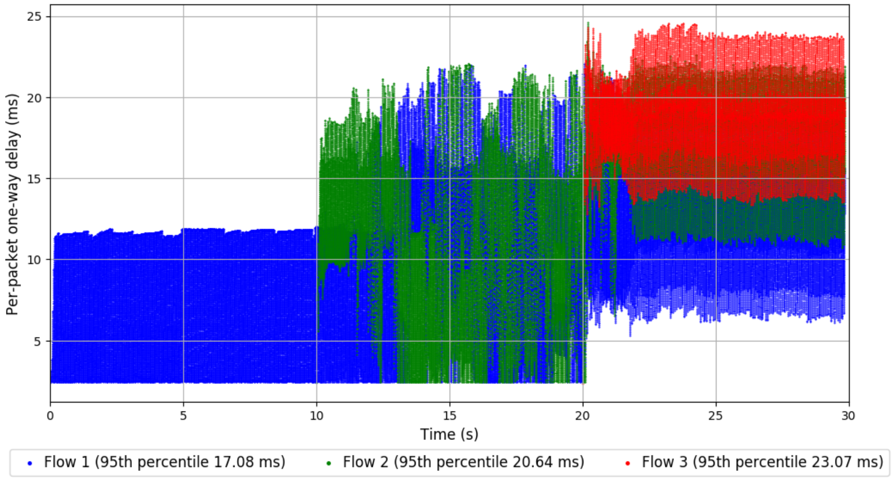




```
Run 4: Statistics of Sprout

Start at: 2018-01-02 08:19:16
End at: 2018-01-02 08:19:46
Local clock offset: -0.051 ms
Remote clock offset: 0.443 ms

# Below is generated by plot.py at 2018-01-02 13:04:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.39 Mbit/s
95th percentile per-packet one-way delay: 20.264 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 45.54 Mbit/s
95th percentile per-packet one-way delay: 17.077 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 20.637 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 23.071 ms
Loss rate: 0.34%
```

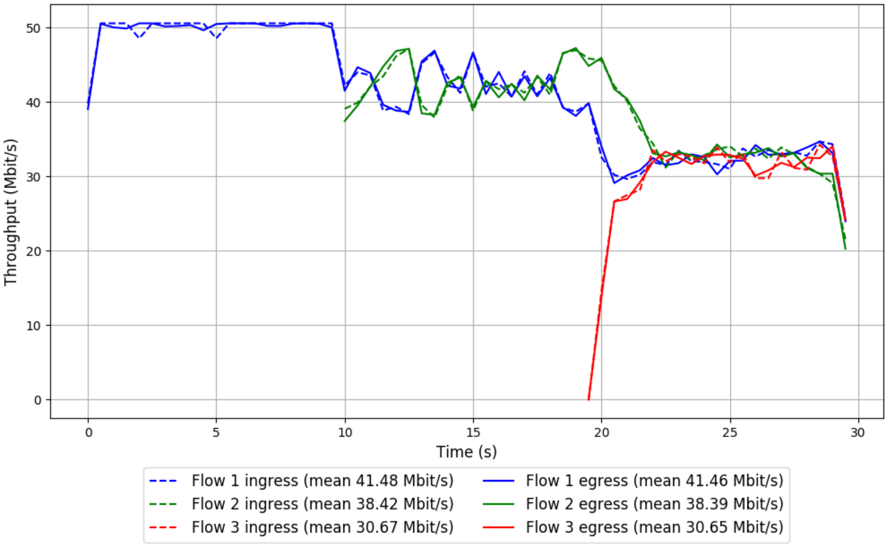
Run 4: Report of Sprout — Data Link

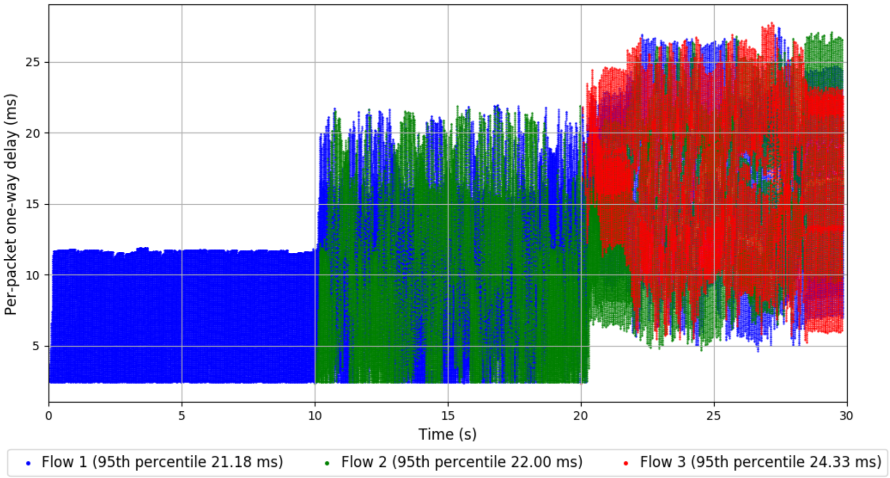




```
Run 5: Statistics of Sprout

Start at: 2018-01-02 08:36:13
End at: 2018-01-02 08:36:43
Local clock offset: -0.083 ms
Remote clock offset: 0.592 ms

# Below is generated by plot.py at 2018-01-02 13:05:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.08 Mbit/s
95th percentile per-packet one-way delay: 22.396 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 41.46 Mbit/s
95th percentile per-packet one-way delay: 21.180 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 21.999 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 30.65 Mbit/s
95th percentile per-packet one-way delay: 24.328 ms
Loss rate: 0.07%
```

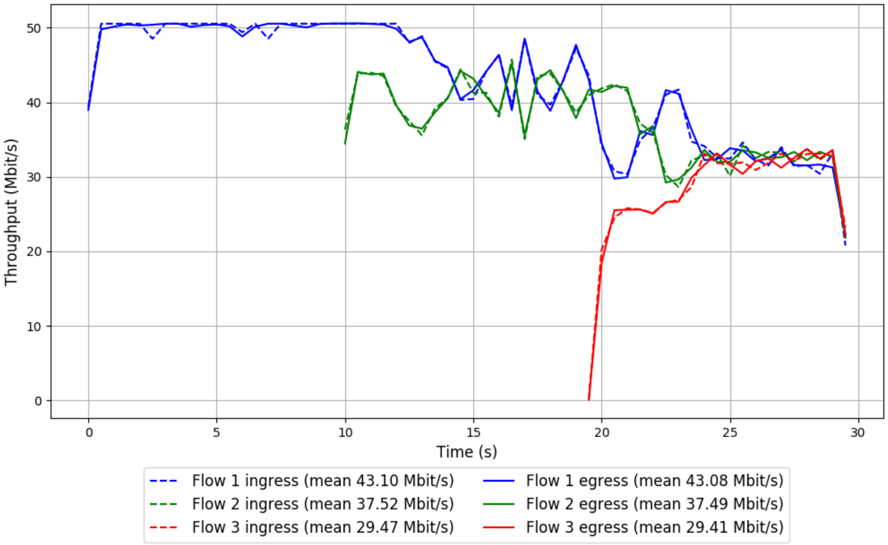
Run 5: Report of Sprout — Data Link

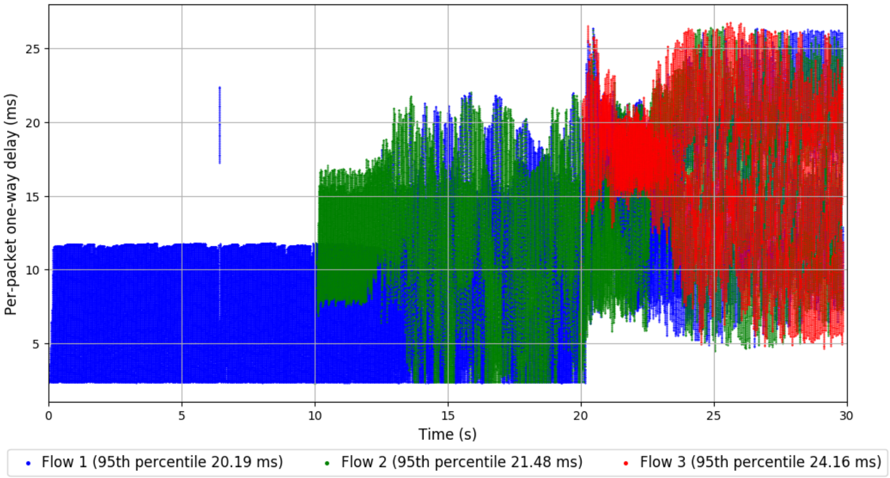




```
Run 6: Statistics of Sprout

Start at: 2018-01-02 08:53:11
End at: 2018-01-02 08:53:41
Local clock offset: -0.133 ms
Remote clock offset: 0.725 ms

# Below is generated by plot.py at 2018-01-02 13:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.70 Mbit/s
95th percentile per-packet one-way delay: 21.732 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 43.08 Mbit/s
95th percentile per-packet one-way delay: 20.187 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 37.49 Mbit/s
95th percentile per-packet one-way delay: 21.484 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 24.162 ms
Loss rate: 0.34%
```

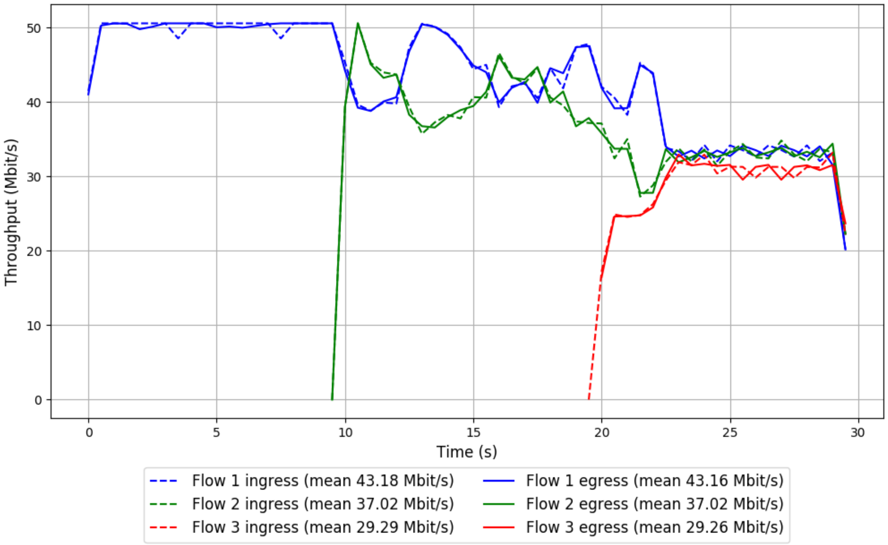
Run 6: Report of Sprout — Data Link

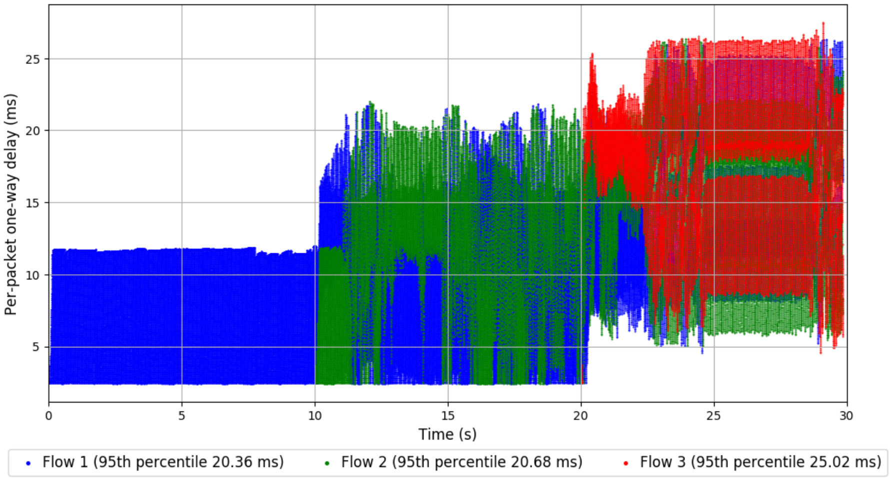




```
Run 7: Statistics of Sprout

Start at: 2018-01-02 09:10:10
End at: 2018-01-02 09:10:40
Local clock offset: -0.164 ms
Remote clock offset: 0.627 ms

# Below is generated by plot.py at 2018-01-02 13:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.41 Mbit/s
95th percentile per-packet one-way delay: 21.871 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 20.361 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 37.02 Mbit/s
95th percentile per-packet one-way delay: 20.676 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.26 Mbit/s
95th percentile per-packet one-way delay: 25.018 ms
Loss rate: 0.09%
```

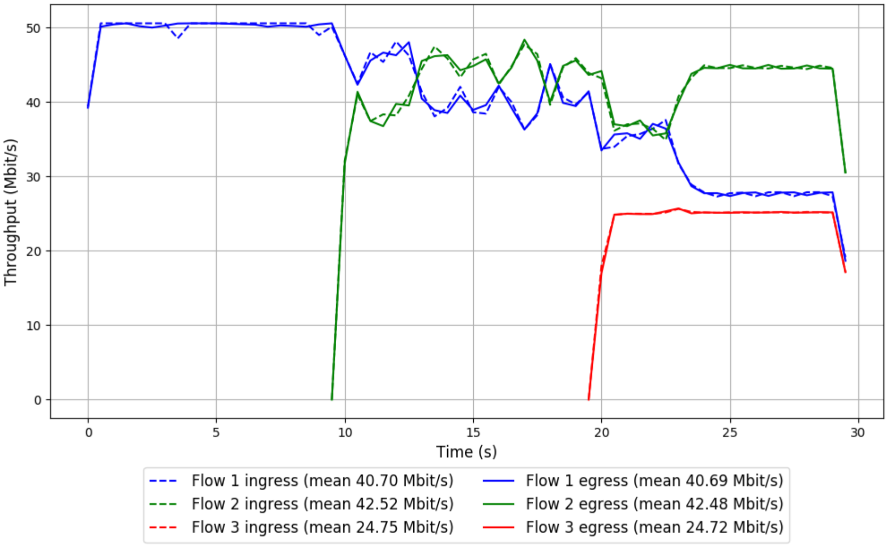
Run 7: Report of Sprout — Data Link

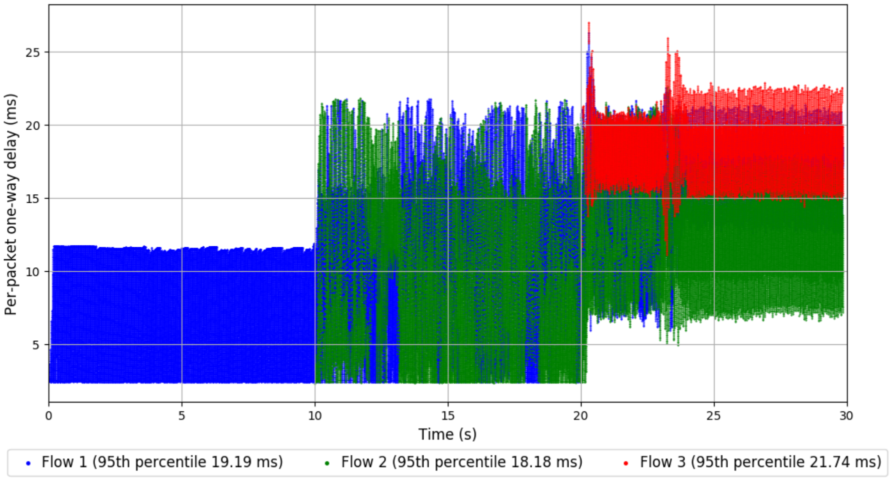




```
Run 8: Statistics of Sprout

Start at: 2018-01-02 09:27:07
End at: 2018-01-02 09:27:37
Local clock offset: -0.213 ms
Remote clock offset: 0.625 ms

# Below is generated by plot.py at 2018-01-02 13:05:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.07 Mbit/s
95th percentile per-packet one-way delay: 19.722 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 19.194 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 42.48 Mbit/s
95th percentile per-packet one-way delay: 18.183 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 21.741 ms
Loss rate: 0.21%
```

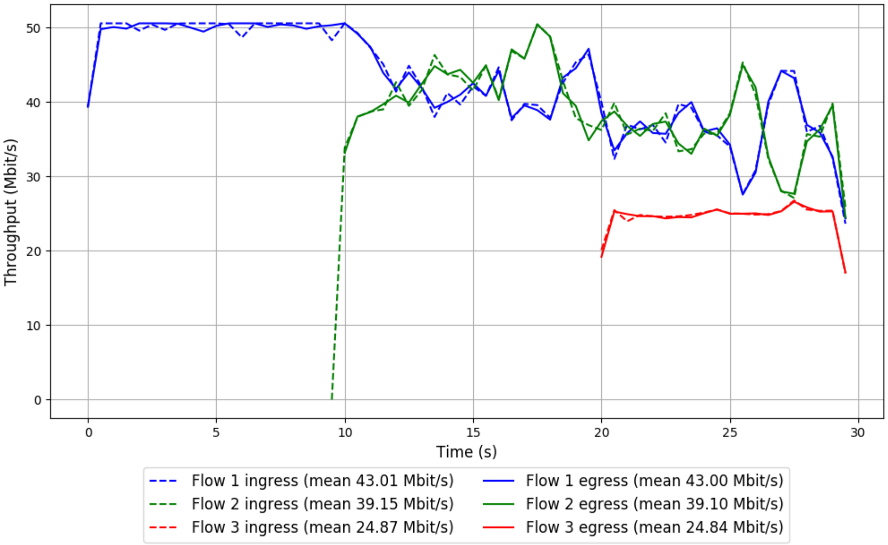
Run 8: Report of Sprout — Data Link

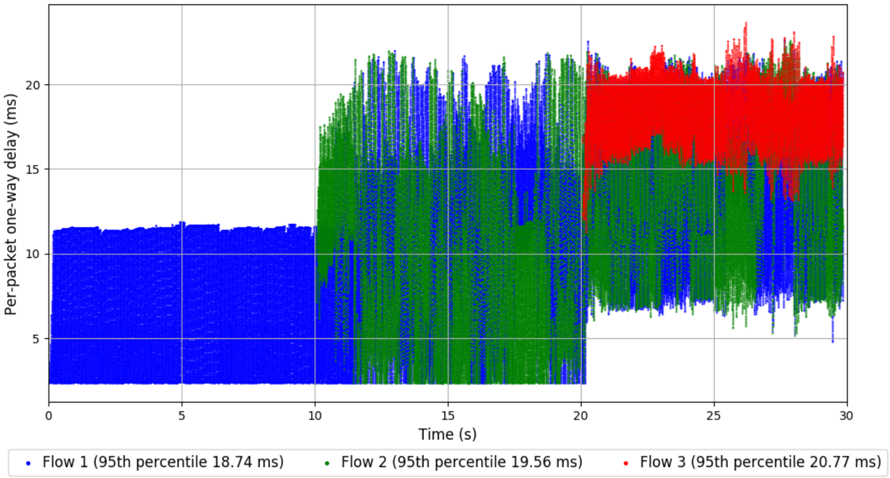




```
Run 9: Statistics of Sprout

Start at: 2018-01-02 09:44:04
End at: 2018-01-02 09:44:34
Local clock offset: -0.279 ms
Remote clock offset: 0.701 ms

# Below is generated by plot.py at 2018-01-02 13:05:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.16 Mbit/s
95th percentile per-packet one-way delay: 19.702 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 18.739 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 19.562 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 24.84 Mbit/s
95th percentile per-packet one-way delay: 20.768 ms
Loss rate: 0.21%
```

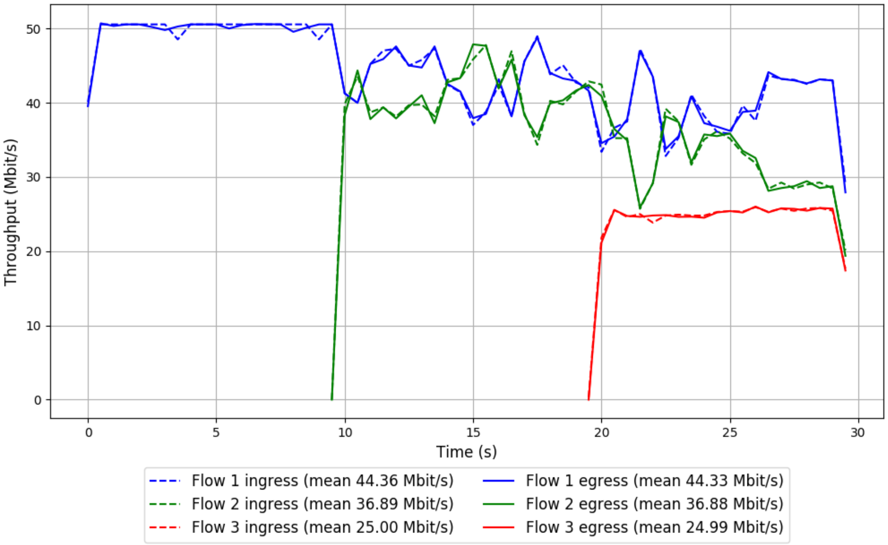
Run 9: Report of Sprout — Data Link

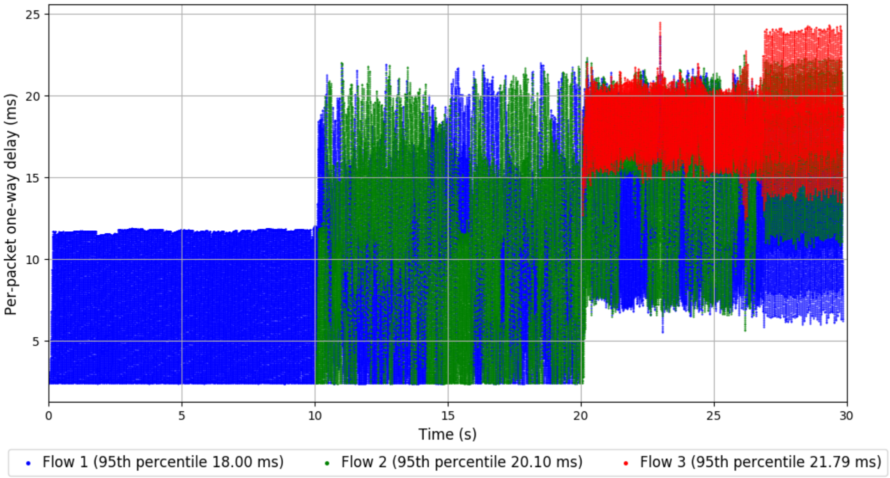




```
Run 10: Statistics of Sprout

Start at: 2018-01-02 10:01:01
End at: 2018-01-02 10:01:31
Local clock offset: -0.337 ms
Remote clock offset: 0.686 ms

# Below is generated by plot.py at 2018-01-02 13:05:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.10 Mbit/s
95th percentile per-packet one-way delay: 19.822 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 44.33 Mbit/s
95th percentile per-packet one-way delay: 17.996 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 36.88 Mbit/s
95th percentile per-packet one-way delay: 20.103 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 24.99 Mbit/s
95th percentile per-packet one-way delay: 21.789 ms
Loss rate: 0.22%
```

