Pantheon Report

Generated at 2018-07-22 11:17:09 (UTC).

Data path: AWS India 2 Ethernet (*local*) →Saudi Arabia Ethernet (*remote*).

Repeated the test of 17 congestion control schemes 10 times.

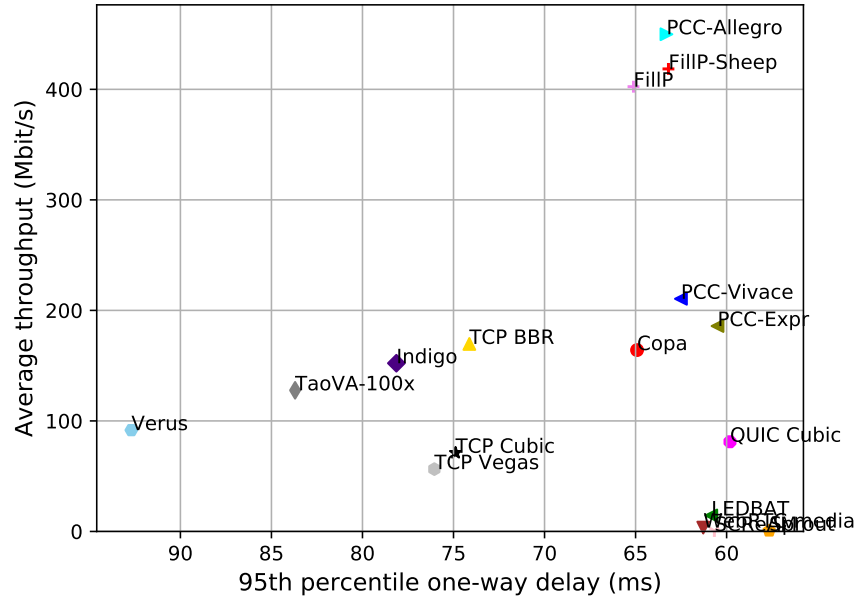Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.
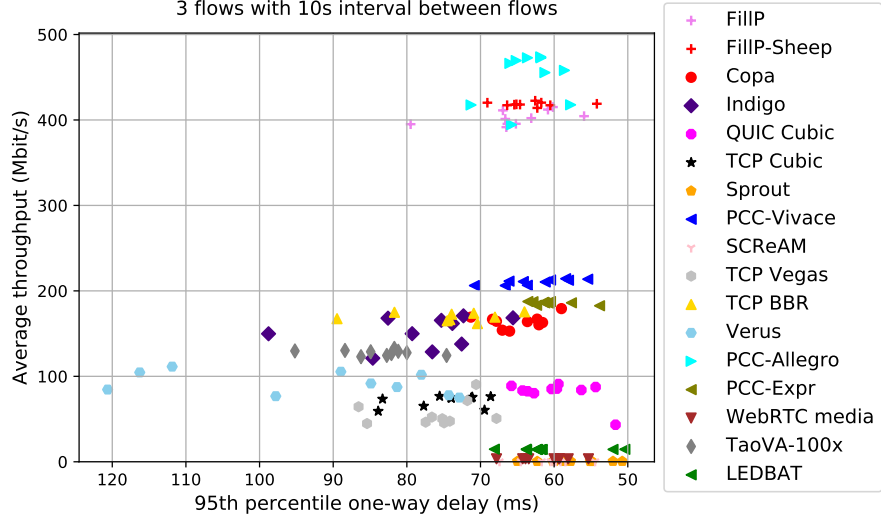
```
Git summary:
branch: master @ 640164b5b17c7c6561fff57729b3b5935d8596ce
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS India 2 to Saudi Arabia, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS India 2 to Saudi Arabia, 10 runs of 30s each per scheme
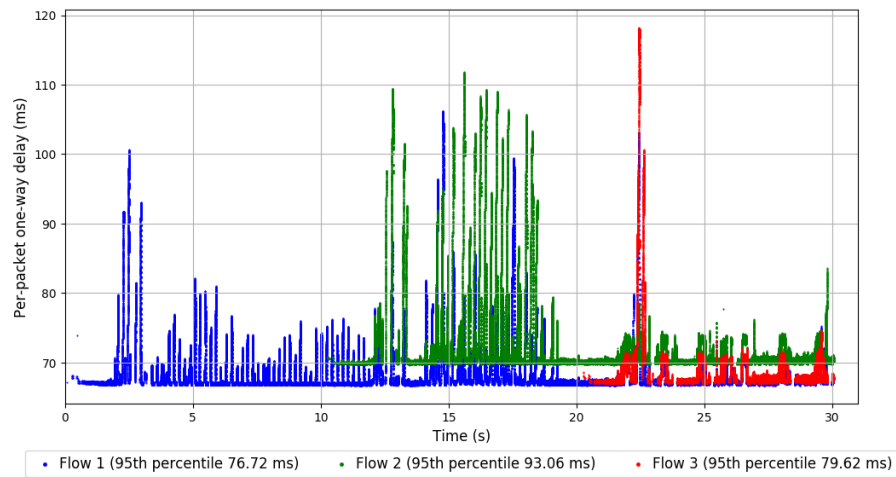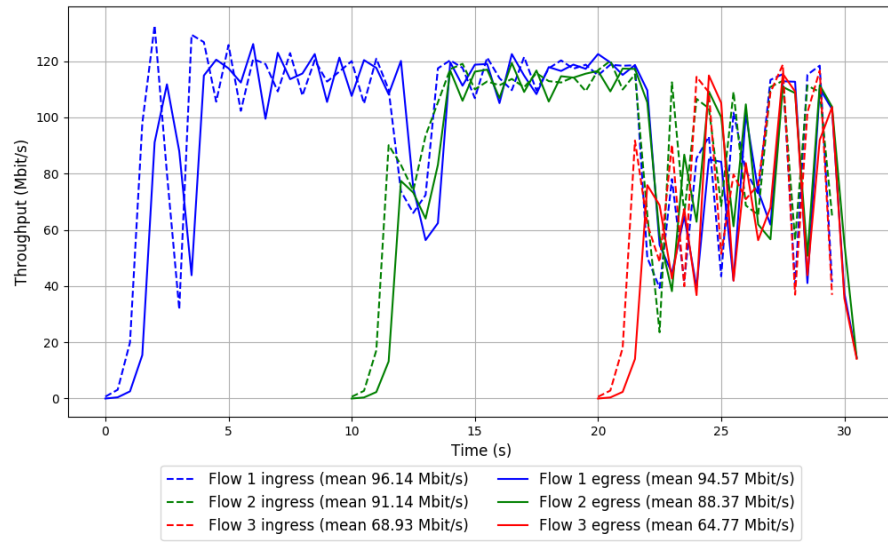### 3 flows with 10s interval between flows

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	9	93.30	84.22	61.17	71.69	76.20	78.71	1.69	3.10	7.15
Copa	10	118.87	57.71	20.55	64.66	64.84	64.42	11.14	11.80	9.74
TCP Cubic	10	37.07	31.18	40.57	75.35	68.05	77.55	1.59	1.60	2.95
FillP	10	302.84	115.51	68.55	65.67	64.17	61.91	16.48	18.32	18.91
FillP-Sheep	10	281.35	152.65	107.87	62.85	62.60	62.59	16.33	21.08	24.33
Indigo	10	79.87	75.65	69.75	76.42	79.31	78.59	9.06	14.39	22.57
LEDBAT	10	9.37	6.21	3.00	60.94	60.13	59.52	0.00	0.02	0.11
PCC-Allegro	10	413.39	40.28	29.35	62.93	62.24	61.84	4.97	2.49	3.13
PCC-Expr	10	166.91	23.06	10.98	60.32	60.37	60.13	3.66	1.76	2.08
QUIC Cubic	10	46.82	38.55	26.88	59.17	60.21	62.14	0.01	0.02	0.07
SCReAM	9	0.22	0.22	0.22	59.23	58.92	59.63	0.00	0.00	0.00
Sprout	10	0.27	0.31	0.37	57.27	56.03	56.69	0.00	0.00	0.00
TaoVA-100x	10	74.99	56.21	46.22	80.30	86.97	88.56	4.21	6.36	8.76
TCP Vegas	10	23.91	30.06	37.57	76.88	72.68	77.19	1.85	2.17	2.62
Verus	10	57.26	35.98	38.05	88.92	92.27	89.56	48.46	44.48	46.52
PCC-Vivace	10	184.31	32.23	14.36	62.44	63.03	63.00	1.34	0.77	1.04
WebRTC media	9	1.87	1.20	0.42	60.71	60.32	60.49	0.00	0.02	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-07-22 04:44:55
End at: 2018-07-22 04:45:25
Local clock offset: -2.877 ms
Remote clock offset: -28.893 ms


# Below is generated by plot.py at 2018-07-22 10:30:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 174.98 Mbit/s
95th percentile per-packet one-way delay: 81.683 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 76.717 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 88.37 Mbit/s
95th percentile per-packet one-way delay: 93.065 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 64.77 Mbit/s
95th percentile per-packet one-way delay: 79.621 ms
Loss rate: 6.04%
```
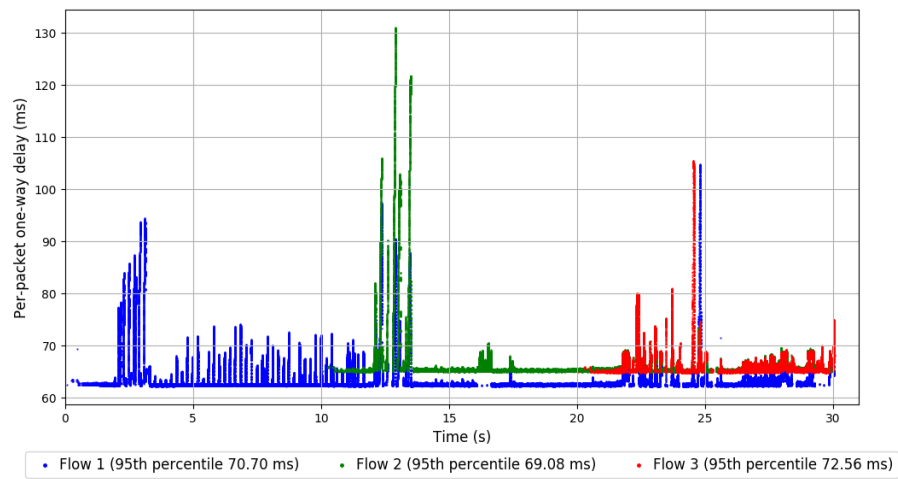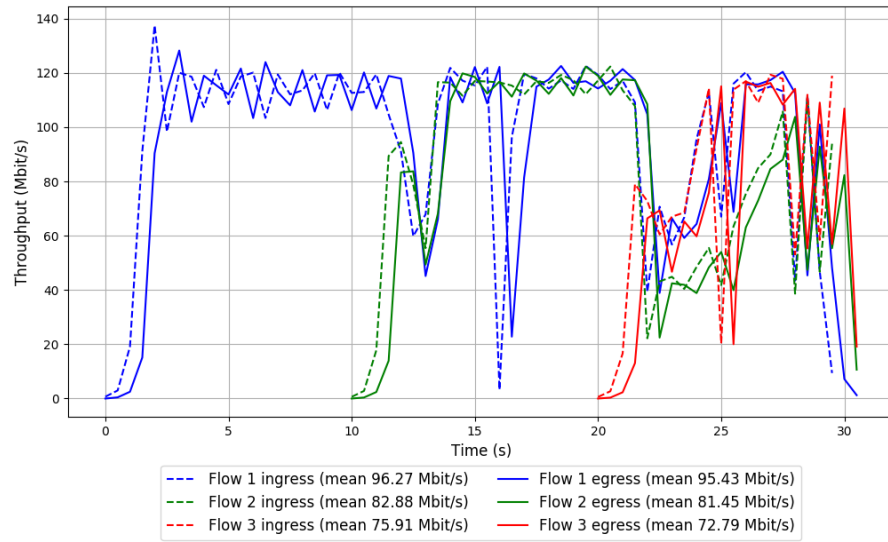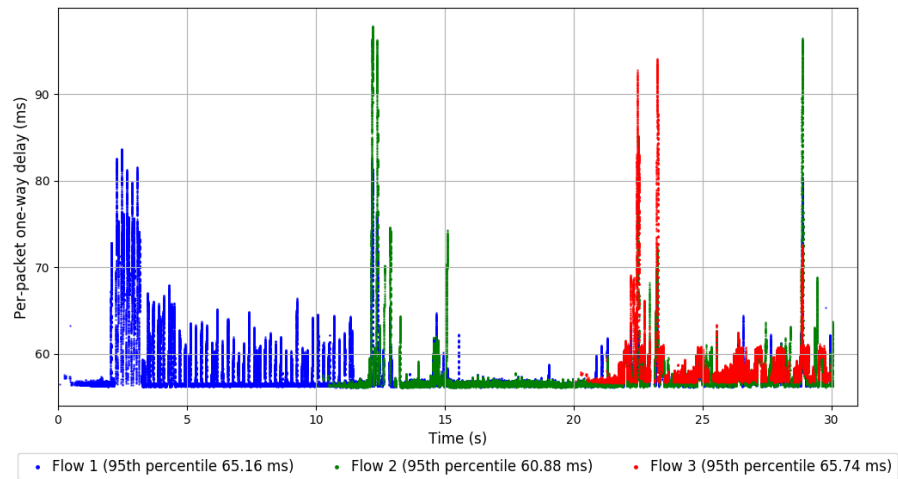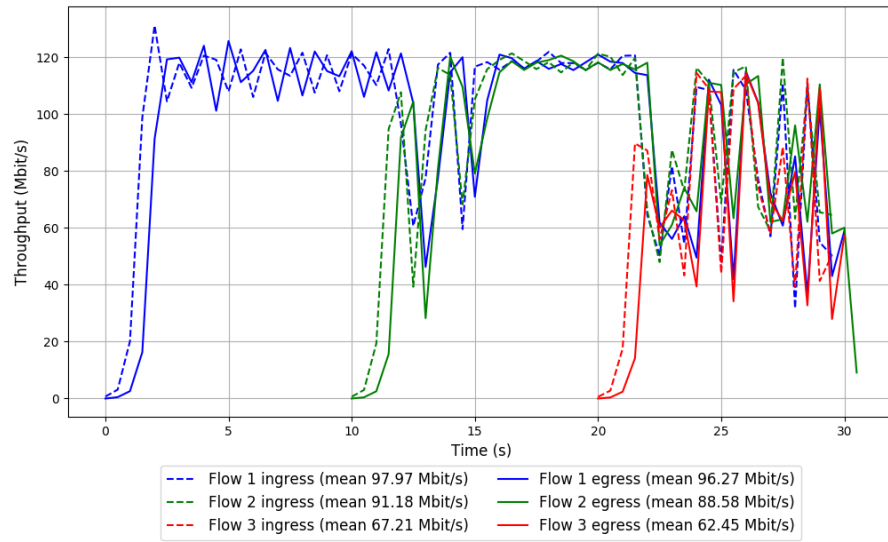
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-07-22 05:09:23
End at: 2018-07-22 05:09:53
Local clock offset: 0.425 ms
Remote clock offset: -29.644 ms


# Below is generated by plot.py at 2018-07-22 10:30:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.86 Mbit/s
95th percentile per-packet one-way delay: 70.918 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 70.704 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 81.45 Mbit/s
95th percentile per-packet one-way delay: 69.084 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 72.79 Mbit/s
95th percentile per-packet one-way delay: 72.562 ms
Loss rate: 4.10%
```

Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 96.27 Mbit/s) --- Flow 1 egress (mean 95.43 Mbit/s)
Flow 2 ingress (mean 82.88 Mbit/s) --- Flow 2 egress (mean 81.45 Mbit/s)
Flow 3 ingress (mean 75.91 Mbit/s) --- Flow 3 egress (mean 72.79 Mbit/s)

Flow 1 (95th percentile 70.70 ms)   Flow 2 (95th percentile 69.08 ms)   Flow 3 (95th percentile 72.56 ms)

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Run 3: Statistics of TCP BBR

/home/ubuntu/pantheon/data/2018-07-22T04-21-AWS-India-2-to-Saudi-Arabia-10-runs-3-flows/bbr_

Run 3: Report of TCP BBR — Data Link
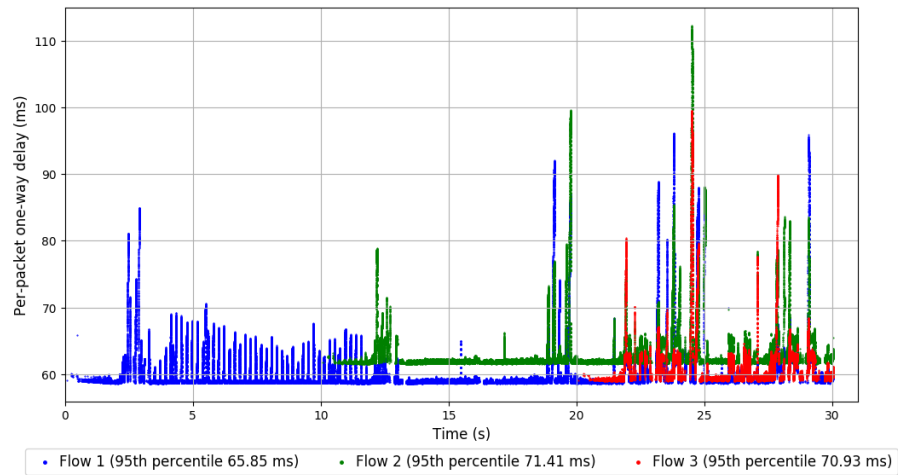
Figure is missing

Figure is missing

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Run 4: Statistics of TCP BBR

Start at: 2018-07-22 06:36:29
End at: 2018-07-22 06:36:59
Local clock offset: 1.858 ms
Remote clock offset: -36.963 ms


# Below is generated by plot.py at 2018-07-22 10:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.49 Mbit/s
95th percentile per-packet one-way delay: 64.028 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 65.163 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 88.58 Mbit/s
95th percentile per-packet one-way delay: 60.877 ms
Loss rate: 2.85%
-- Flow 3:
Average throughput: 62.45 Mbit/s
95th percentile per-packet one-way delay: 65.744 ms
Loss rate: 7.08%
```
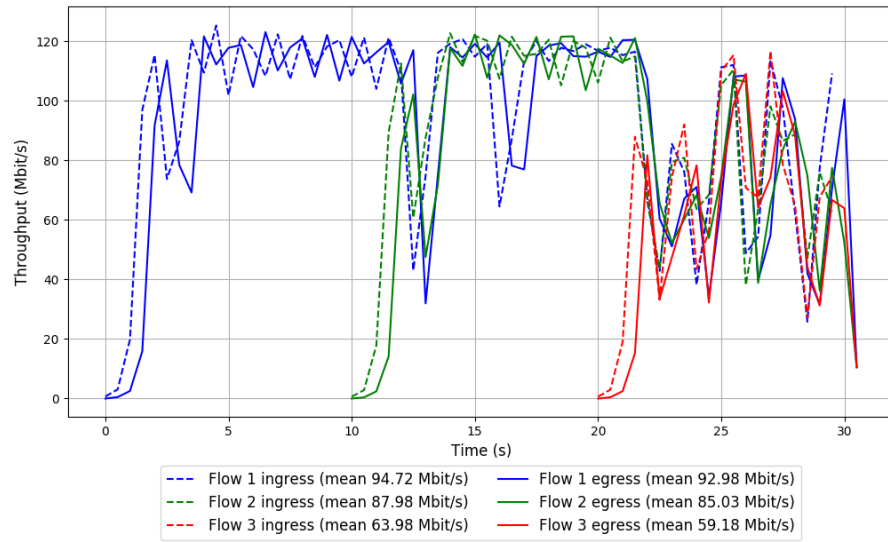
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 97.97 Mbit/s) --- Flow 1 egress (mean 96.27 Mbit/s)
Flow 2 ingress (mean 91.18 Mbit/s) --- Flow 2 egress (mean 88.58 Mbit/s)
Flow 3 ingress (mean 67.21 Mbit/s) --- Flow 3 egress (mean 62.45 Mbit/s)

Flow 1 (95th percentile 65.16 ms)   Flow 2 (95th percentile 60.88 ms)   Flow 3 (95th percentile 65.74 ms)
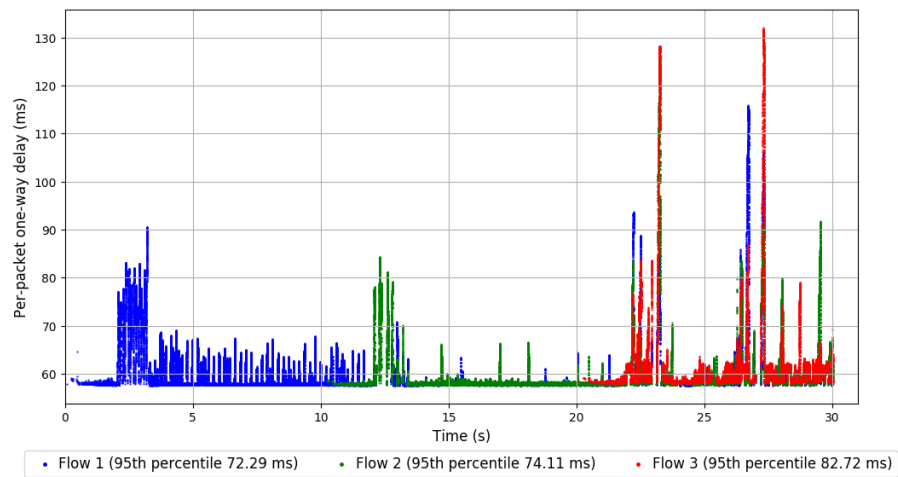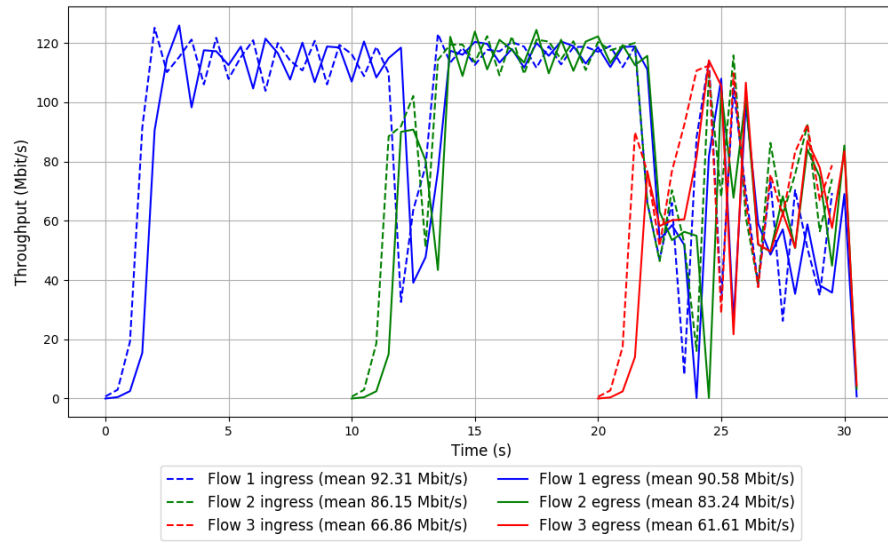
11

```
Run 5: Statistics of TCP BBR

Start at: 2018-07-22 07:06:34
End at: 2018-07-22 07:07:04
Local clock offset: 0.477 ms
Remote clock offset: -36.353 ms


# Below is generated by plot.py at 2018-07-22 10:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.30 Mbit/s
95th percentile per-packet one-way delay: 68.040 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 92.98 Mbit/s
95th percentile per-packet one-way delay: 65.848 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 85.03 Mbit/s
95th percentile per-packet one-way delay: 71.405 ms
Loss rate: 3.34%
-- Flow 3:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 70.926 ms
Loss rate: 7.49%
```
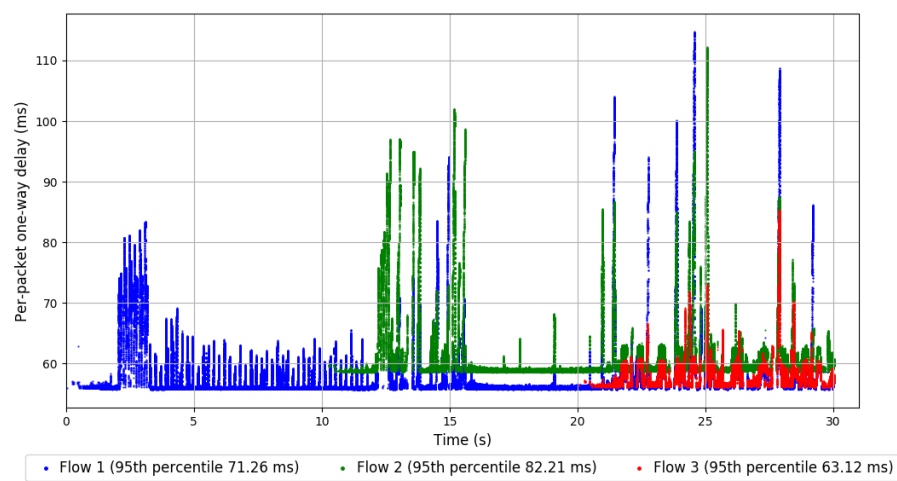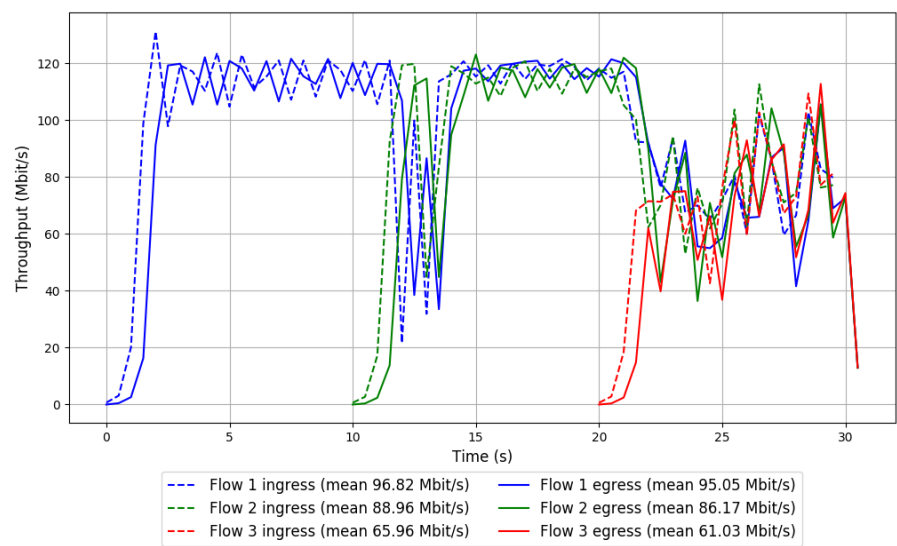
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 94.72 Mbit/s)   Flow 1 egress (mean 92.98 Mbit/s)
Flow 2 ingress (mean 87.98 Mbit/s)   Flow 2 egress (mean 85.03 Mbit/s)
Flow 3 ingress (mean 63.98 Mbit/s)   Flow 3 egress (mean 59.18 Mbit/s)

Flow 1 (95th percentile 65.85 ms)   Flow 2 (95th percentile 71.41 ms)   Flow 3 (95th percentile 70.93 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-07-22 07:36:36
End at: 2018-07-22 07:37:06
Local clock offset: 2.454 ms
Remote clock offset: -34.332 ms