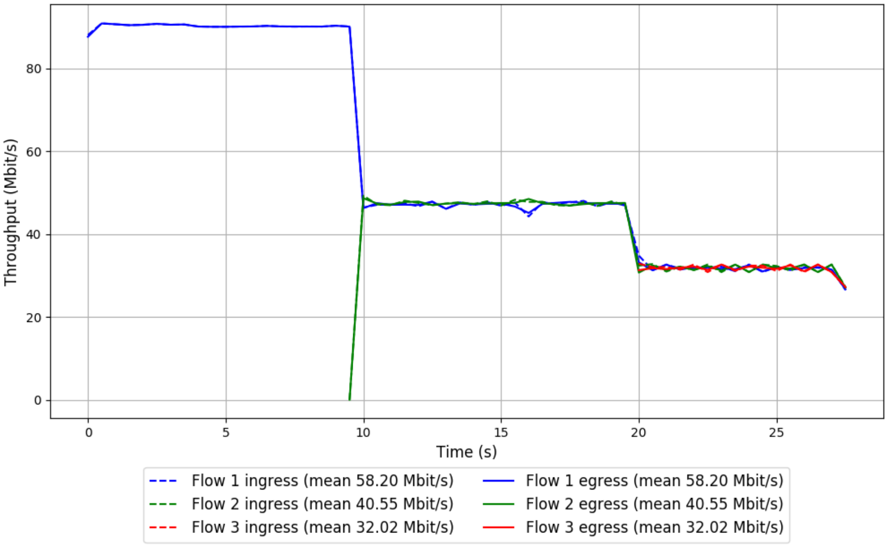
Run 10: Report of Sprout — Data Link

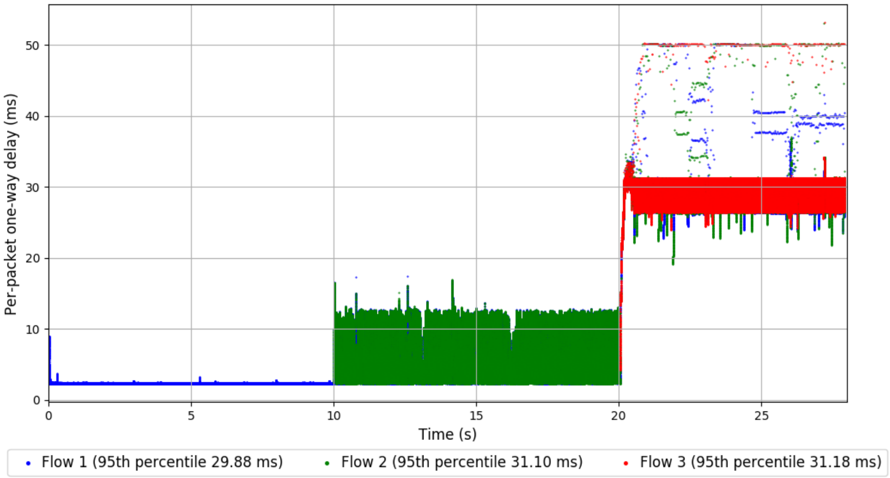




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-02 07:29:32
End at: 2018-01-02 07:30:02
Local clock offset: 0.027 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-01-02 13:07:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.24 Mbit/s
95th percentile per-packet one-way delay: 31.067 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.20 Mbit/s
95th percentile per-packet one-way delay: 29.880 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.55 Mbit/s
95th percentile per-packet one-way delay: 31.096 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 31.179 ms
Loss rate: 0.36%
```

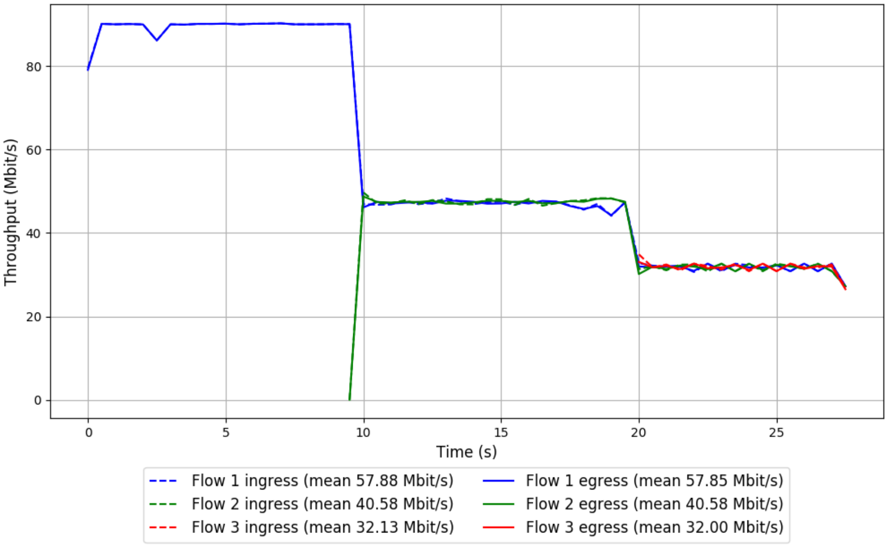
Run 1: Report of TaoVA-100x — Data Link

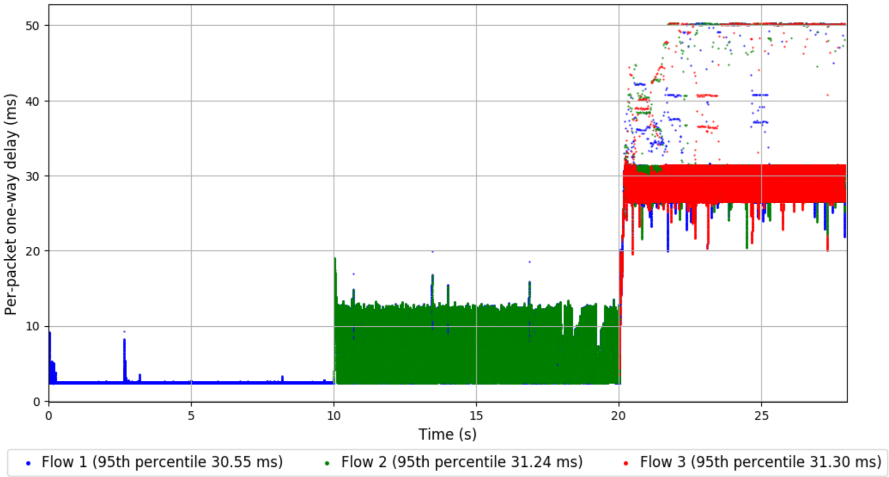




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-02 07:46:28
End at: 2018-01-02 07:46:58
Local clock offset: 0.043 ms
Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2018-01-02 13:07:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 31.204 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 30.546 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.58 Mbit/s
95th percentile per-packet one-way delay: 31.239 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.00 Mbit/s
95th percentile per-packet one-way delay: 31.297 ms
Loss rate: 0.53%
```

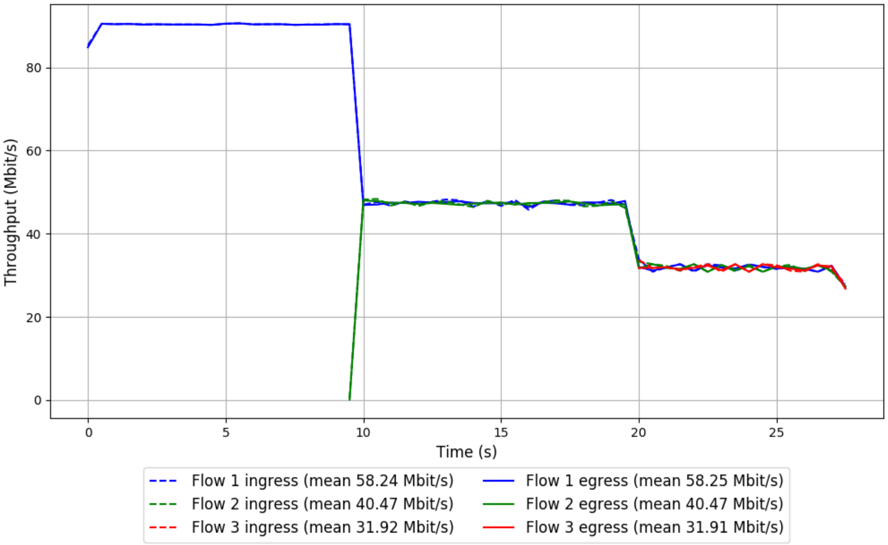
Run 2: Report of TaoVA-100x — Data Link

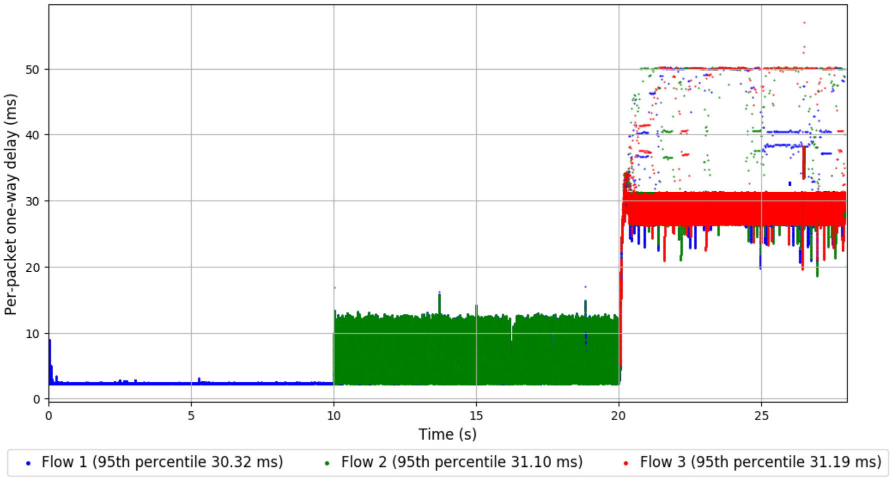




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-01-02 08:03:25
End at: 2018-01-02 08:03:56
Local clock offset: -0.099 ms
Remote clock offset: 0.296 ms

# Below is generated by plot.py at 2018-01-02 13:07:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.24 Mbit/s
95th percentile per-packet one-way delay: 31.083 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.25 Mbit/s
95th percentile per-packet one-way delay: 30.324 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.47 Mbit/s
95th percentile per-packet one-way delay: 31.096 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 31.186 ms
Loss rate: 0.46%
```

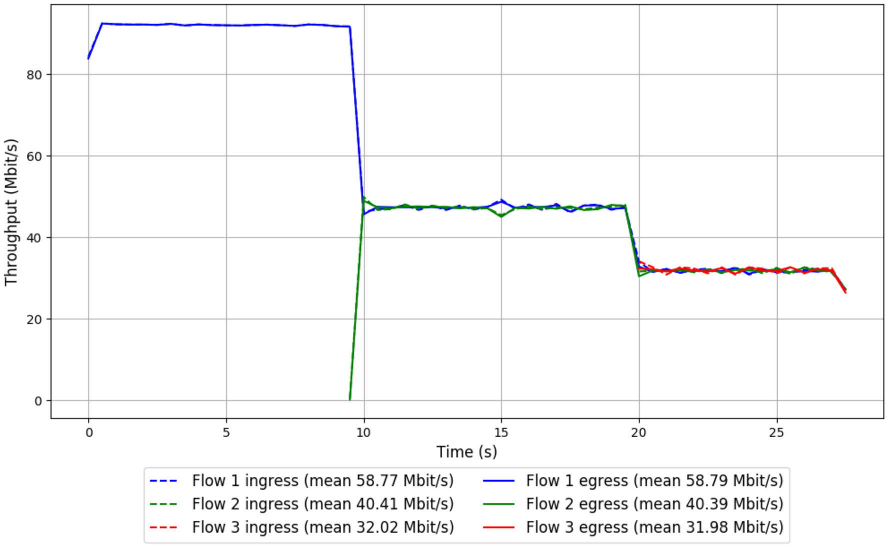
Run 3: Report of TaoVA-100x — Data Link

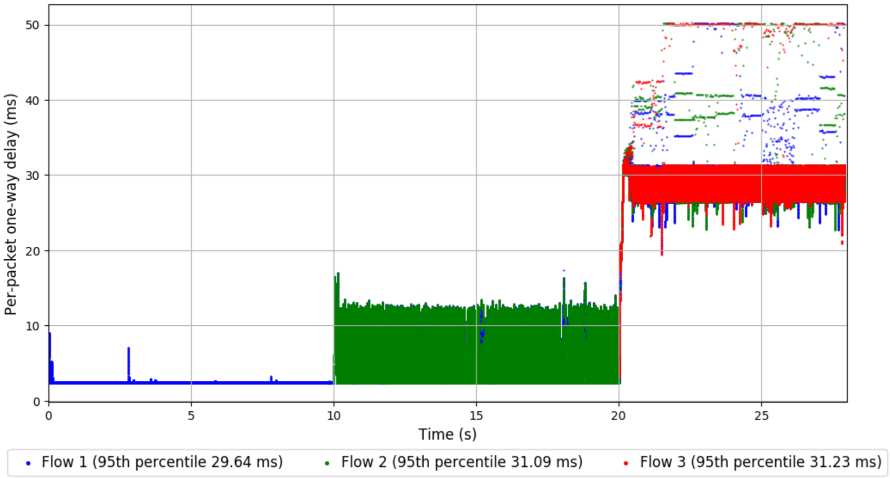




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-01-02 08:20:22
End at: 2018-01-02 08:20:52
Local clock offset: -0.077 ms
Remote clock offset: 0.468 ms

# Below is generated by plot.py at 2018-01-02 13:07:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 31.078 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.79 Mbit/s
95th percentile per-packet one-way delay: 29.637 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.39 Mbit/s
95th percentile per-packet one-way delay: 31.093 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 31.235 ms
Loss rate: 0.54%
```

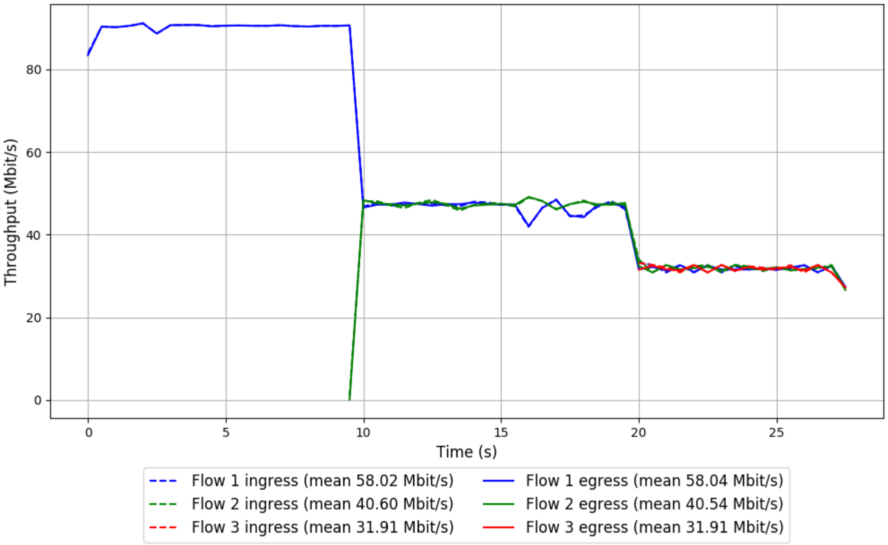
Run 4: Report of TaoVA-100x — Data Link

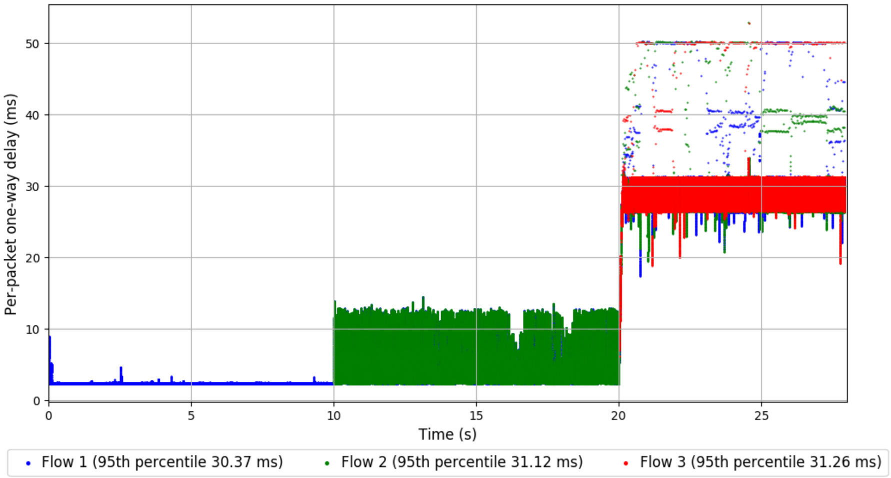




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-01-02 08:37:20
End at: 2018-01-02 08:37:50
Local clock offset: -0.115 ms
Remote clock offset: 0.591 ms

# Below is generated by plot.py at 2018-01-02 13:07:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.10 Mbit/s
95th percentile per-packet one-way delay: 31.142 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 30.372 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.54 Mbit/s
95th percentile per-packet one-way delay: 31.120 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 31.258 ms
Loss rate: 0.36%
```

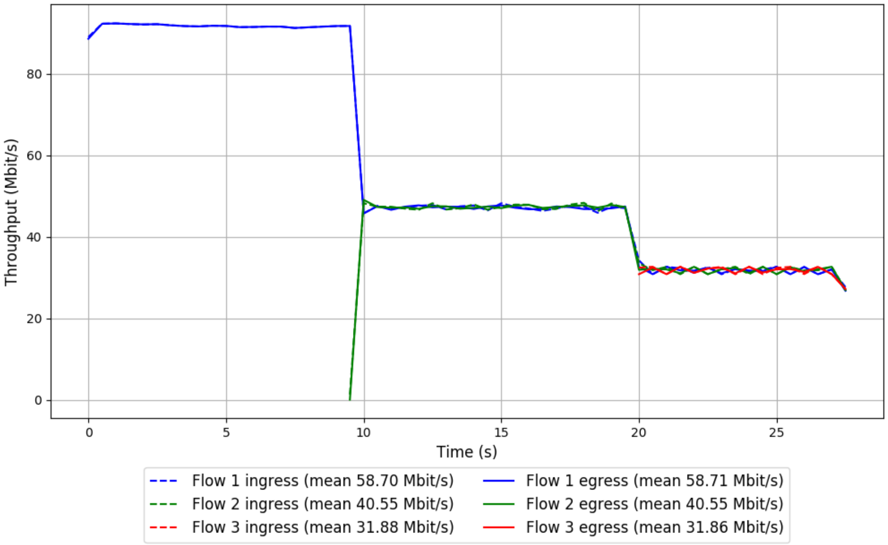
Run 5: Report of TaoVA-100x — Data Link

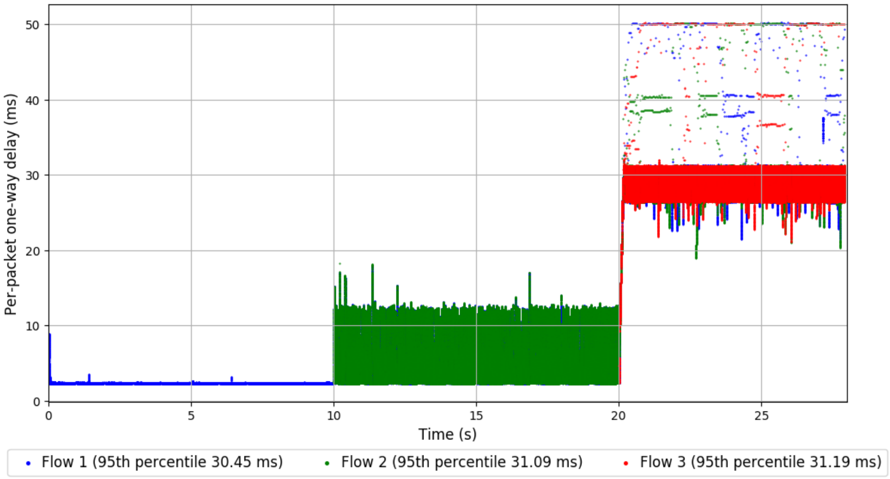




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-01-02 08:54:17
End at: 2018-01-02 08:54:47
Local clock offset: -0.128 ms
Remote clock offset: 0.727 ms

# Below is generated by plot.py at 2018-01-02 13:07:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.77 Mbit/s
95th percentile per-packet one-way delay: 31.087 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.71 Mbit/s
95th percentile per-packet one-way delay: 30.454 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.55 Mbit/s
95th percentile per-packet one-way delay: 31.095 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 31.189 ms
Loss rate: 0.36%
```

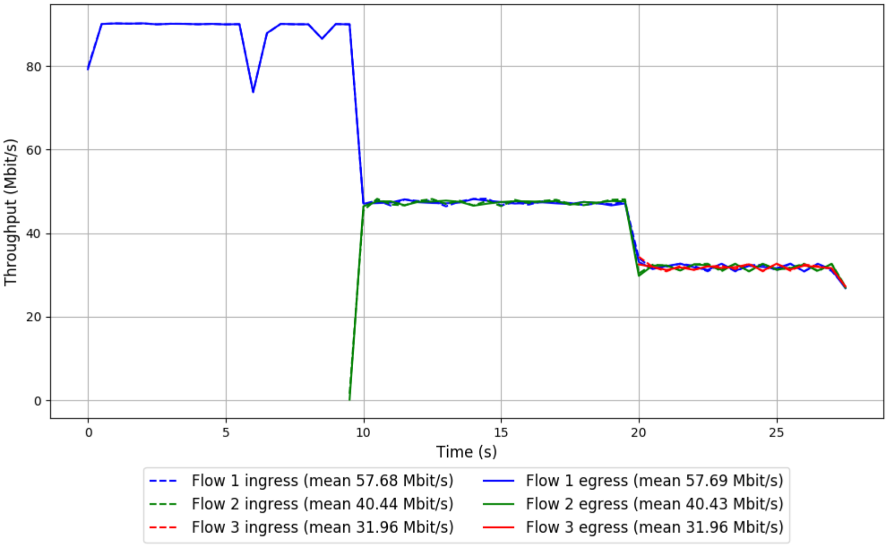
Run 6: Report of TaoVA-100x — Data Link

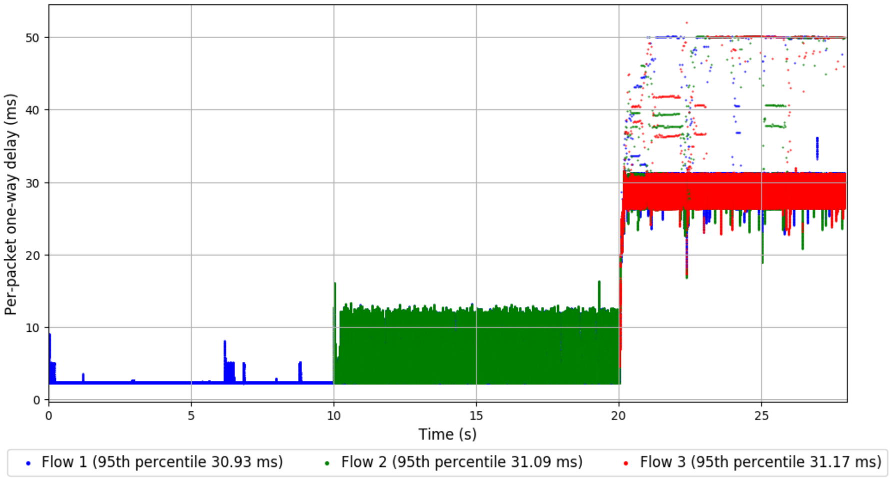




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-01-02 09:11:17
End at: 2018-01-02 09:11:47
Local clock offset: -0.194 ms
Remote clock offset: 0.692 ms

# Below is generated by plot.py at 2018-01-02 13:08:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.66 Mbit/s
95th percentile per-packet one-way delay: 31.086 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 57.69 Mbit/s
95th percentile per-packet one-way delay: 30.927 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.43 Mbit/s
95th percentile per-packet one-way delay: 31.095 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 31.168 ms
Loss rate: 0.36%
```

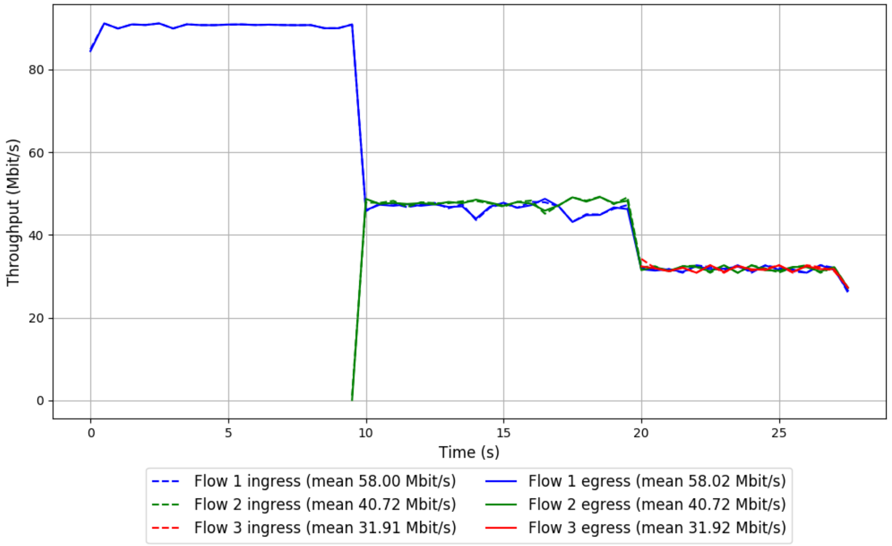
Run 7: Report of TaoVA-100x — Data Link

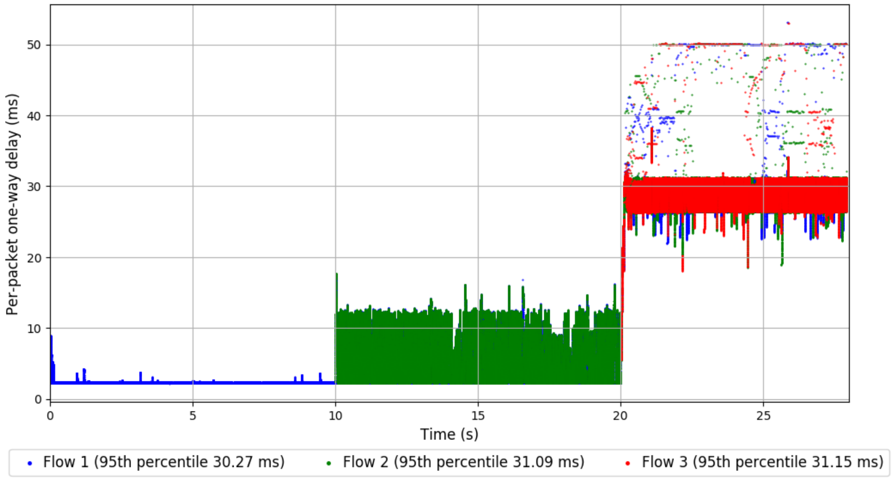




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-01-02 09:28:14
End at: 2018-01-02 09:28:44
Local clock offset: -0.264 ms
Remote clock offset: 0.703 ms

# Below is generated by plot.py at 2018-01-02 13:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 31.049 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.02 Mbit/s
95th percentile per-packet one-way delay: 30.267 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 31.089 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 31.151 ms
Loss rate: 0.36%
```

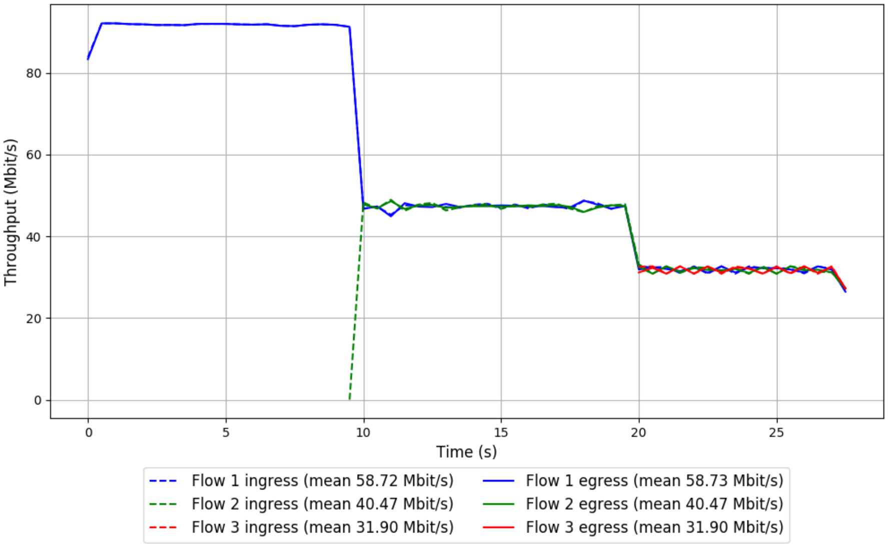
Run 8: Report of TaoVA-100x — Data Link

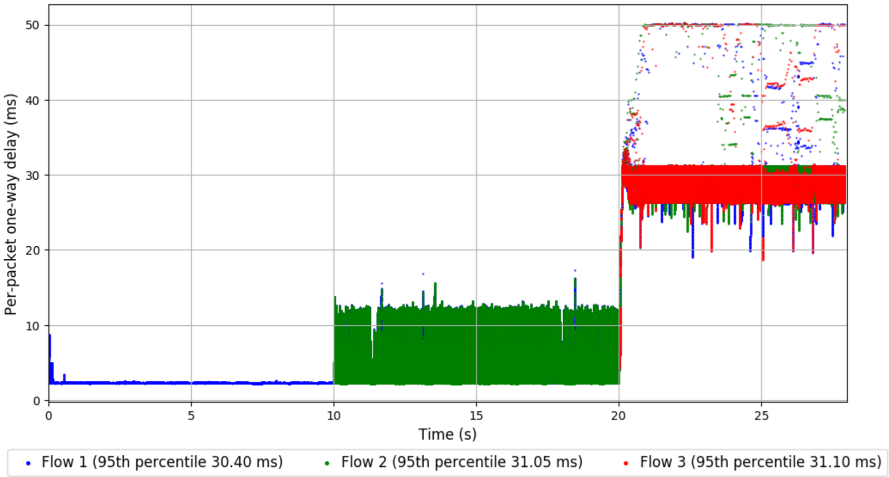




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-01-02 09:45:11
End at: 2018-01-02 09:45:41
Local clock offset: -0.354 ms
Remote clock offset: 0.699 ms

# Below is generated by plot.py at 2018-01-02 13:09:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 31.008 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.73 Mbit/s
95th percentile per-packet one-way delay: 30.398 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.47 Mbit/s
95th percentile per-packet one-way delay: 31.047 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 31.101 ms
Loss rate: 0.36%
```

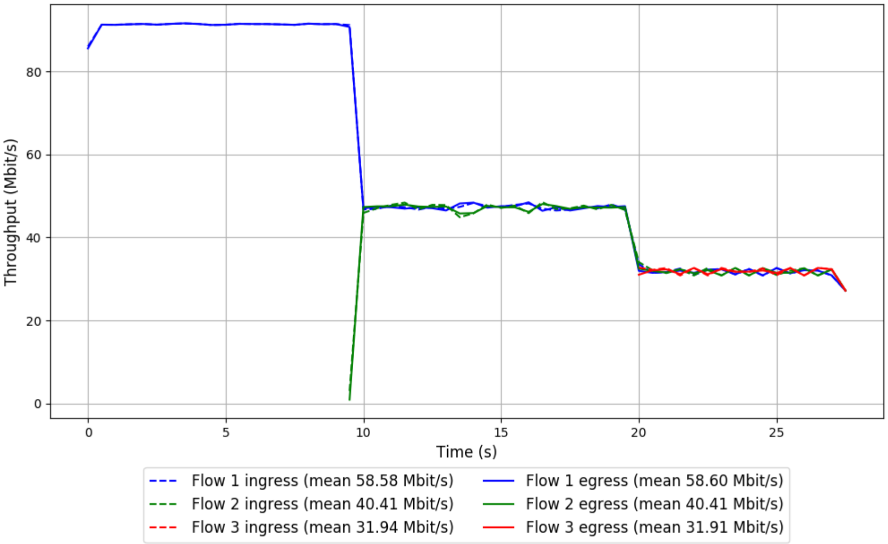
Run 9: Report of TaoVA-100x — Data Link

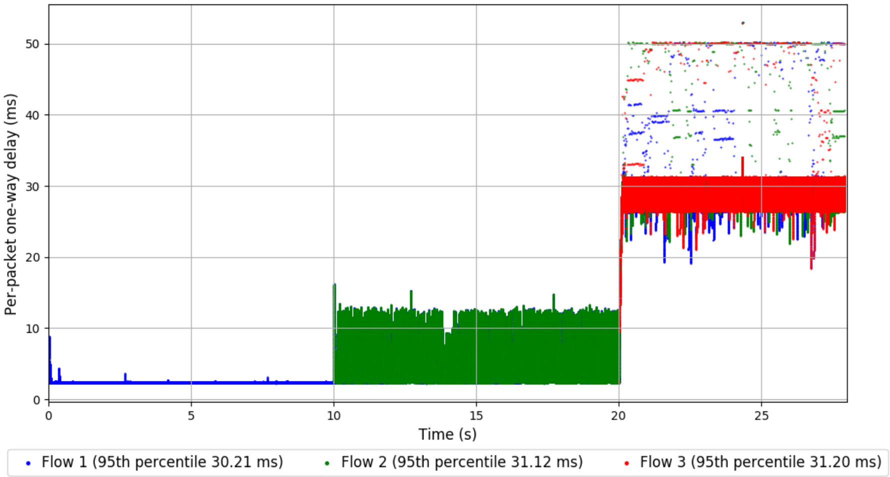




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-02 10:02:08
End at: 2018-01-02 10:02:38
Local clock offset: -0.417 ms
Remote clock offset: 0.685 ms

# Below is generated by plot.py at 2018-01-02 13:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.57 Mbit/s
95th percentile per-packet one-way delay: 31.092 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 30.214 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.41 Mbit/s
95th percentile per-packet one-way delay: 31.116 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 31.202 ms
Loss rate: 0.38%
```

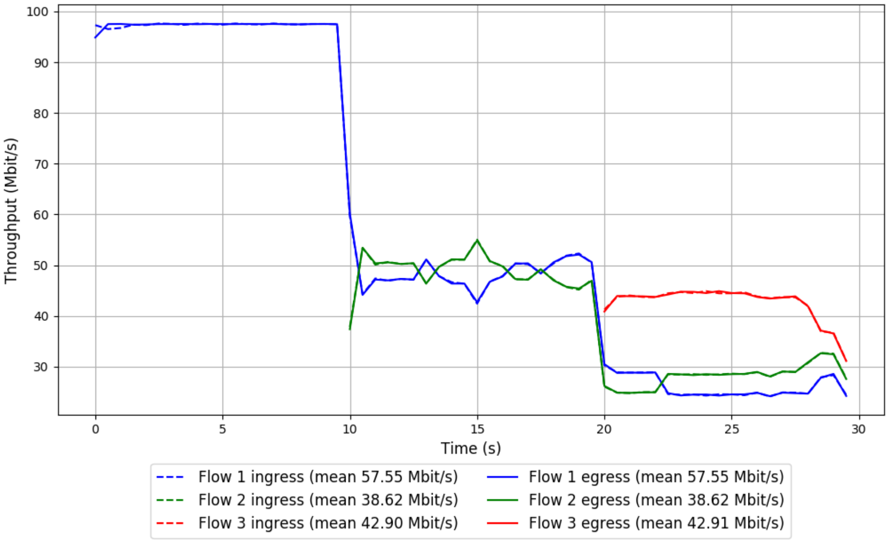
Run 10: Report of TaoVA-100x — Data Link

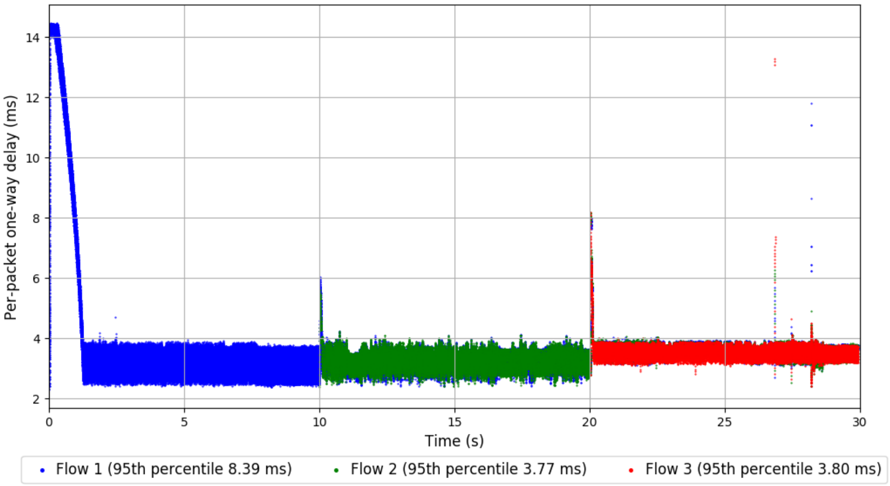




```
Run 1: Statistics of TCP Vegas

Start at: 2018-01-02 07:30:43
End at: 2018-01-02 07:31:13
Local clock offset: 0.06 ms
Remote clock offset: -0.191 ms

# Below is generated by plot.py at 2018-01-02 13:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 3.880 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 57.55 Mbit/s
95th percentile per-packet one-way delay: 8.392 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.62 Mbit/s
95th percentile per-packet one-way delay: 3.767 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 42.91 Mbit/s
95th percentile per-packet one-way delay: 3.797 ms
Loss rate: 0.05%
```

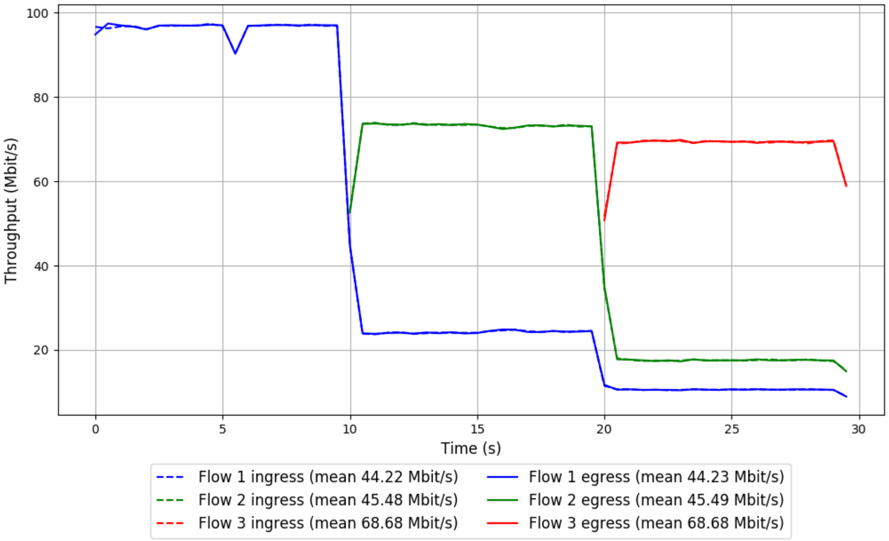
Run 1: Report of TCP Vegas — Data Link

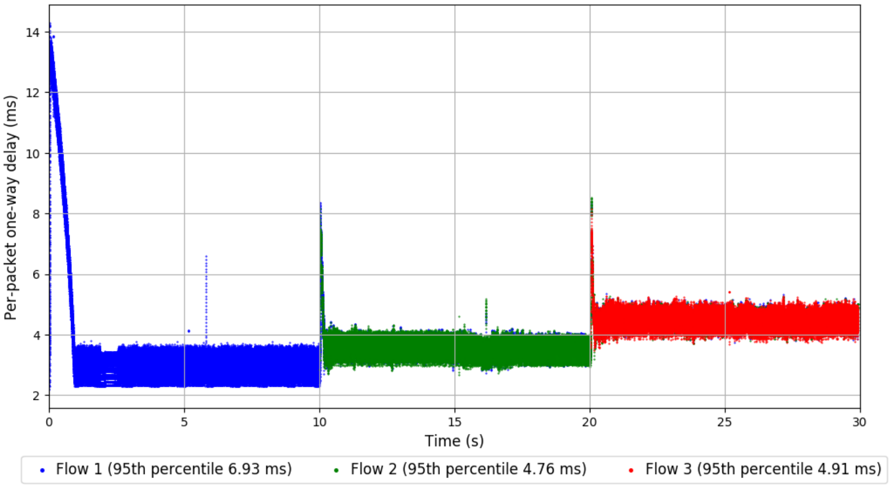




```
Run 2: Statistics of TCP Vegas

Start at: 2018-01-02 07:47:40
End at: 2018-01-02 07:48:10
Local clock offset: 0.003 ms
Remote clock offset: 0.154 ms

# Below is generated by plot.py at 2018-01-02 13:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 4.907 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 6.927 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.49 Mbit/s
95th percentile per-packet one-way delay: 4.759 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 68.68 Mbit/s
95th percentile per-packet one-way delay: 4.909 ms
Loss rate: 0.07%
```

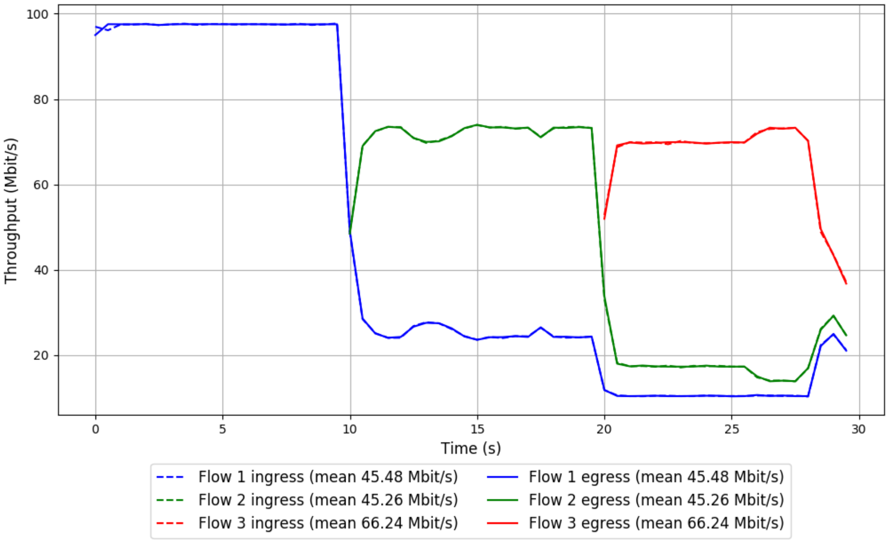
Run 2: Report of TCP Vegas — Data Link

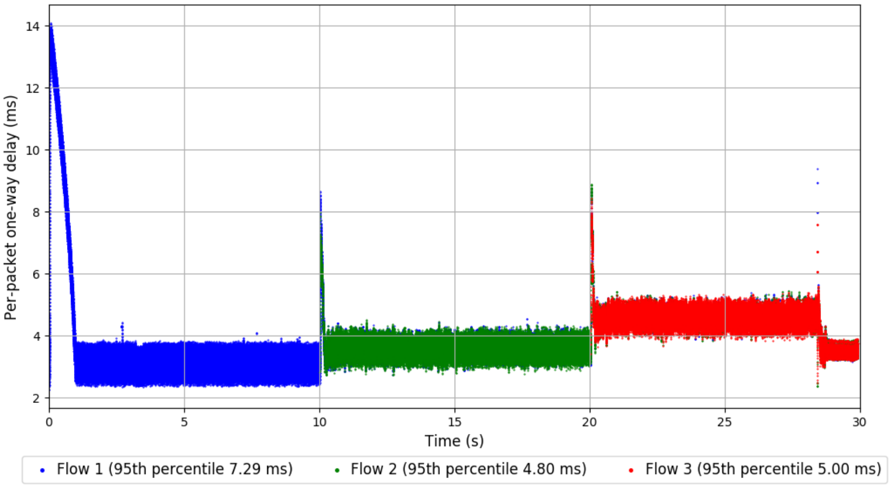




```
Run 3: Statistics of TCP Vegas

Start at: 2018-01-02 08:04:37
End at: 2018-01-02 08:05:07
Local clock offset: -0.014 ms
Remote clock offset: 0.38 ms

# Below is generated by plot.py at 2018-01-02 13:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 5.010 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 45.48 Mbit/s
95th percentile per-packet one-way delay: 7.292 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.26 Mbit/s
95th percentile per-packet one-way delay: 4.805 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 66.24 Mbit/s
95th percentile per-packet one-way delay: 5.005 ms
Loss rate: 0.04%
```

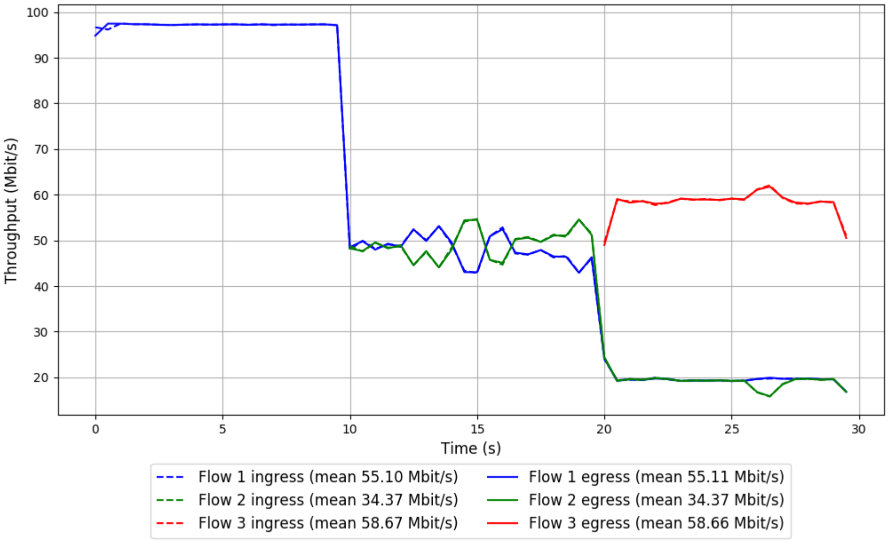
Run 3: Report of TCP Vegas — Data Link

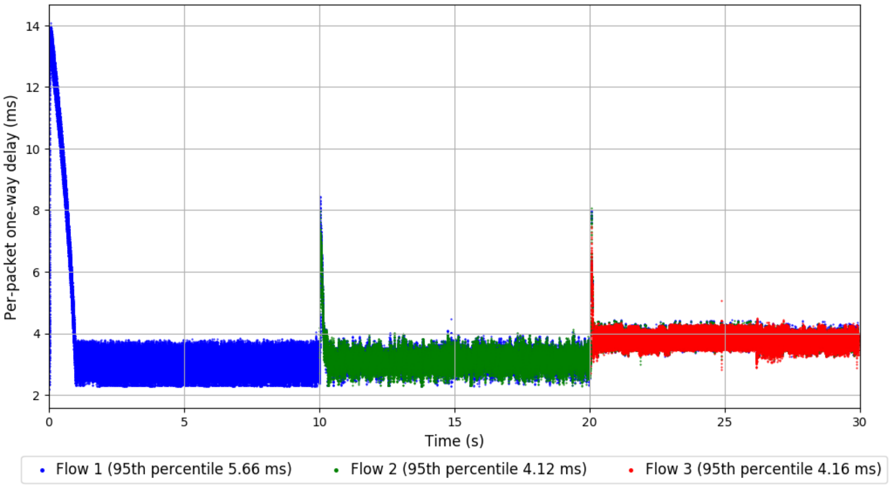




```
Run 4: Statistics of TCP Vegas

Start at: 2018-01-02 08:21:34
End at: 2018-01-02 08:22:04
Local clock offset: -0.063 ms
Remote clock offset: 0.578 ms

# Below is generated by plot.py at 2018-01-02 13:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.37 Mbit/s
95th percentile per-packet one-way delay: 4.198 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 55.11 Mbit/s
95th percentile per-packet one-way delay: 5.664 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 34.37 Mbit/s
95th percentile per-packet one-way delay: 4.116 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 4.159 ms
Loss rate: 0.06%
```

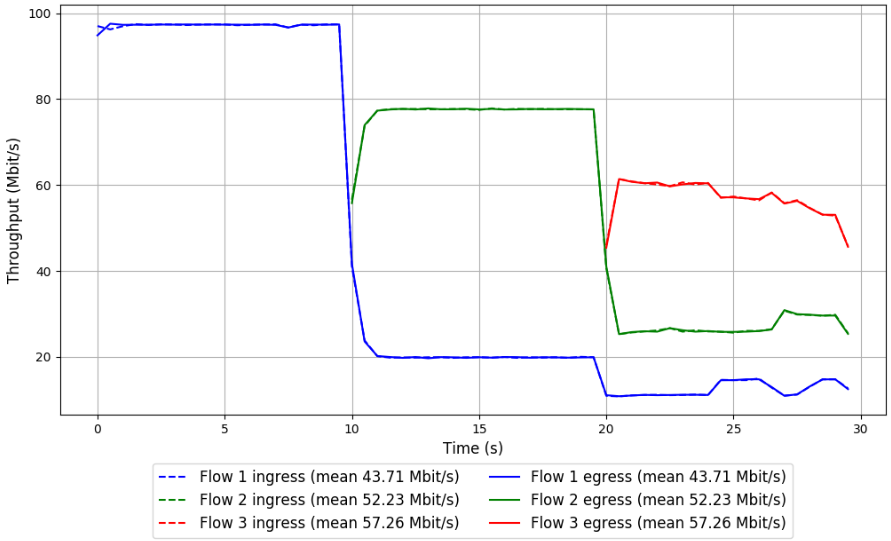
Run 4: Report of TCP Vegas — Data Link

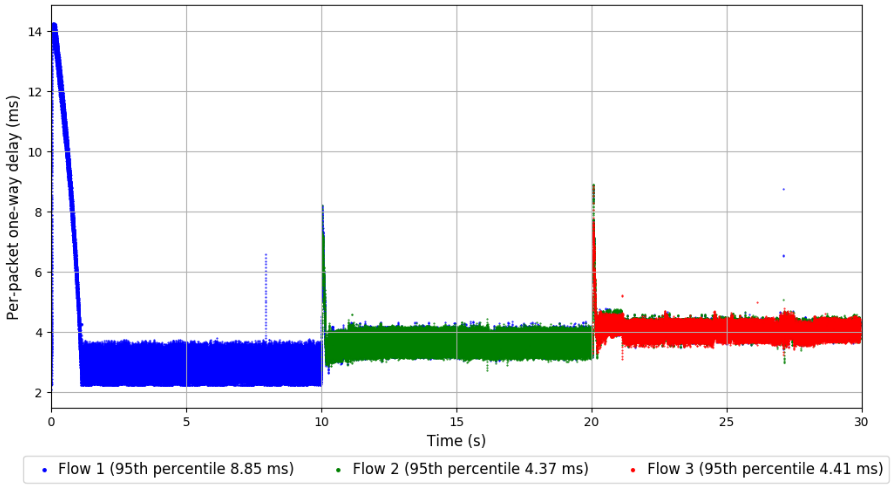




```
Run 5: Statistics of TCP Vegas

Start at: 2018-01-02 08:38:31
End at: 2018-01-02 08:39:01
Local clock offset: -0.182 ms
Remote clock offset: 0.678 ms

# Below is generated by plot.py at 2018-01-02 13:09:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 4.476 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 43.71 Mbit/s
95th percentile per-packet one-way delay: 8.852 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 52.23 Mbit/s
95th percentile per-packet one-way delay: 4.366 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 57.26 Mbit/s
95th percentile per-packet one-way delay: 4.414 ms
Loss rate: 0.06%
```