# Below is generated by plot.py at 2018-07-22 10:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 166.41 Mbit/s
95th percentile per-packet one-way delay: 74.168 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 90.58 Mbit/s
95th percentile per-packet one-way delay: 72.293 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 83.24 Mbit/s
95th percentile per-packet one-way delay: 74.113 ms
Loss rate: 3.39%
-- Flow 3:
Average throughput: 61.61 Mbit/s
95th percentile per-packet one-way delay: 82.717 ms
Loss rate: 7.85%
```
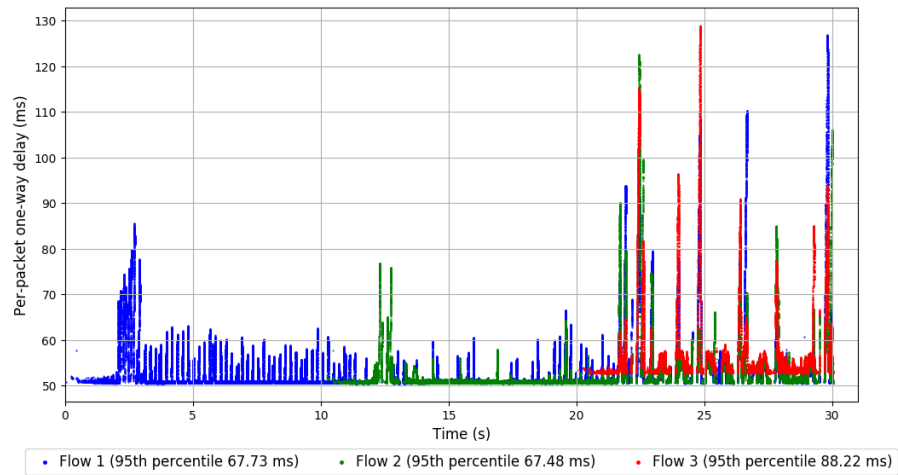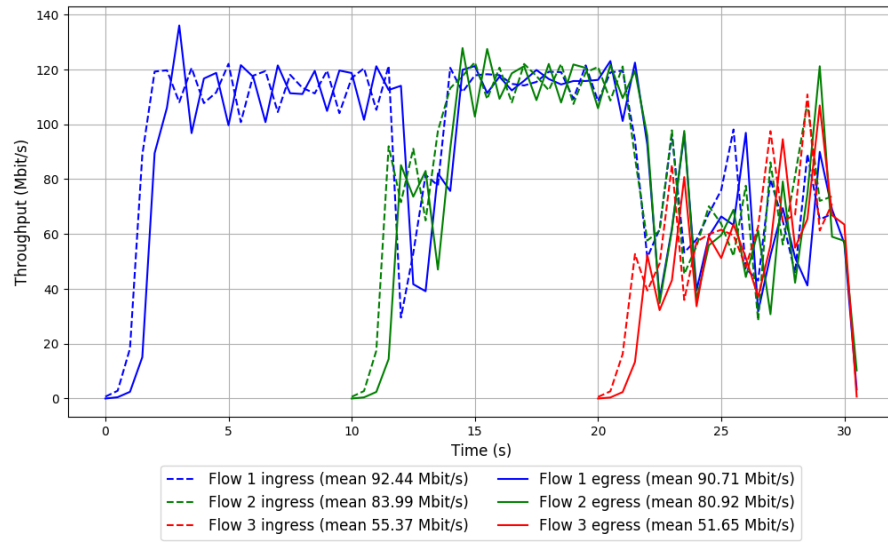
Run 6: Report of TCP BBR — Data Link

```
Run 7: Statistics of TCP BBR

Start at: 2018-07-22 08:10:58
End at: 2018-07-22 08:11:28
Local clock offset: -0.2 ms
Remote clock offset: -37.895 ms

# Below is generated by plot.py at 2018-07-22 10:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.74 Mbit/s
95th percentile per-packet one-way delay: 73.920 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 71.260 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 86.17 Mbit/s
95th percentile per-packet one-way delay: 82.213 ms
Loss rate: 3.15%
-- Flow 3:
Average throughput: 61.03 Mbit/s
95th percentile per-packet one-way delay: 63.123 ms
Loss rate: 7.47%
```
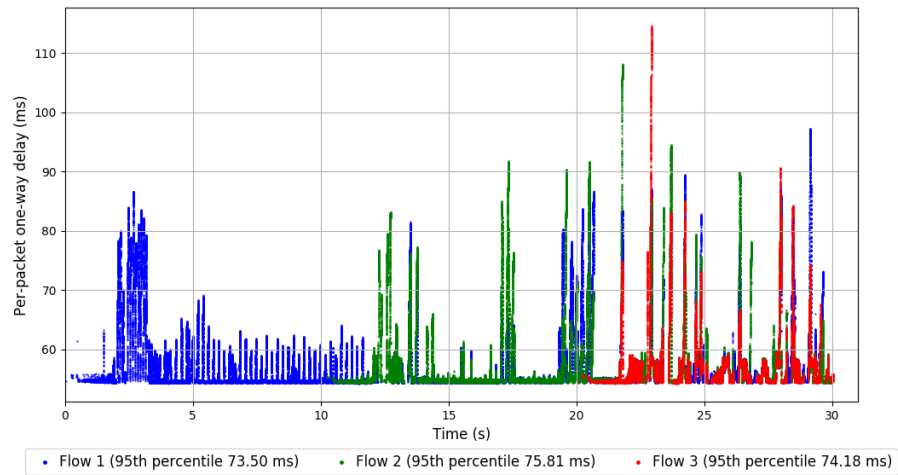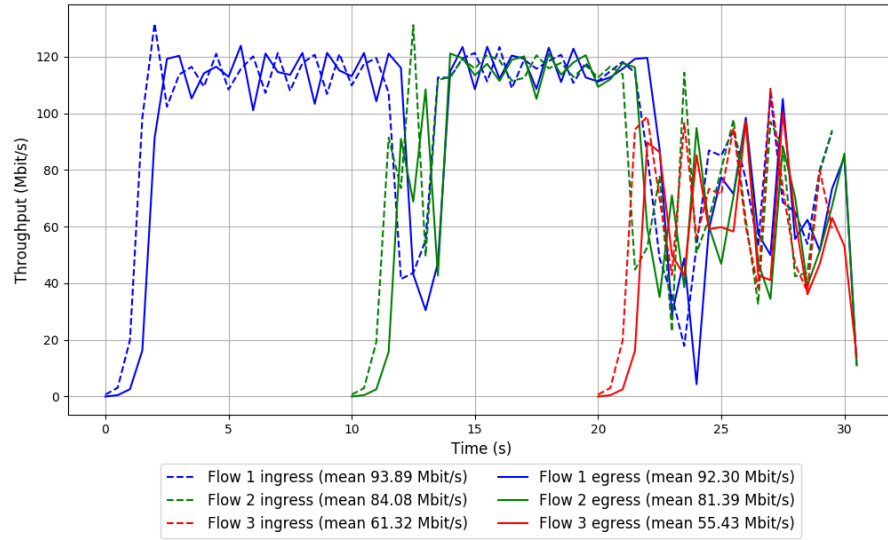
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-07-22 09:06:57
End at: 2018-07-22 09:07:27
Local clock offset: 3.778 ms
Remote clock offset: -40.058 ms


# Below is generated by plot.py at 2018-07-22 10:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.72 Mbit/s
95th percentile per-packet one-way delay: 70.410 ms
Loss rate: 3.00%
-- Flow 1:
Average throughput: 90.71 Mbit/s
95th percentile per-packet one-way delay: 67.732 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 80.92 Mbit/s
95th percentile per-packet one-way delay: 67.480 ms
Loss rate: 3.66%
-- Flow 3:
Average throughput: 51.65 Mbit/s
95th percentile per-packet one-way delay: 88.219 ms
Loss rate: 6.73%
```
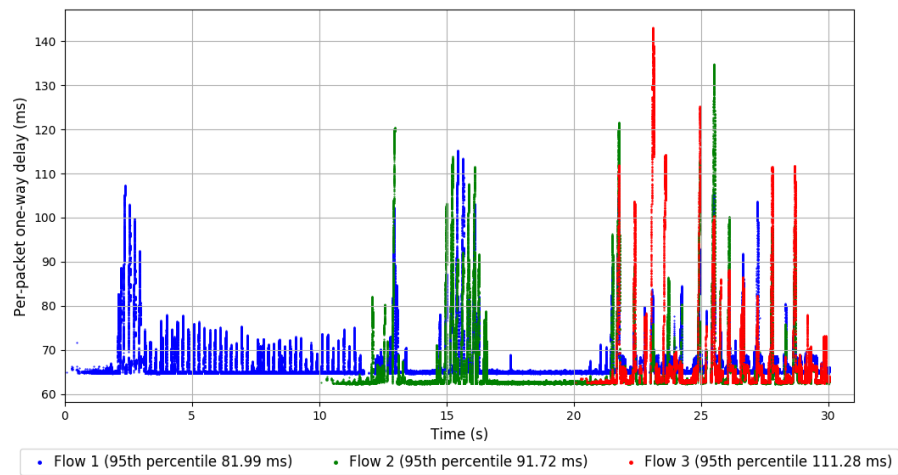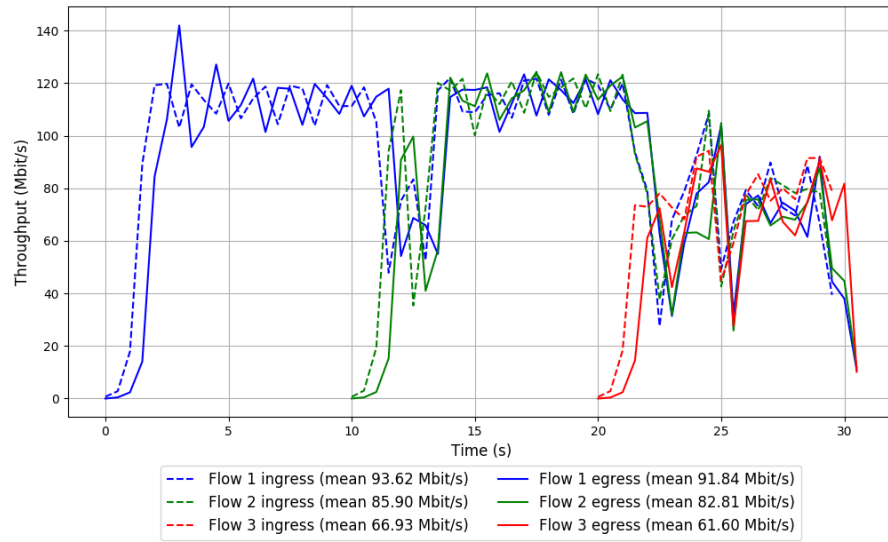
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-07-22 09:51:20
End at: 2018-07-22 09:51:50
Local clock offset: 1.996 ms
Remote clock offset: -37.645 ms


# Below is generated by plot.py at 2018-07-22 10:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.01 Mbit/s
95th percentile per-packet one-way delay: 74.521 ms
Loss rate: 3.14%
-- Flow 1:
Average throughput: 92.30 Mbit/s
95th percentile per-packet one-way delay: 73.500 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 81.39 Mbit/s
95th percentile per-packet one-way delay: 75.809 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 55.43 Mbit/s
95th percentile per-packet one-way delay: 74.179 ms
Loss rate: 9.60%
```
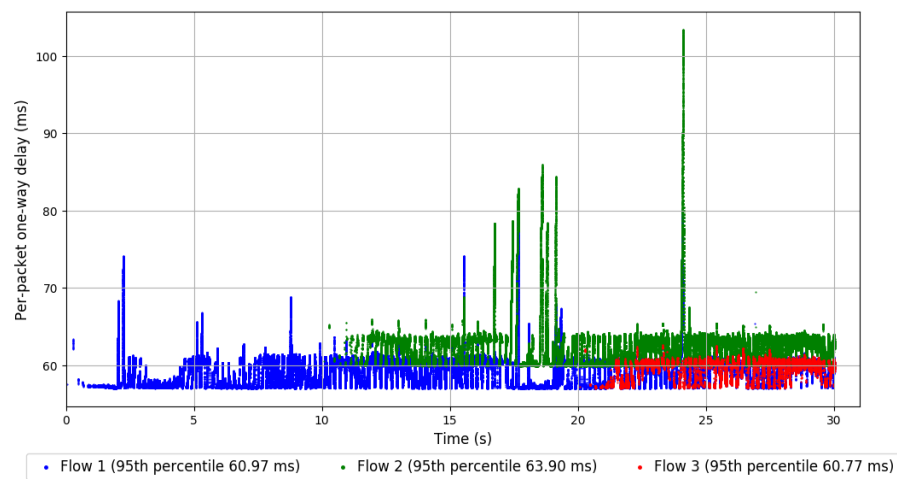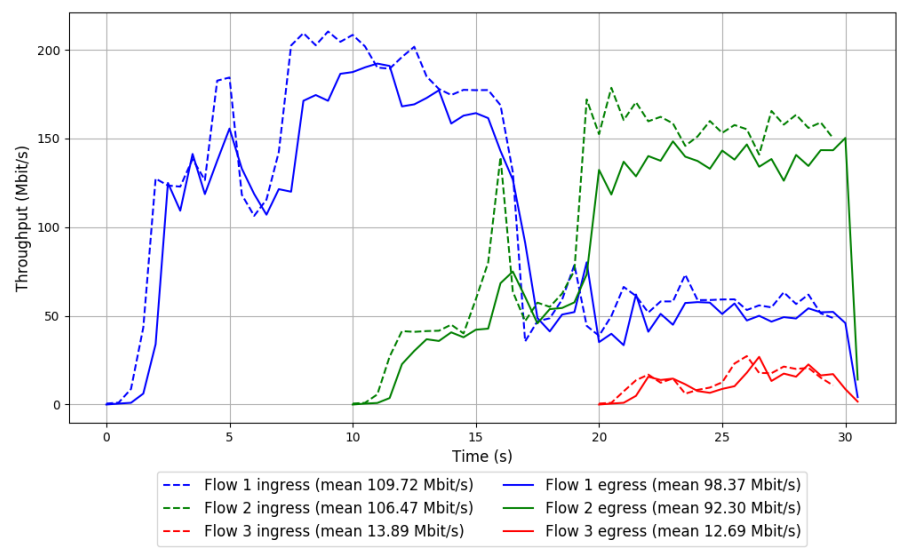
Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2018-07-22 10:21:21
End at: 2018-07-22 10:21:51
Local clock offset: 3.354 ms
Remote clock offset: -29.837 ms


# Below is generated by plot.py at 2018-07-22 10:32:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 167.47 Mbit/s
95th percentile per-packet one-way delay: 89.479 ms
Loss rate: 3.24%
-- Flow 1:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 81.992 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 91.715 ms
Loss rate: 3.59%
-- Flow 3:
Average throughput: 61.60 Mbit/s
95th percentile per-packet one-way delay: 111.281 ms
Loss rate: 7.95%
```
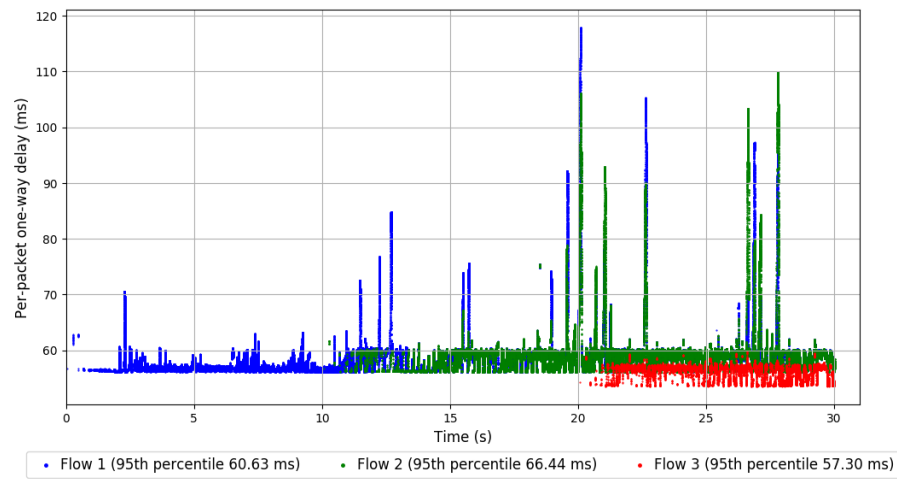
Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-07-22 04:31:34
End at: 2018-07-22 04:32:04
Local clock offset: 0.414 ms
Remote clock offset: -35.32 ms


# Below is generated by plot.py at 2018-07-22 10:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.08 Mbit/s
95th percentile per-packet one-way delay: 63.632 ms
Loss rate: 11.43%
-- Flow 1:
Average throughput: 98.37 Mbit/s
95th percentile per-packet one-way delay: 60.974 ms
Loss rate: 10.34%
-- Flow 2:
Average throughput: 92.30 Mbit/s
95th percentile per-packet one-way delay: 63.897 ms
Loss rate: 13.31%
-- Flow 3:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 60.771 ms
Loss rate: 8.63%
```
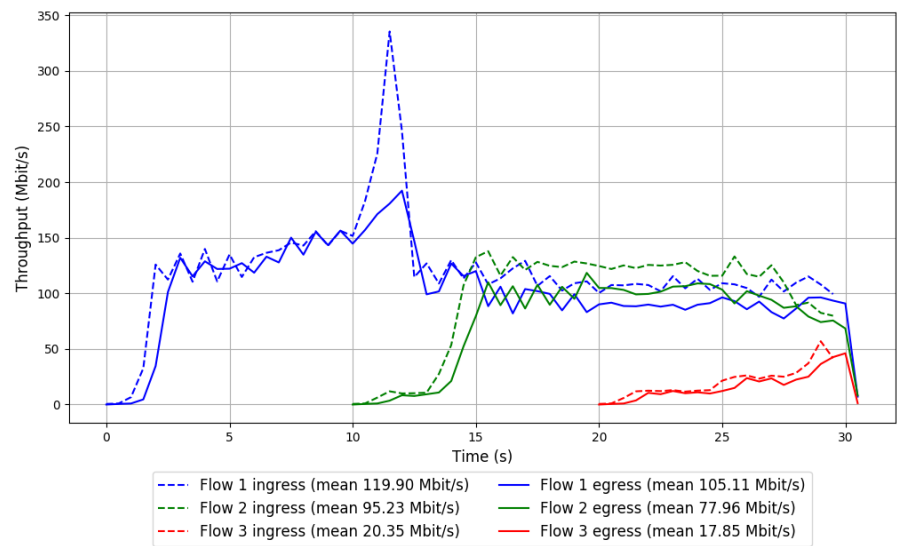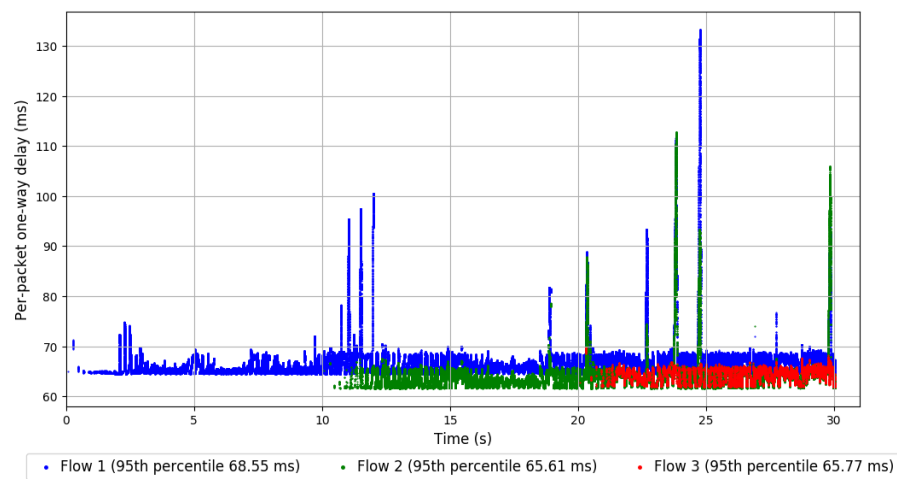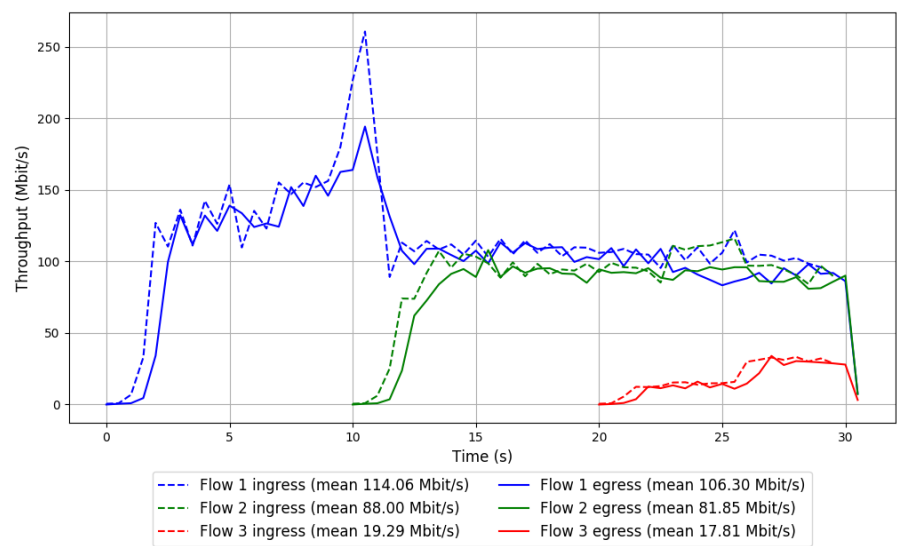
Run 1: Report of Copa — Data Link

- - - Flow 1 ingress (mean 109.72 Mbit/s)   —— Flow 1 egress (mean 98.37 Mbit/s)
- - - Flow 2 ingress (mean 106.47 Mbit/s)   —— Flow 2 egress (mean 92.30 Mbit/s)
- - - Flow 3 ingress (mean 13.89 Mbit/s)   —— Flow 3 egress (mean 12.69 Mbit/s)

• Flow 1 (95th percentile 60.97 ms)   • Flow 2 (95th percentile 63.90 ms)   • Flow 3 (95th percentile 60.77 ms)

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```
Run 2: Statistics of Copa

Start at: 2018-07-22 04:56:01
End at: 2018-07-22 04:56:31
Local clock offset: -3.251 ms
Remote clock offset: -42.482 ms


# Below is generated by plot.py at 2018-07-22 10:34:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.95 Mbit/s
95th percentile per-packet one-way delay: 61.569 ms
Loss rate: 14.28%
-- Flow 1:
Average throughput: 105.11 Mbit/s
95th percentile per-packet one-way delay: 60.626 ms
Loss rate: 12.34%
-- Flow 2:
Average throughput: 77.96 Mbit/s
95th percentile per-packet one-way delay: 66.435 ms
Loss rate: 18.14%
-- Flow 3:
Average throughput: 17.85 Mbit/s
95th percentile per-packet one-way delay: 57.305 ms
Loss rate: 12.32%
```
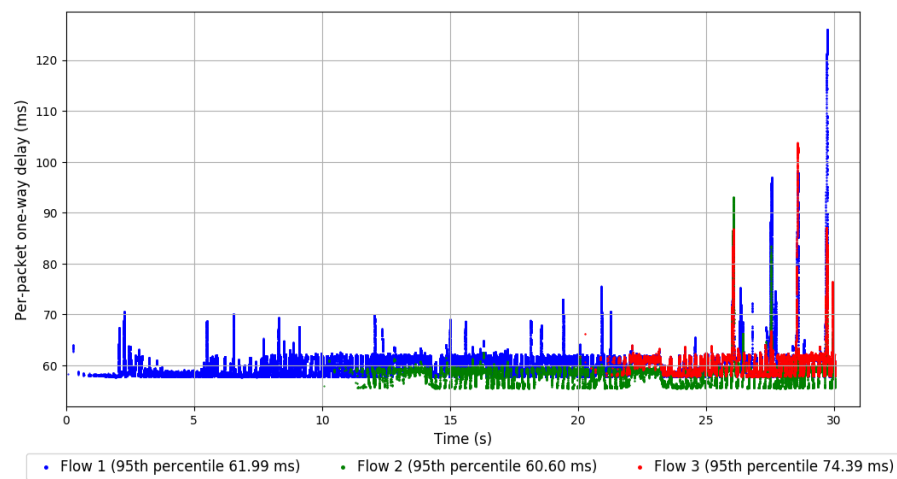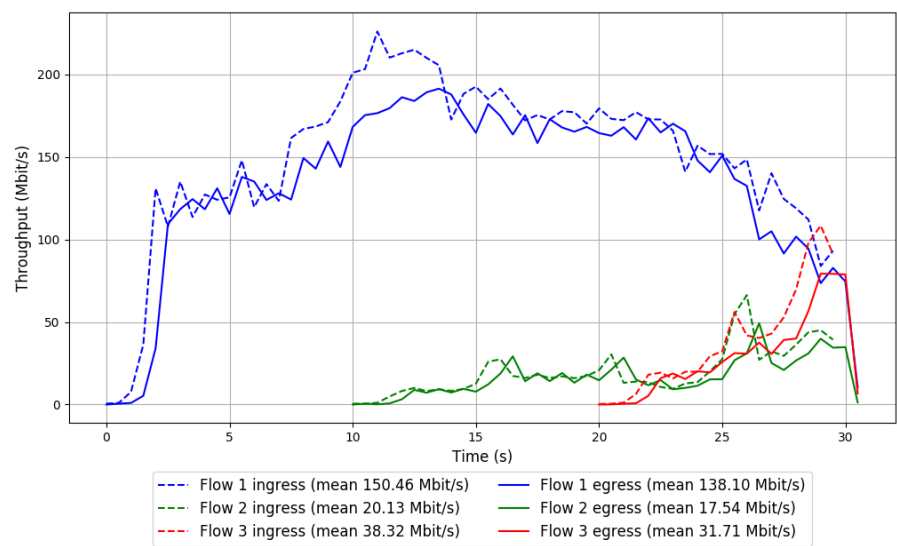
Run 2: Report of Copa — Data Link

- - - Flow 1 ingress (mean 119.90 Mbit/s) ——— Flow 1 egress (mean 105.11 Mbit/s)
- - - Flow 2 ingress (mean 95.23 Mbit/s) ——— Flow 2 egress (mean 77.96 Mbit/s)
- - - Flow 3 ingress (mean 20.35 Mbit/s) ——— Flow 3 egress (mean 17.85 Mbit/s)

- Flow 1 (95th percentile 60.63 ms)   - Flow 2 (95th percentile 66.44 ms)   - Flow 3 (95th percentile 57.30 ms)

```
Run 3: Statistics of Copa

Start at: 2018-07-22 05:30:00
End at: 2018-07-22 05:30:30
Local clock offset: -2.19 ms
Remote clock offset: -32.282 ms


# Below is generated by plot.py at 2018-07-22 10:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 166.75 Mbit/s
95th percentile per-packet one-way delay: 68.368 ms
Loss rate: 6.90%
-- Flow 1:
Average throughput: 106.30 Mbit/s
95th percentile per-packet one-way delay: 68.554 ms
Loss rate: 6.80%
-- Flow 2:
Average throughput: 81.85 Mbit/s
95th percentile per-packet one-way delay: 65.615 ms
Loss rate: 6.99%
-- Flow 3:
Average throughput: 17.81 Mbit/s
95th percentile per-packet one-way delay: 65.767 ms
Loss rate: 7.68%
```
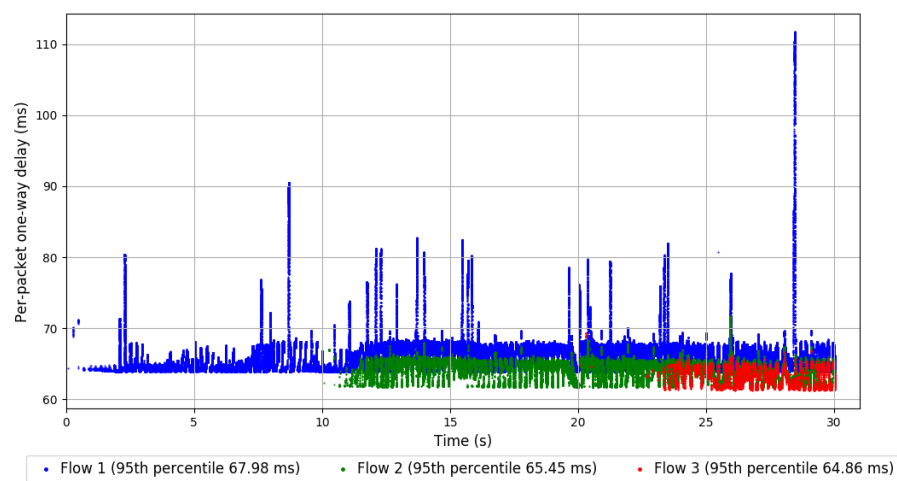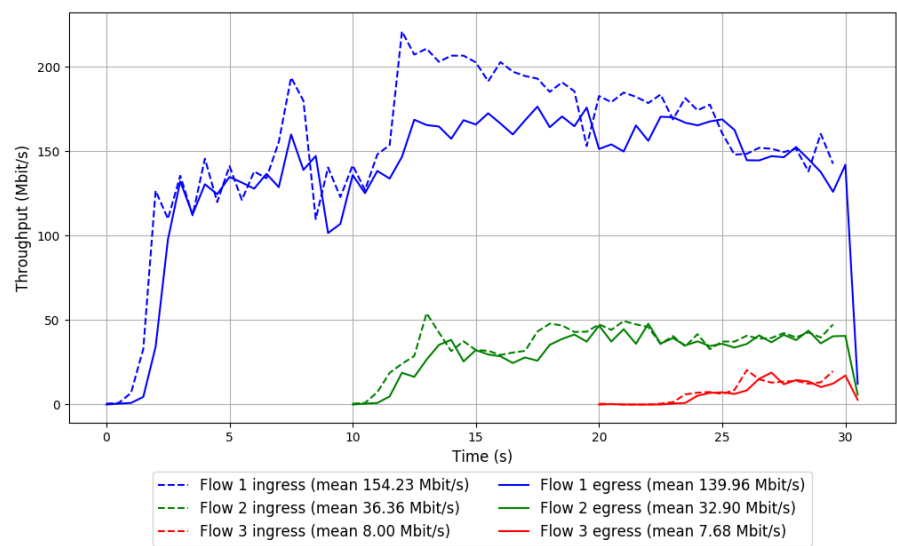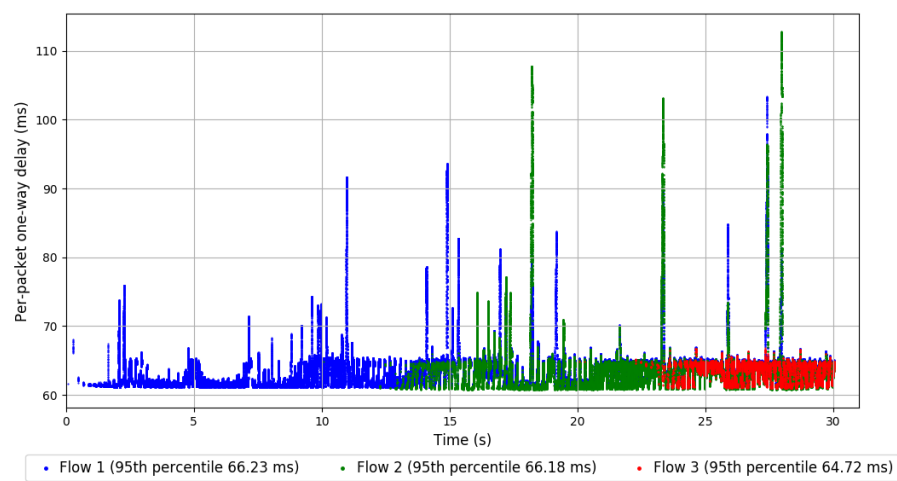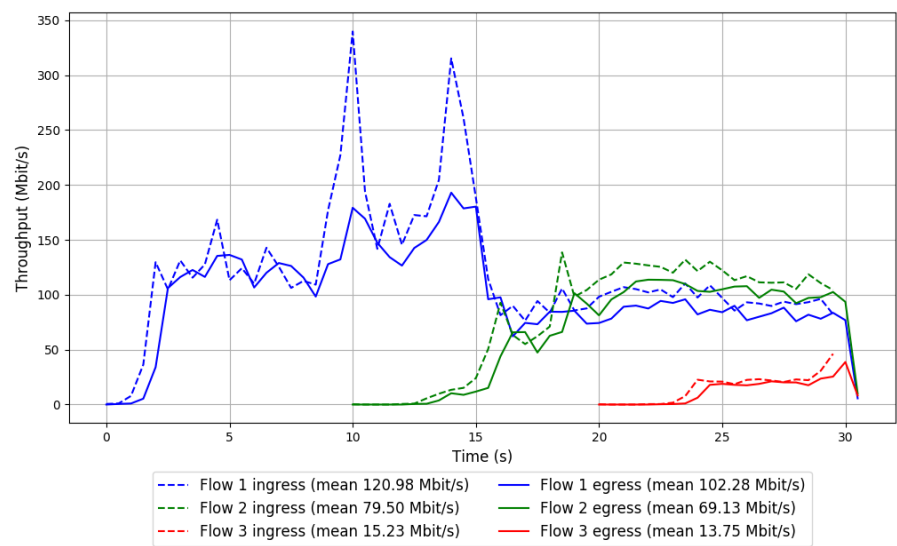
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-07-22 06:17:03
End at: 2018-07-22 06:17:33
Local clock offset: 1.172 ms
Remote clock offset: -37.771 ms


# Below is generated by plot.py at 2018-07-22 10:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.31 Mbit/s
95th percentile per-packet one-way delay: 62.069 ms
Loss rate: 9.22%
-- Flow 1:
Average throughput: 138.10 Mbit/s
95th percentile per-packet one-way delay: 61.991 ms
Loss rate: 8.22%
-- Flow 2:
Average throughput: 17.54 Mbit/s
95th percentile per-packet one-way delay: 60.605 ms
Loss rate: 12.86%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 74.389 ms
Loss rate: 17.25%
```

Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 150.46 Mbit/s) --- Flow 1 egress (mean 138.10 Mbit/s)
Flow 2 ingress (mean 20.13 Mbit/s) --- Flow 2 egress (mean 17.54 Mbit/s)
Flow 3 ingress (mean 38.32 Mbit/s) --- Flow 3 egress (mean 31.71 Mbit/s)

Flow 1 (95th percentile 61.99 ms) • Flow 2 (95th percentile 60.60 ms) • Flow 3 (95th percentile 74.39 ms)
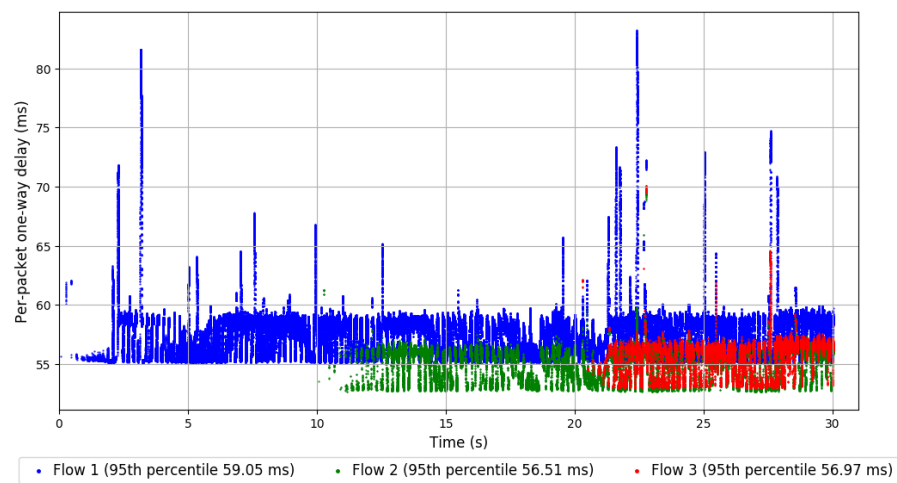
31

```
Run 5: Statistics of Copa

Start at: 2018-07-22 06:47:40
End at: 2018-07-22 06:48:10
Local clock offset: -1.809 ms
Remote clock offset: -35.788 ms


# Below is generated by plot.py at 2018-07-22 10:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.43 Mbit/s
95th percentile per-packet one-way delay: 67.835 ms
Loss rate: 9.22%
-- Flow 1:
Average throughput: 139.96 Mbit/s
95th percentile per-packet one-way delay: 67.977 ms
Loss rate: 9.26%
-- Flow 2:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 65.453 ms
Loss rate: 9.51%
-- Flow 3:
Average throughput: 7.68 Mbit/s
95th percentile per-packet one-way delay: 64.863 ms
Loss rate: 4.02%
```

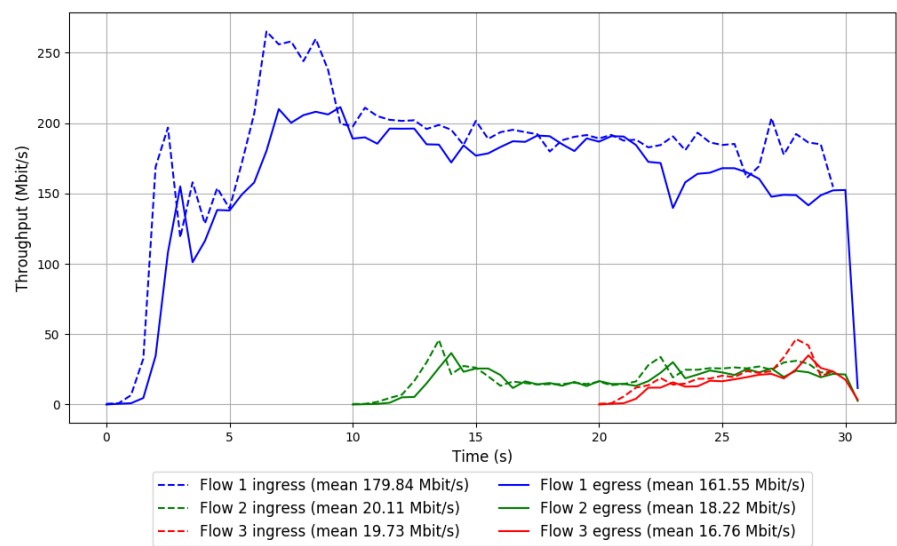# Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-07-22 07:17:40
End at: 2018-07-22 07:18:10
Local clock offset: -1.061 ms
Remote clock offset: -35.492 ms

# Below is generated by plot.py at 2018-07-22 10:34:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 152.90 Mbit/s
95th percentile per-packet one-way delay: 66.047 ms
Loss rate: 14.58%
-- Flow 1:
Average throughput: 102.28 Mbit/s
95th percentile per-packet one-way delay: 66.228 ms
Loss rate: 15.45%
-- Flow 2:
Average throughput: 69.13 Mbit/s
95th percentile per-packet one-way delay: 66.179 ms
Loss rate: 13.04%
-- Flow 3:
Average throughput: 13.75 Mbit/s
95th percentile per-packet one-way delay: 64.716 ms
Loss rate: 9.74%
```
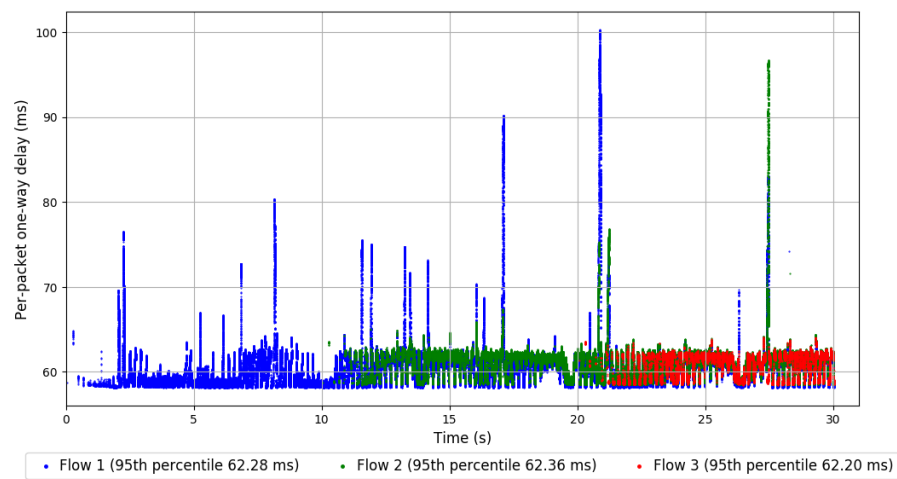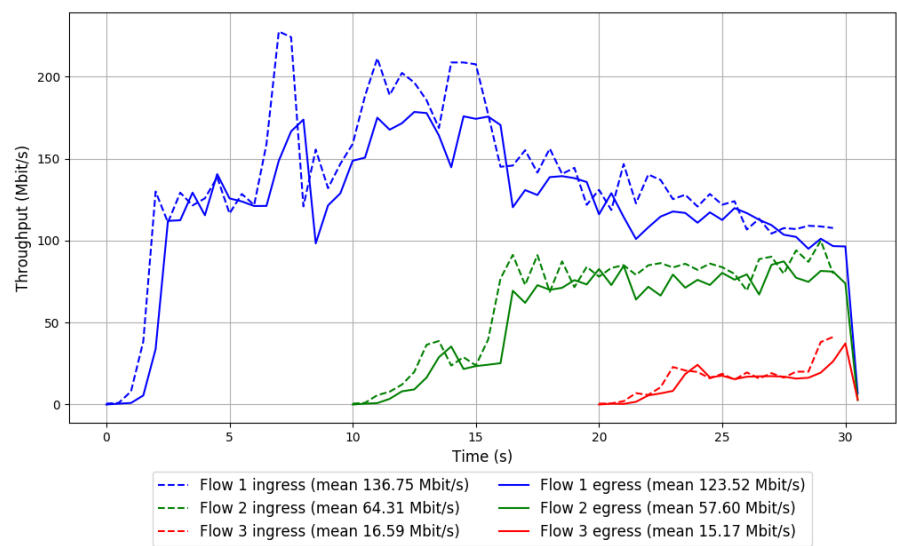
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-07-22 07:47:50
End at: 2018-07-22 07:48:20
Local clock offset: 3.208 ms
Remote clock offset: -38.339 ms


# Below is generated by plot.py at 2018-07-22 10:34:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.25 Mbit/s
95th percentile per-packet one-way delay: 59.010 ms
Loss rate: 10.28%
-- Flow 1:
Average throughput: 161.55 Mbit/s
95th percentile per-packet one-way delay: 59.045 ms
Loss rate: 10.17%
-- Flow 2:
Average throughput: 18.22 Mbit/s
95th percentile per-packet one-way delay: 56.505 ms
Loss rate: 9.40%
-- Flow 3:
Average throughput: 16.76 Mbit/s
95th percentile per-packet one-way delay: 56.973 ms
Loss rate: 15.05%
```

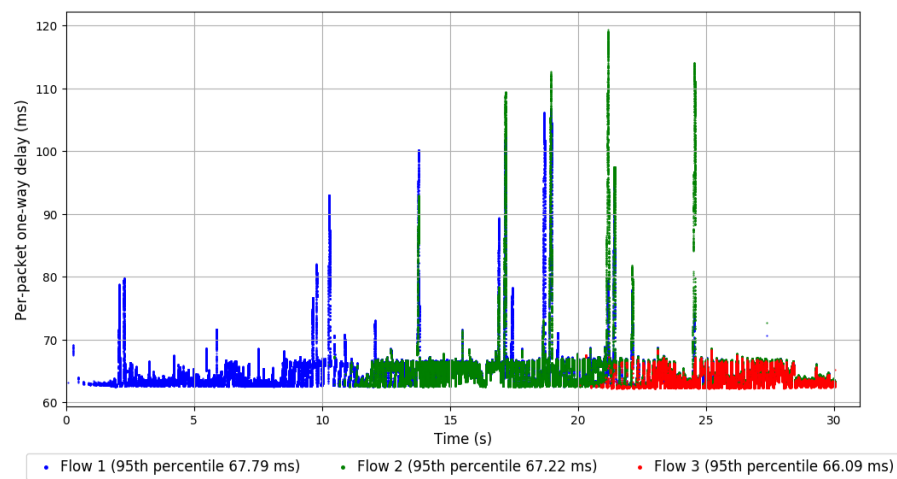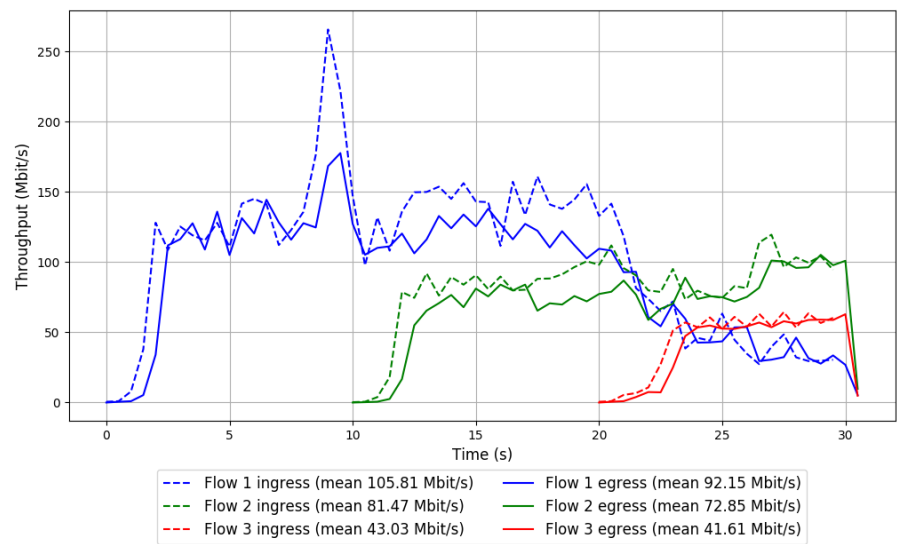Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-07-22 08:32:22
End at: 2018-07-22 08:32:52
Local clock offset: 2.592 ms
Remote clock offset: -32.789 ms


# Below is generated by plot.py at 2018-07-22 10:36:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 166.94 Mbit/s
95th percentile per-packet one-way delay: 62.308 ms
Loss rate: 9.82%
-- Flow 1:
Average throughput: 123.52 Mbit/s
95th percentile per-packet one-way delay: 62.282 ms
Loss rate: 9.68%
-- Flow 2:
Average throughput: 57.60 Mbit/s
95th percentile per-packet one-way delay: 62.358 ms
Loss rate: 10.44%
-- Flow 3:
Average throughput: 15.17 Mbit/s
95th percentile per-packet one-way delay: 62.201 ms
Loss rate: 8.52%
```
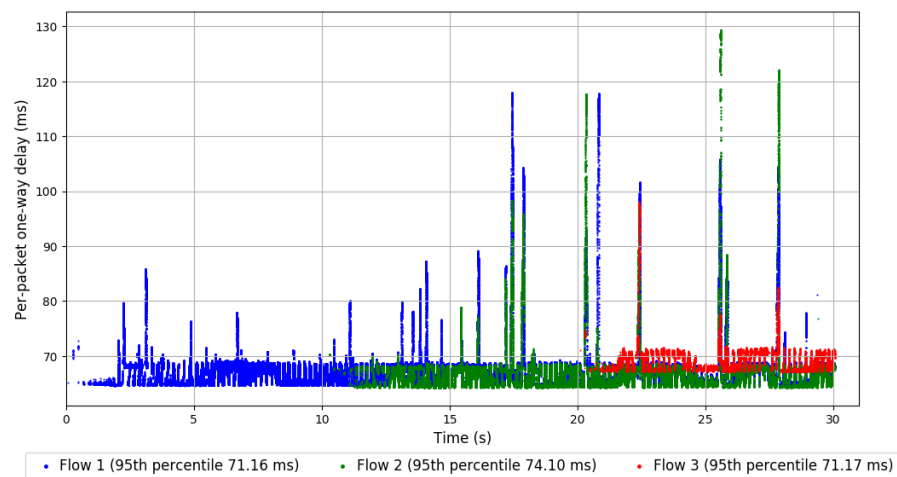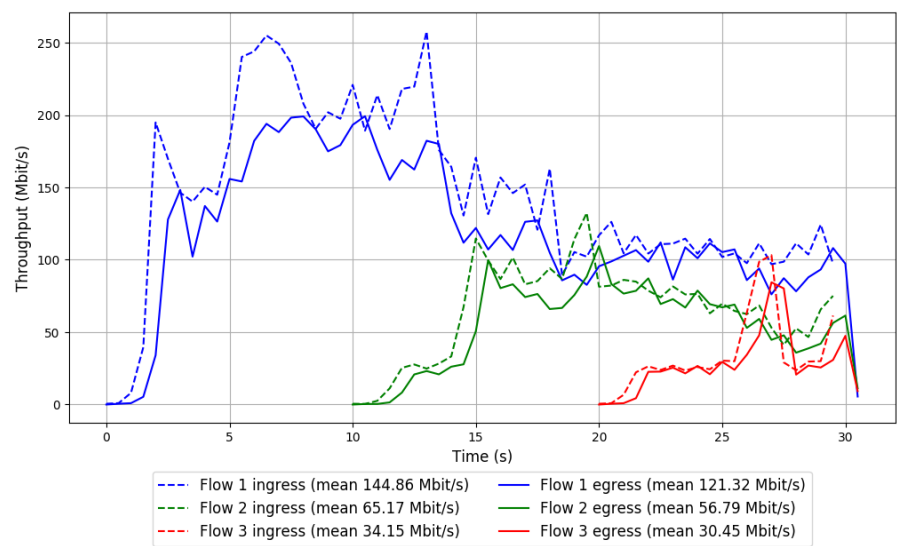
Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2018-07-22 09:32:24
End at: 2018-07-22 09:32:54
Local clock offset: -0.469 ms
Remote clock offset: -32.006 ms


# Below is generated by plot.py at 2018-07-22 10:37:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.00 Mbit/s
95th percentile per-packet one-way delay: 67.043 ms
Loss rate: 11.68%
-- Flow 1:
Average throughput: 92.15 Mbit/s
95th percentile per-packet one-way delay: 67.793 ms
Loss rate: 12.91%
-- Flow 2:
Average throughput: 72.85 Mbit/s
95th percentile per-packet one-way delay: 67.218 ms
Loss rate: 11.49%
-- Flow 3:
Average throughput: 41.61 Mbit/s
95th percentile per-packet one-way delay: 66.087 ms
Loss rate: 3.28%
```
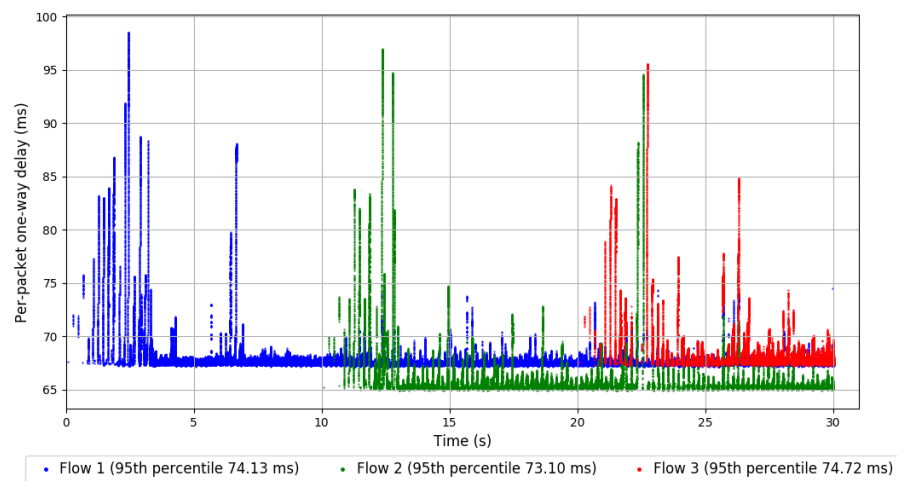
Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-07-22 10:02:26
End at: 2018-07-22 10:02:56
Local clock offset: 2.612 ms
Remote clock offset: -27.324 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.26 Mbit/s
95th percentile per-packet one-way delay: 71.311 ms
Loss rate: 15.20%
-- Flow 1:
Average throughput: 121.32 Mbit/s
95th percentile per-packet one-way delay: 71.159 ms
Loss rate: 16.24%
-- Flow 2:
Average throughput: 56.79 Mbit/s
95th percentile per-packet one-way delay: 74.096 ms
Loss rate: 12.84%
-- Flow 3:
Average throughput: 30.45 Mbit/s
95th percentile per-packet one-way delay: 71.165 ms
Loss rate: 10.86%
```
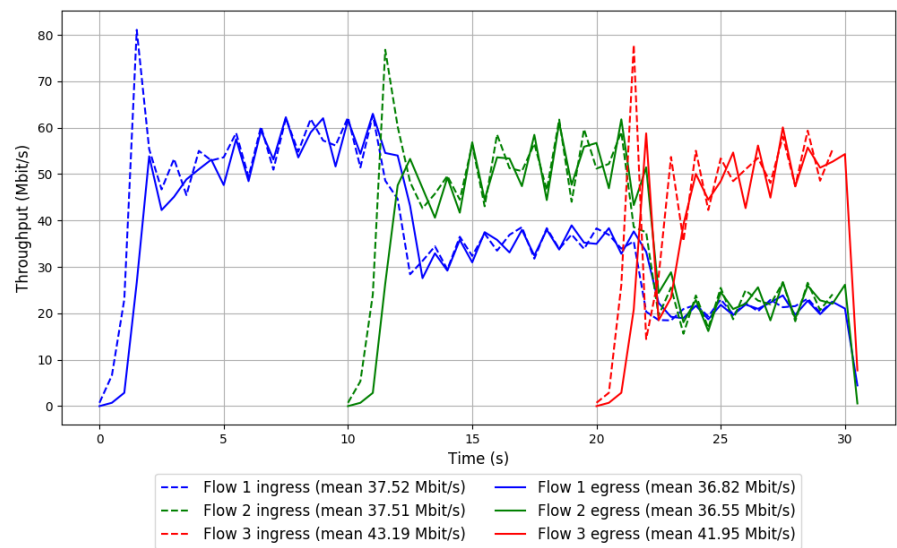
Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 144.86 Mbit/s) --- Flow 1 egress (mean 121.32 Mbit/s)
Flow 2 ingress (mean 65.17 Mbit/s) --- Flow 2 egress (mean 56.79 Mbit/s)
Flow 3 ingress (mean 34.15 Mbit/s) --- Flow 3 egress (mean 30.45 Mbit/s)