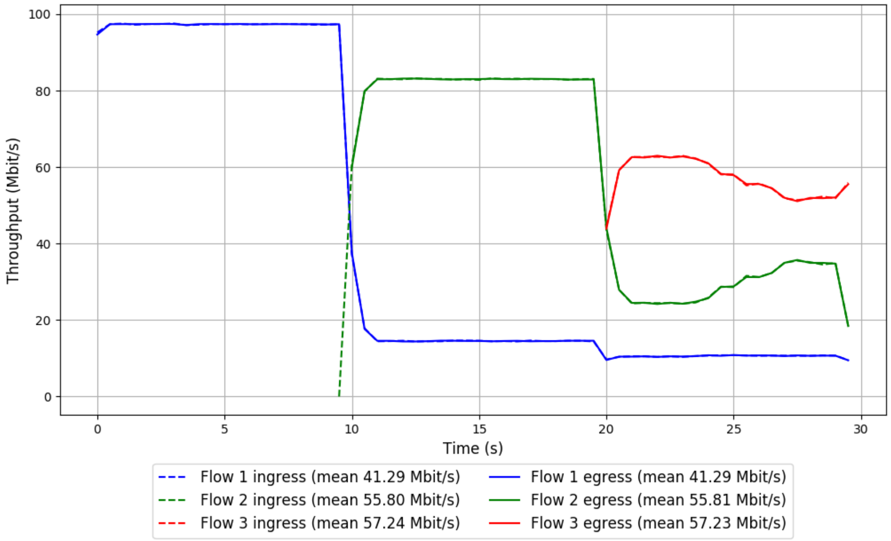
Run 5: Report of TCP Vegas — Data Link

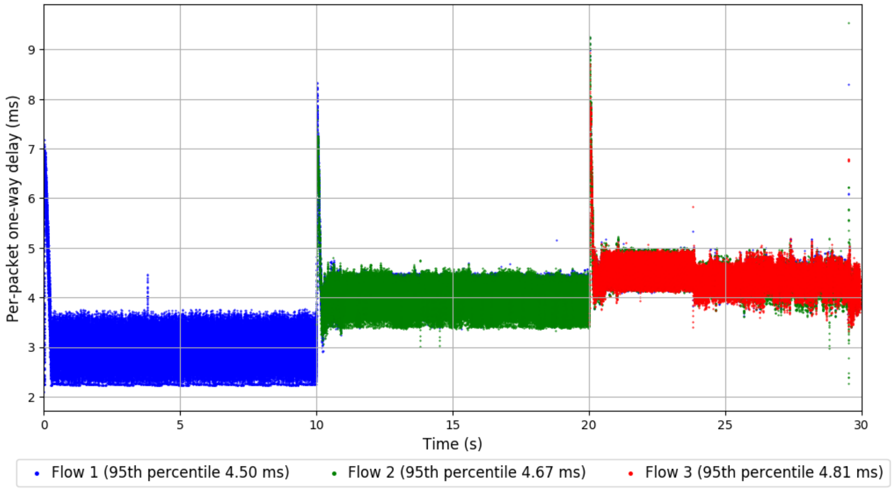




```
Run 6: Statistics of TCP Vegas

Start at: 2018-01-02 08:55:29
End at: 2018-01-02 08:55:59
Local clock offset: -0.215 ms
Remote clock offset: 0.724 ms

# Below is generated by plot.py at 2018-01-02 13:09:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 4.716 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 41.29 Mbit/s
95th percentile per-packet one-way delay: 4.505 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 55.81 Mbit/s
95th percentile per-packet one-way delay: 4.670 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 4.810 ms
Loss rate: 0.08%
```

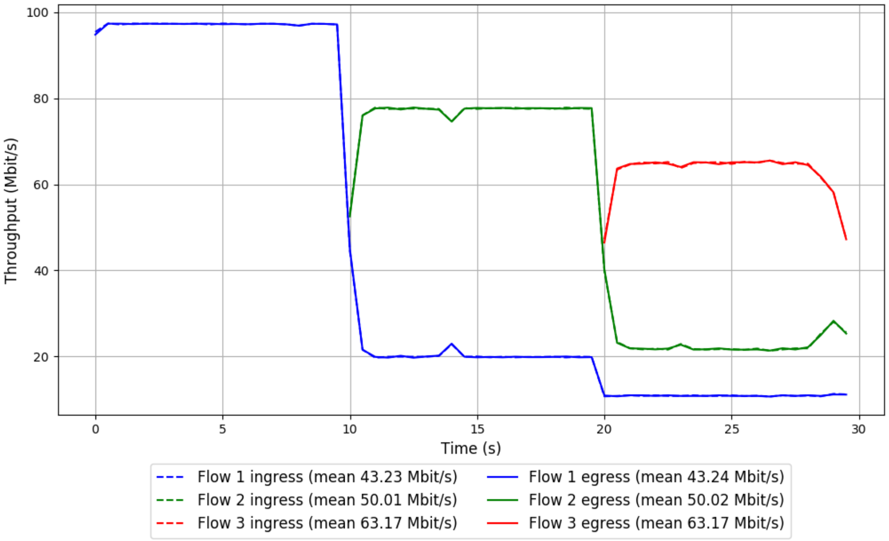
Run 6: Report of TCP Vegas — Data Link

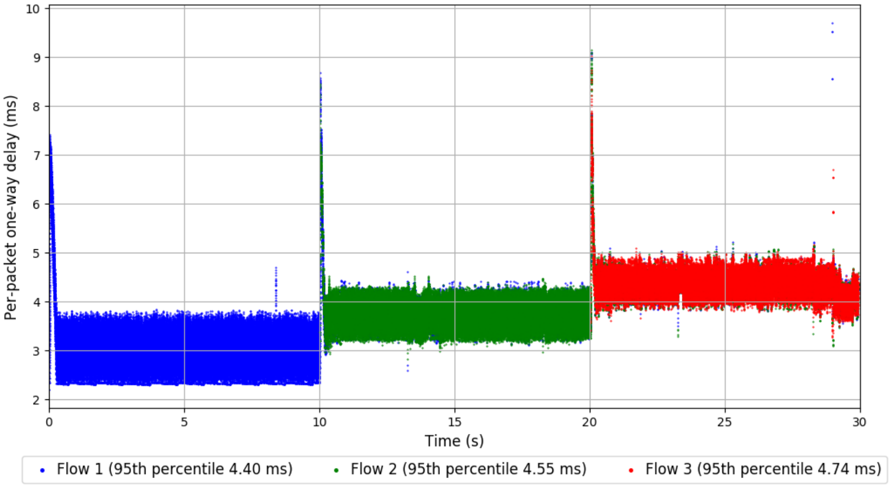




```
Run 7: Statistics of TCP Vegas

Start at: 2018-01-02 09:12:28
End at: 2018-01-02 09:12:58
Local clock offset: -0.213 ms
Remote clock offset: 0.696 ms

# Below is generated by plot.py at 2018-01-02 13:10:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 4.640 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 43.24 Mbit/s
95th percentile per-packet one-way delay: 4.401 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 4.555 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 63.17 Mbit/s
95th percentile per-packet one-way delay: 4.740 ms
Loss rate: 0.05%
```

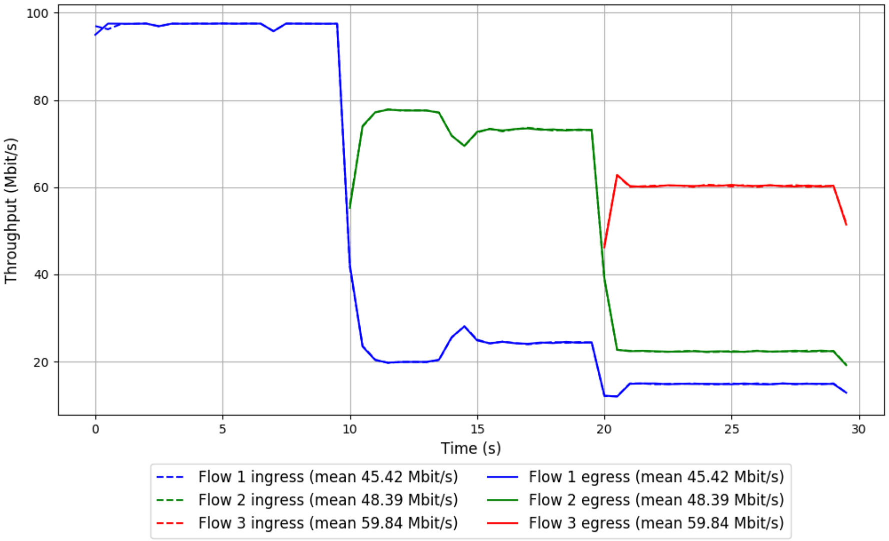
Run 7: Report of TCP Vegas — Data Link

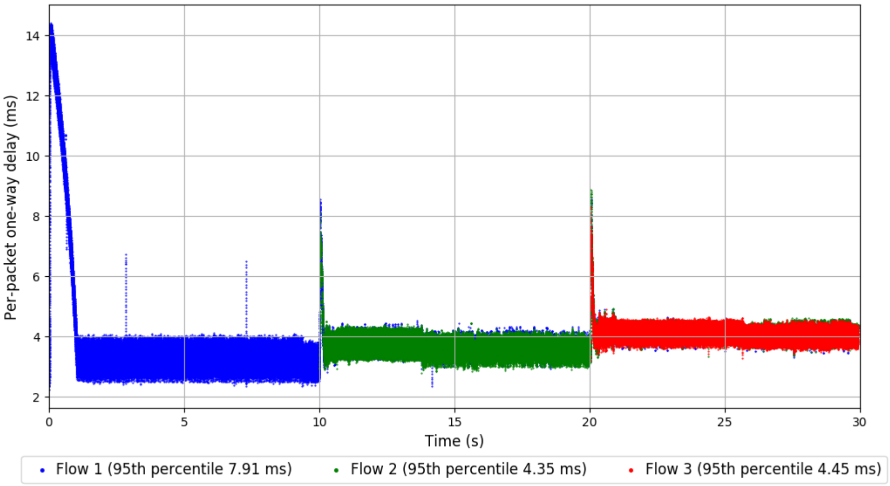




```
Run 8: Statistics of TCP Vegas

Start at: 2018-01-02 09:29:25
End at: 2018-01-02 09:29:55
Local clock offset: -0.235 ms
Remote clock offset: 0.686 ms

# Below is generated by plot.py at 2018-01-02 13:10:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 4.468 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 45.42 Mbit/s
95th percentile per-packet one-way delay: 7.907 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 48.39 Mbit/s
95th percentile per-packet one-way delay: 4.354 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 59.84 Mbit/s
95th percentile per-packet one-way delay: 4.446 ms
Loss rate: 0.06%
```

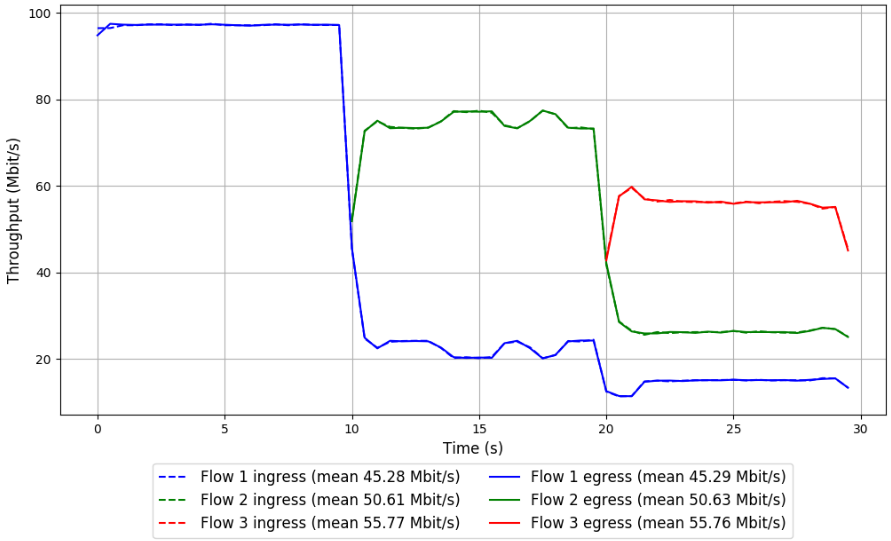
Run 8: Report of TCP Vegas — Data Link

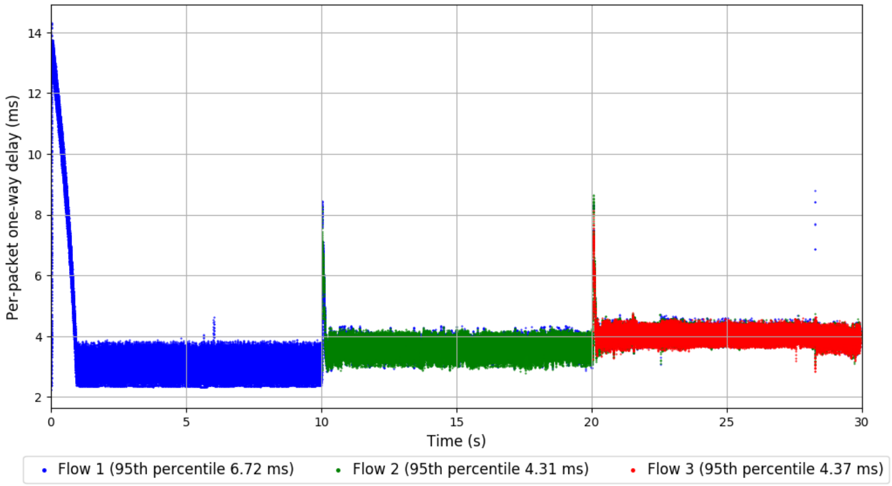




```
Run 9: Statistics of TCP Vegas

Start at: 2018-01-02 09:46:23
End at: 2018-01-02 09:46:53
Local clock offset: -0.336 ms
Remote clock offset: 0.644 ms

# Below is generated by plot.py at 2018-01-02 13:10:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 4.391 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 45.29 Mbit/s
95th percentile per-packet one-way delay: 6.719 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 4.307 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 55.76 Mbit/s
95th percentile per-packet one-way delay: 4.368 ms
Loss rate: 0.05%
```

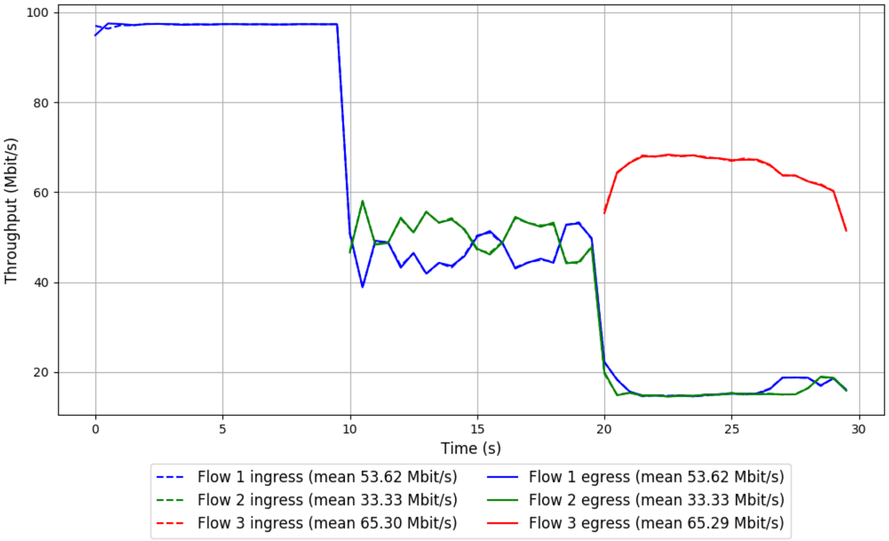
Run 9: Report of TCP Vegas — Data Link

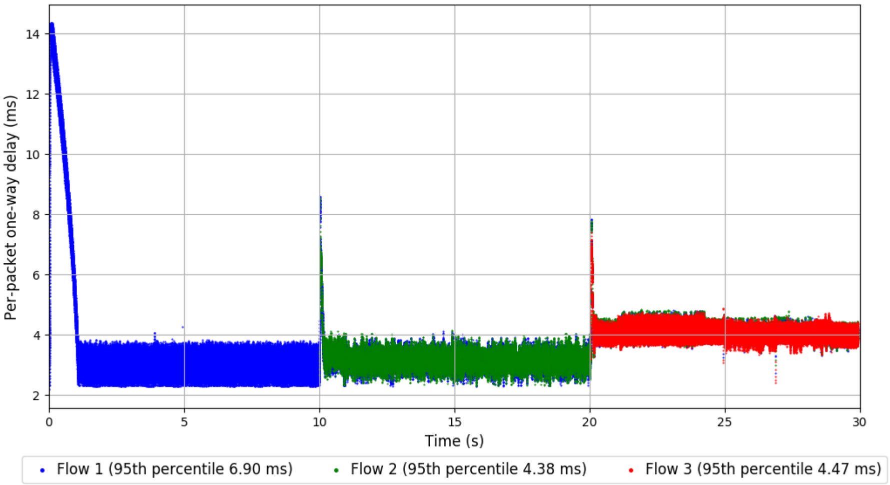




```
Run 10: Statistics of TCP Vegas

Start at: 2018-01-02 10:03:19
End at: 2018-01-02 10:03:50
Local clock offset: -0.344 ms
Remote clock offset: 0.777 ms

# Below is generated by plot.py at 2018-01-02 13:10:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 4.525 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.62 Mbit/s
95th percentile per-packet one-way delay: 6.899 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 4.385 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 65.29 Mbit/s
95th percentile per-packet one-way delay: 4.471 ms
Loss rate: 0.06%
```

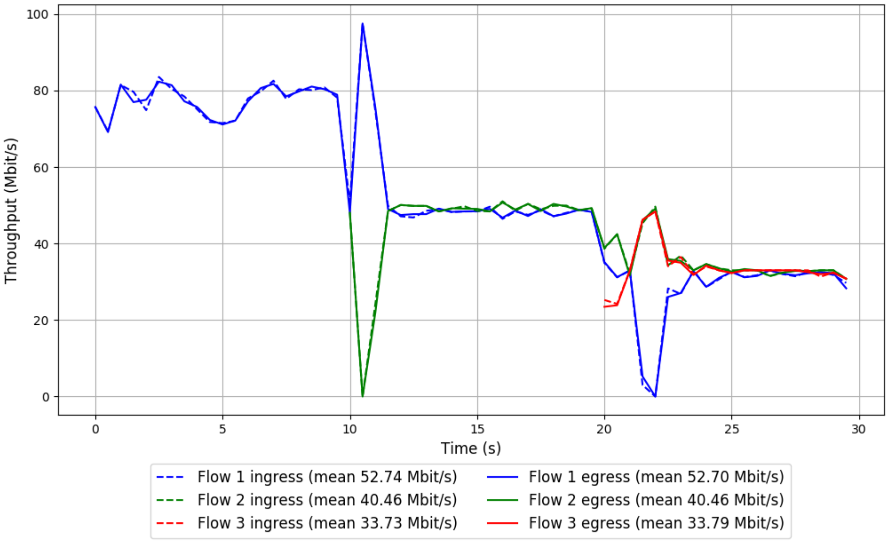
Run 10: Report of TCP Vegas — Data Link

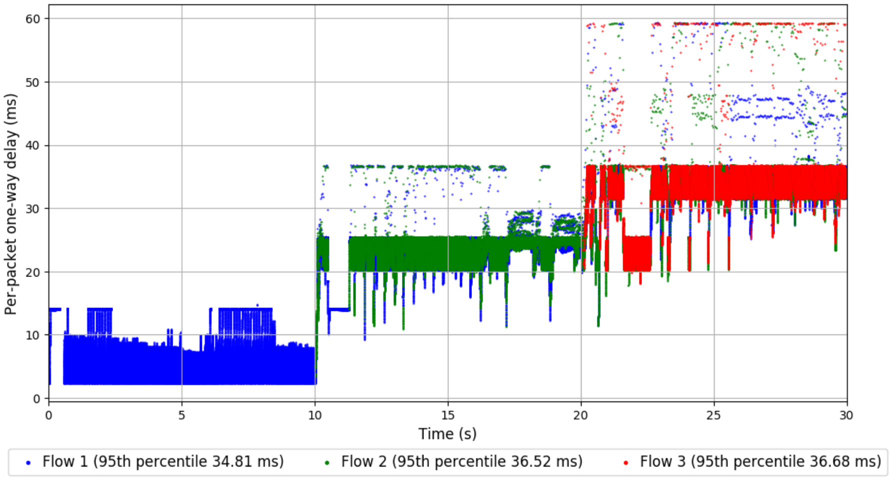




```
Run 1: Statistics of Verus

Start at: 2018-01-02 07:26:11
End at: 2018-01-02 07:26:41
Local clock offset: 0.085 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-01-02 13:11:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 36.301 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 34.809 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 36.517 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 36.679 ms
Loss rate: 0.33%
```

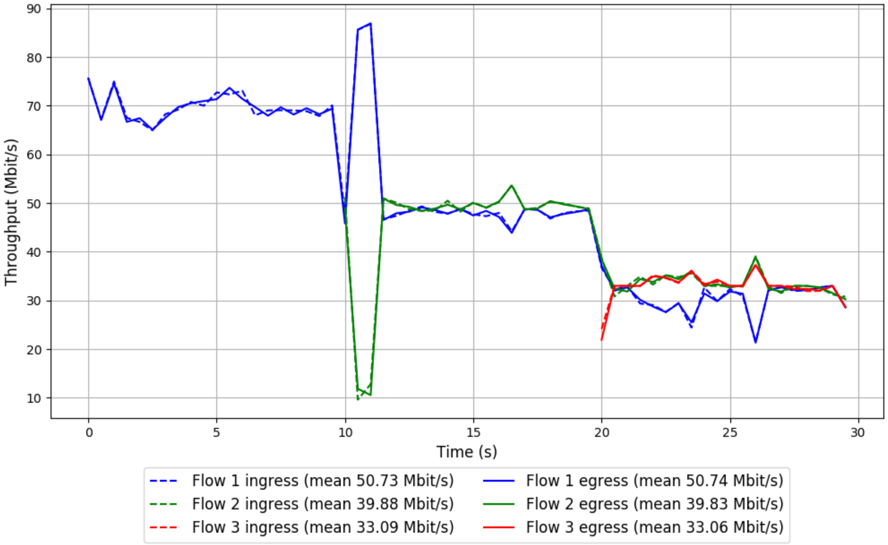
Run 1: Report of Verus — Data Link

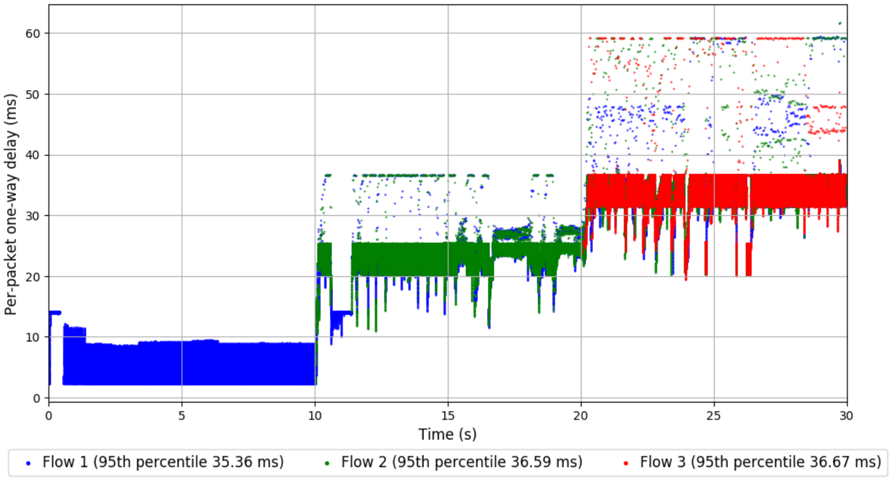




```
Run 2: Statistics of Verus

Start at: 2018-01-02 07:43:08
End at: 2018-01-02 07:43:38
Local clock offset: -0.015 ms
Remote clock offset: 0.081 ms

# Below is generated by plot.py at 2018-01-02 13:11:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.17 Mbit/s
95th percentile per-packet one-way delay: 36.556 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 50.74 Mbit/s
95th percentile per-packet one-way delay: 35.357 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 36.591 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 36.668 ms
Loss rate: 0.34%
```