Flow 1 (95th percentile 71.16 ms)   Flow 2 (95th percentile 74.10 ms)   Flow 3 (95th percentile 71.17 ms)
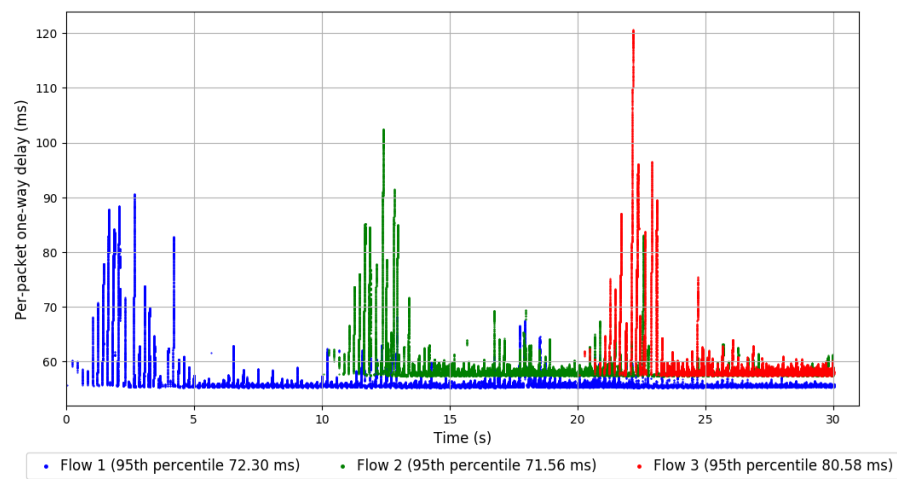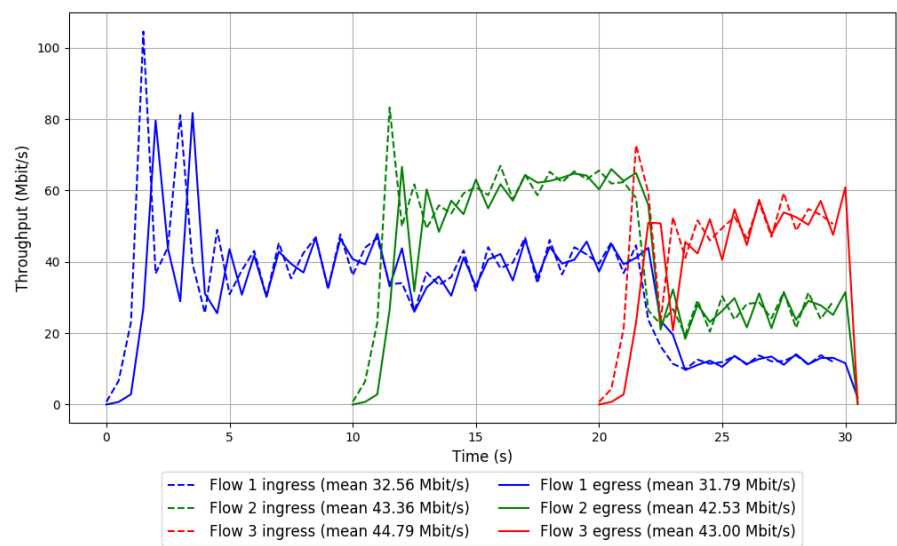
43

```
Run 1: Statistics of TCP Cubic

Start at: 2018-07-22 04:43:34
End at: 2018-07-22 04:44:04
Local clock offset: 0.862 ms
Remote clock offset: -27.489 ms

# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.05 Mbit/s
95th percentile per-packet one-way delay: 74.026 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 36.82 Mbit/s
95th percentile per-packet one-way delay: 74.126 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 73.102 ms
Loss rate: 2.57%
-- Flow 3:
Average throughput: 41.95 Mbit/s
95th percentile per-packet one-way delay: 74.723 ms
Loss rate: 2.88%
```
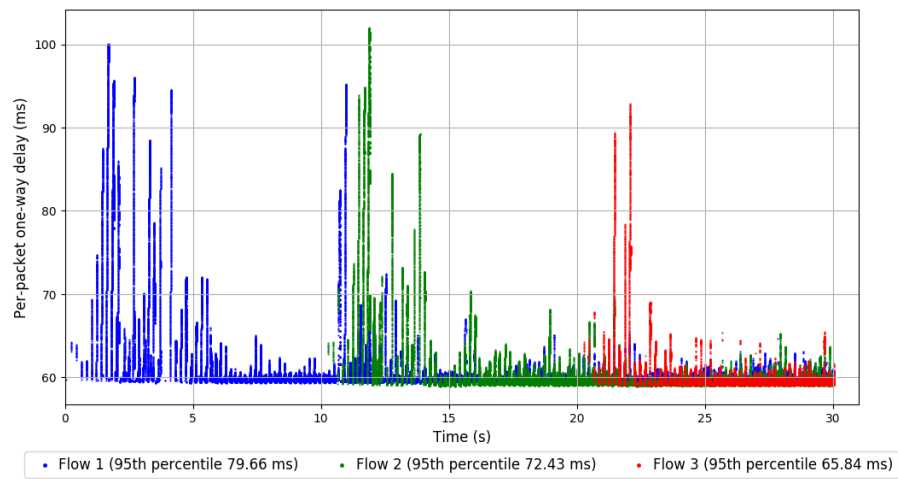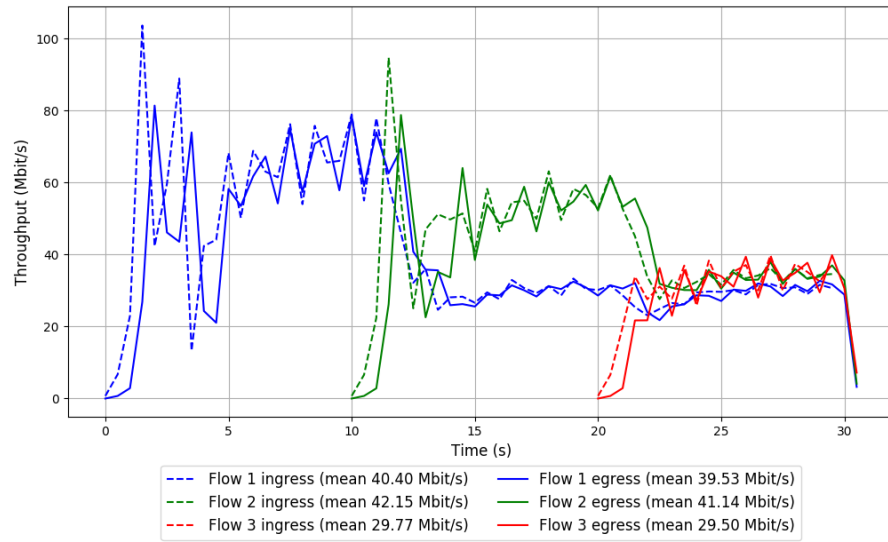
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-07-22 05:08:01
End at: 2018-07-22 05:08:31
Local clock offset: 0.463 ms
Remote clock offset: -37.041 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.36 Mbit/s
95th percentile per-packet one-way delay: 73.955 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 72.301 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 42.53 Mbit/s
95th percentile per-packet one-way delay: 71.563 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 80.579 ms
Loss rate: 3.99%
```
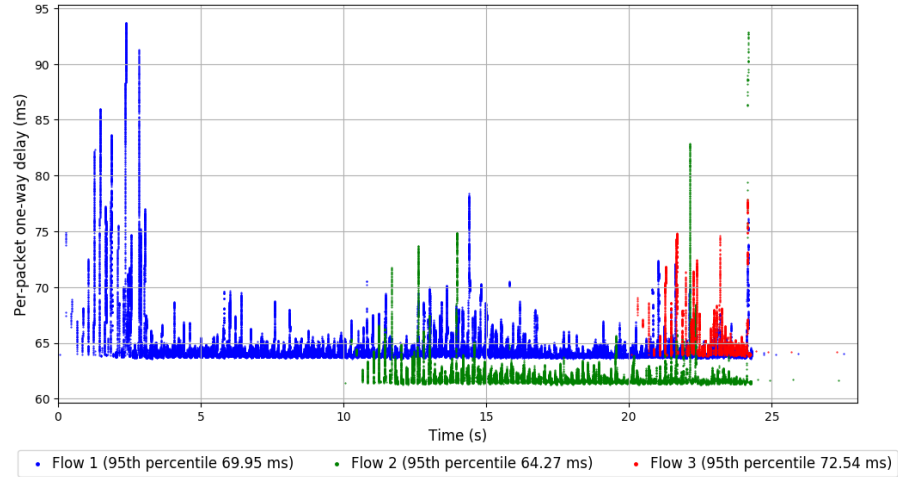
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-07-22 05:48:35
End at: 2018-07-22 05:49:05
Local clock offset: -0.047 ms
Remote clock offset: -33.647 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 75.550 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 79.659 ms
Loss rate: 2.16%
-- Flow 2:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 72.426 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 29.50 Mbit/s
95th percentile per-packet one-way delay: 65.841 ms
Loss rate: 0.90%
```
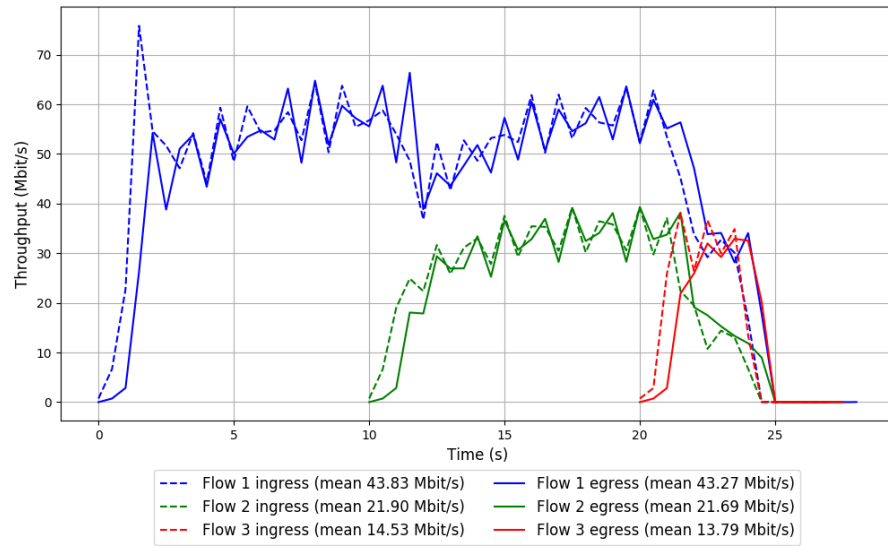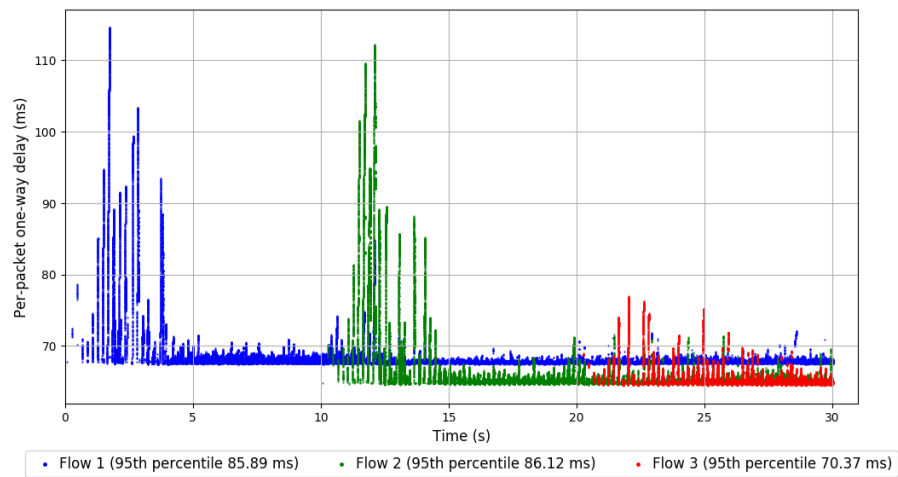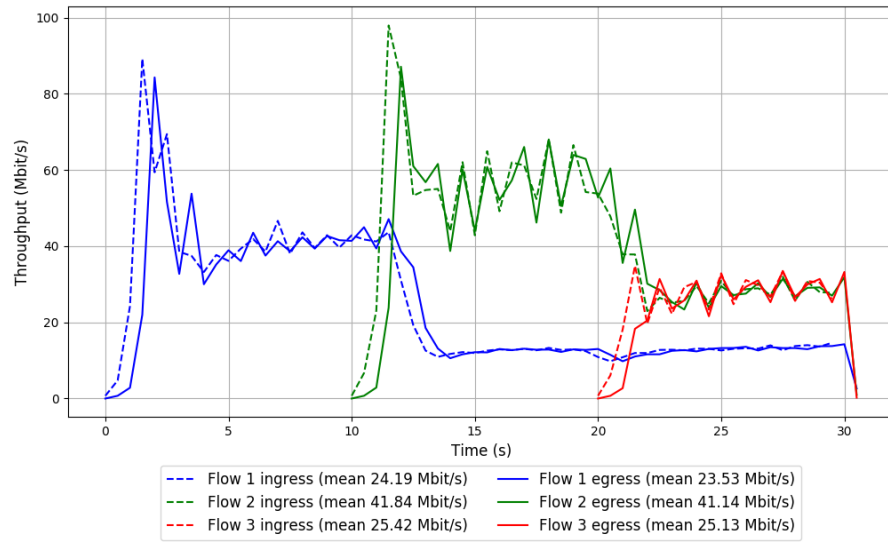
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 40.40 Mbit/s)   Flow 1 egress (mean 39.53 Mbit/s)
Flow 2 ingress (mean 42.15 Mbit/s)   Flow 2 egress (mean 41.14 Mbit/s)
Flow 3 ingress (mean 29.77 Mbit/s)   Flow 3 egress (mean 29.50 Mbit/s)

Flow 1 (95th percentile 79.66 ms)   Flow 2 (95th percentile 72.43 ms)   Flow 3 (95th percentile 65.84 ms)

49

```
Run 4: Statistics of TCP Cubic

Start at: 2018-07-22 06:29:30
End at: 2018-07-22 06:30:00
Local clock offset: -1.692 ms
Remote clock offset: -35.452 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.51 Mbit/s
95th percentile per-packet one-way delay: 69.454 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 43.27 Mbit/s
95th percentile per-packet one-way delay: 69.948 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 21.69 Mbit/s
95th percentile per-packet one-way delay: 64.270 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.79 Mbit/s
95th percentile per-packet one-way delay: 72.538 ms
Loss rate: 5.09%
```
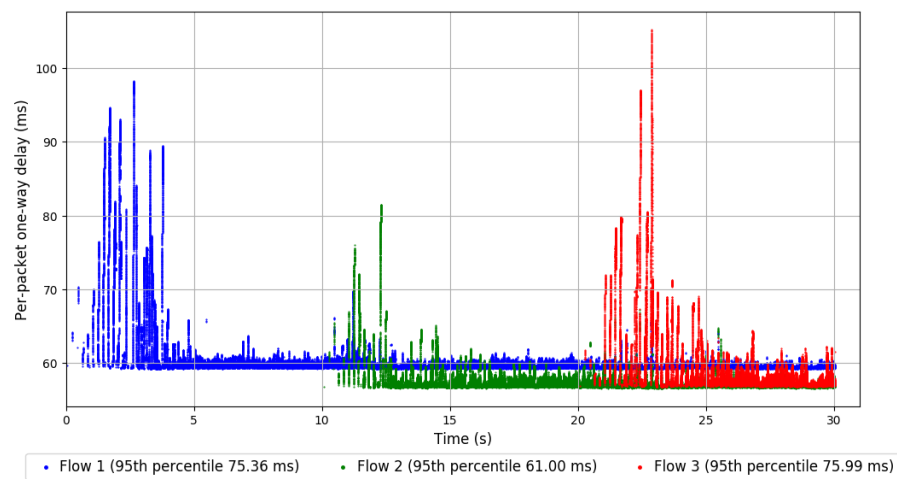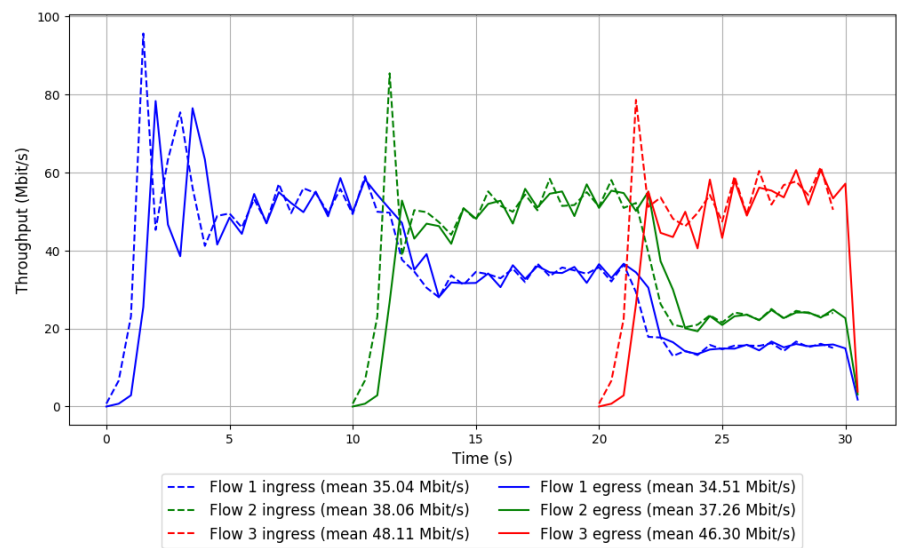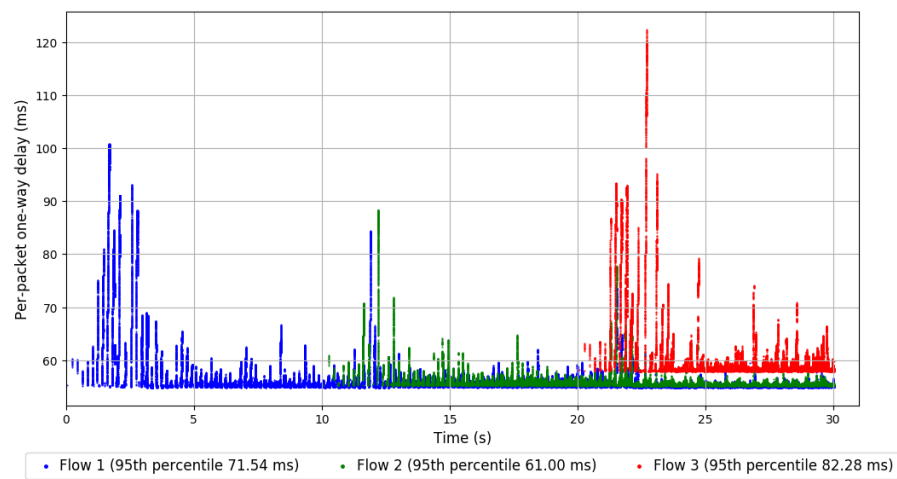
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2018-07-22 07:05:15
End at: 2018-07-22 07:05:45
Local clock offset: 1.28 ms
Remote clock offset: -29.348 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.27 Mbit/s
95th percentile per-packet one-way delay: 83.887 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 85.886 ms
Loss rate: 2.69%
-- Flow 2:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 86.119 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 25.13 Mbit/s
95th percentile per-packet one-way delay: 70.371 ms
Loss rate: 1.15%
```
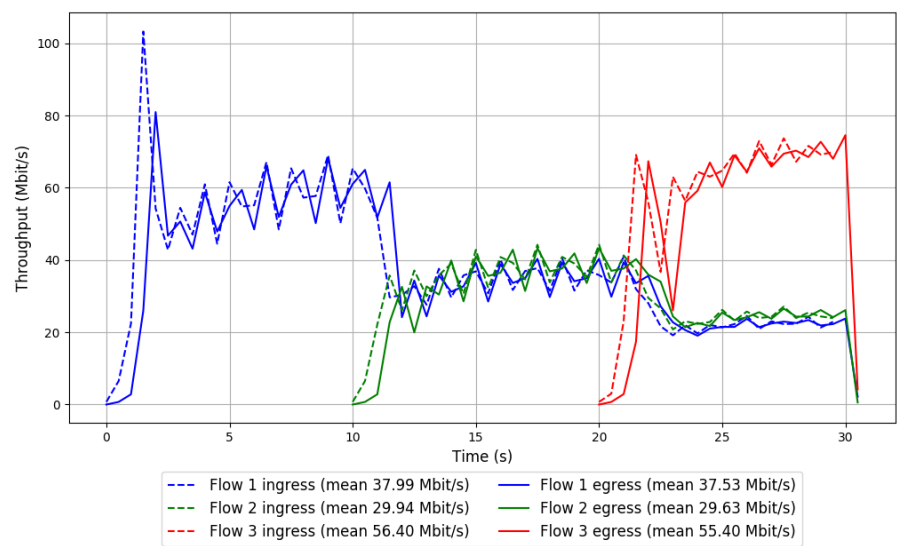
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 24.19 Mbit/s) — Flow 1 egress (mean 23.53 Mbit/s)
Flow 2 ingress (mean 41.84 Mbit/s) — Flow 2 egress (mean 41.14 Mbit/s)
Flow 3 ingress (mean 25.42 Mbit/s) — Flow 3 egress (mean 25.13 Mbit/s)

Flow 1 (95th percentile 85.89 ms) • Flow 2 (95th percentile 86.12 ms) • Flow 3 (95th percentile 70.37 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-07-22 07:35:15
End at: 2018-07-22 07:35:45
Local clock offset: 1.051 ms
Remote clock offset: -36.612 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.73 Mbit/s
95th percentile per-packet one-way delay: 71.268 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 34.51 Mbit/s
95th percentile per-packet one-way delay: 75.362 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 37.26 Mbit/s
95th percentile per-packet one-way delay: 60.997 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 46.30 Mbit/s
95th percentile per-packet one-way delay: 75.986 ms
Loss rate: 3.71%
```

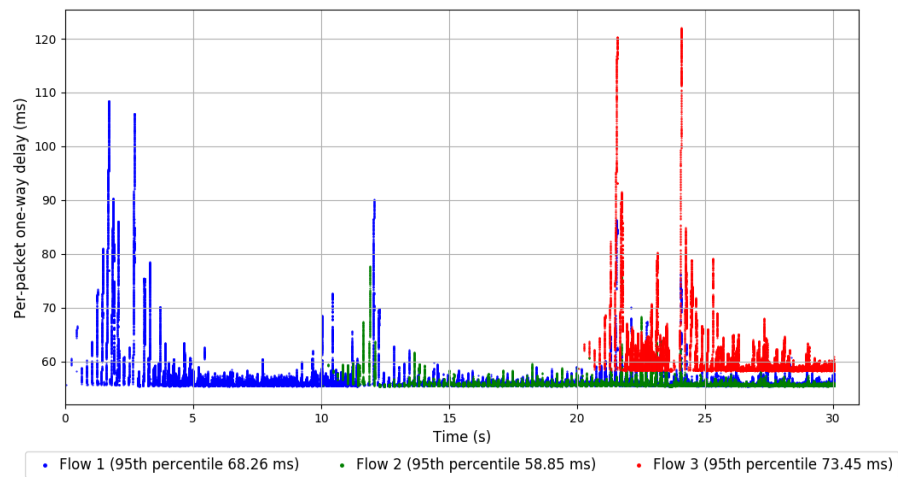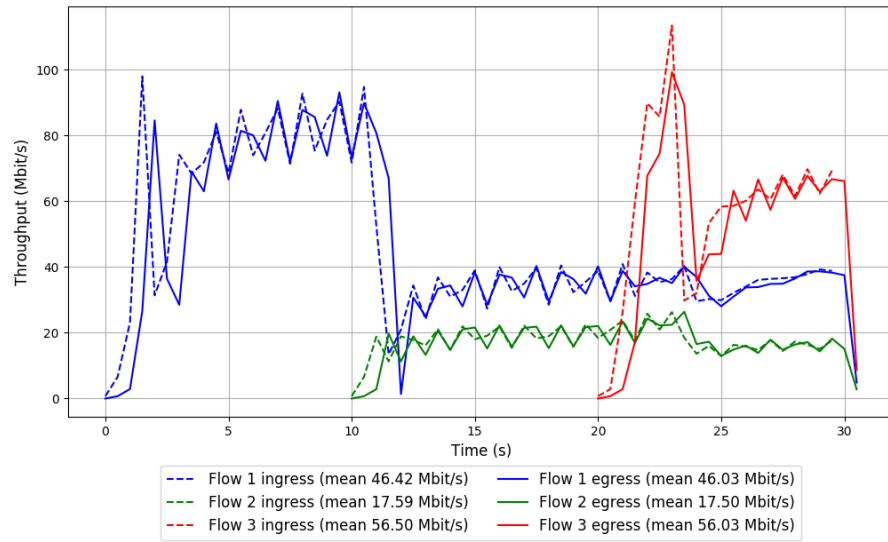Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-07-22 08:09:37
End at: 2018-07-22 08:10:07
Local clock offset: 2.828 ms
Remote clock offset: -35.622 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.68 Mbit/s
95th percentile per-packet one-way delay: 71.114 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 37.53 Mbit/s
95th percentile per-packet one-way delay: 71.536 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 60.997 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 55.40 Mbit/s
95th percentile per-packet one-way delay: 82.285 ms
Loss rate: 1.76%
```
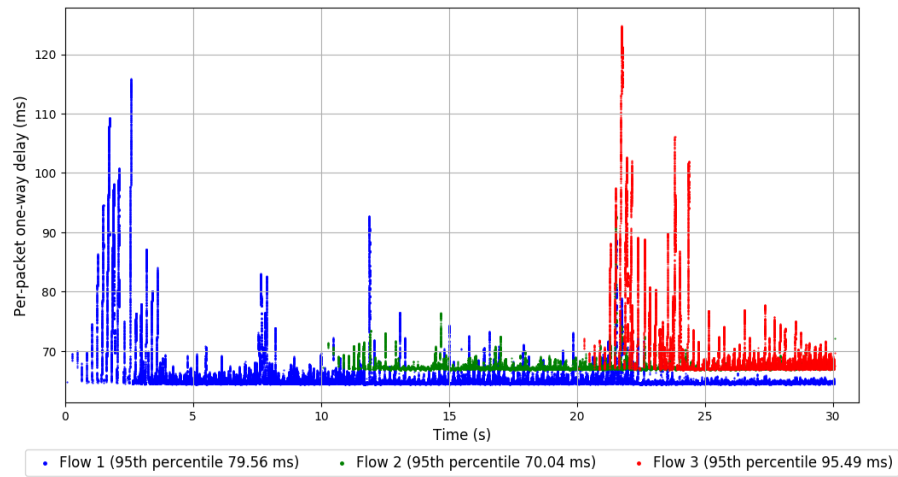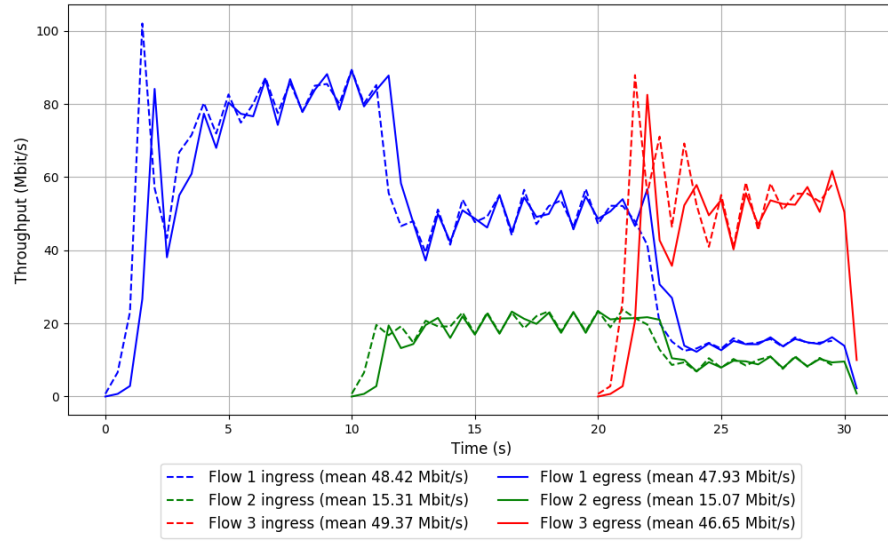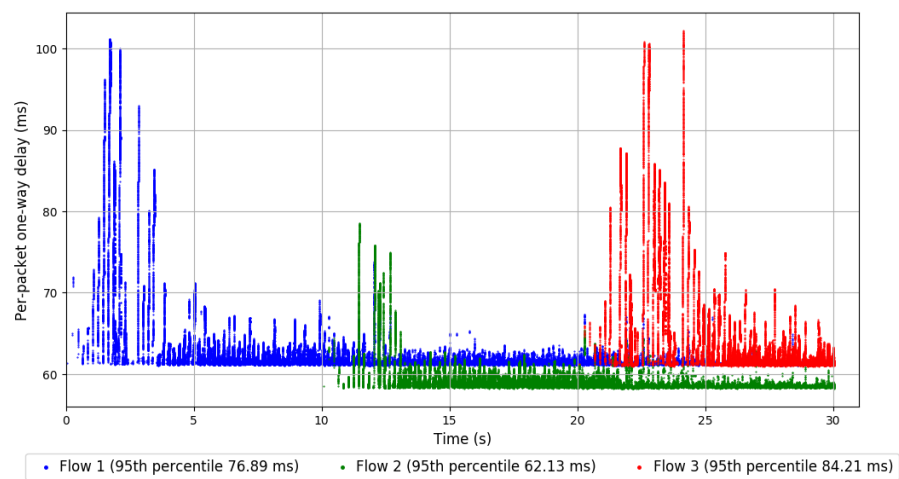
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-07-22 09:05:35
End at: 2018-07-22 09:06:05
Local clock offset: 3.781 ms
Remote clock offset: -35.006 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.31 Mbit/s
95th percentile per-packet one-way delay: 68.616 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 68.260 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 17.50 Mbit/s
95th percentile per-packet one-way delay: 58.854 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 56.03 Mbit/s
95th percentile per-packet one-way delay: 73.447 ms
Loss rate: 0.84%
```

Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 46.42 Mbit/s) --- Flow 1 egress (mean 46.03 Mbit/s)
Flow 2 ingress (mean 17.59 Mbit/s) --- Flow 2 egress (mean 17.50 Mbit/s)
Flow 3 ingress (mean 56.50 Mbit/s) --- Flow 3 egress (mean 56.03 Mbit/s)

Flow 1 (95th percentile 68.26 ms) Flow 2 (95th percentile 58.85 ms) Flow 3 (95th percentile 73.45 ms)
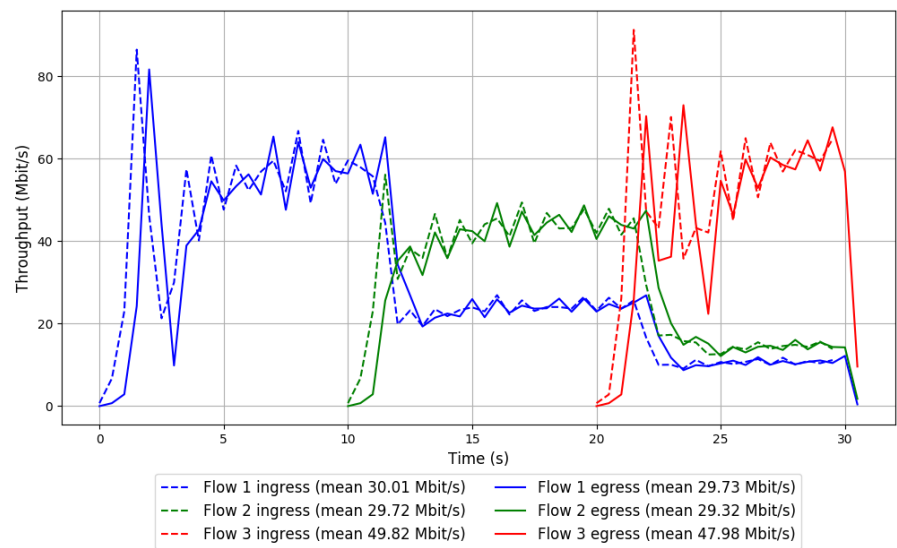
59

```
Run 9: Statistics of TCP Cubic

Start at: 2018-07-22 09:49:59
End at: 2018-07-22 09:50:29
Local clock offset: -0.712 ms
Remote clock offset: -30.501 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.46 Mbit/s
95th percentile per-packet one-way delay: 83.301 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 47.93 Mbit/s
95th percentile per-packet one-way delay: 79.562 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 15.07 Mbit/s
95th percentile per-packet one-way delay: 70.043 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 46.65 Mbit/s
95th percentile per-packet one-way delay: 95.490 ms
Loss rate: 5.51%
```
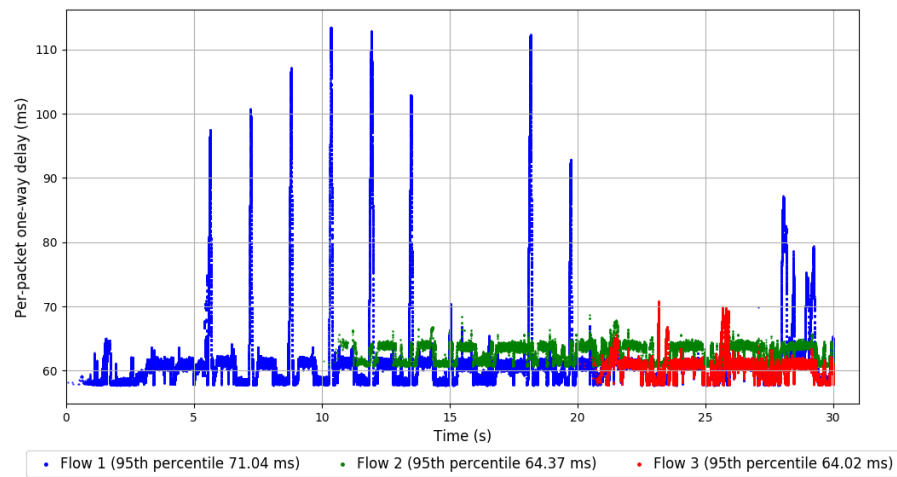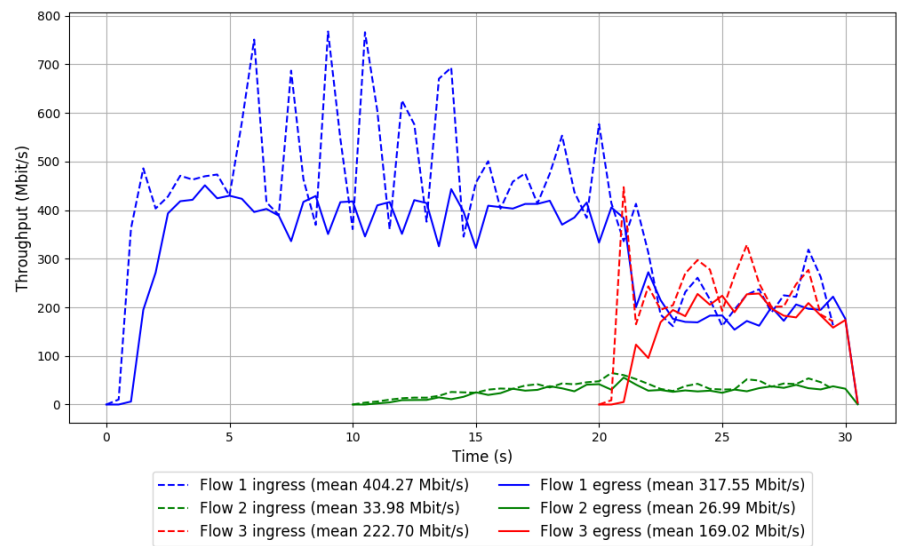
Run 9: Report of TCP Cubic — Data Link

```
Run 10: Statistics of TCP Cubic

Start at: 2018-07-22 10:20:01
End at: 2018-07-22 10:20:31
Local clock offset: 0.466 ms
Remote clock offset: -36.324 ms


# Below is generated by plot.py at 2018-07-22 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.22 Mbit/s
95th percentile per-packet one-way delay: 77.714 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 29.73 Mbit/s
95th percentile per-packet one-way delay: 76.890 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 29.32 Mbit/s
95th percentile per-packet one-way delay: 62.127 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 84.210 ms
Loss rate: 3.70%
```

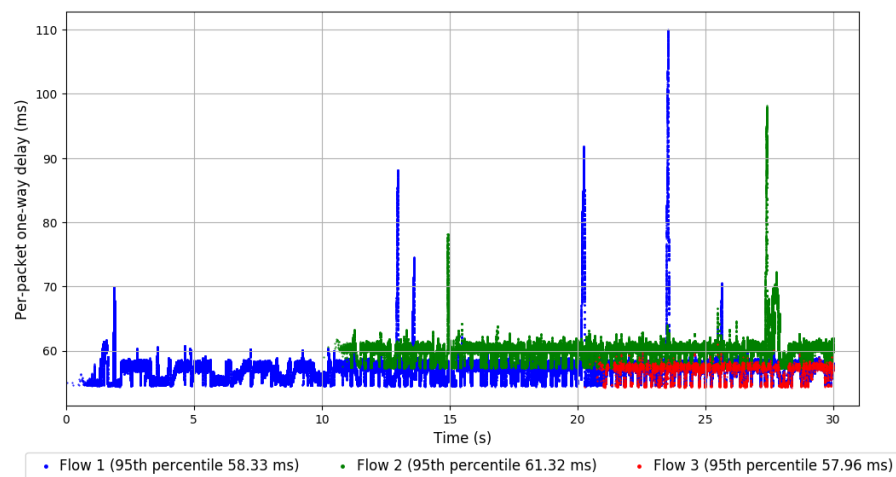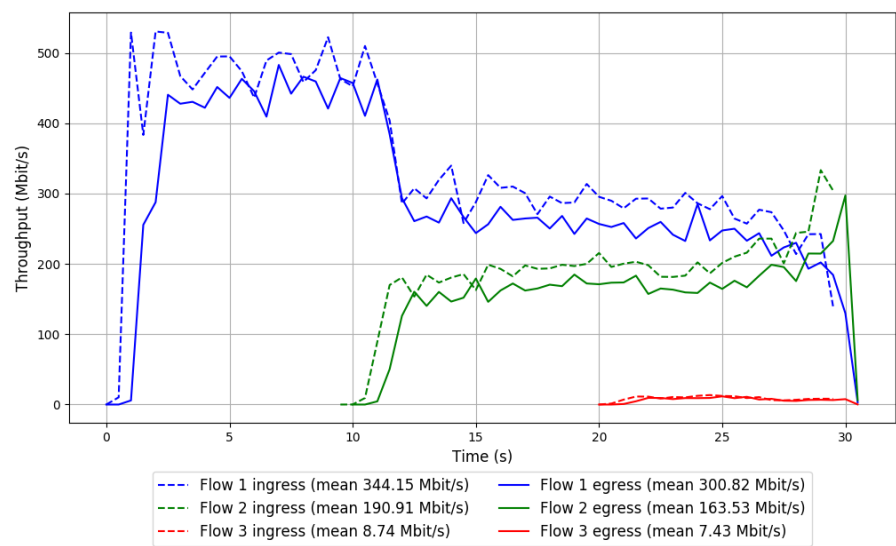Run 10: Report of TCP Cubic — Data Link

63

```
Run 1: Statistics of FillP

Start at: 2018-07-22 04:36:15
End at: 2018-07-22 04:36:45
Local clock offset: 1.83 ms
Remote clock offset: -33.15 ms


# Below is generated by plot.py at 2018-07-22 10:41:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.60 Mbit/s
95th percentile per-packet one-way delay: 66.491 ms
Loss rate: 21.81%
-- Flow 1:
Average throughput: 317.55 Mbit/s
95th percentile per-packet one-way delay: 71.041 ms
Loss rate: 21.45%
-- Flow 2:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 64.367 ms
Loss rate: 20.58%
-- Flow 3:
Average throughput: 169.02 Mbit/s
95th percentile per-packet one-way delay: 64.019 ms
Loss rate: 24.12%
```

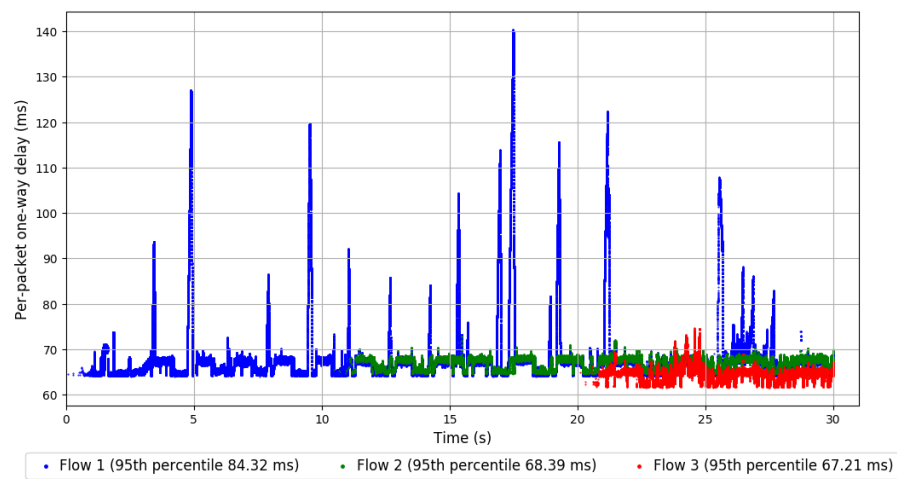Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-07-22 05:00:43
End at: 2018-07-22 05:01:13
Local clock offset: -0.09 ms
Remote clock offset: -38.092 ms

# Below is generated by plot.py at 2018-07-22 10:41:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 412.14 Mbit/s
95th percentile per-packet one-way delay: 60.841 ms
Loss rate: 13.08%
-- Flow 1:
Average throughput: 300.82 Mbit/s
95th percentile per-packet one-way delay: 58.331 ms
Loss rate: 12.58%
-- Flow 2:
Average throughput: 163.53 Mbit/s
95th percentile per-packet one-way delay: 61.319 ms
Loss rate: 14.34%
-- Flow 3:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 57.960 ms
Loss rate: 16.64%
```

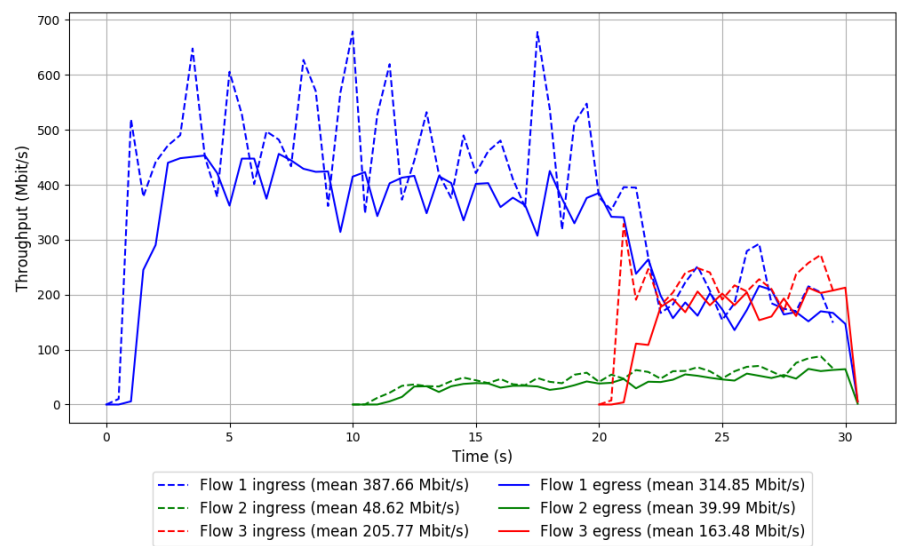Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-07-22 05:34:49
End at: 2018-07-22 05:35:19
Local clock offset: -0.749 ms
Remote clock offset: -31.015 ms


# Below is generated by plot.py at 2018-07-22 10:41:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.05 Mbit/s
95th percentile per-packet one-way delay: 79.488 ms
Loss rate: 19.07%
-- Flow 1:
Average throughput: 314.85 Mbit/s
95th percentile per-packet one-way delay: 84.320 ms
Loss rate: 18.78%
-- Flow 2:
Average throughput: 39.99 Mbit/s
95th percentile per-packet one-way delay: 68.388 ms
Loss rate: 19.40%
-- Flow 3:
Average throughput: 163.48 Mbit/s
95th percentile per-packet one-way delay: 67.210 ms
Loss rate: 20.56%
```

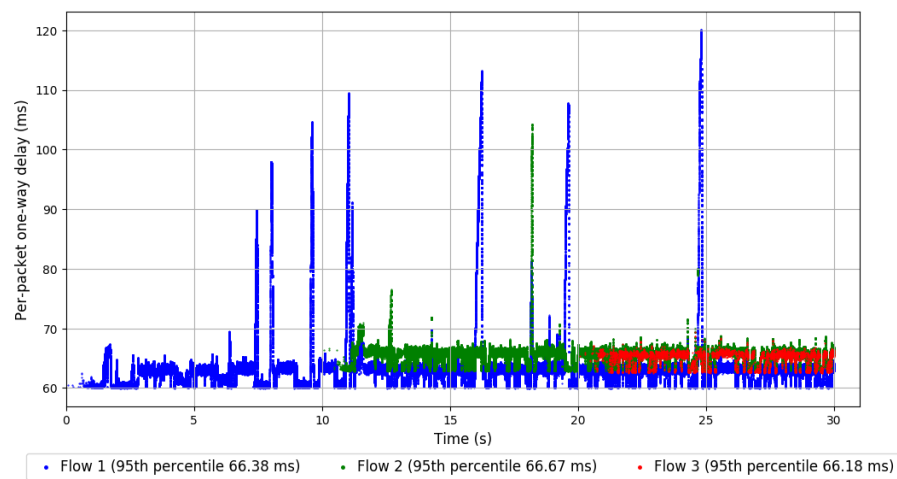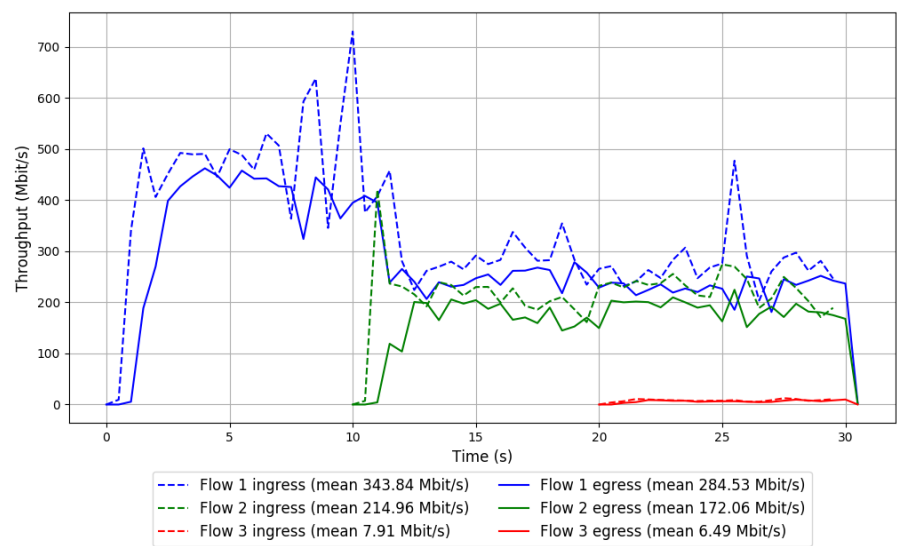# Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-07-22 06:21:51
End at: 2018-07-22 06:22:21
Local clock offset: 1.052 ms
Remote clock offset: -33.299 ms

# Below is generated by plot.py at 2018-07-22 10:41:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.17 Mbit/s
95th percentile per-packet one-way delay: 66.631 ms
Loss rate: 18.04%
-- Flow 1:
Average throughput: 284.53 Mbit/s
95th percentile per-packet one-way delay: 66.376 ms
Loss rate: 17.24%
-- Flow 2:
Average throughput: 172.06 Mbit/s
95th percentile per-packet one-way delay: 66.669 ms
Loss rate: 19.97%
-- Flow 3:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 66.176 ms
Loss rate: 17.90%
```

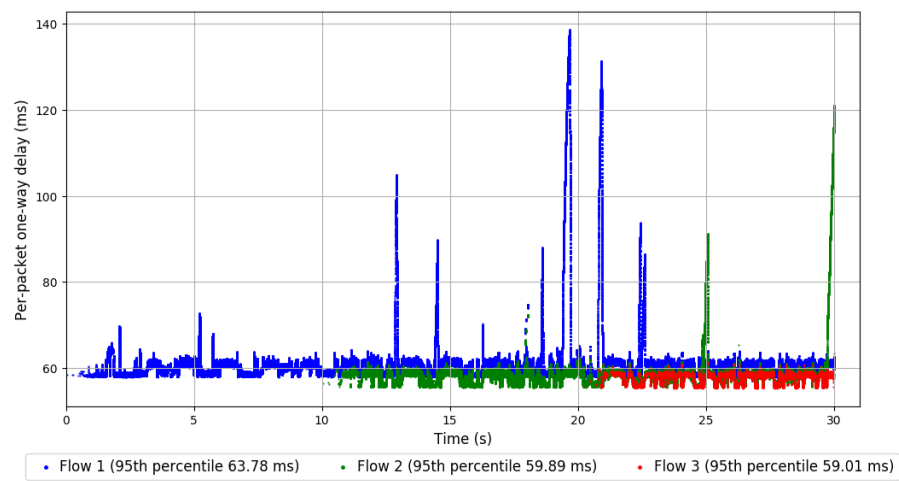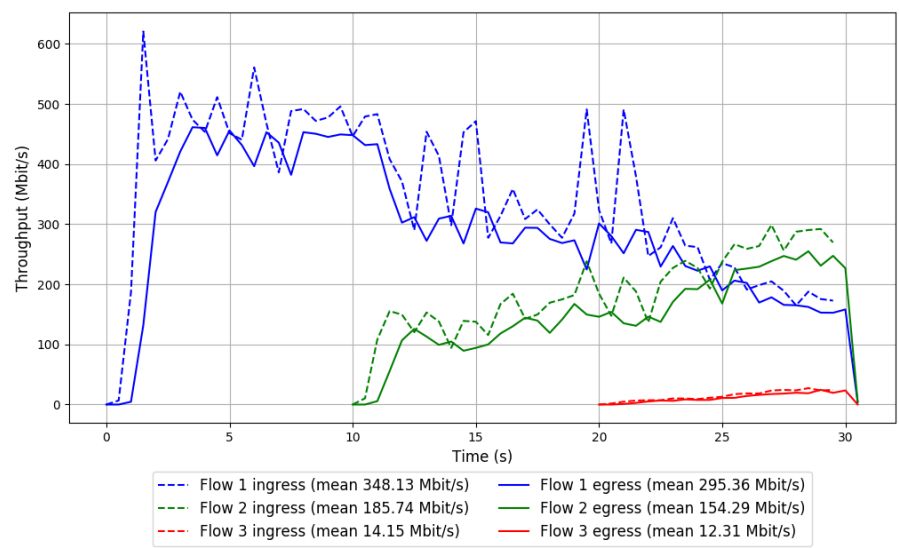Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-07-22 06:57:57
End at: 2018-07-22 06:58:27
Local clock offset: 0.515 ms
Remote clock offset: -39.254 ms

# Below is generated by plot.py at 2018-07-22 10:41:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.13 Mbit/s
95th percentile per-packet one-way delay: 63.108 ms
Loss rate: 15.60%
-- Flow 1:
Average throughput: 295.36 Mbit/s
95th percentile per-packet one-way delay: 63.781 ms
Loss rate: 15.15%
-- Flow 2:
Average throughput: 154.29 Mbit/s
95th percentile per-packet one-way delay: 59.890 ms
Loss rate: 16.93%
-- Flow 3:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 59.013 ms
Loss rate: 14.77%
```

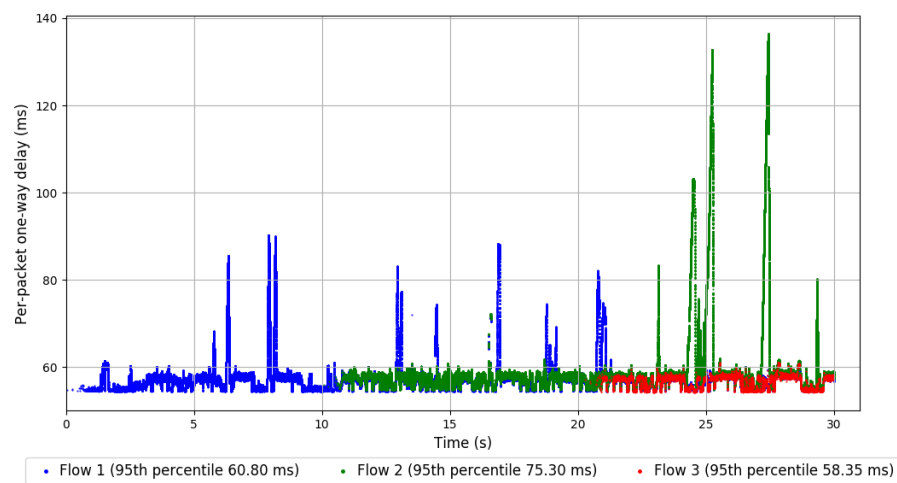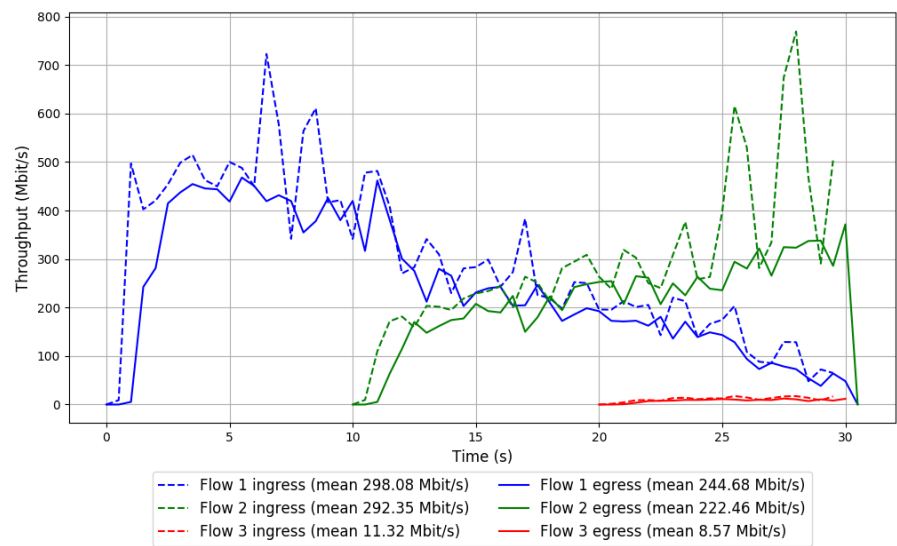Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-07-22 07:27:57
End at: 2018-07-22 07:28:27
Local clock offset: 2.211 ms
Remote clock offset: -38.101 ms

# Below is generated by plot.py at 2018-07-22 10:42:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.55 Mbit/s
95th percentile per-packet one-way delay: 65.192 ms
Loss rate: 20.31%
-- Flow 1:
Average throughput: 244.68 Mbit/s
95th percentile per-packet one-way delay: 60.804 ms
Loss rate: 17.90%
-- Flow 2:
Average throughput: 222.46 Mbit/s
95th percentile per-packet one-way delay: 75.304 ms
Loss rate: 23.90%
-- Flow 3:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 58.351 ms
Loss rate: 25.87%
```

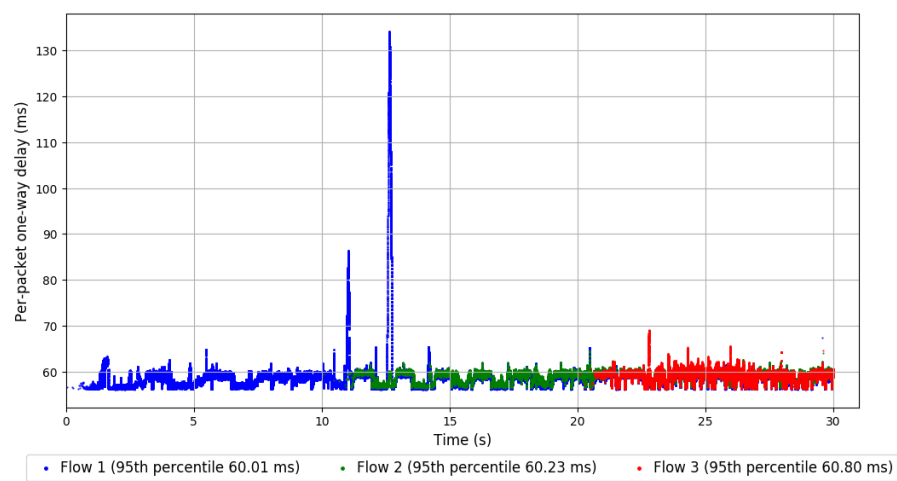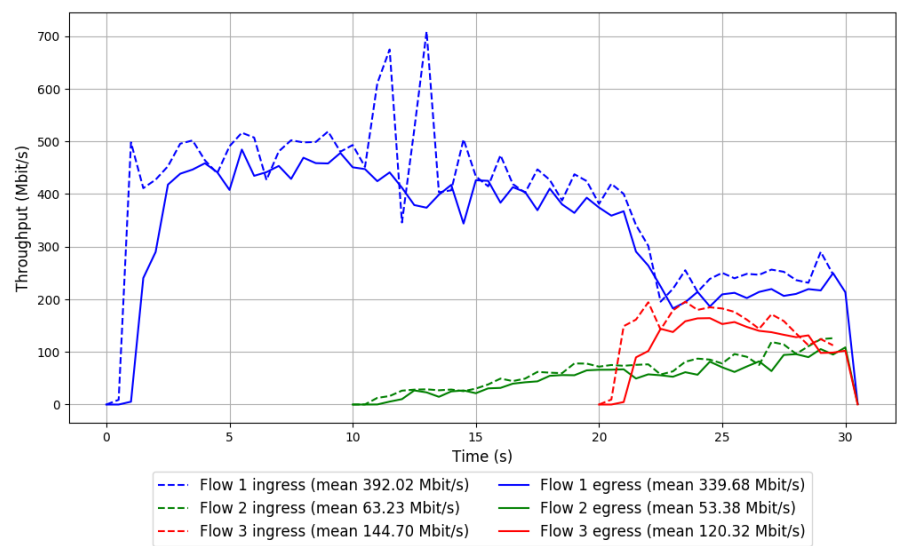Run 6: Report of FillP — Data Link

```
Run 7: Statistics of FillP

Start at: 2018-07-22 08:02:18
End at: 2018-07-22 08:02:48
Local clock offset: 3.004 ms
Remote clock offset: -34.515 ms


# Below is generated by plot.py at 2018-07-22 10:43:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 415.11 Mbit/s
95th percentile per-packet one-way delay: 60.157 ms
Loss rate: 13.89%
-- Flow 1:
Average throughput: 339.68 Mbit/s
95th percentile per-packet one-way delay: 60.008 ms
Loss rate: 13.34%
-- Flow 2:
Average throughput: 53.38 Mbit/s
95th percentile per-packet one-way delay: 60.227 ms
Loss rate: 15.57%
-- Flow 3:
Average throughput: 120.32 Mbit/s
95th percentile per-packet one-way delay: 60.798 ms
Loss rate: 16.85%
```
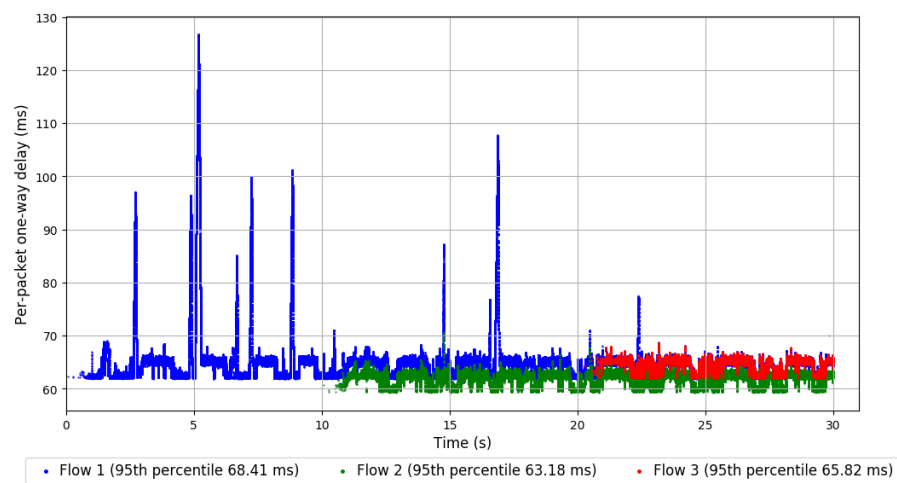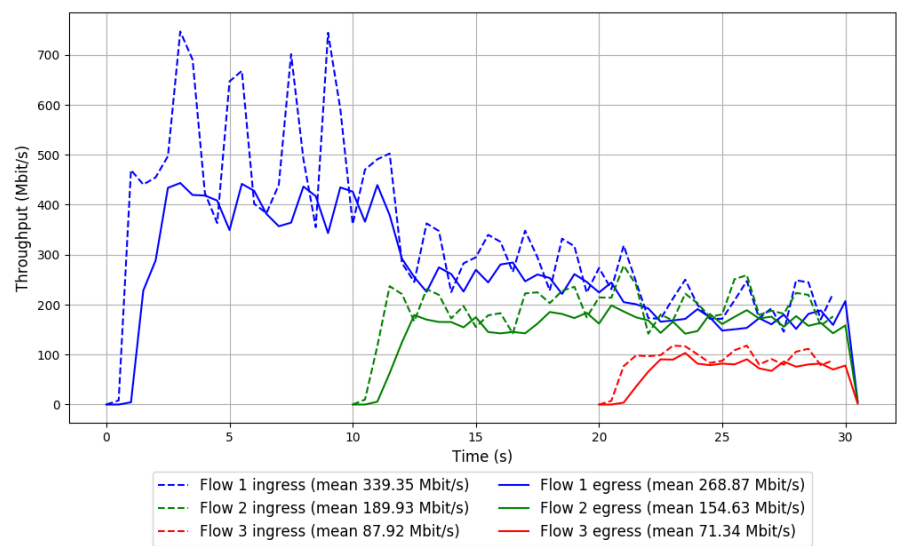
Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 392.02 Mbit/s) --- Flow 1 egress (mean 339.68 Mbit/s)
Flow 2 ingress (mean 63.23 Mbit/s) --- Flow 2 egress (mean 53.38 Mbit/s)
Flow 3 ingress (mean 144.70 Mbit/s) --- Flow 3 egress (mean 120.32 Mbit/s)

Flow 1 (95th percentile 60.01 ms) • Flow 2 (95th percentile 60.23 ms) • Flow 3 (95th percentile 60.80 ms)

77

```
Run 8: Statistics of FillP

Start at: 2018-07-22 08:42:40
End at: 2018-07-22 08:43:10
Local clock offset: 3.504 ms
Remote clock offset: -30.713 ms

# Below is generated by plot.py at 2018-07-22 10:43:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.44 Mbit/s
95th percentile per-packet one-way delay: 66.347 ms
Loss rate: 20.09%
-- Flow 1:
Average throughput: 268.87 Mbit/s
95th percentile per-packet one-way delay: 68.409 ms
Loss rate: 20.77%
-- Flow 2:
Average throughput: 154.63 Mbit/s
95th percentile per-packet one-way delay: 63.184 ms
Loss rate: 18.58%
-- Flow 3:
Average throughput: 71.34 Mbit/s
95th percentile per-packet one-way delay: 65.819 ms
Loss rate: 18.86%
```
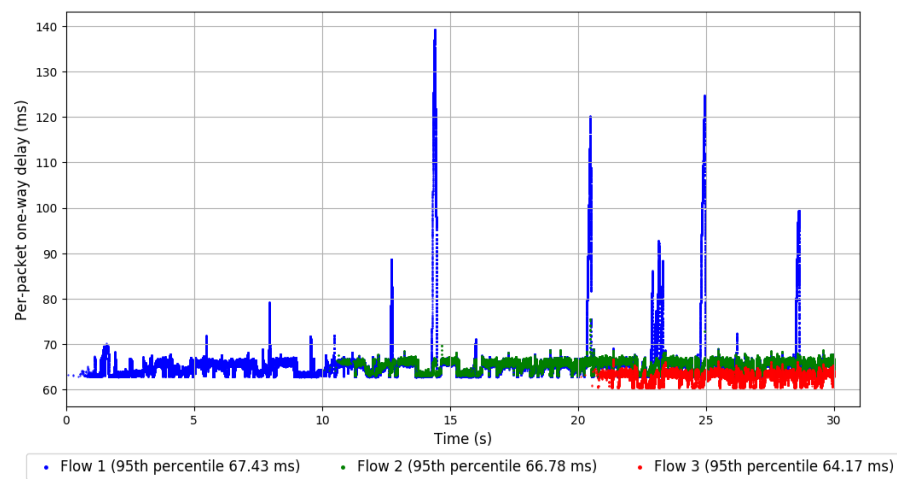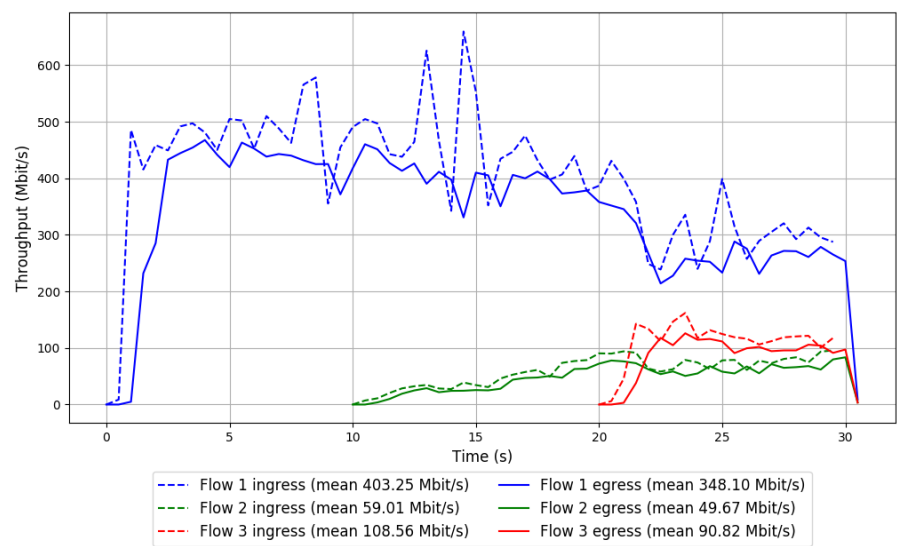
Run 8: Report of FillP — Data Link

Flow 1 ingress (mean 339.35 Mbit/s) — Flow 1 egress (mean 268.87 Mbit/s)
Flow 2 ingress (mean 189.93 Mbit/s) — Flow 2 egress (mean 154.63 Mbit/s)
Flow 3 ingress (mean 87.92 Mbit/s) — Flow 3 egress (mean 71.34 Mbit/s)

Flow 1 (95th percentile 68.41 ms) • Flow 2 (95th percentile 63.18 ms) • Flow 3 (95th percentile 65.82 ms)

79

```
Run 9: Statistics of FillP

Start at: 2018-07-22 09:42:40
End at: 2018-07-22 09:43:10
Local clock offset: -1.573 ms
Remote clock offset: -35.246 ms


# Below is generated by plot.py at 2018-07-22 10:47:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.25 Mbit/s
95th percentile per-packet one-way delay: 66.956 ms
Loss rate: 14.05%
-- Flow 1:
Average throughput: 348.10 Mbit/s
95th percentile per-packet one-way delay: 67.433 ms
Loss rate: 13.67%
-- Flow 2:
Average throughput: 49.67 Mbit/s
95th percentile per-packet one-way delay: 66.782 ms
Loss rate: 15.83%
-- Flow 3:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 64.167 ms
Loss rate: 16.34%
```
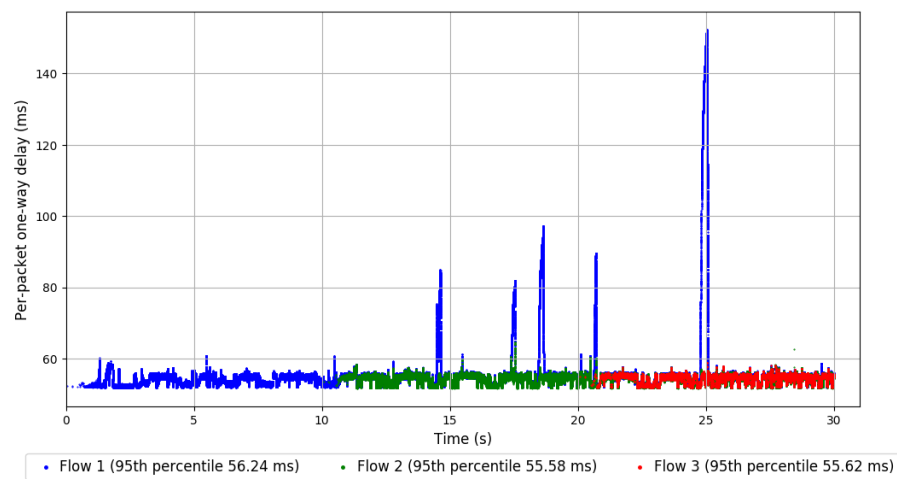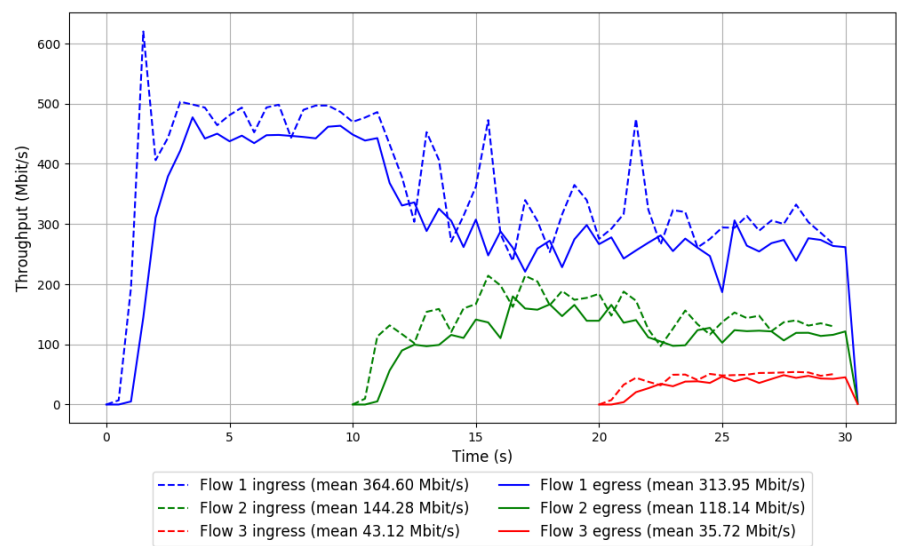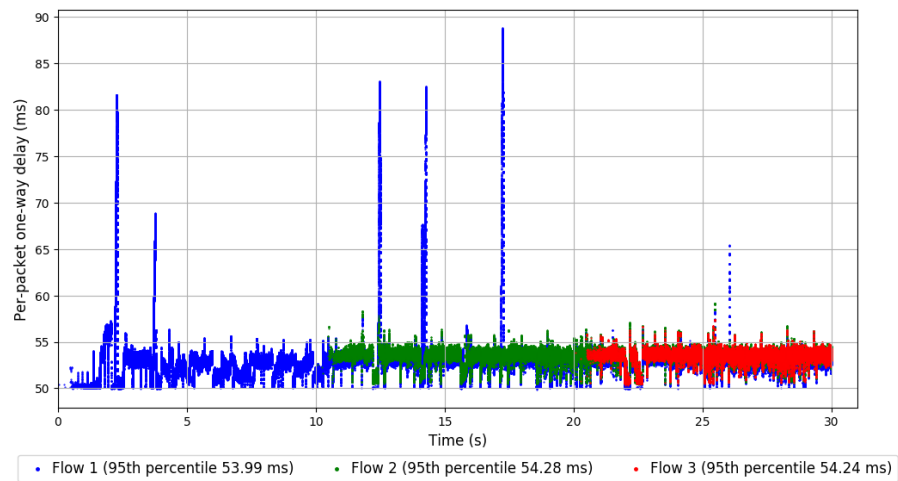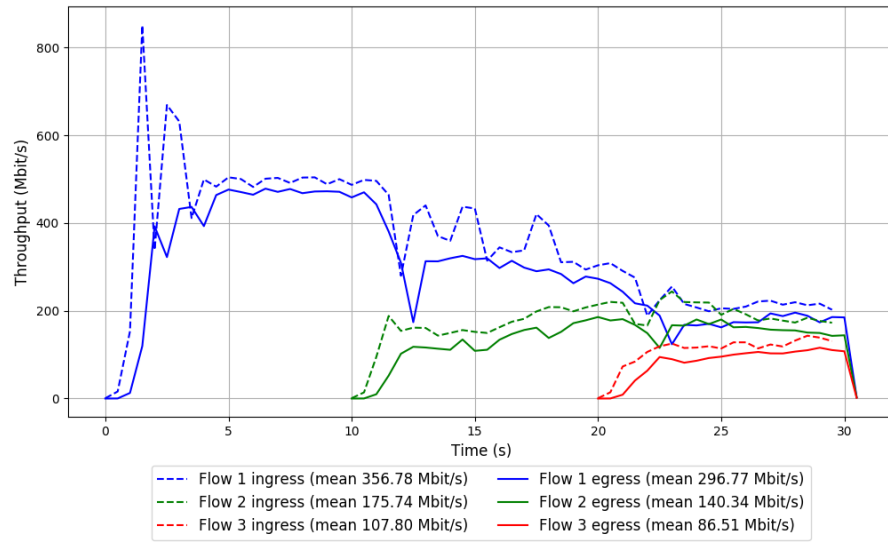
Run 9: Report of FillP — Data Link

Flow 1 ingress (mean 403.25 Mbit/s) --- Flow 1 egress (mean 348.10 Mbit/s) ——
Flow 2 ingress (mean 59.01 Mbit/s) --- Flow 2 egress (mean 49.67 Mbit/s) ——
Flow 3 ingress (mean 108.56 Mbit/s) --- Flow 3 egress (mean 90.82 Mbit/s) ——

Flow 1 (95th percentile 67.43 ms) • Flow 2 (95th percentile 66.78 ms) • Flow 3 (95th percentile 64.17 ms)

81

```
Run 10: Statistics of FillP

Start at: 2018-07-22 10:12:42
End at: 2018-07-22 10:13:12
Local clock offset: 1.217 ms
Remote clock offset: -41.641 ms


# Below is generated by plot.py at 2018-07-22 10:47:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.45 Mbit/s
95th percentile per-packet one-way delay: 55.936 ms
Loss rate: 14.84%
-- Flow 1:
Average throughput: 313.95 Mbit/s
95th percentile per-packet one-way delay: 56.242 ms
Loss rate: 13.88%
-- Flow 2:
Average throughput: 118.14 Mbit/s
95th percentile per-packet one-way delay: 55.584 ms
Loss rate: 18.11%
-- Flow 3:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 55.620 ms
Loss rate: 17.17%
```
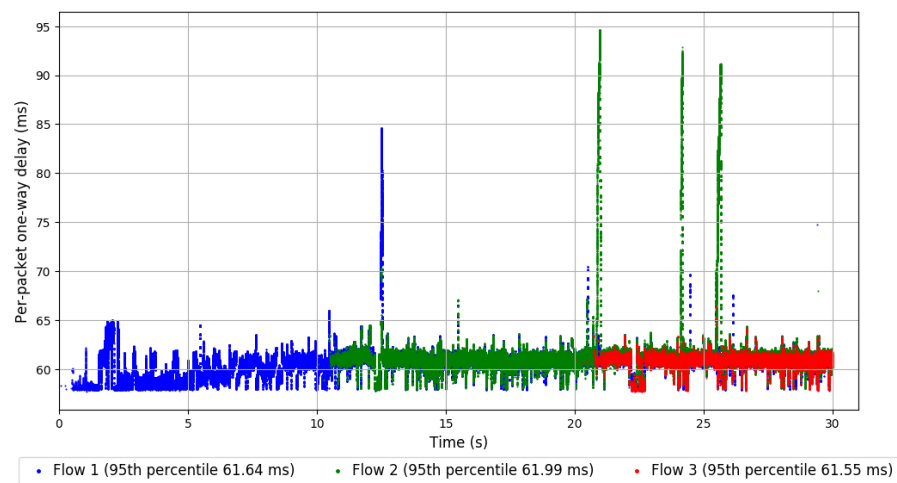
Run 10: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-22 04:33:07
End at: 2018-07-22 04:33:37
Local clock offset: -0.566 ms
Remote clock offset: -43.349 ms


# Below is generated by plot.py at 2018-07-22 10:47:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.96 Mbit/s
95th percentile per-packet one-way delay: 54.202 ms
Loss rate: 17.78%
-- Flow 1:
Average throughput: 296.77 Mbit/s
95th percentile per-packet one-way delay: 53.987 ms
Loss rate: 16.81%
-- Flow 2:
Average throughput: 140.34 Mbit/s
95th percentile per-packet one-way delay: 54.285 ms
Loss rate: 20.14%
-- Flow 3:
Average throughput: 86.51 Mbit/s
95th percentile per-packet one-way delay: 54.242 ms
Loss rate: 19.75%
```

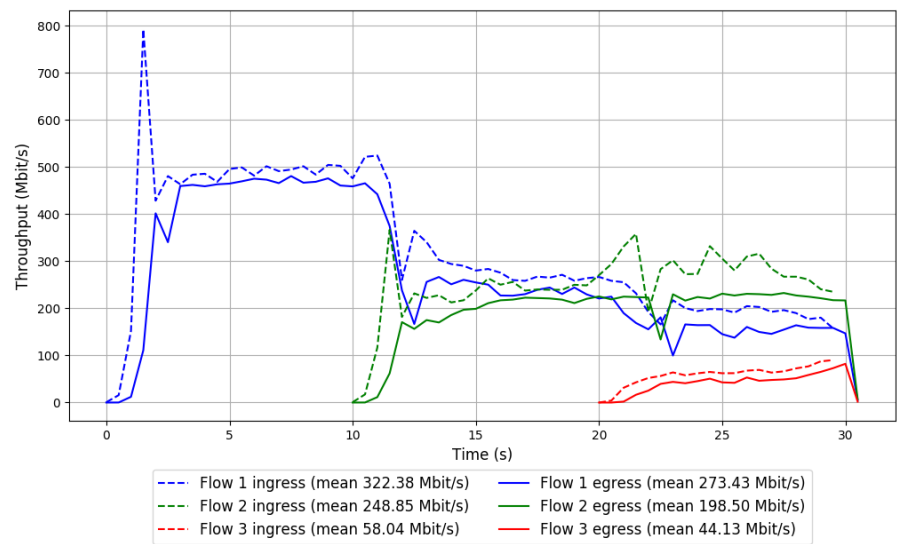# Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 356.78 Mbit/s) --- Flow 1 egress (mean 296.77 Mbit/s)
Flow 2 ingress (mean 175.74 Mbit/s) --- Flow 2 egress (mean 140.34 Mbit/s)
Flow 3 ingress (mean 107.80 Mbit/s) --- Flow 3 egress (mean 86.51 Mbit/s)

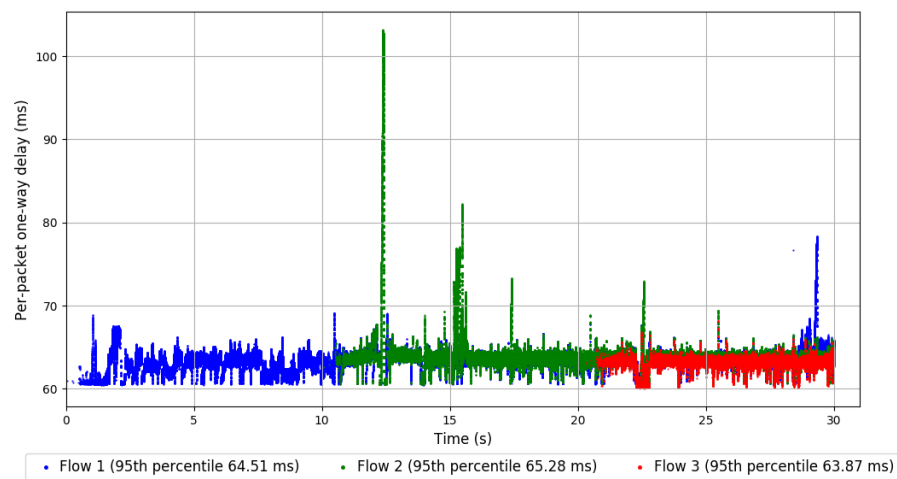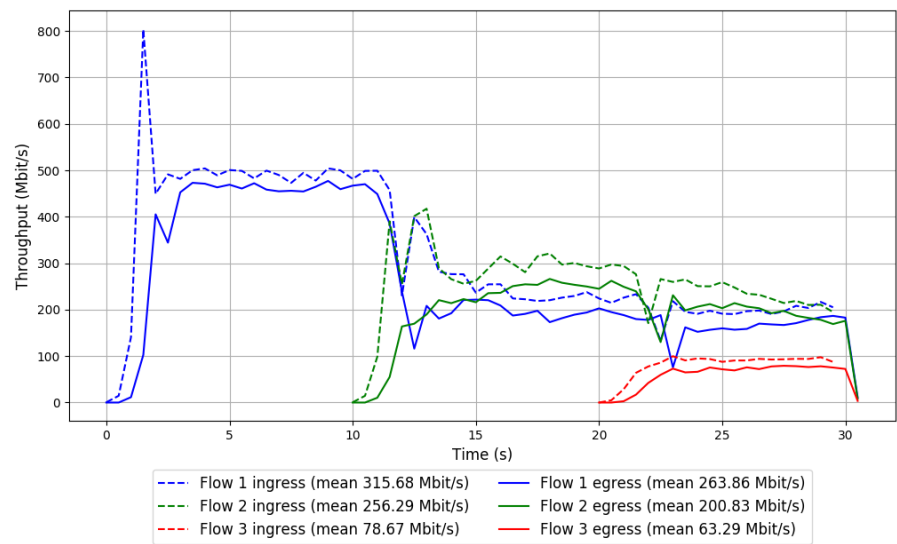Flow 1 (95th percentile 53.99 ms)   Flow 2 (95th percentile 54.28 ms)   Flow 3 (95th percentile 54.24 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-22 04:57:35
End at: 2018-07-22 04:58:05
Local clock offset: -0.308 ms
Remote clock offset: -35.034 ms