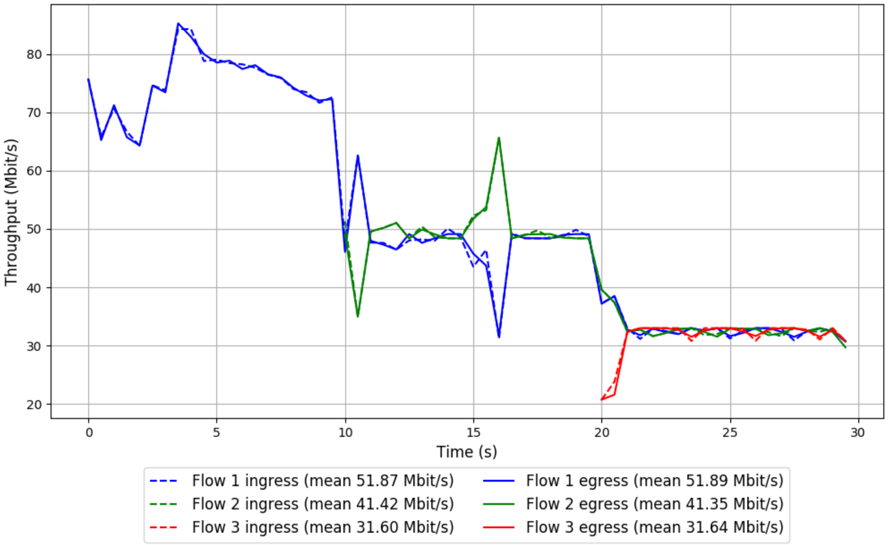
Run 2: Report of Verus — Data Link

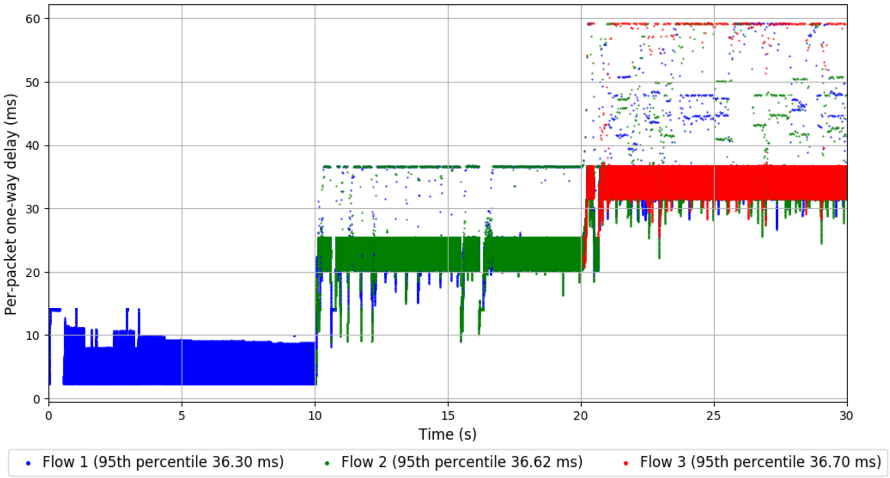




```
Run 3: Statistics of Verus

Start at: 2018-01-02 08:00:05
End at: 2018-01-02 08:00:35
Local clock offset: -0.023 ms
Remote clock offset: 0.322 ms

# Below is generated by plot.py at 2018-01-02 13:11:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.86 Mbit/s
95th percentile per-packet one-way delay: 36.619 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.89 Mbit/s
95th percentile per-packet one-way delay: 36.304 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 41.35 Mbit/s
95th percentile per-packet one-way delay: 36.615 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 36.704 ms
Loss rate: 0.36%
```

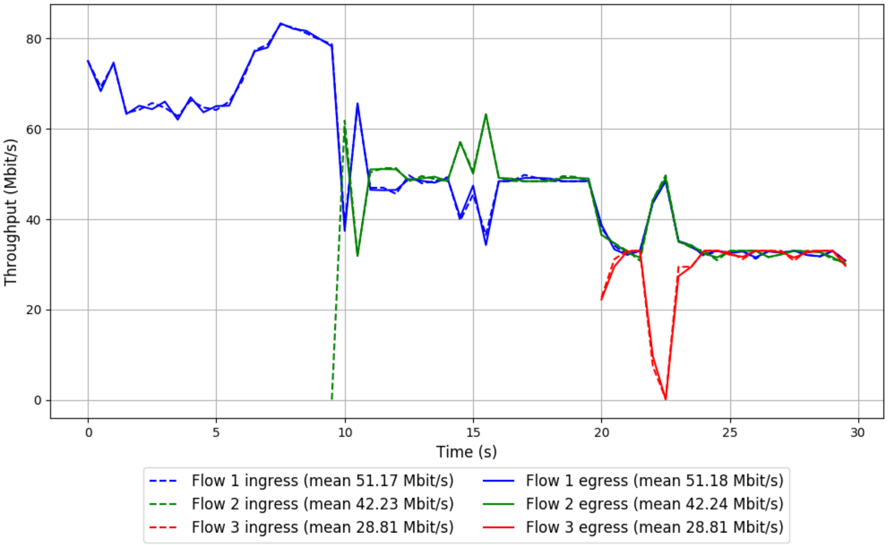
Run 3: Report of Verus — Data Link

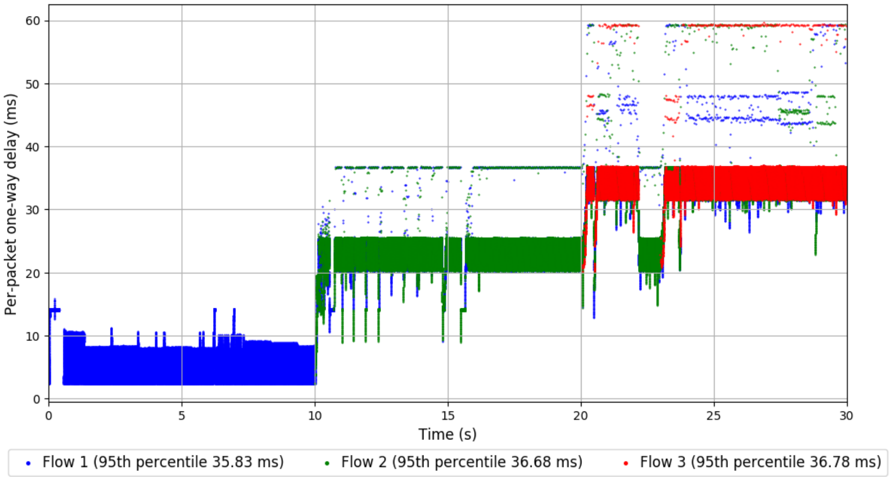




```
Run 4: Statistics of Verus

Start at: 2018-01-02 08:17:02
End at: 2018-01-02 08:17:32
Local clock offset: -0.024 ms
Remote clock offset: 0.487 ms

# Below is generated by plot.py at 2018-01-02 13:11:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.84 Mbit/s
95th percentile per-packet one-way delay: 36.674 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 35.825 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 42.24 Mbit/s
95th percentile per-packet one-way delay: 36.679 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 28.81 Mbit/s
95th percentile per-packet one-way delay: 36.781 ms
Loss rate: 0.56%
```

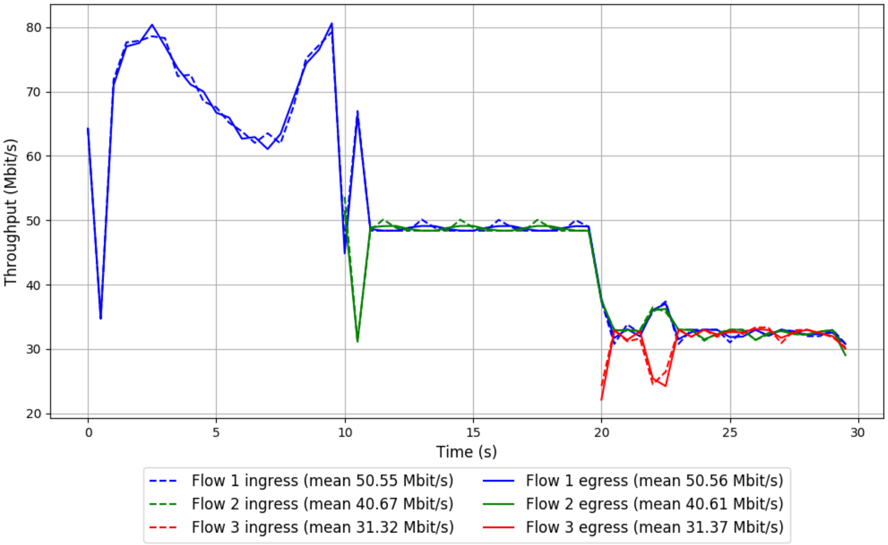
Run 4: Report of Verus — Data Link

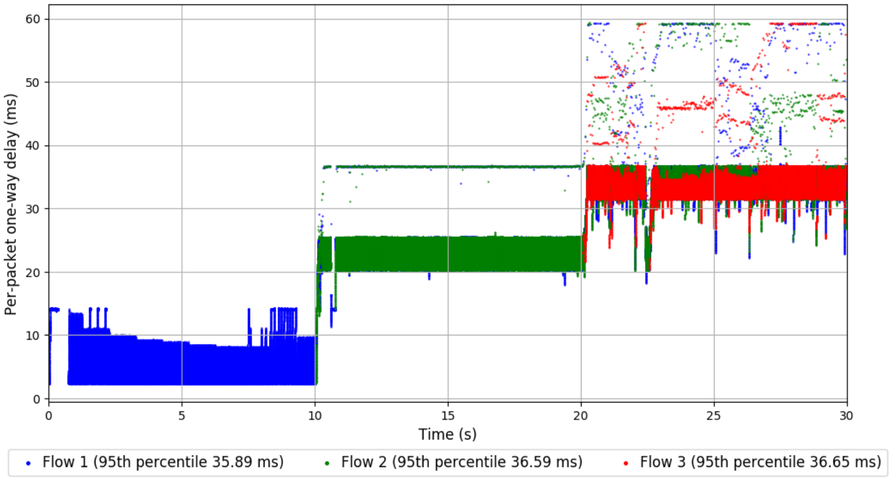




```
Run 5: Statistics of Verus

Start at: 2018-01-02 08:34:00
End at: 2018-01-02 08:34:30
Local clock offset: -0.105 ms
Remote clock offset: 0.639 ms

# Below is generated by plot.py at 2018-01-02 13:11:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.96 Mbit/s
95th percentile per-packet one-way delay: 36.501 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 35.887 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 36.585 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 36.646 ms
Loss rate: 0.36%
```

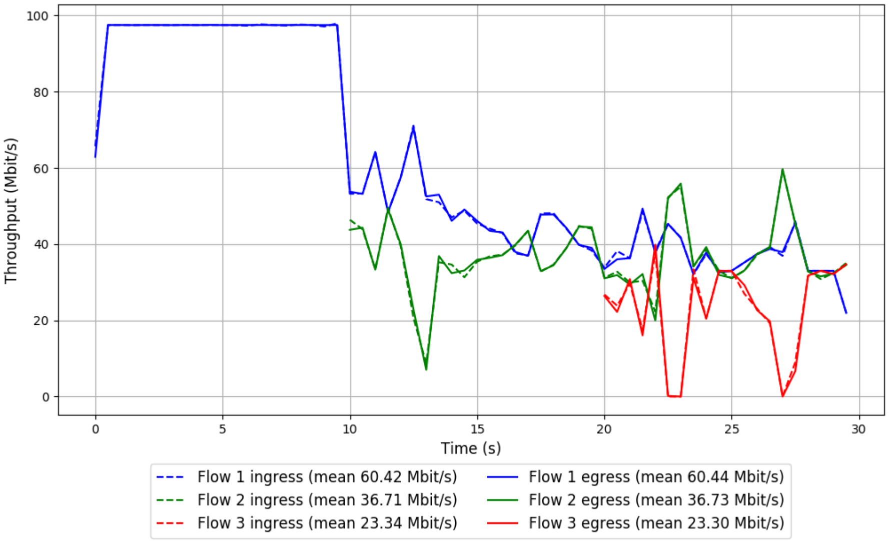
Run 5: Report of Verus — Data Link

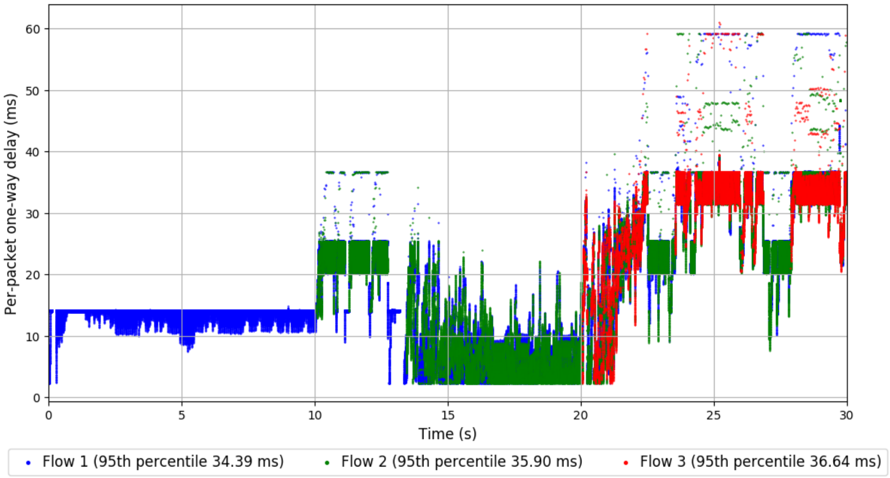




```
Run 6: Statistics of Verus

Start at: 2018-01-02 08:50:57
End at: 2018-01-02 08:51:27
Local clock offset: -0.144 ms
Remote clock offset: 0.732 ms

# Below is generated by plot.py at 2018-01-02 13:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.58 Mbit/s
95th percentile per-packet one-way delay: 35.760 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 34.390 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 36.73 Mbit/s
95th percentile per-packet one-way delay: 35.897 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 23.30 Mbit/s
95th percentile per-packet one-way delay: 36.641 ms
Loss rate: 0.48%
```

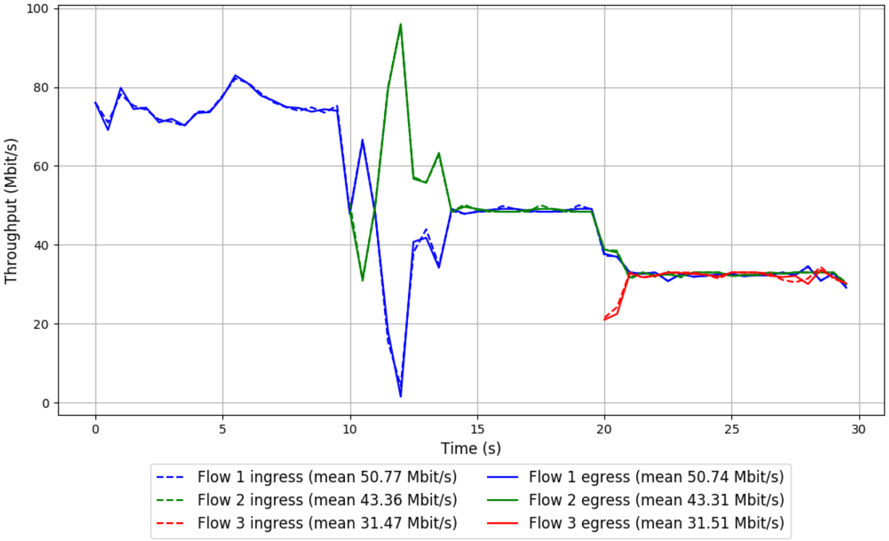
Run 6: Report of Verus — Data Link

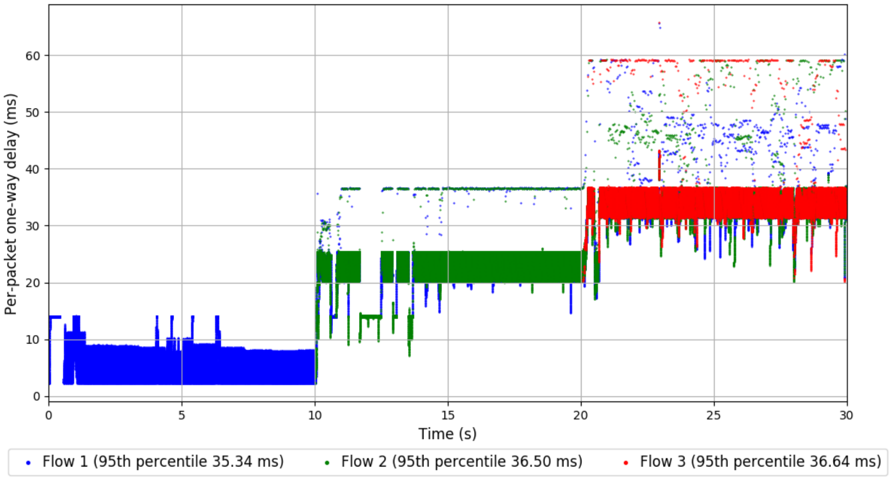




```
Run 7: Statistics of Verus

Start at: 2018-01-02 09:07:57
End at: 2018-01-02 09:08:27
Local clock offset: -0.26 ms
Remote clock offset: 0.699 ms

# Below is generated by plot.py at 2018-01-02 13:11:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.98 Mbit/s
95th percentile per-packet one-way delay: 36.513 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 50.74 Mbit/s
95th percentile per-packet one-way delay: 35.341 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 43.31 Mbit/s
95th percentile per-packet one-way delay: 36.504 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 31.51 Mbit/s
95th percentile per-packet one-way delay: 36.642 ms
Loss rate: 0.36%
```

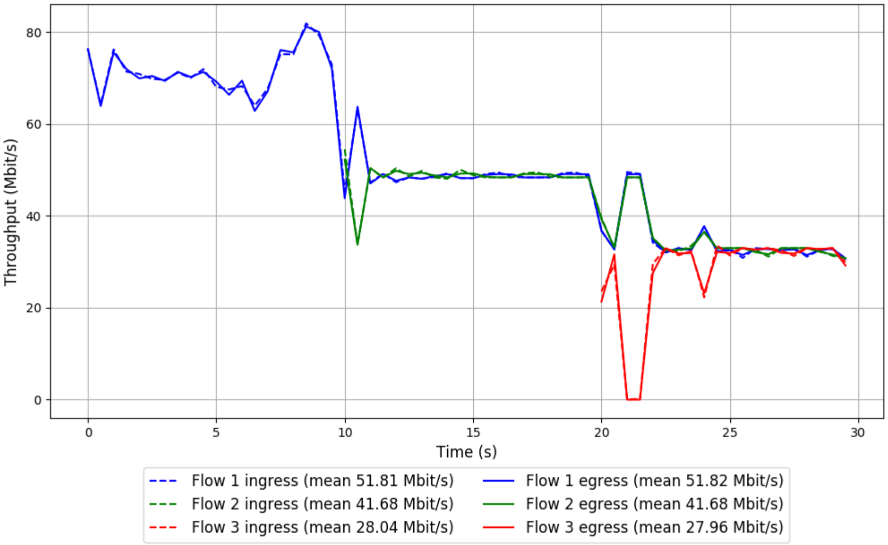
Run 7: Report of Verus — Data Link

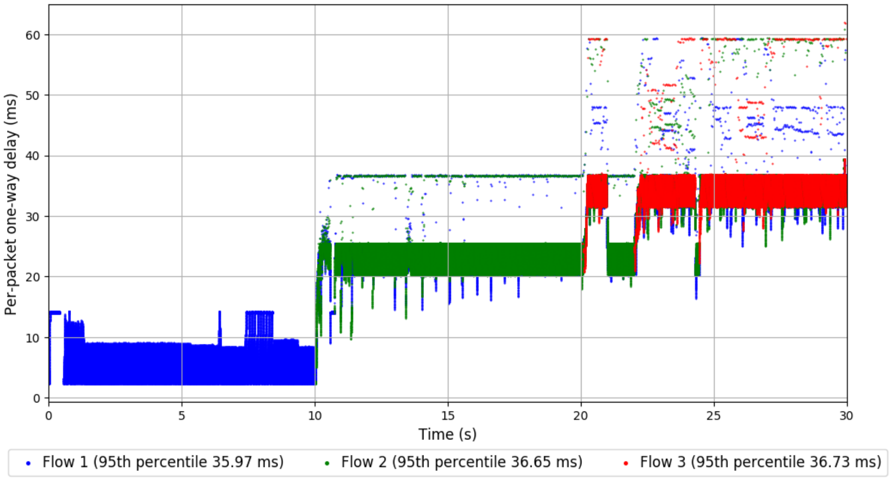




```
Run 8: Statistics of Verus

Start at: 2018-01-02 09:24:54
End at: 2018-01-02 09:25:24
Local clock offset: -0.225 ms
Remote clock offset: 0.686 ms

# Below is generated by plot.py at 2018-01-02 13:11:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.81 Mbit/s
95th percentile per-packet one-way delay: 36.633 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 51.82 Mbit/s
95th percentile per-packet one-way delay: 35.974 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 41.68 Mbit/s
95th percentile per-packet one-way delay: 36.652 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 27.96 Mbit/s
95th percentile per-packet one-way delay: 36.728 ms
Loss rate: 0.53%
```

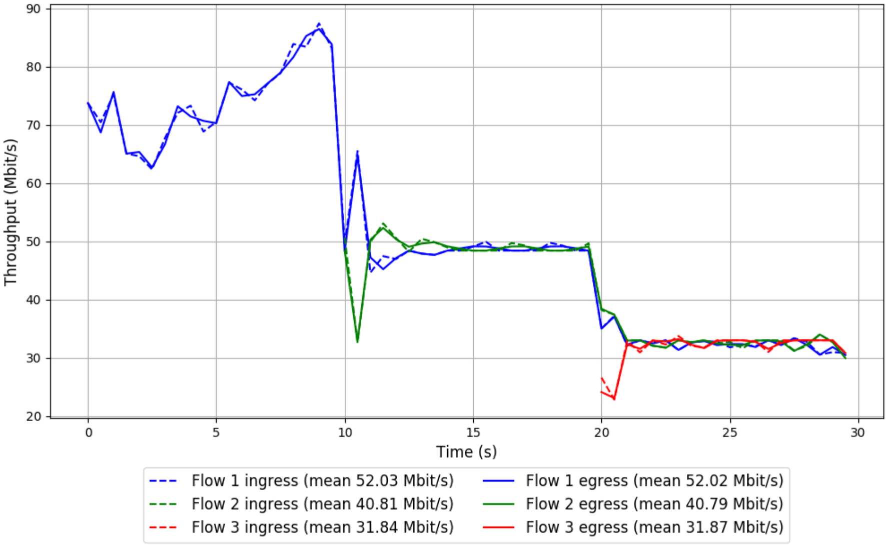
Run 8: Report of Verus — Data Link

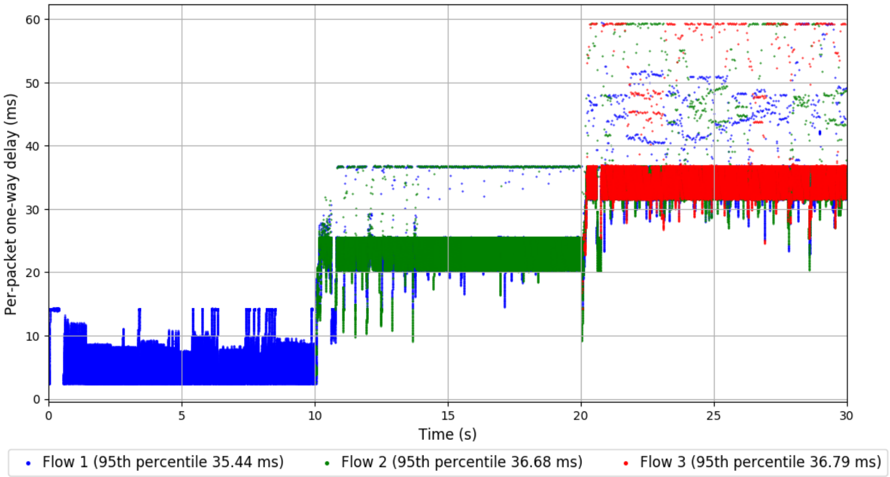




```
Run 9: Statistics of Verus

Start at: 2018-01-02 09:41:50
End at: 2018-01-02 09:42:21
Local clock offset: -0.263 ms
Remote clock offset: 0.635 ms

# Below is generated by plot.py at 2018-01-02 13:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.70 Mbit/s
95th percentile per-packet one-way delay: 36.668 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 35.442 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.79 Mbit/s
95th percentile per-packet one-way delay: 36.679 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 36.792 ms
Loss rate: 0.35%
```