# Below is generated by plot.py at 2018-07-22 10:47:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.27 Mbit/s
95th percentile per-packet one-way delay: 61.747 ms
Loss rate: 17.16%
-- Flow 1:
Average throughput: 273.43 Mbit/s
95th percentile per-packet one-way delay: 61.636 ms
Loss rate: 15.18%
-- Flow 2:
Average throughput: 198.50 Mbit/s
95th percentile per-packet one-way delay: 61.989 ms
Loss rate: 20.23%
-- Flow 3:
Average throughput: 44.13 Mbit/s
95th percentile per-packet one-way delay: 61.546 ms
Loss rate: 23.95%
```
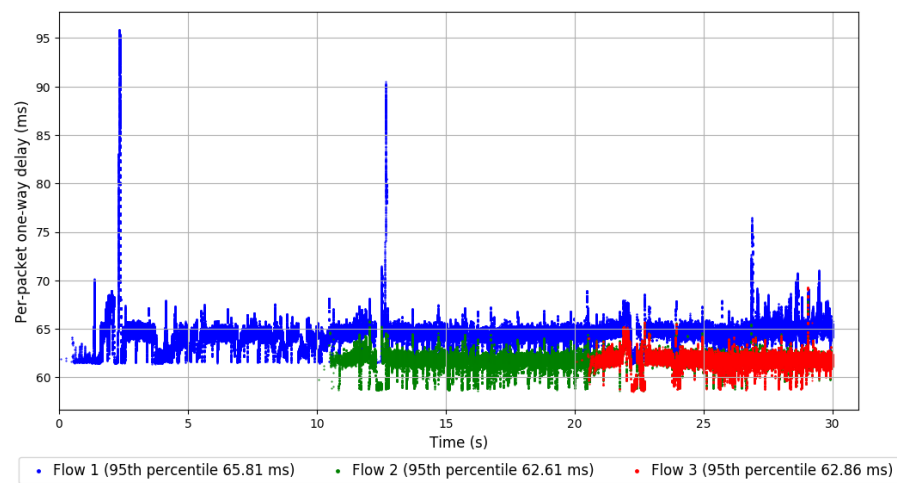
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 322.38 Mbit/s) --- Flow 1 egress (mean 273.43 Mbit/s)
Flow 2 ingress (mean 248.85 Mbit/s) --- Flow 2 egress (mean 198.50 Mbit/s)
Flow 3 ingress (mean 58.04 Mbit/s) --- Flow 3 egress (mean 44.13 Mbit/s)

Flow 1 (95th percentile 61.64 ms)   Flow 2 (95th percentile 61.99 ms)   Flow 3 (95th percentile 61.55 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-22 05:31:41
End at: 2018-07-22 05:32:11
Local clock offset: -1.167 ms
Remote clock offset: -32.879 ms


# Below is generated by plot.py at 2018-07-22 10:47:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.06 Mbit/s
95th percentile per-packet one-way delay: 64.631 ms
Loss rate: 18.39%
-- Flow 1:
Average throughput: 263.86 Mbit/s
95th percentile per-packet one-way delay: 64.507 ms
Loss rate: 16.41%
-- Flow 2:
Average throughput: 200.83 Mbit/s
95th percentile per-packet one-way delay: 65.280 ms
Loss rate: 21.63%
-- Flow 3:
Average throughput: 63.29 Mbit/s
95th percentile per-packet one-way delay: 63.872 ms
Loss rate: 21.19%
```
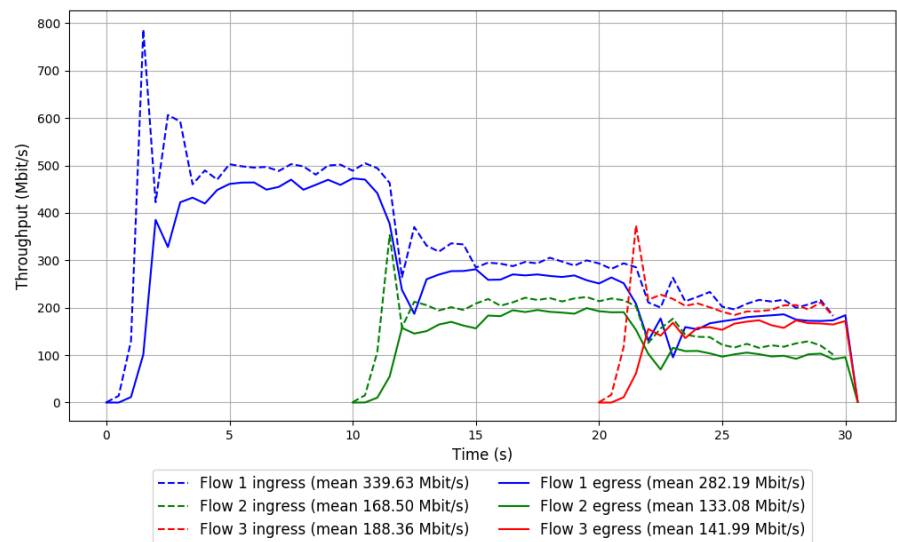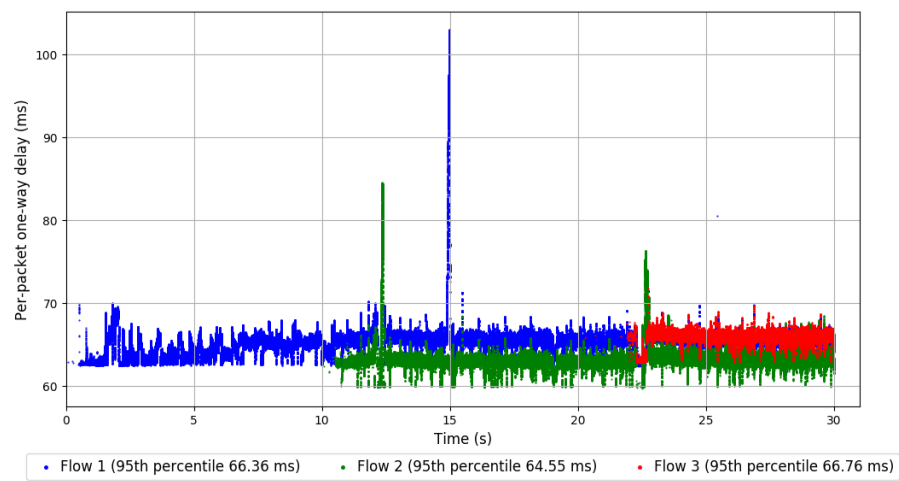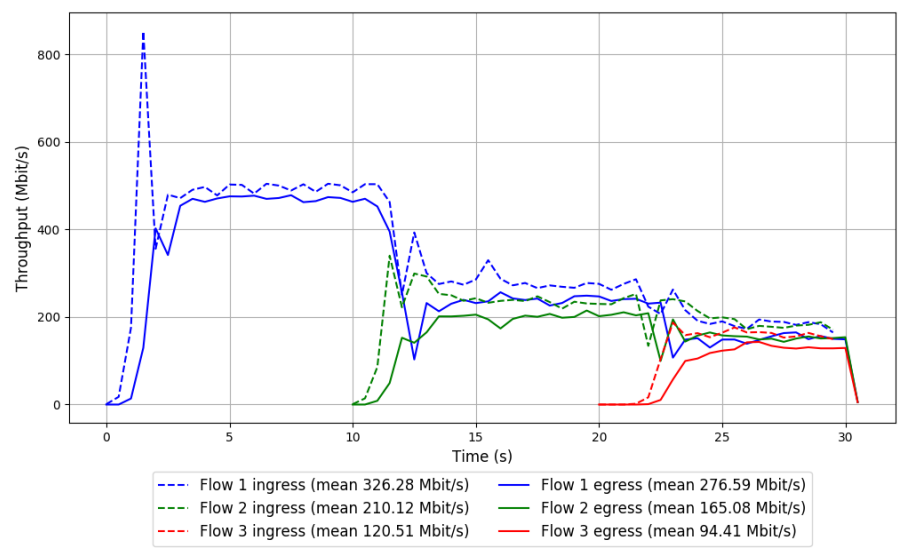
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 315.68 Mbit/s) Flow 1 egress (mean 263.86 Mbit/s)
Flow 2 ingress (mean 256.29 Mbit/s) Flow 2 egress (mean 200.83 Mbit/s)
Flow 3 ingress (mean 78.67 Mbit/s)   Flow 3 egress (mean 63.29 Mbit/s)

Flow 1 (95th percentile 64.51 ms)   Flow 2 (95th percentile 65.28 ms)   Flow 3 (95th percentile 63.87 ms)
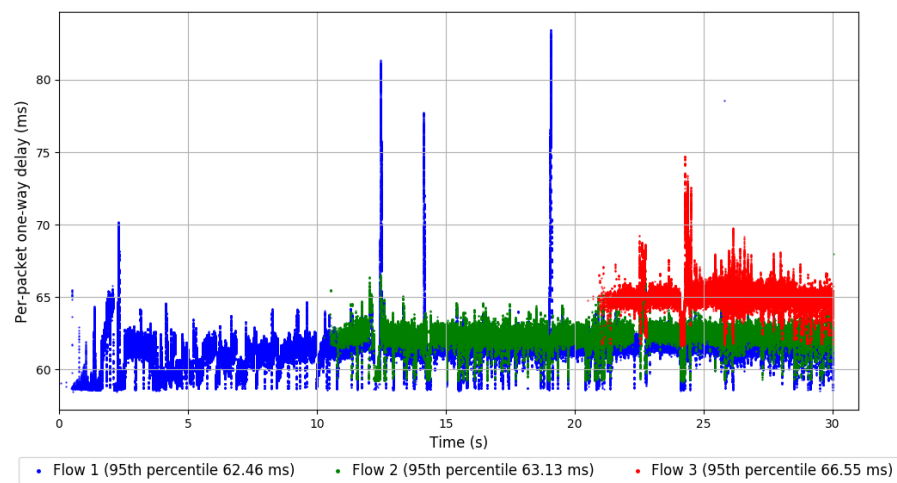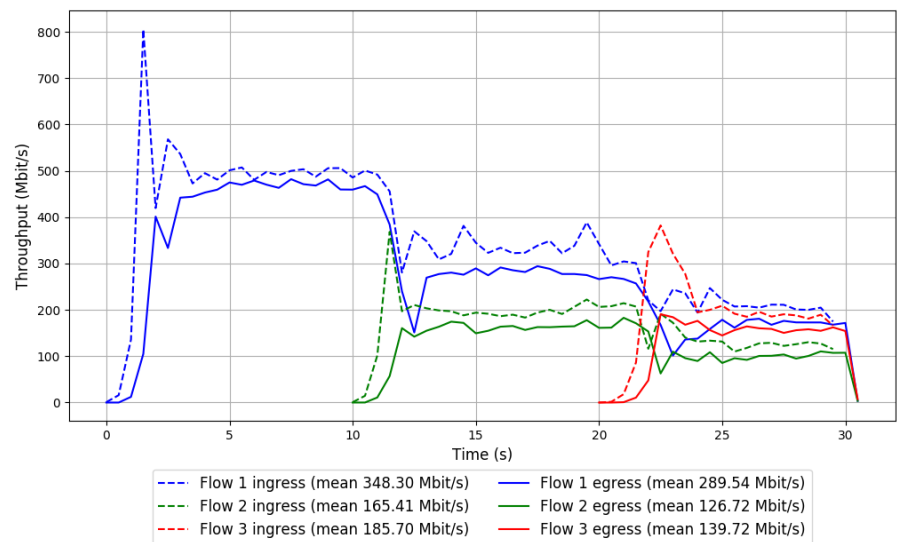
```
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-22 06:18:44
End at: 2018-07-22 06:19:14
Local clock offset: 1.048 ms
Remote clock offset: -34.374 ms


# Below is generated by plot.py at 2018-07-22 10:48:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.90 Mbit/s
95th percentile per-packet one-way delay: 65.410 ms
Loss rate: 18.74%
-- Flow 1:
Average throughput: 282.19 Mbit/s
95th percentile per-packet one-way delay: 65.812 ms
Loss rate: 16.91%
-- Flow 2:
Average throughput: 133.08 Mbit/s
95th percentile per-packet one-way delay: 62.607 ms
Loss rate: 21.01%
-- Flow 3:
Average throughput: 141.99 Mbit/s
95th percentile per-packet one-way delay: 62.858 ms
Loss rate: 24.62%
```
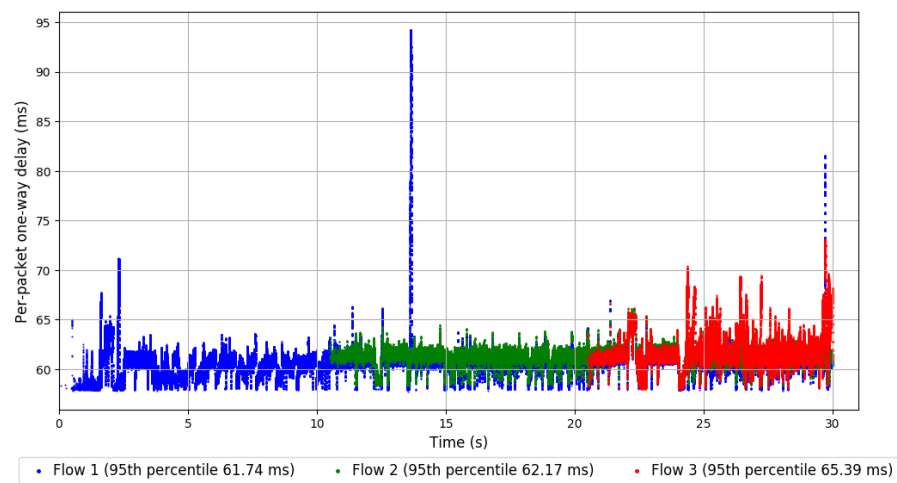
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-22 06:49:13
End at: 2018-07-22 06:49:43
Local clock offset: -0.41 ms
Remote clock offset: -35.659 ms

# Below is generated by plot.py at 2018-07-22 10:49:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.25 Mbit/s
95th percentile per-packet one-way delay: 66.383 ms
Loss rate: 17.58%
-- Flow 1:
Average throughput: 276.59 Mbit/s
95th percentile per-packet one-way delay: 66.362 ms
Loss rate: 15.23%
-- Flow 2:
Average throughput: 165.08 Mbit/s
95th percentile per-packet one-way delay: 64.550 ms
Loss rate: 21.43%
-- Flow 3:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 66.761 ms
Loss rate: 23.26%
```
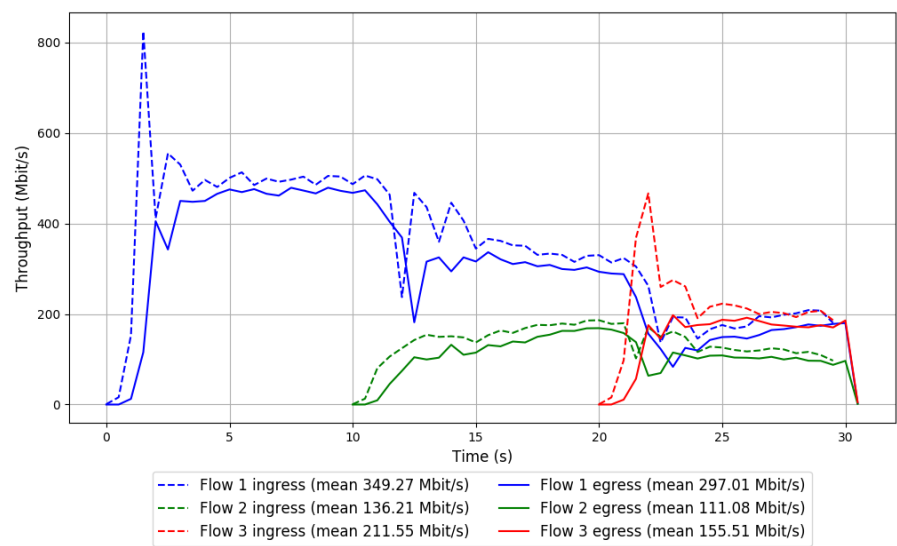
Run 5: Report of FillP-Sheep — Data Link

```
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-22 07:19:13
End at: 2018-07-22 07:19:43
Local clock offset: 1.897 ms
Remote clock offset: -34.492 ms

# Below is generated by plot.py at 2018-07-22 10:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.30 Mbit/s
95th percentile per-packet one-way delay: 65.124 ms
Loss rate: 19.54%
-- Flow 1:
Average throughput: 289.54 Mbit/s
95th percentile per-packet one-way delay: 62.457 ms
Loss rate: 16.86%
-- Flow 2:
Average throughput: 126.72 Mbit/s
95th percentile per-packet one-way delay: 63.128 ms
Loss rate: 23.36%
-- Flow 3:
Average throughput: 139.72 Mbit/s
95th percentile per-packet one-way delay: 66.554 ms
Loss rate: 27.83%
```

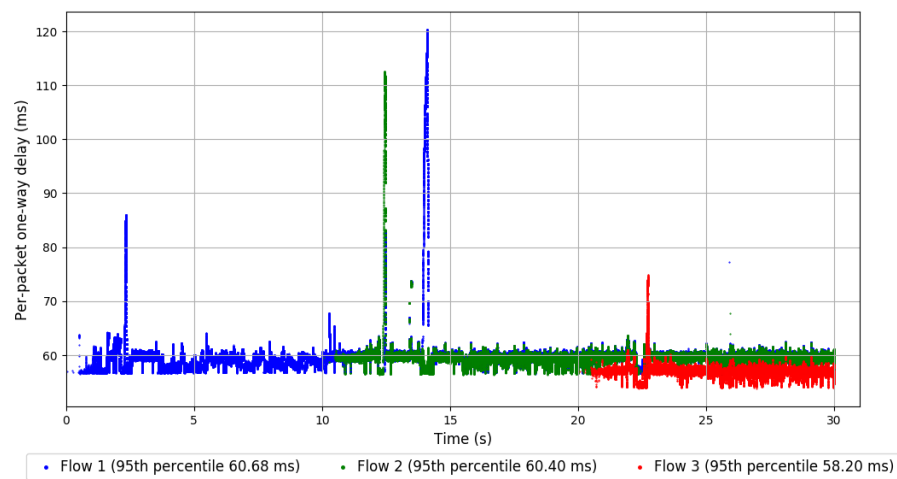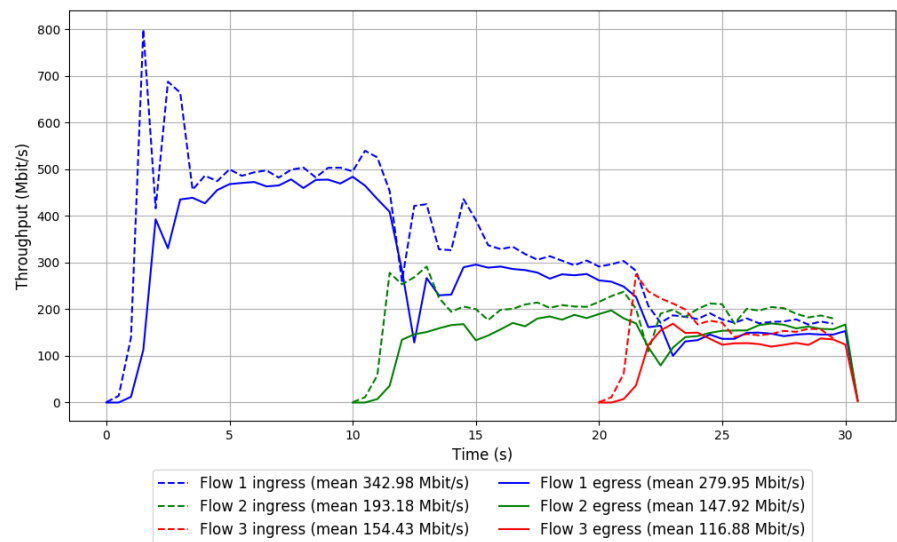Run 6: Report of FillP-Sheep — Data Link

```
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-22 07:49:24
End at: 2018-07-22 07:49:54
Local clock offset: -0.942 ms
Remote clock offset: -37.029 ms


# Below is generated by plot.py at 2018-07-22 10:53:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.50 Mbit/s
95th percentile per-packet one-way delay: 62.574 ms
Loss rate: 17.16%
-- Flow 1:
Average throughput: 297.01 Mbit/s
95th percentile per-packet one-way delay: 61.739 ms
Loss rate: 14.96%
-- Flow 2:
Average throughput: 111.08 Mbit/s
95th percentile per-packet one-way delay: 62.169 ms
Loss rate: 18.43%
-- Flow 3:
Average throughput: 155.51 Mbit/s
95th percentile per-packet one-way delay: 65.392 ms
Loss rate: 26.49%
```
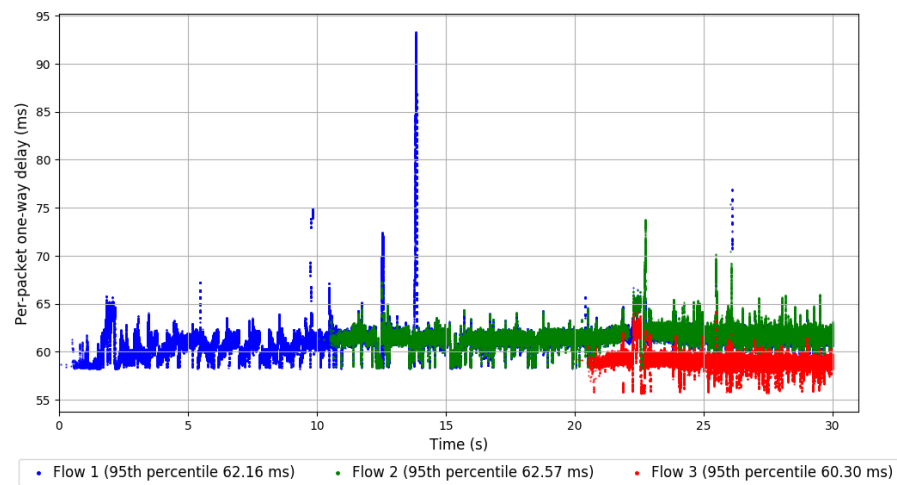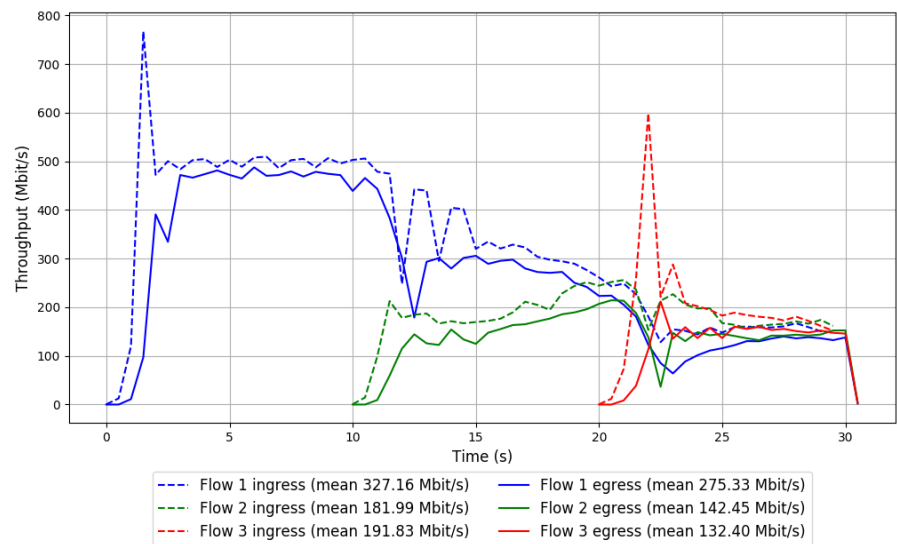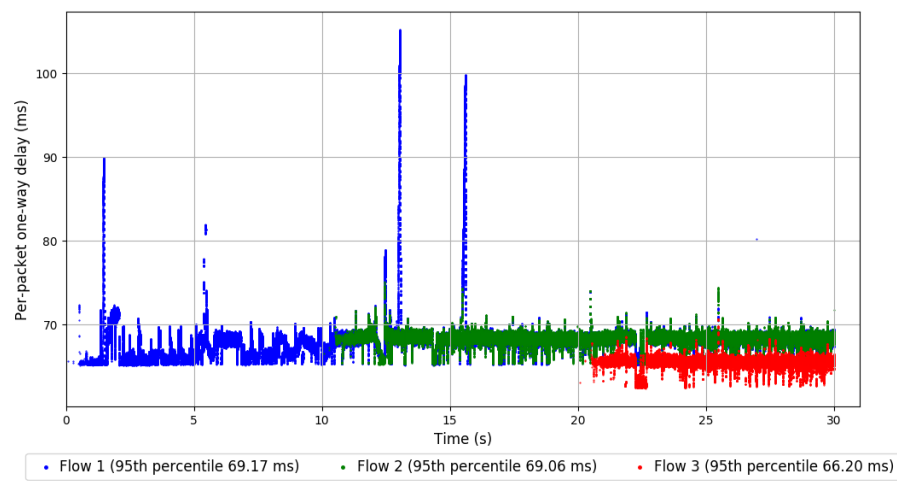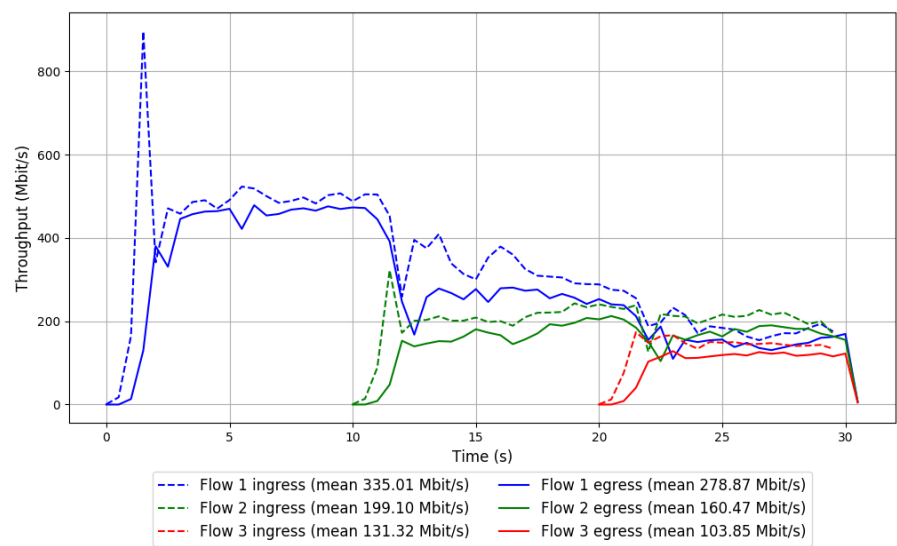
Run 7: Report of FillP-Sheep — Data Link

```
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-22 08:33:57
End at: 2018-07-22 08:34:27
Local clock offset: 2.157 ms
Remote clock offset: -37.753 ms

# Below is generated by plot.py at 2018-07-22 10:54:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.24 Mbit/s
95th percentile per-packet one-way delay: 60.522 ms
Loss rate: 20.20%
-- Flow 1:
Average throughput: 279.95 Mbit/s
95th percentile per-packet one-way delay: 60.676 ms
Loss rate: 18.37%
-- Flow 2:
Average throughput: 147.92 Mbit/s
95th percentile per-packet one-way delay: 60.402 ms
Loss rate: 23.43%
-- Flow 3:
Average throughput: 116.88 Mbit/s
95th percentile per-packet one-way delay: 58.199 ms
Loss rate: 24.30%
```

Run 8: Report of FillP-Sheep — Data Link

Legend:
- Flow 1 ingress (mean 342.98 Mbit/s)
- Flow 1 egress (mean 279.95 Mbit/s)
- Flow 2 ingress (mean 193.18 Mbit/s)
- Flow 2 egress (mean 147.92 Mbit/s)
- Flow 3 ingress (mean 154.43 Mbit/s)
- Flow 3 egress (mean 116.88 Mbit/s)

Legend:
- Flow 1 (95th percentile 60.68 ms)
- Flow 2 (95th percentile 60.40 ms)
- Flow 3 (95th percentile 58.20 ms)