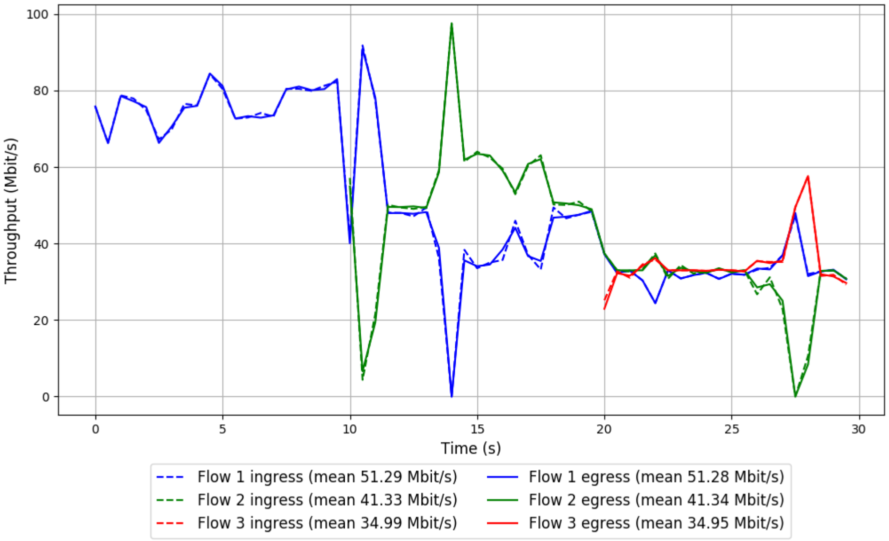
Run 9: Report of Verus — Data Link

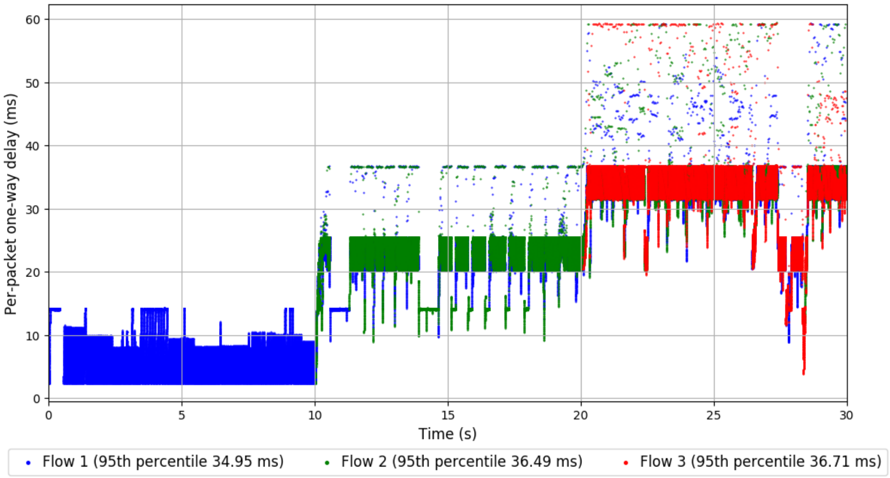




```
Run 10: Statistics of Verus

Start at: 2018-01-02 09:58:47
End at: 2018-01-02 09:59:17
Local clock offset: -0.31 ms
Remote clock offset: 0.759 ms

# Below is generated by plot.py at 2018-01-02 13:12:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.35 Mbit/s
95th percentile per-packet one-way delay: 36.407 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 51.28 Mbit/s
95th percentile per-packet one-way delay: 34.952 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 41.34 Mbit/s
95th percentile per-packet one-way delay: 36.487 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 36.709 ms
Loss rate: 0.26%
```

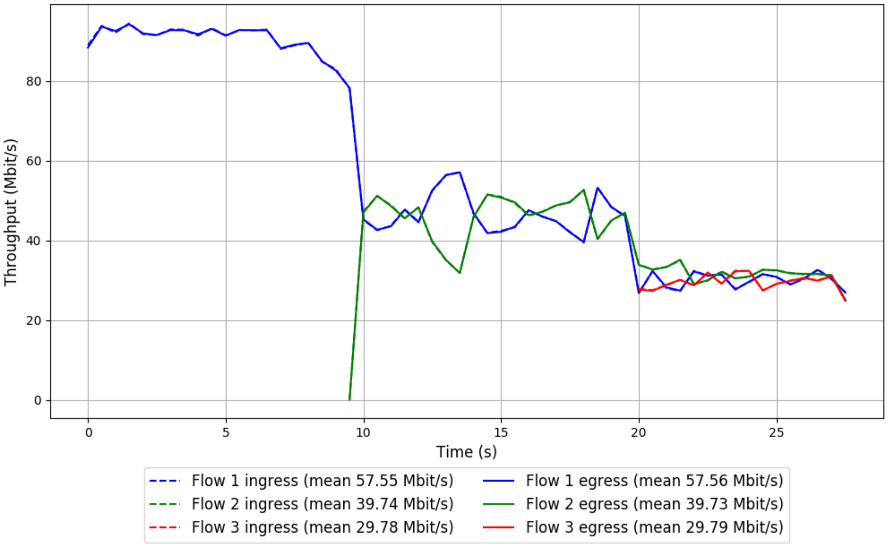
Run 10: Report of Verus — Data Link

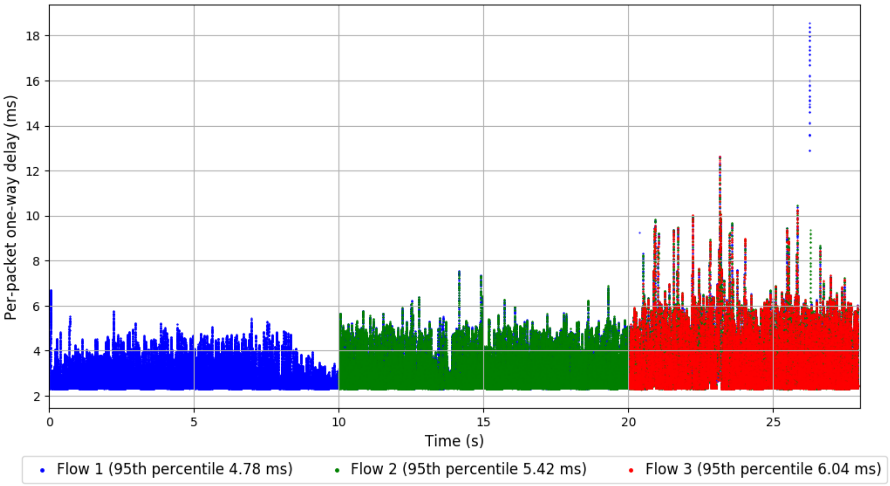




```
Run 1: Statistics of Copa

Start at: 2018-01-02 07:25:00
End at: 2018-01-02 07:25:30
Local clock offset: 0.071 ms
Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2018-01-02 13:13:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.50 Mbit/s
95th percentile per-packet one-way delay: 5.208 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.56 Mbit/s
95th percentile per-packet one-way delay: 4.781 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 5.422 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 29.79 Mbit/s
95th percentile per-packet one-way delay: 6.038 ms
Loss rate: 0.06%
```

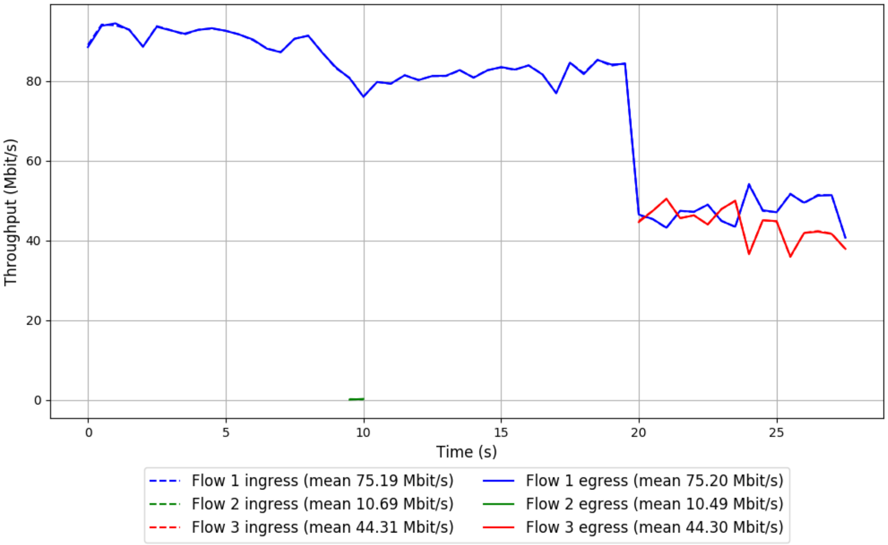
Run 1: Report of Copa — Data Link

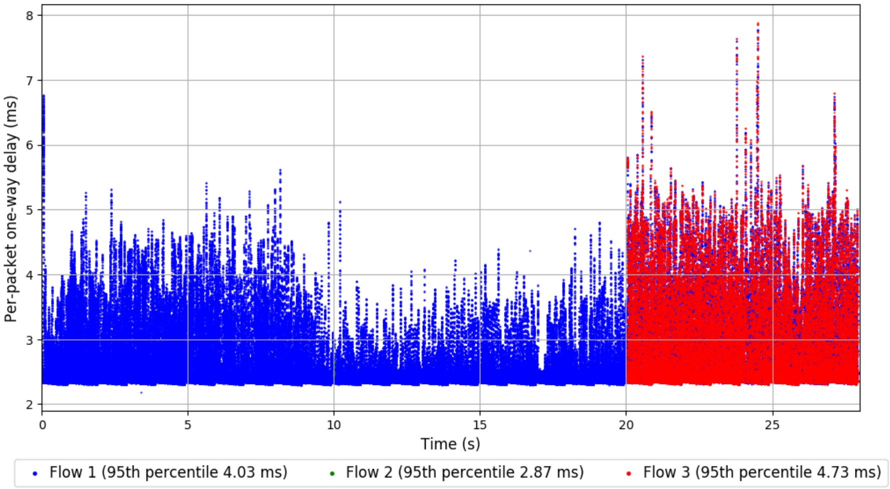




```
Run 2: Statistics of Copa

Start at: 2018-01-02 07:41:57
End at: 2018-01-02 07:42:27
Local clock offset: -0.032 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-01-02 13:13:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.77 Mbit/s
95th percentile per-packet one-way delay: 4.216 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 75.20 Mbit/s
95th percentile per-packet one-way delay: 4.028 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.49 Mbit/s
95th percentile per-packet one-way delay: 2.866 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.30 Mbit/s
95th percentile per-packet one-way delay: 4.733 ms
Loss rate: 0.05%
```

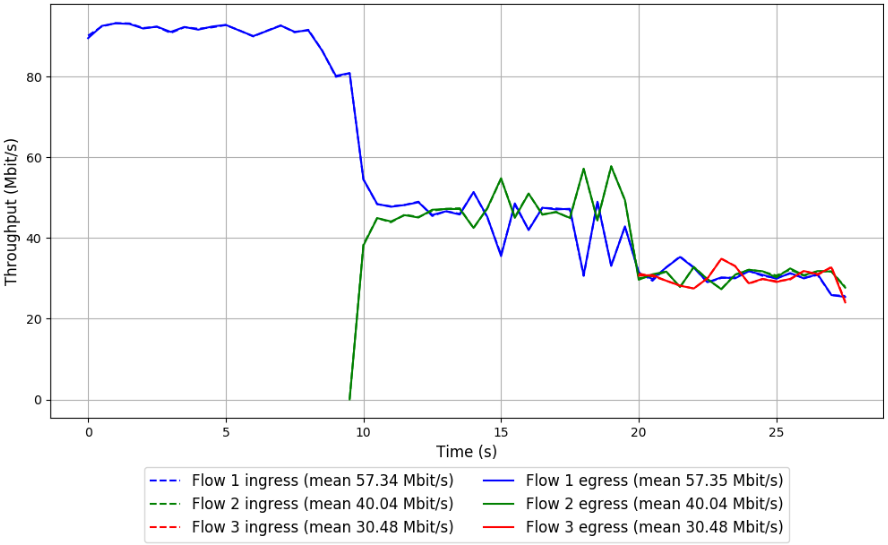
Run 2: Report of Copa — Data Link

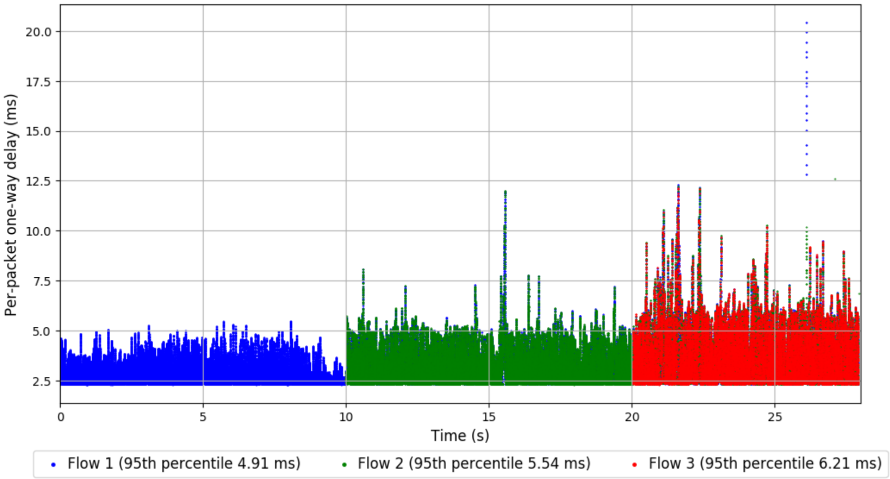




```
Run 3: Statistics of Copa

Start at: 2018-01-02 07:58:54
End at: 2018-01-02 07:59:24
Local clock offset: -0.01 ms
Remote clock offset: 0.299 ms

# Below is generated by plot.py at 2018-01-02 13:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 5.335 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 57.35 Mbit/s
95th percentile per-packet one-way delay: 4.914 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 5.535 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.48 Mbit/s
95th percentile per-packet one-way delay: 6.210 ms
Loss rate: 0.09%
```

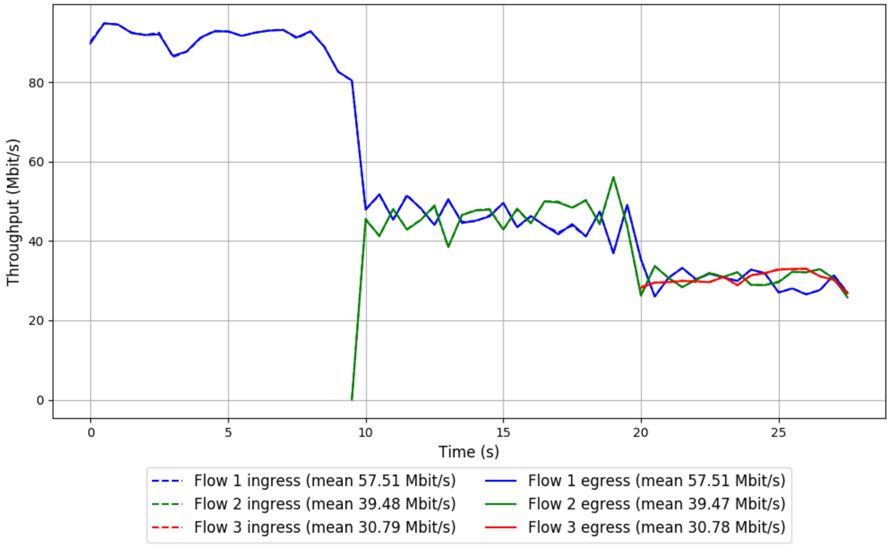
Run 3: Report of Copa — Data Link

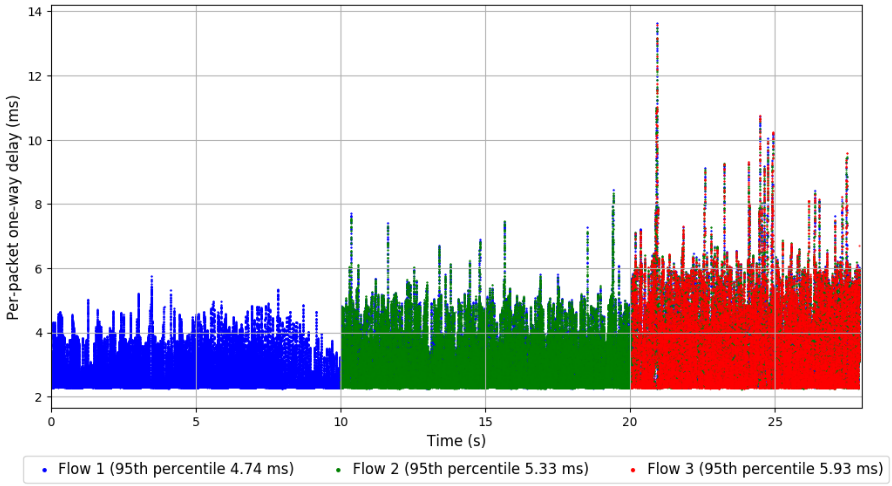




```
Run 4: Statistics of Copa

Start at: 2018-01-02 08:15:51
End at: 2018-01-02 08:16:21
Local clock offset: -0.104 ms
Remote clock offset: 0.491 ms

# Below is generated by plot.py at 2018-01-02 13:14:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.57 Mbit/s
95th percentile per-packet one-way delay: 5.148 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 4.744 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 5.332 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 5.934 ms
Loss rate: 0.09%
```

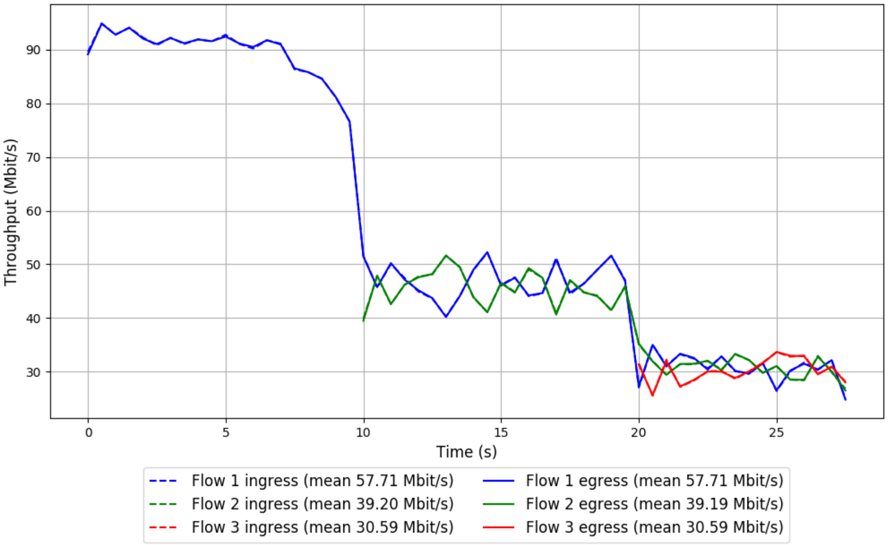
Run 4: Report of Copa — Data Link

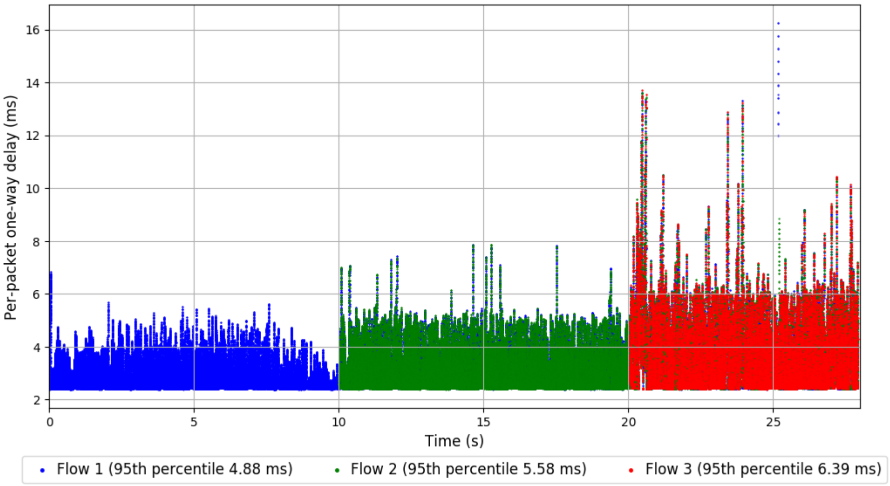




```
Run 5: Statistics of Copa

Start at: 2018-01-02 08:32:48
End at: 2018-01-02 08:33:18
Local clock offset: -0.073 ms
Remote clock offset: 0.576 ms

# Below is generated by plot.py at 2018-01-02 13:14:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.52 Mbit/s
95th percentile per-packet one-way delay: 5.351 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 57.71 Mbit/s
95th percentile per-packet one-way delay: 4.879 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.19 Mbit/s
95th percentile per-packet one-way delay: 5.583 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 6.388 ms
Loss rate: 0.09%
```

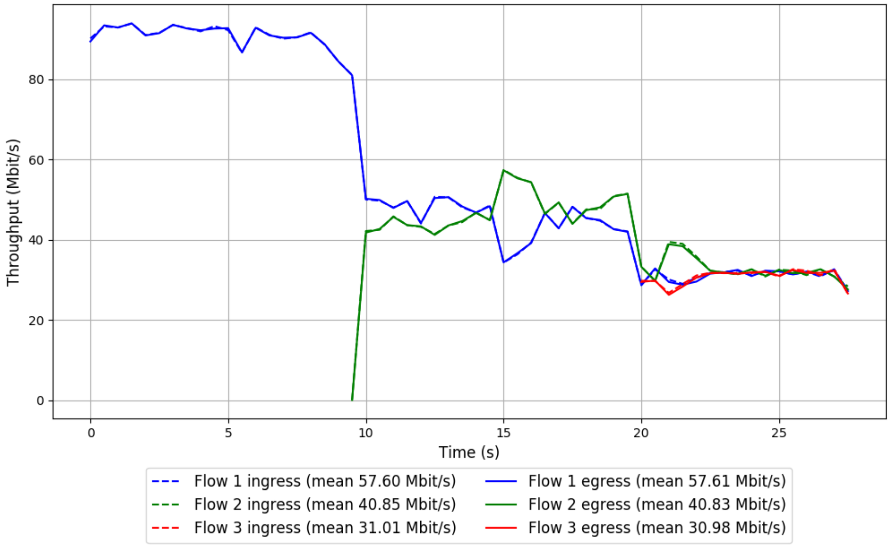
Run 5: Report of Copa — Data Link

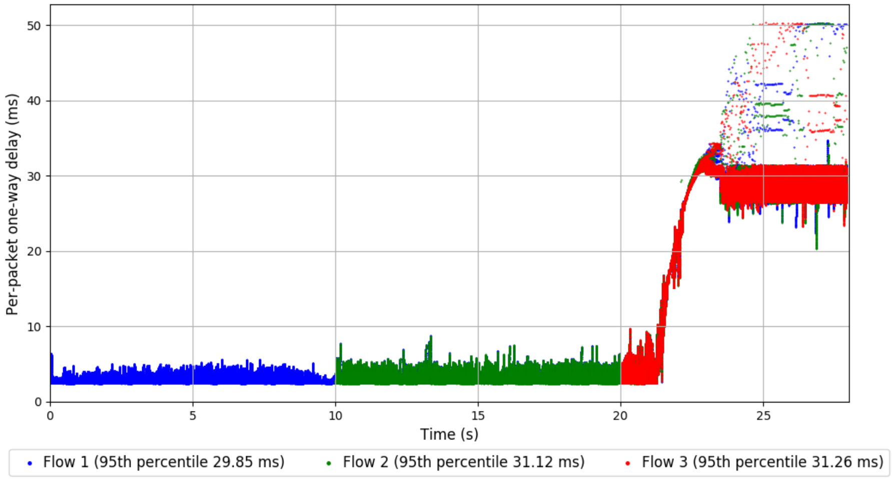




```
Run 6: Statistics of Copa

Start at: 2018-01-02 08:49:45
End at: 2018-01-02 08:50:15
Local clock offset: -0.114 ms
Remote clock offset: 0.663 ms

# Below is generated by plot.py at 2018-01-02 13:14:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.58 Mbit/s
95th percentile per-packet one-way delay: 30.974 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 57.61 Mbit/s
95th percentile per-packet one-way delay: 29.853 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.83 Mbit/s
95th percentile per-packet one-way delay: 31.116 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 30.98 Mbit/s
95th percentile per-packet one-way delay: 31.259 ms
Loss rate: 0.41%
```

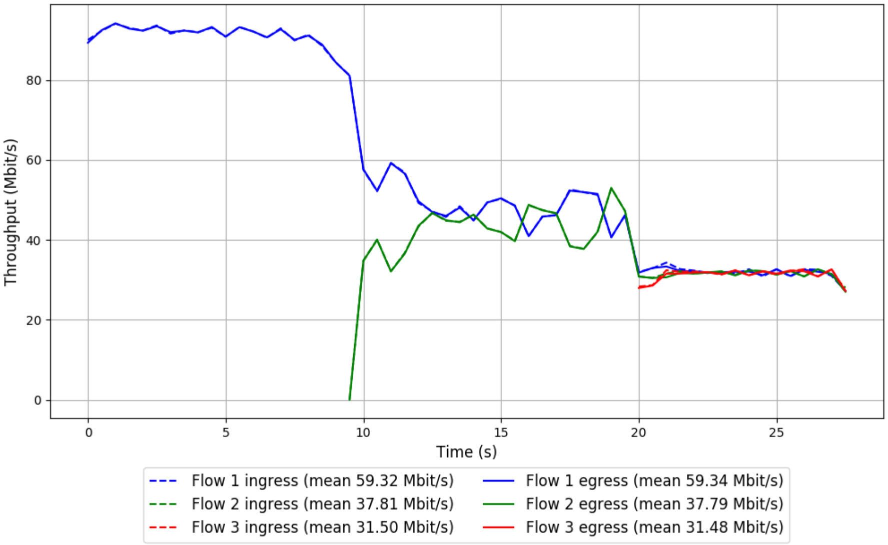
Run 6: Report of Copa — Data Link

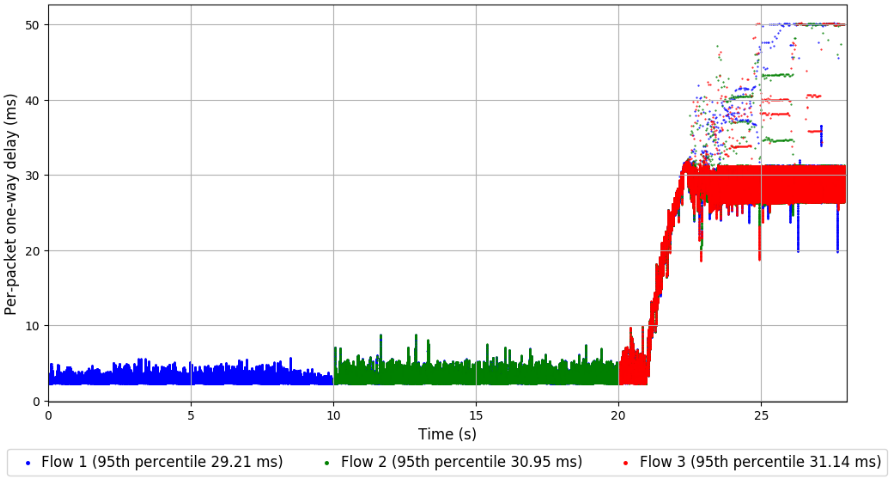




```
Run 7: Statistics of Copa

Start at: 2018-01-02 09:06:45
End at: 2018-01-02 09:07:15
Local clock offset: -0.179 ms
Remote clock offset: 0.707 ms

# Below is generated by plot.py at 2018-01-02 13:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 30.694 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.34 Mbit/s
95th percentile per-packet one-way delay: 29.209 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 37.79 Mbit/s
95th percentile per-packet one-way delay: 30.951 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 31.137 ms
Loss rate: 0.37%
```

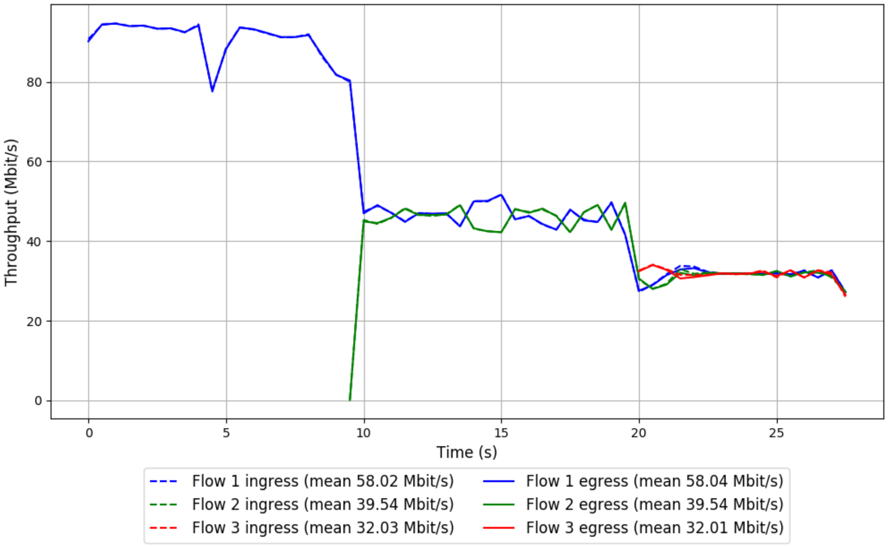
Run 7: Report of Copa — Data Link

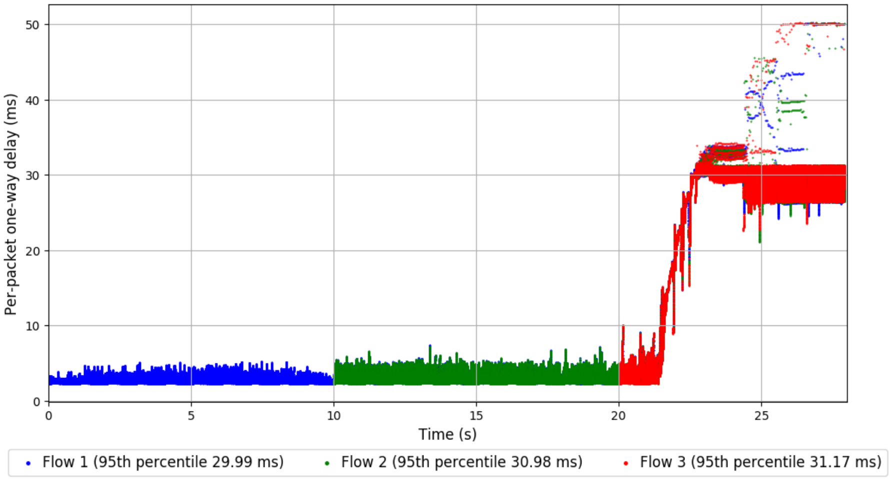




```
Run 8: Statistics of Copa

Start at: 2018-01-02 09:23:42
End at: 2018-01-02 09:24:12
Local clock offset: -0.229 ms
Remote clock offset: 0.694 ms

# Below is generated by plot.py at 2018-01-02 13:14:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.46 Mbit/s
95th percentile per-packet one-way delay: 30.772 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 29.994 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 30.985 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 31.171 ms
Loss rate: 0.36%
```

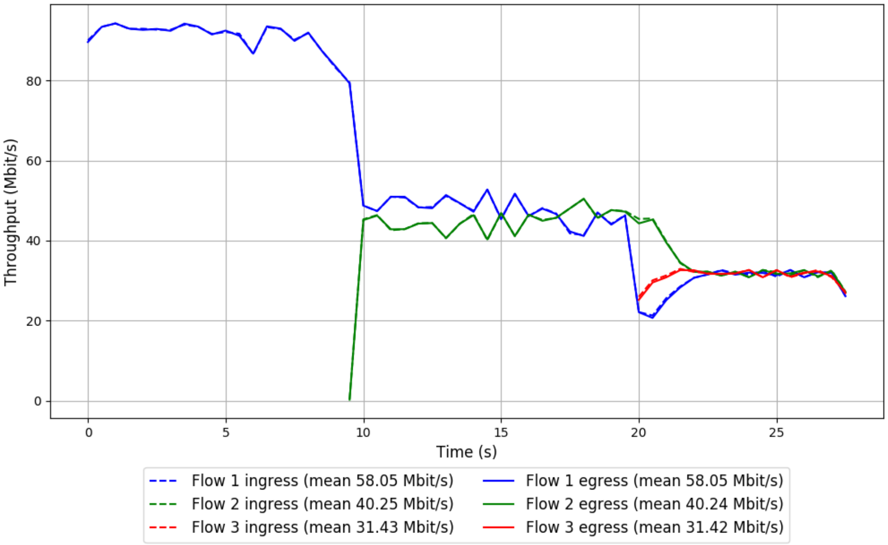
Run 8: Report of Copa — Data Link

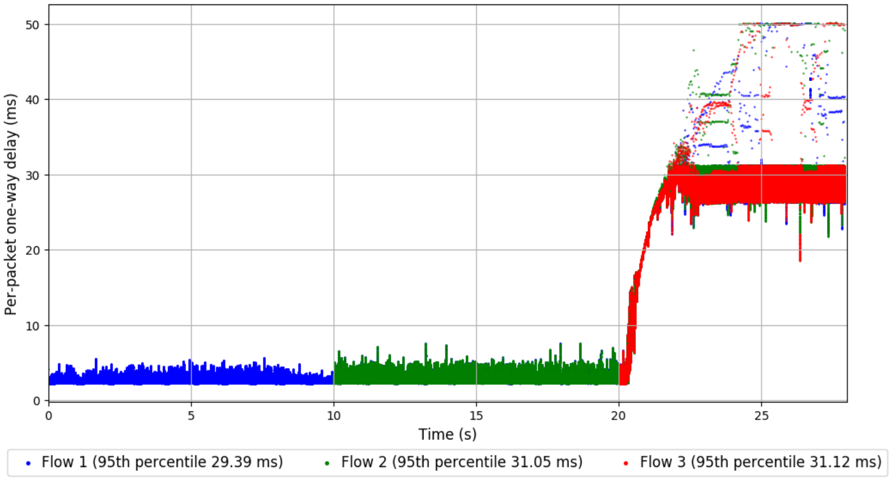




```
Run 9: Statistics of Copa

Start at: 2018-01-02 09:40:39
End at: 2018-01-02 09:41:09
Local clock offset: -0.284 ms
Remote clock offset: 0.726 ms

# Below is generated by plot.py at 2018-01-02 13:15:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.76 Mbit/s
95th percentile per-packet one-way delay: 30.728 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 29.395 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 31.045 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 31.117 ms
Loss rate: 0.37%
```

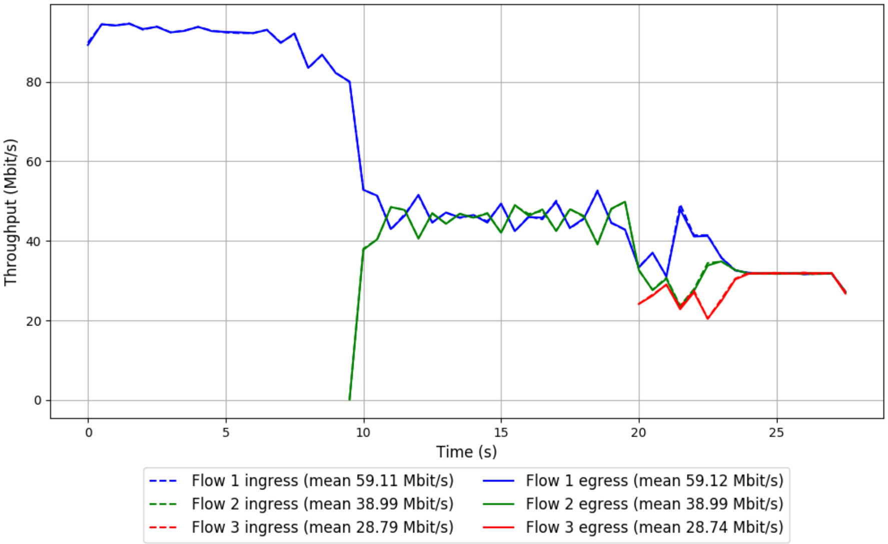
Run 9: Report of Copa — Data Link

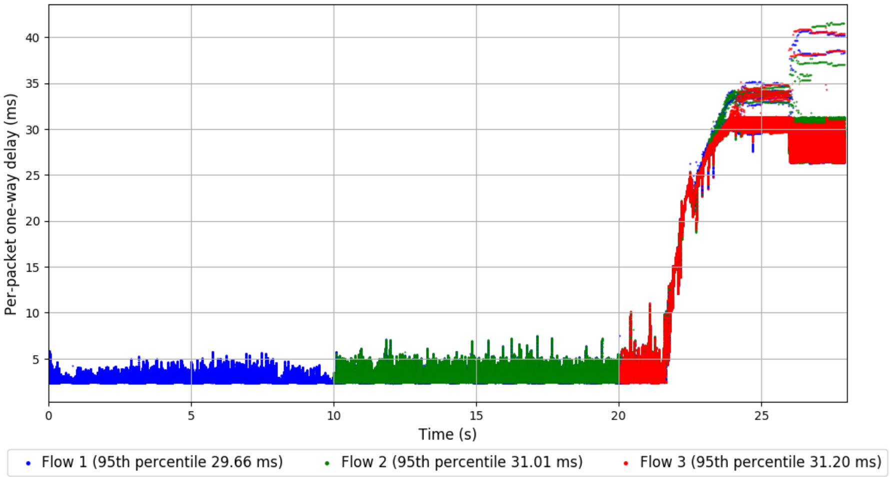




```
Run 10: Statistics of Copa

Start at: 2018-01-02 09:57:36
End at: 2018-01-02 09:58:06
Local clock offset: -0.321 ms
Remote clock offset: 0.683 ms

# Below is generated by plot.py at 2018-01-02 13:16:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 30.813 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.12 Mbit/s
95th percentile per-packet one-way delay: 29.664 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 31.009 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 31.205 ms
Loss rate: 0.51%
```

Run 10: Report of Copa — Data Link





```
Run 1: Statistics of FillP

Start at: 2018-01-02 07:17:12
End at: 2018-01-02 07:17:42
Local clock offset: 0.132 ms
Remote clock offset: -0.269 ms
```

Run 1: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 2: Statistics of FillP

Start at: 2018-01-02 07:34:09
End at: 2018-01-02 07:34:39
Local clock offset: -0.037 ms
Remote clock offset: -0.062 ms
```

Run 2: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 3: Statistics of FillP

Start at: 2018-01-02 07:51:05
End at: 2018-01-02 07:51:35
Local clock offset: -0.067 ms
Remote clock offset: 0.228 ms
```

Run 3: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 4: Statistics of FillP

Start at: 2018-01-02 08:08:03
End at: 2018-01-02 08:08:33
Local clock offset: -0.029 ms
Remote clock offset: 0.428 ms
```

Run 4: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 5: Statistics of FillP

Start at: 2018-01-02 08:25:00
End at: 2018-01-02 08:25:30
Local clock offset: -0.144 ms
Remote clock offset: 0.583 ms
```

Run 5: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 6: Statistics of FillP

Start at: 2018-01-02 08:41:57
End at: 2018-01-02 08:42:27
Local clock offset: -0.094 ms
Remote clock offset: 0.631 ms
```

Run 6: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 7: Statistics of FillP

Start at: 2018-01-02 08:58:54
End at: 2018-01-02 08:59:24
Local clock offset: -0.158 ms
Remote clock offset: 0.653 ms
```

Run 7: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 8: Statistics of FillP

Start at: 2018-01-02 09:15:54
End at: 2018-01-02 09:16:24
Local clock offset: -0.193 ms
Remote clock offset: 0.635 ms
```

Run 8: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 9: Statistics of FillP

Start at: 2018-01-02 09:32:51
End at: 2018-01-02 09:33:21
Local clock offset: -0.251 ms
Remote clock offset: 0.705 ms
```

Run 9: Report of FillP — Data Link

Figure is missing

Figure is missing

```
Run 10: Statistics of FillP

Start at: 2018-01-02 09:49:48
End at: 2018-01-02 09:50:18
Local clock offset: -0.298 ms
Remote clock offset: 0.729 ms
```

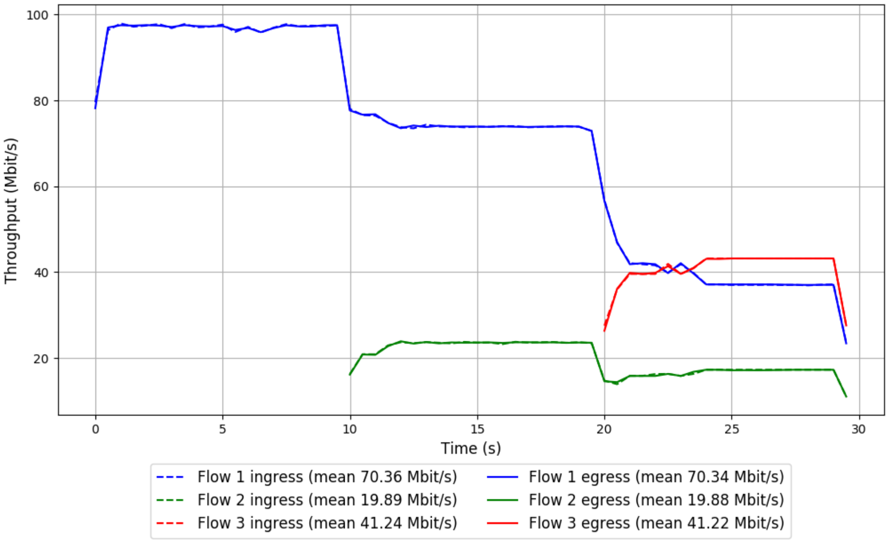
Run 10: Report of FillP — Data Link

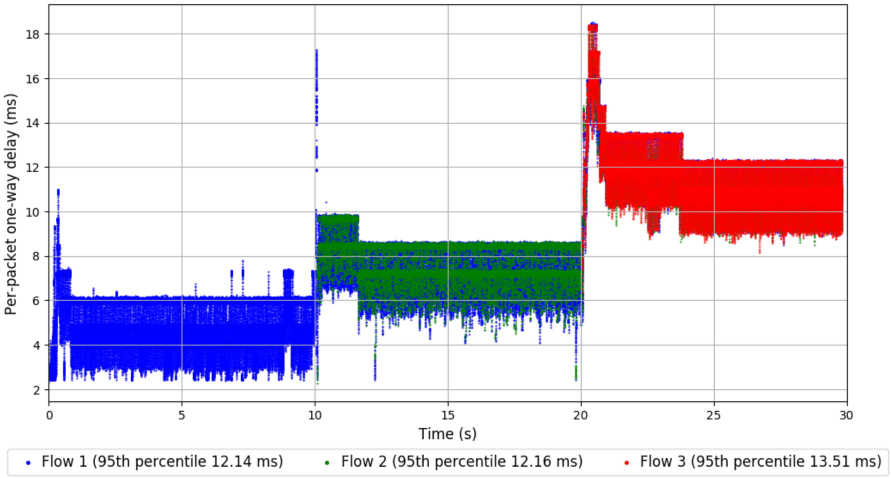
Figure is missing

Figure is missing

```
Run 1: Statistics of Indigo

Start at: 2018-01-02 07:31:52
End at: 2018-01-02 07:32:22
Local clock offset: 0.065 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-01-02 13:16:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.02 Mbit/s
95th percentile per-packet one-way delay: 12.310 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 70.34 Mbit/s
95th percentile per-packet one-way delay: 12.143 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 12.157 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 41.22 Mbit/s
95th percentile per-packet one-way delay: 13.511 ms
Loss rate: 0.15%
```

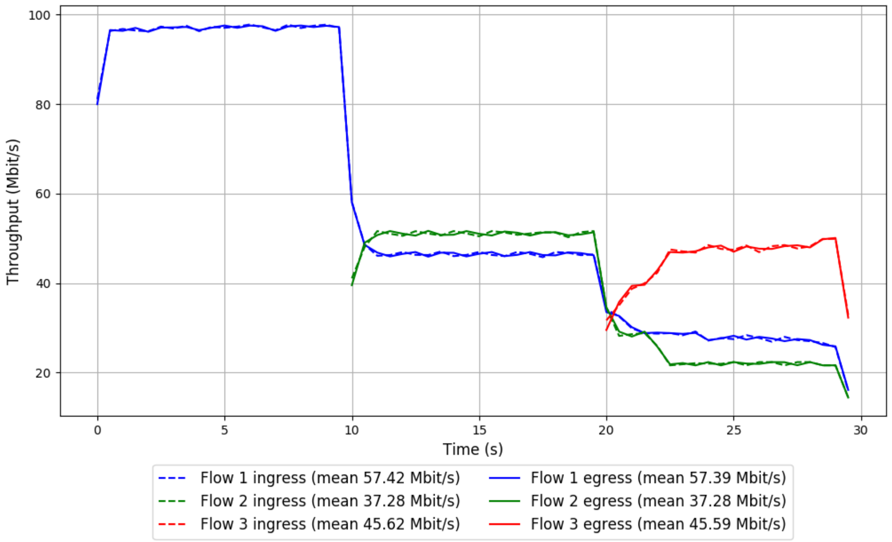
Run 1: Report of Indigo — Data Link

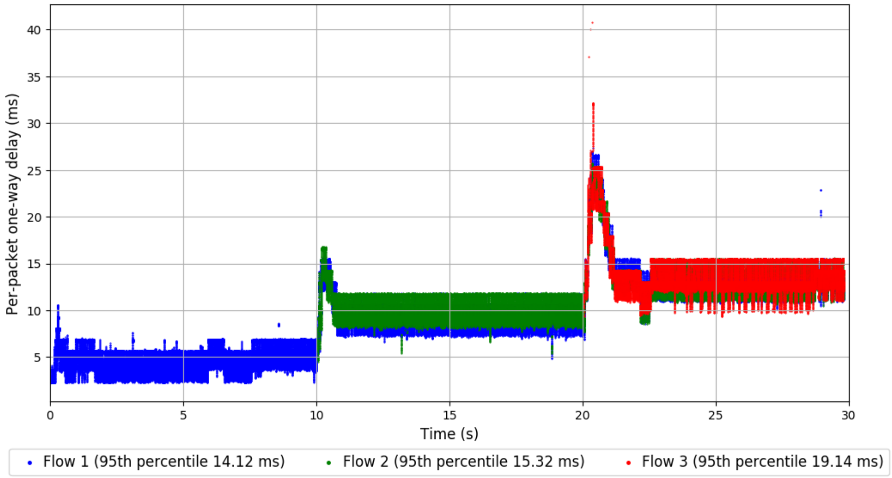




```
Run 2: Statistics of Indigo

Start at: 2018-01-02 07:48:48
End at: 2018-01-02 07:49:18
Local clock offset: -0.024 ms
Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2018-01-02 13:16:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 15.336 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 57.39 Mbit/s
95th percentile per-packet one-way delay: 14.125 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 37.28 Mbit/s
95th percentile per-packet one-way delay: 15.317 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 45.59 Mbit/s
95th percentile per-packet one-way delay: 19.137 ms
Loss rate: 0.19%
```

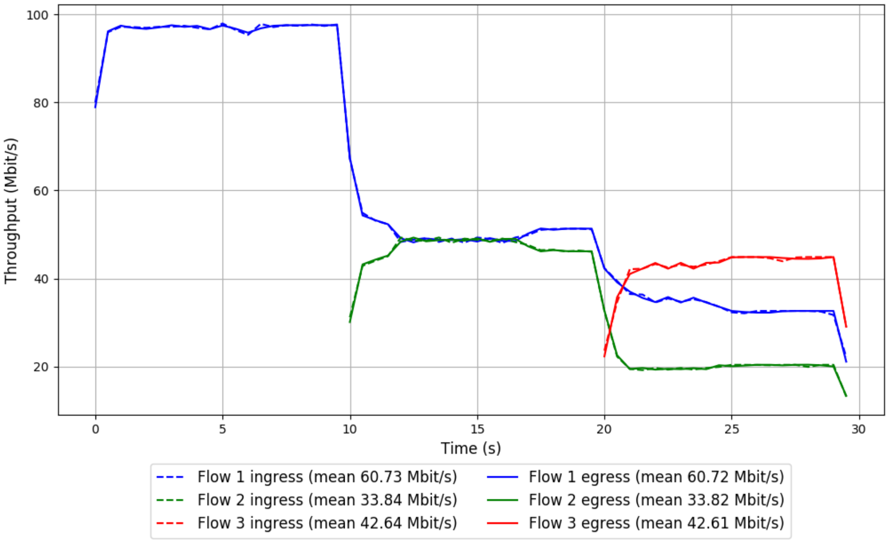
Run 2: Report of Indigo — Data Link

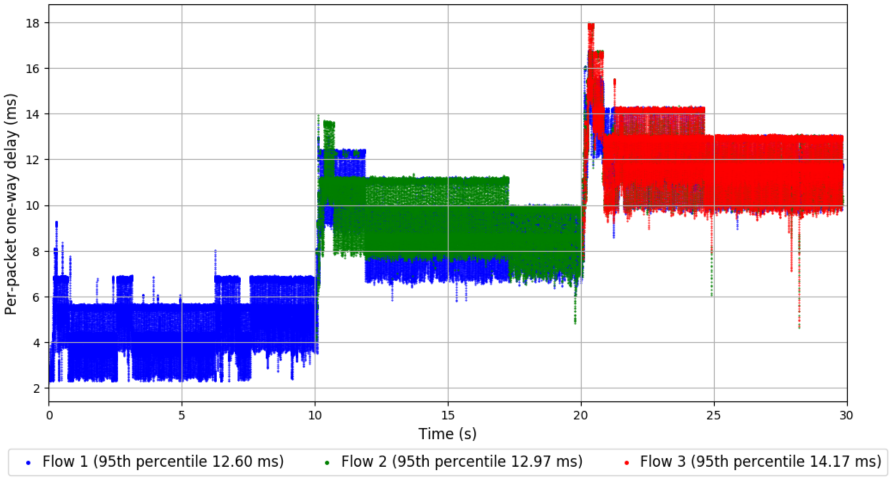




```
Run 3: Statistics of Indigo

Start at: 2018-01-02 08:05:46
End at: 2018-01-02 08:06:16
Local clock offset: -0.027 ms
Remote clock offset: 0.42 ms

# Below is generated by plot.py at 2018-01-02 13:16:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 12.999 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 60.72 Mbit/s
95th percentile per-packet one-way delay: 12.598 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 12.974 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 42.61 Mbit/s
95th percentile per-packet one-way delay: 14.174 ms
Loss rate: 0.16%
```

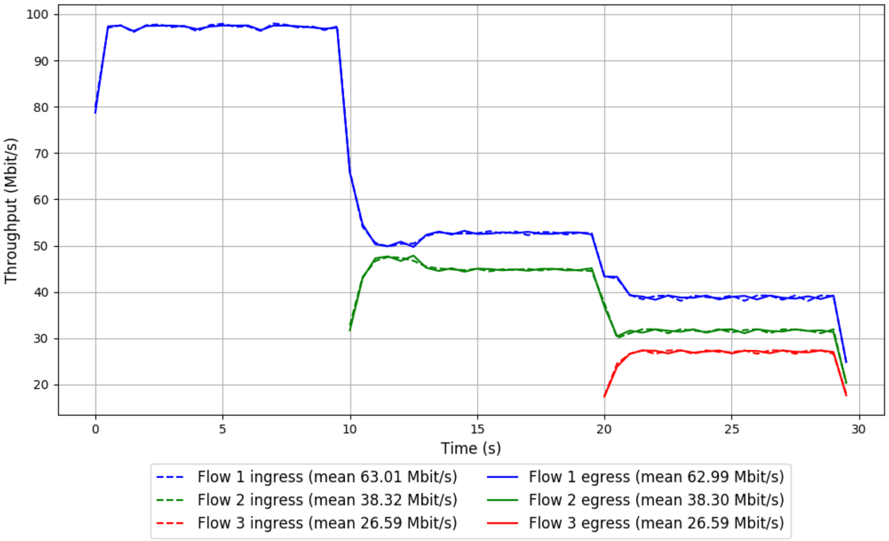
Run 3: Report of Indigo — Data Link

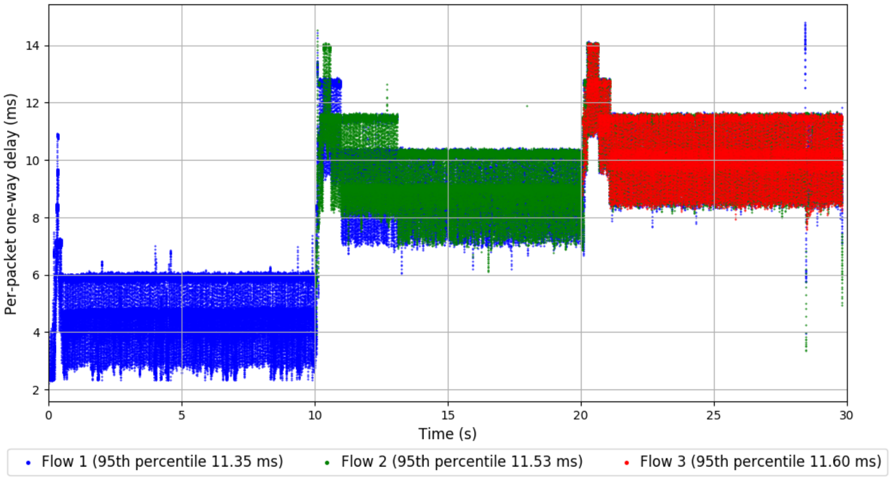




```
Run 4: Statistics of Indigo

Start at: 2018-01-02 08:22:43
End at: 2018-01-02 08:23:13
Local clock offset: -0.072 ms
Remote clock offset: 0.557 ms

# Below is generated by plot.py at 2018-01-02 13:16:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 11.481 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.99 Mbit/s
95th percentile per-packet one-way delay: 11.351 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 11.534 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 26.59 Mbit/s
95th percentile per-packet one-way delay: 11.596 ms
Loss rate: 0.14%
```

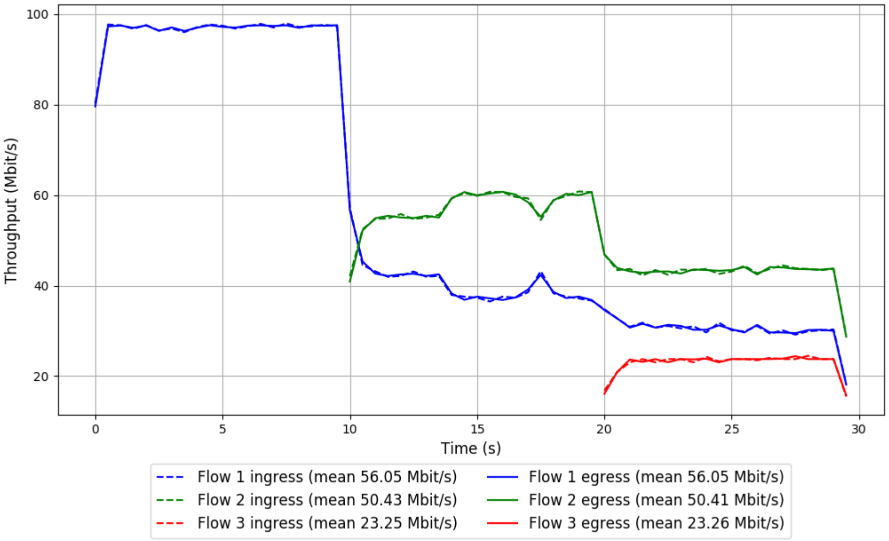
Run 4: Report of Indigo — Data Link

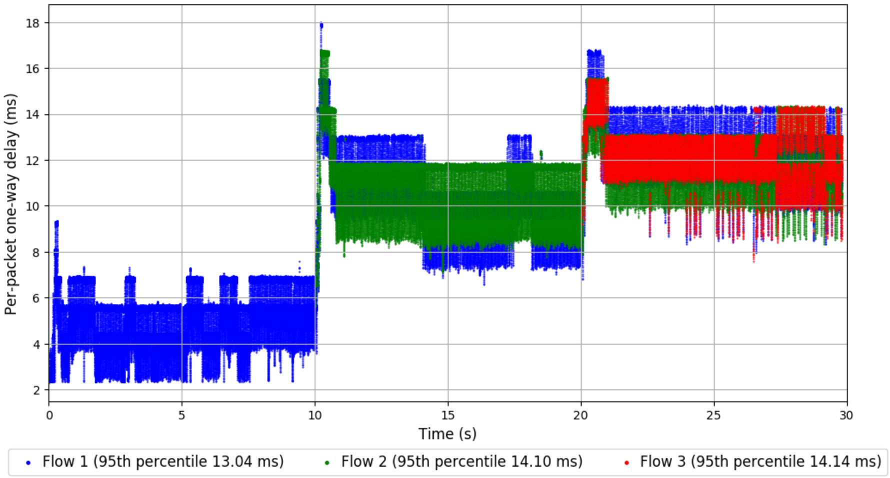




```
Run 5: Statistics of Indigo

Start at: 2018-01-02 08:39:40
End at: 2018-01-02 08:40:10
Local clock offset: -0.101 ms
Remote clock offset: 0.674 ms

# Below is generated by plot.py at 2018-01-02 13:16:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 13.539 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 13.038 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 50.41 Mbit/s
95th percentile per-packet one-way delay: 14.103 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 23.26 Mbit/s
95th percentile per-packet one-way delay: 14.138 ms
Loss rate: 0.10%
```

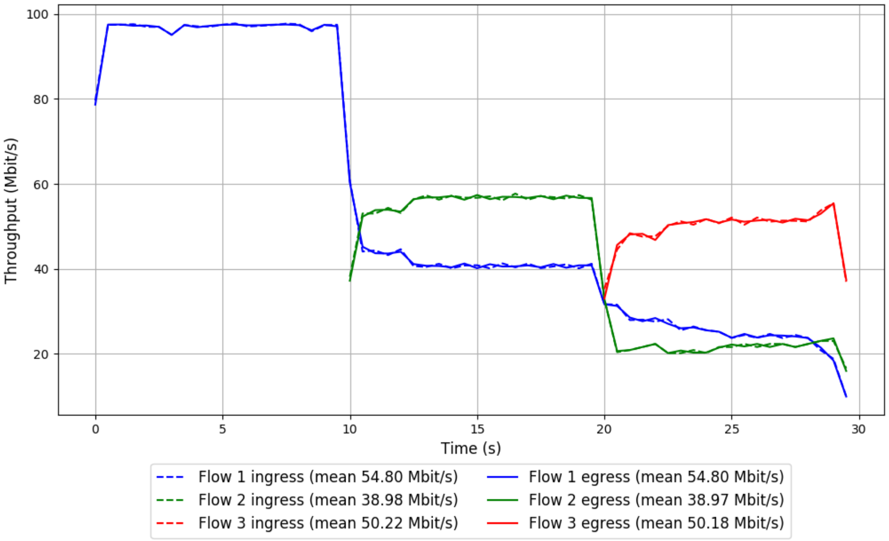
Run 5: Report of Indigo — Data Link

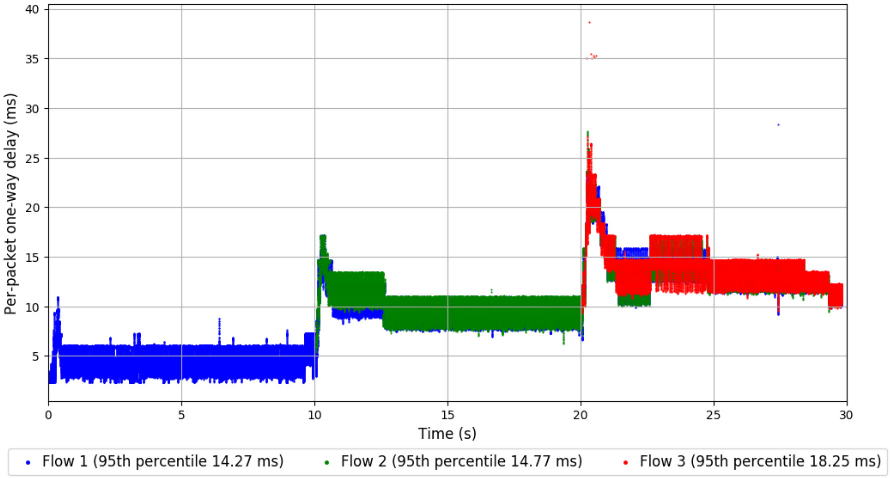




```
Run 6: Statistics of Indigo

Start at: 2018-01-02 08:56:37
End at: 2018-01-02 08:57:07
Local clock offset: -0.146 ms
Remote clock offset: 0.717 ms

# Below is generated by plot.py at 2018-01-02 13:16:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 15.477 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 14.271 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.97 Mbit/s
95th percentile per-packet one-way delay: 14.768 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 50.18 Mbit/s
95th percentile per-packet one-way delay: 18.245 ms
Loss rate: 0.12%
```

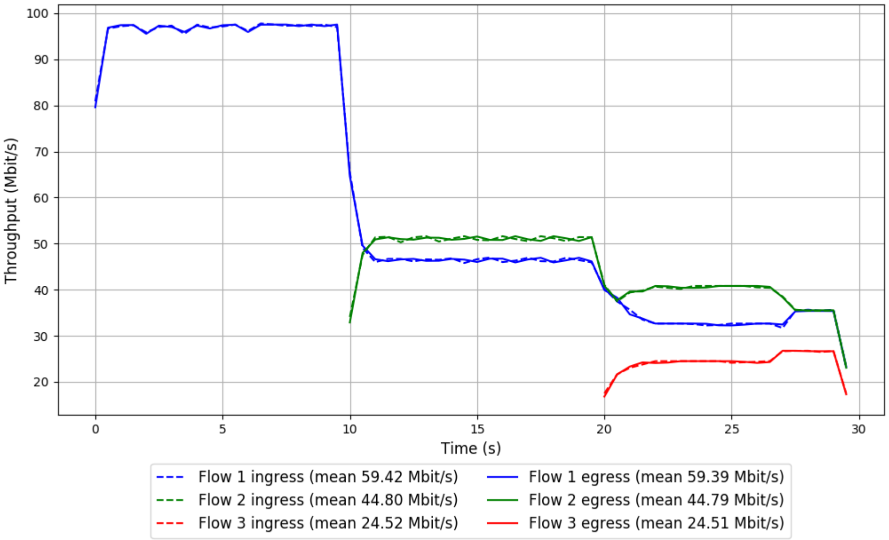
Run 6: Report of Indigo — Data Link

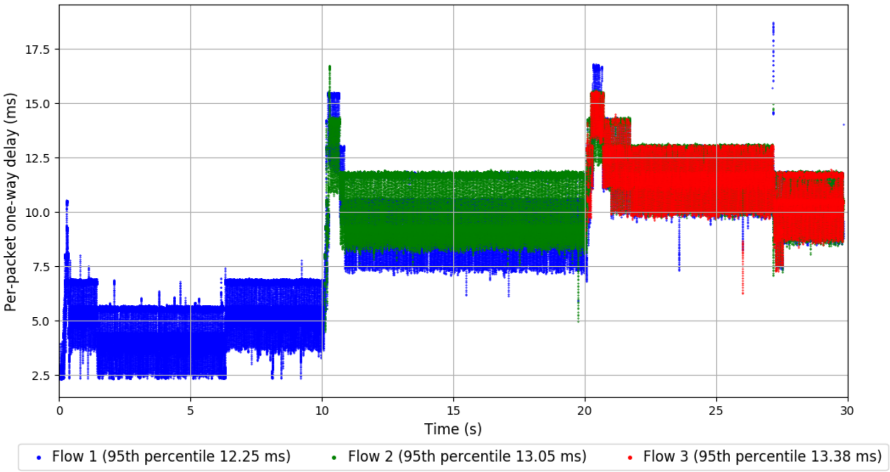




```
Run 7: Statistics of Indigo

Start at: 2018-01-02 09:13:37
End at: 2018-01-02 09:14:07
Local clock offset: -0.194 ms
Remote clock offset: 0.703 ms

# Below is generated by plot.py at 2018-01-02 13:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 12.935 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 59.39 Mbit/s
95th percentile per-packet one-way delay: 12.250 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 44.79 Mbit/s
95th percentile per-packet one-way delay: 13.055 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 13.378 ms
Loss rate: 0.15%
```

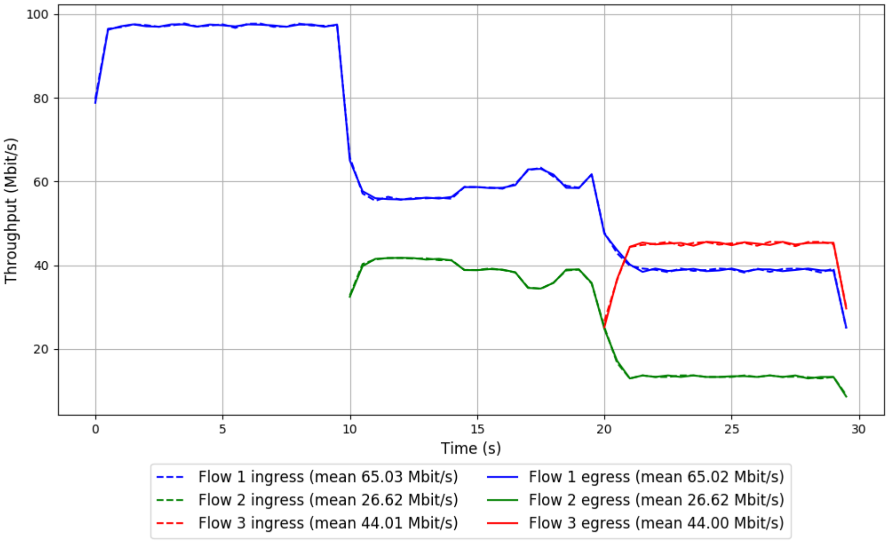
Run 7: Report of Indigo — Data Link

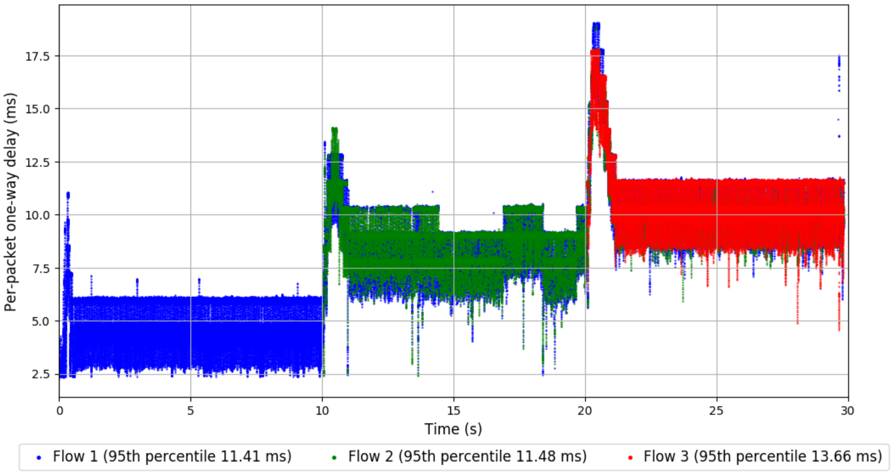




```
Run 8: Statistics of Indigo

Start at: 2018-01-02 09:30:34
End at: 2018-01-02 09:31:04
Local clock offset: -0.27 ms
Remote clock offset: 0.634 ms

# Below is generated by plot.py at 2018-01-02 13:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 11.559 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 65.02 Mbit/s
95th percentile per-packet one-way delay: 11.411 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 26.62 Mbit/s
95th percentile per-packet one-way delay: 11.479 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 44.00 Mbit/s
95th percentile per-packet one-way delay: 13.660 ms
Loss rate: 0.14%
```

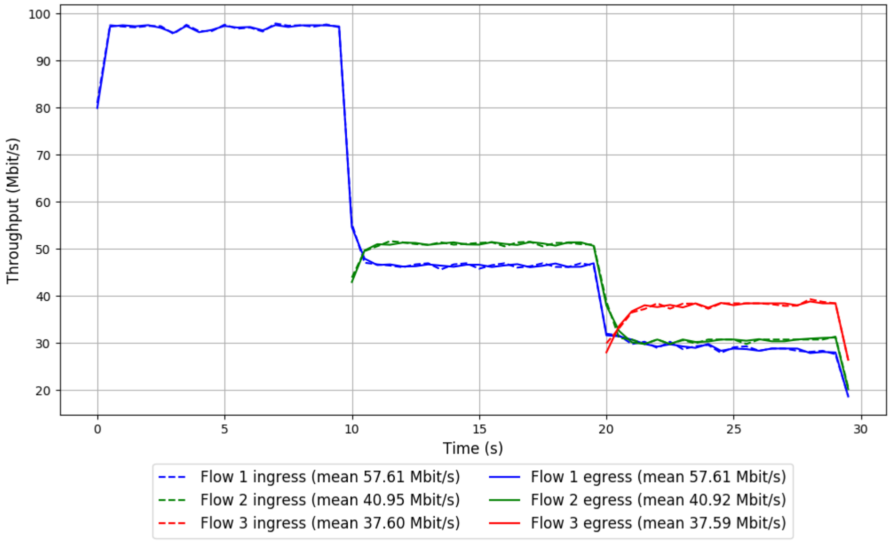
Run 8: Report of Indigo — Data Link

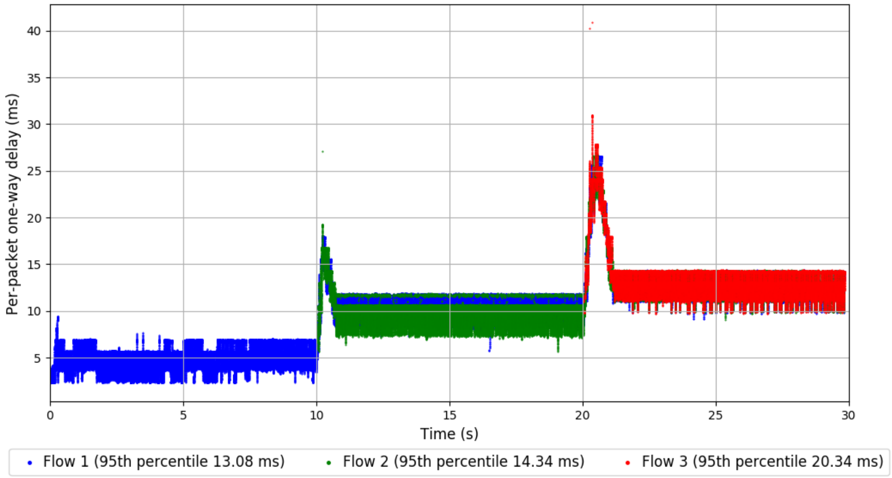




```
Run 9: Statistics of Indigo

Start at: 2018-01-02 09:47:31
End at: 2018-01-02 09:48:01
Local clock offset: -0.302 ms
Remote clock offset: 0.724 ms

# Below is generated by plot.py at 2018-01-02 13:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 14.213 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 57.61 Mbit/s
95th percentile per-packet one-way delay: 13.080 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 14.339 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 37.59 Mbit/s
95th percentile per-packet one-way delay: 20.339 ms
Loss rate: 0.16%
```

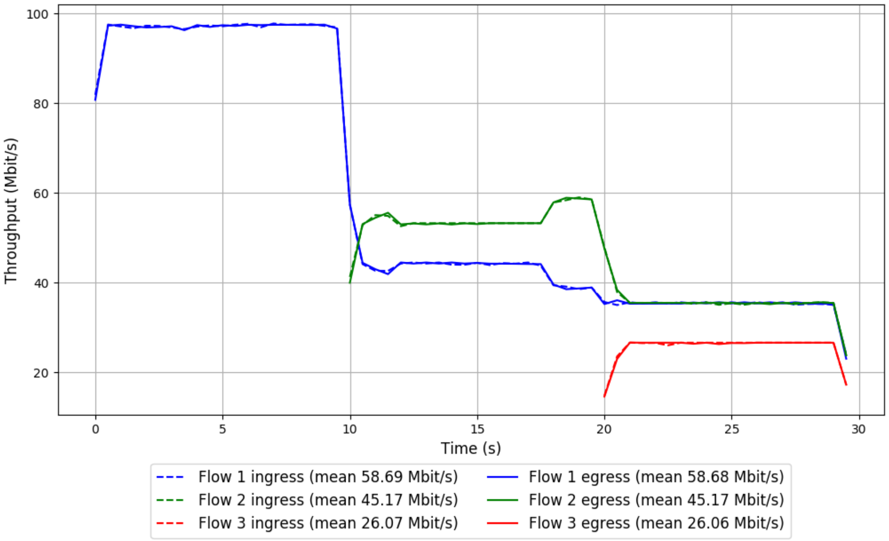
Run 9: Report of Indigo — Data Link



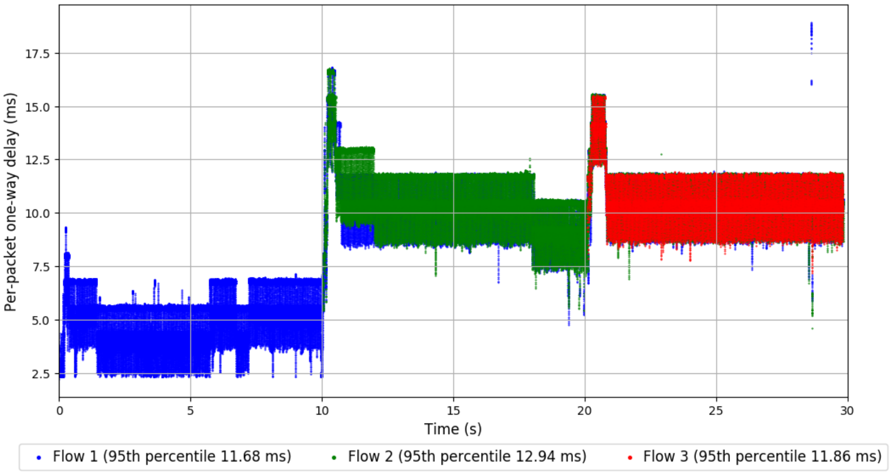


```
Run 10: Statistics of Indigo

Start at: 2018-01-02 10:04:28
End at: 2018-01-02 10:04:58
Local clock offset: -0.352 ms
Remote clock offset: 0.744 ms

# Below is generated by plot.py at 2018-01-02 13:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 11.809 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 11.683 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 45.17 Mbit/s
95th percentile per-packet one-way delay: 12.943 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 26.06 Mbit/s
95th percentile per-packet one-way delay: 11.855 ms
Loss rate: 0.14%
```

Run 10: Report of Indigo — Data Link



Throughput (Mbit/s)
100
80
60
40
20
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 58.69 Mbit/s)
Flow 1 egress (mean 58.68 Mbit/s)
Flow 2 ingress (mean 45.17 Mbit/s)
Flow 2 egress (mean 45.17 Mbit/s)
Flow 3 ingress (mean 26.07 Mbit/s)
Flow 3 egress (mean 26.06 Mbit/s)



Per-packet one-way delay (ms)
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 11.68 ms)
Flow 2 (95th percentile 12.94 ms)
Flow 3 (95th percentile 11.86 ms)