```
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-22 09:33:58
End at: 2018-07-22 09:34:28
Local clock offset: 1.11 ms
Remote clock offset: -37.155 ms


# Below is generated by plot.py at 2018-07-22 10:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.08 Mbit/s
95th percentile per-packet one-way delay: 62.289 ms
Loss rate: 19.11%
-- Flow 1:
Average throughput: 275.33 Mbit/s
95th percentile per-packet one-way delay: 62.157 ms
Loss rate: 15.84%
-- Flow 2:
Average throughput: 142.45 Mbit/s
95th percentile per-packet one-way delay: 62.568 ms
Loss rate: 21.73%
-- Flow 3:
Average throughput: 132.40 Mbit/s
95th percentile per-packet one-way delay: 60.301 ms
Loss rate: 30.98%
```

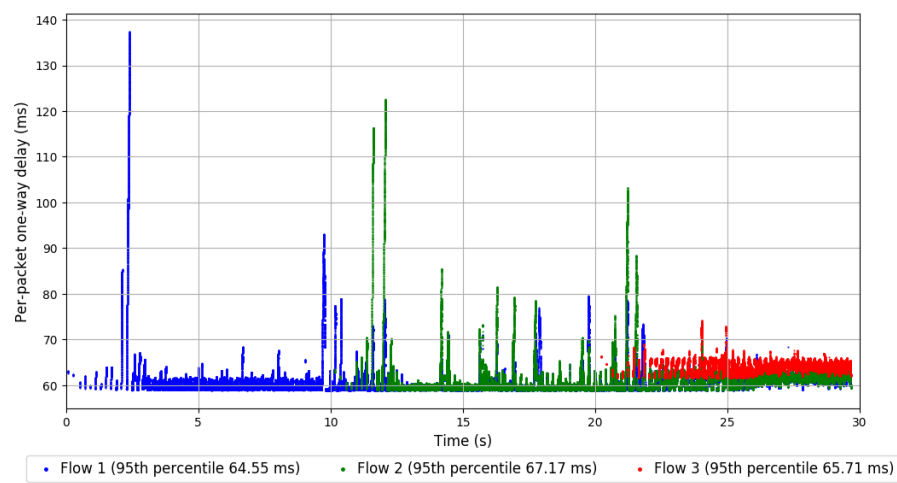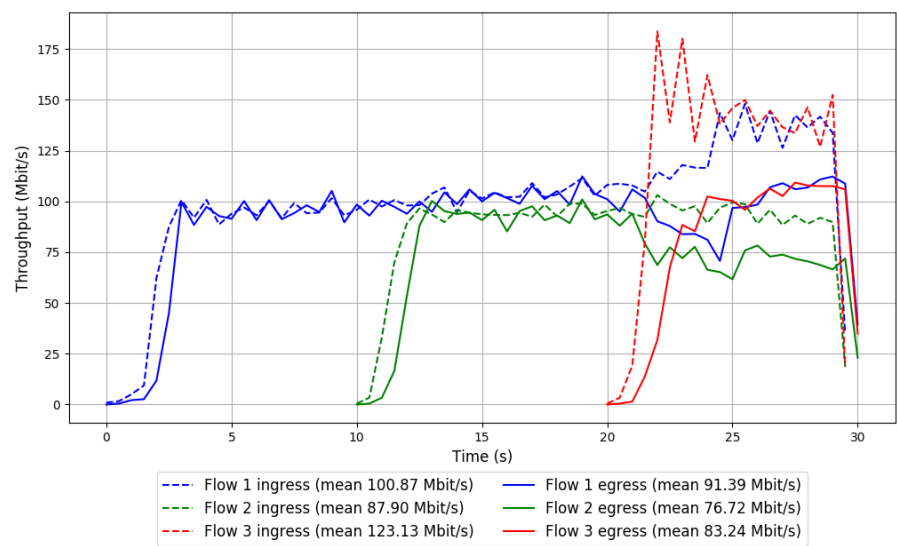## Run 9: Report of FillP-Sheep — Data Link

```
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-22 10:04:01
End at: 2018-07-22 10:04:31
Local clock offset: 2.925 ms
Remote clock offset: -28.954 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.19 Mbit/s
95th percentile per-packet one-way delay: 69.065 ms
Loss rate: 17.79%
-- Flow 1:
Average throughput: 278.87 Mbit/s
95th percentile per-packet one-way delay: 69.171 ms
Loss rate: 16.75%
-- Flow 2:
Average throughput: 160.47 Mbit/s
95th percentile per-packet one-way delay: 69.056 ms
Loss rate: 19.39%
-- Flow 3:
Average throughput: 103.85 Mbit/s
95th percentile per-packet one-way delay: 66.204 ms
Loss rate: 20.89%
```
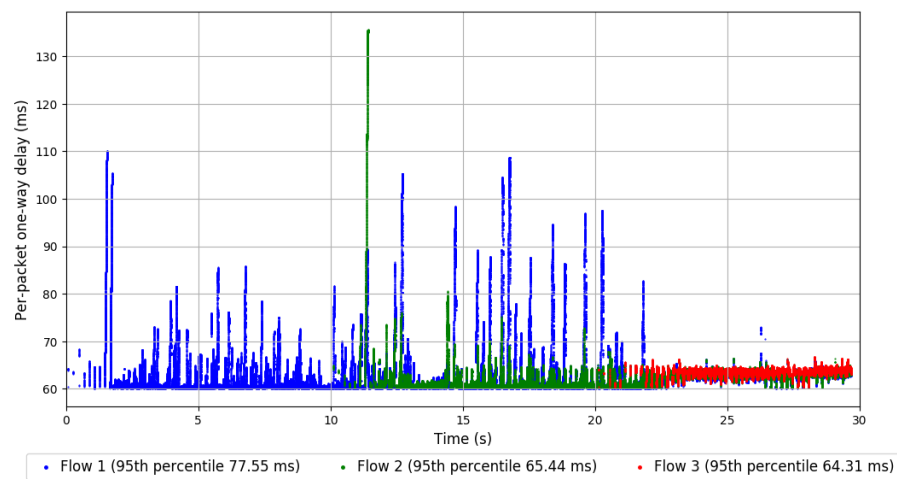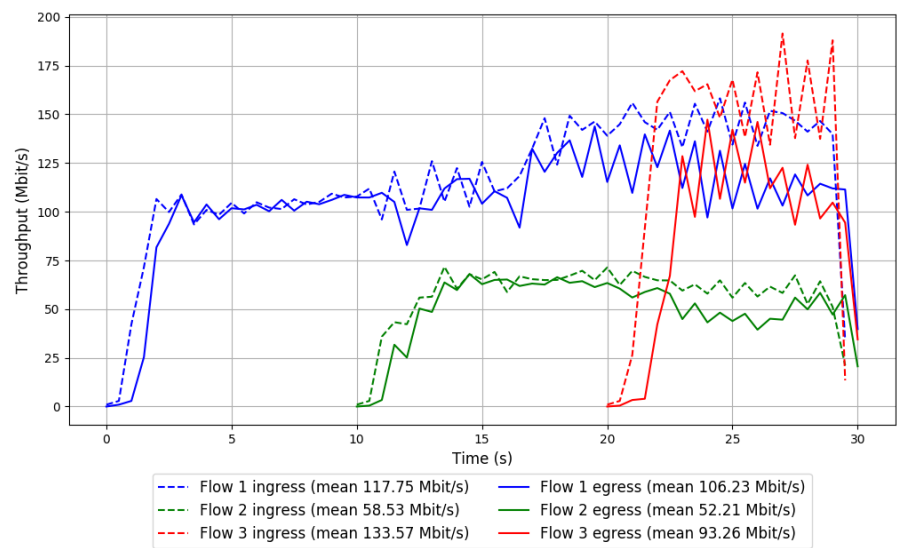
Run 10: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-07-22 04:26:05
End at: 2018-07-22 04:26:35
Local clock offset: -1.009 ms
Remote clock offset: -35.162 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.48 Mbit/s
95th percentile per-packet one-way delay: 65.586 ms
Loss rate: 14.95%
-- Flow 1:
Average throughput: 91.39 Mbit/s
95th percentile per-packet one-way delay: 64.545 ms
Loss rate: 9.41%
-- Flow 2:
Average throughput: 76.72 Mbit/s
95th percentile per-packet one-way delay: 67.175 ms
Loss rate: 12.72%
-- Flow 3:
Average throughput: 83.24 Mbit/s
95th percentile per-packet one-way delay: 65.707 ms
Loss rate: 32.45%
```
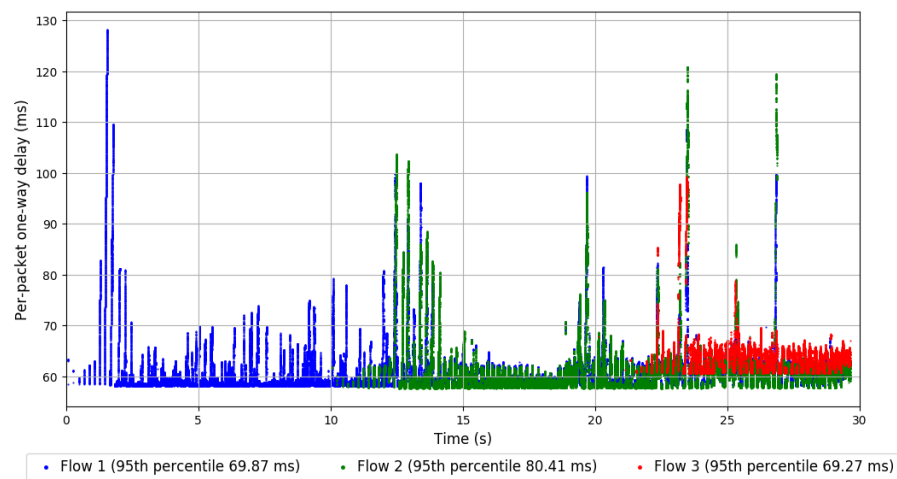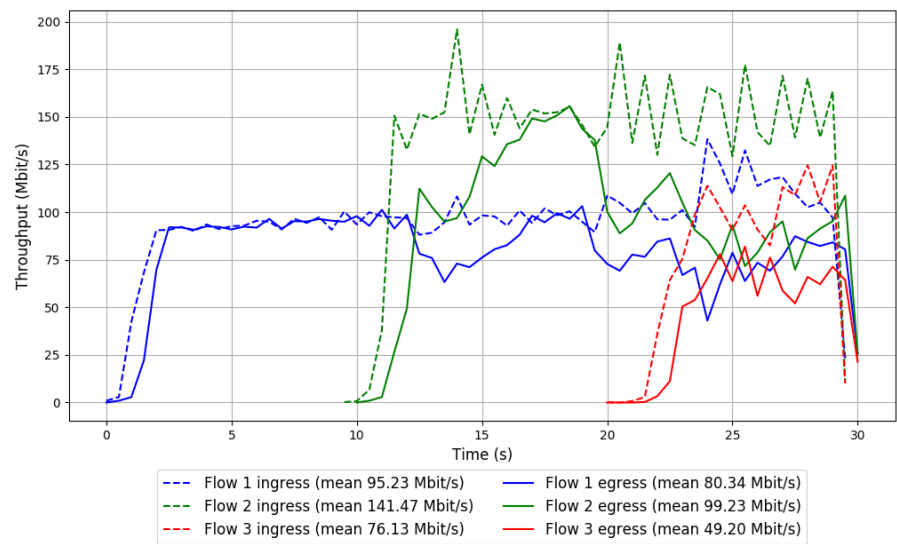
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-07-22 04:50:32
End at: 2018-07-22 04:51:02
Local clock offset: 0.26 ms
Remote clock offset: -32.316 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.81 Mbit/s
95th percentile per-packet one-way delay: 72.315 ms
Loss rate: 14.37%
-- Flow 1:
Average throughput: 106.23 Mbit/s
95th percentile per-packet one-way delay: 77.553 ms
Loss rate: 9.77%
-- Flow 2:
Average throughput: 52.21 Mbit/s
95th percentile per-packet one-way delay: 65.441 ms
Loss rate: 10.80%
-- Flow 3:
Average throughput: 93.26 Mbit/s
95th percentile per-packet one-way delay: 64.308 ms
Loss rate: 30.16%
```
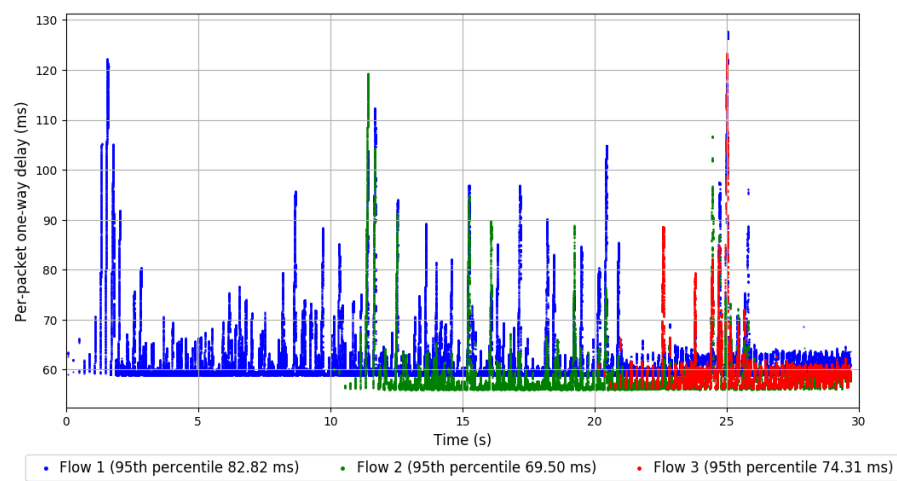
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-07-22 05:15:00
End at: 2018-07-22 05:15:30
Local clock offset: -1.321 ms
Remote clock offset: -35.533 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.86 Mbit/s
95th percentile per-packet one-way delay: 73.820 ms
Loss rate: 24.14%
-- Flow 1:
Average throughput: 80.34 Mbit/s
95th percentile per-packet one-way delay: 69.870 ms
Loss rate: 15.62%
-- Flow 2:
Average throughput: 99.23 Mbit/s
95th percentile per-packet one-way delay: 80.414 ms
Loss rate: 29.86%
-- Flow 3:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 69.266 ms
Loss rate: 35.39%
```
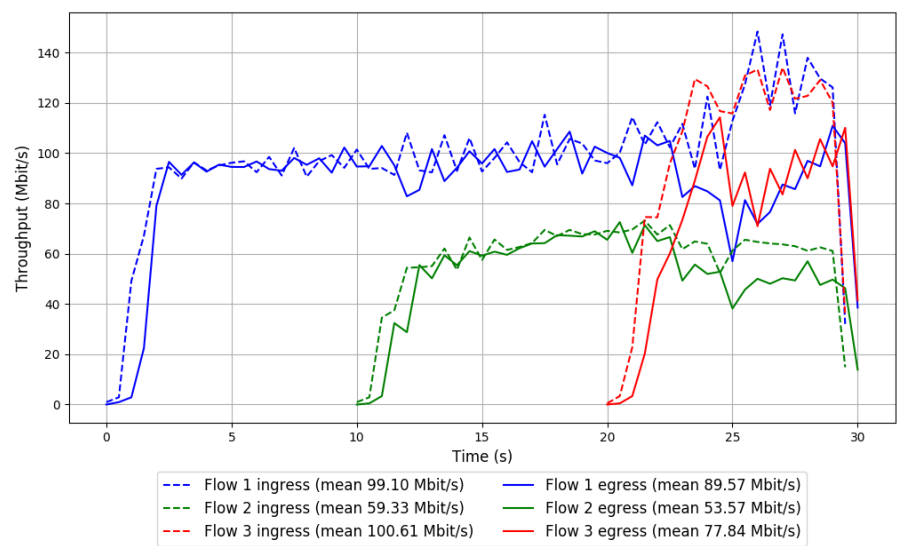
Run 3: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 95.23 Mbit/s) ——— Flow 1 egress (mean 80.34 Mbit/s)
- - - Flow 2 ingress (mean 141.47 Mbit/s) ——— Flow 2 egress (mean 99.23 Mbit/s)
- - - Flow 3 ingress (mean 76.13 Mbit/s) ——— Flow 3 egress (mean 49.20 Mbit/s)

• Flow 1 (95th percentile 69.87 ms) • Flow 2 (95th percentile 80.41 ms) • Flow 3 (95th percentile 69.27 ms)
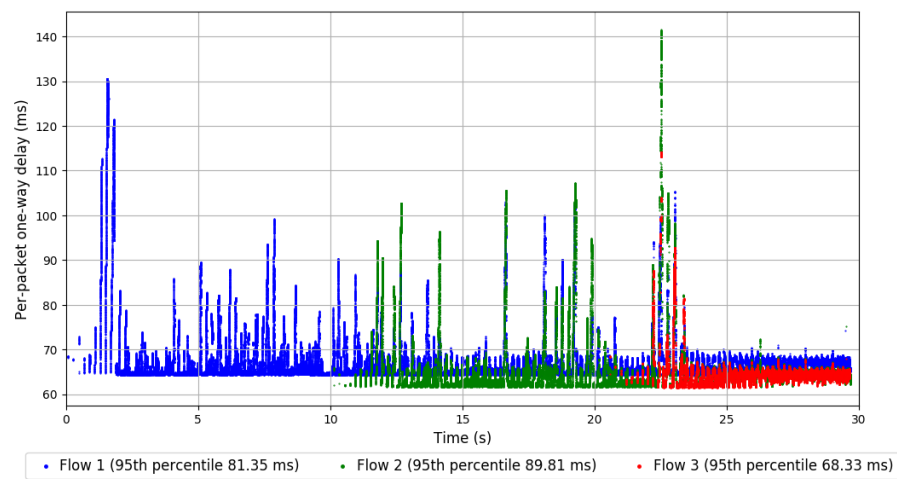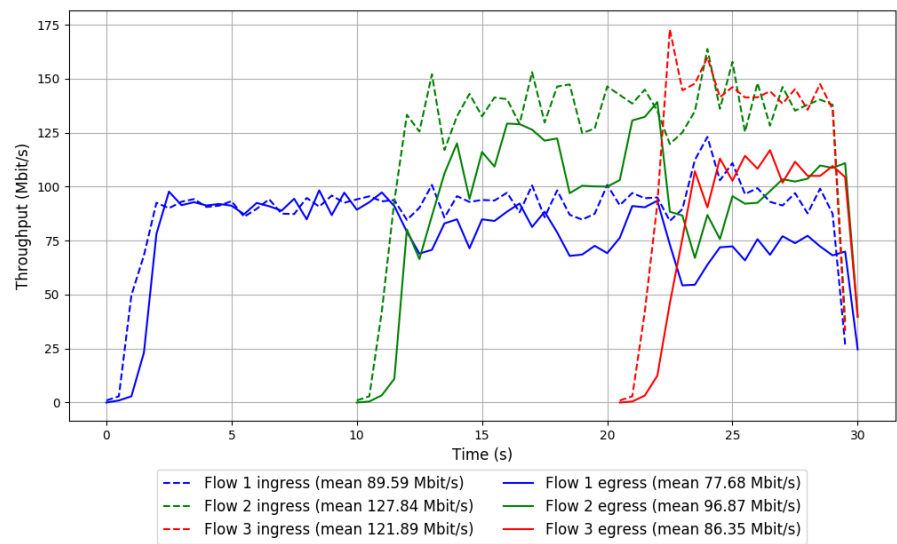
```
Run 4: Statistics of Indigo

Start at: 2018-07-22 06:00:07
End at: 2018-07-22 06:00:37
Local clock offset: 2.494 ms
Remote clock offset: -34.653 ms

# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.91 Mbit/s
95th percentile per-packet one-way delay: 79.280 ms
Loss rate: 12.09%
-- Flow 1:
Average throughput: 89.57 Mbit/s
95th percentile per-packet one-way delay: 82.824 ms
Loss rate: 9.60%
-- Flow 2:
Average throughput: 53.57 Mbit/s
95th percentile per-packet one-way delay: 69.500 ms
Loss rate: 9.71%
-- Flow 3:
Average throughput: 77.84 Mbit/s
95th percentile per-packet one-way delay: 74.311 ms
Loss rate: 22.63%
```
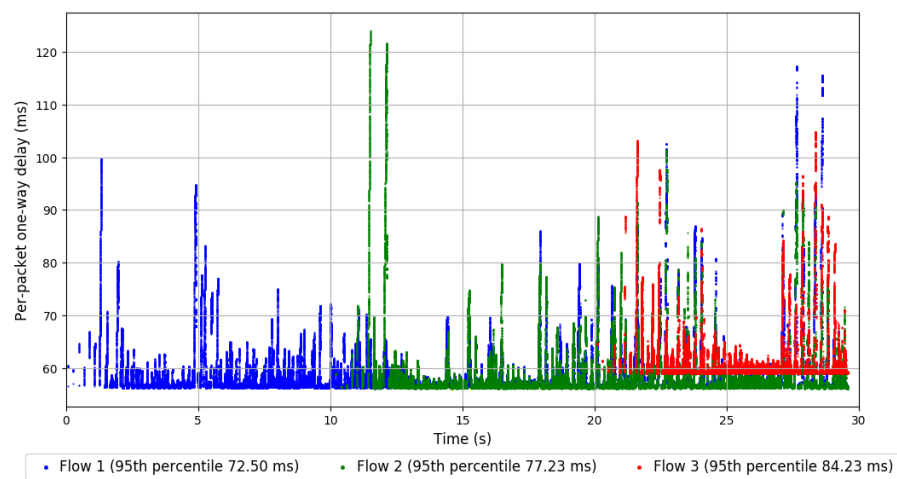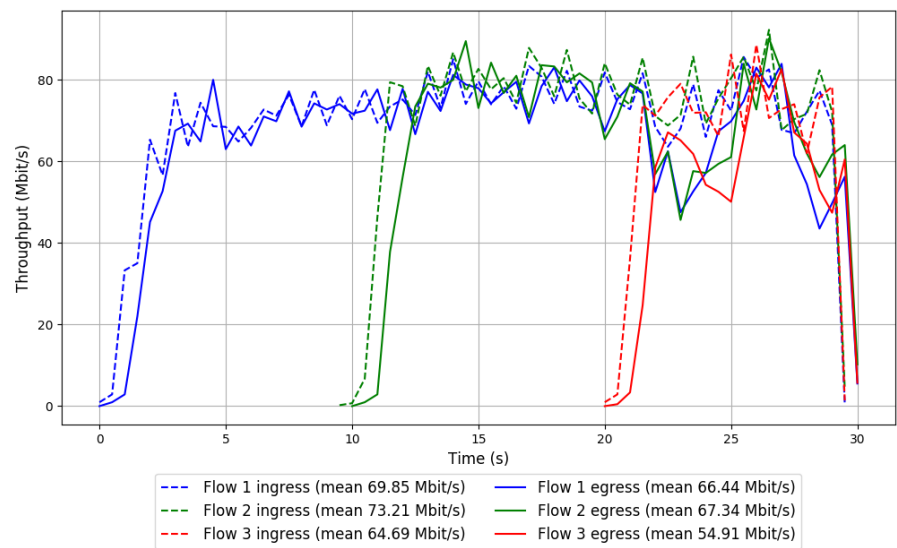
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-07-22 06:42:08
End at: 2018-07-22 06:42:38
Local clock offset: -0.865 ms
Remote clock offset: -34.622 ms

# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.06 Mbit/s
95th percentile per-packet one-way delay: 82.558 ms
Loss rate: 20.47%
-- Flow 1:
Average throughput: 77.68 Mbit/s
95th percentile per-packet one-way delay: 81.349 ms
Loss rate: 13.30%
-- Flow 2:
Average throughput: 96.87 Mbit/s
95th percentile per-packet one-way delay: 89.814 ms
Loss rate: 24.22%
-- Flow 3:
Average throughput: 86.35 Mbit/s
95th percentile per-packet one-way delay: 68.325 ms
Loss rate: 29.16%
```

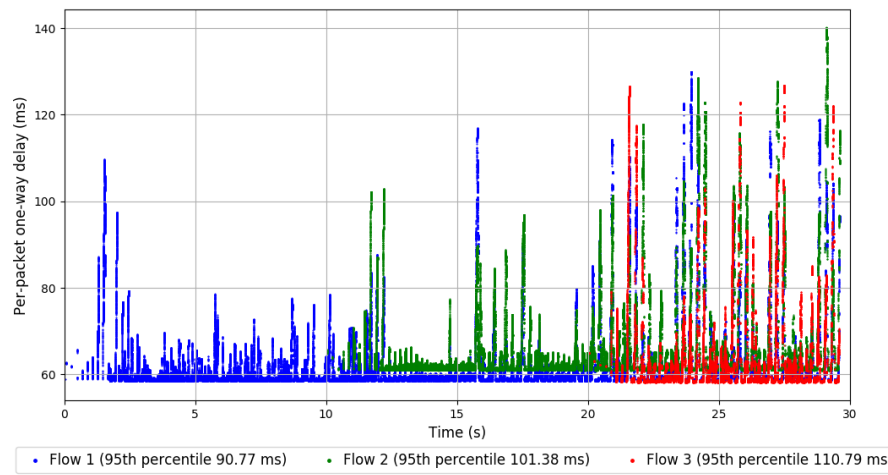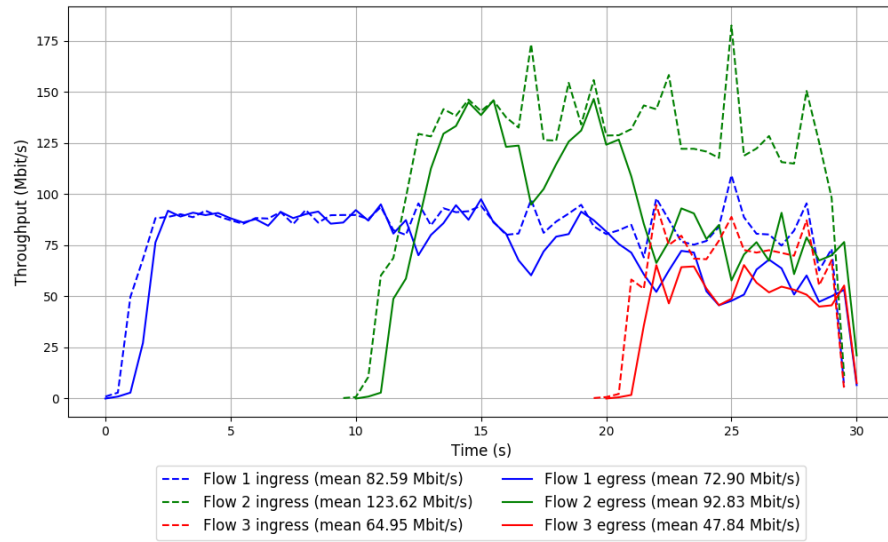## Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-07-22 07:12:13
End at: 2018-07-22 07:12:43
Local clock offset: 2.807 ms
Remote clock offset: -36.449 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.62 Mbit/s
95th percentile per-packet one-way delay: 76.546 ms
Loss rate: 7.51%
-- Flow 1:
Average throughput: 66.44 Mbit/s
95th percentile per-packet one-way delay: 72.498 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 67.34 Mbit/s
95th percentile per-packet one-way delay: 77.232 ms
Loss rate: 8.02%
-- Flow 3:
Average throughput: 54.91 Mbit/s
95th percentile per-packet one-way delay: 84.235 ms
Loss rate: 15.13%
```
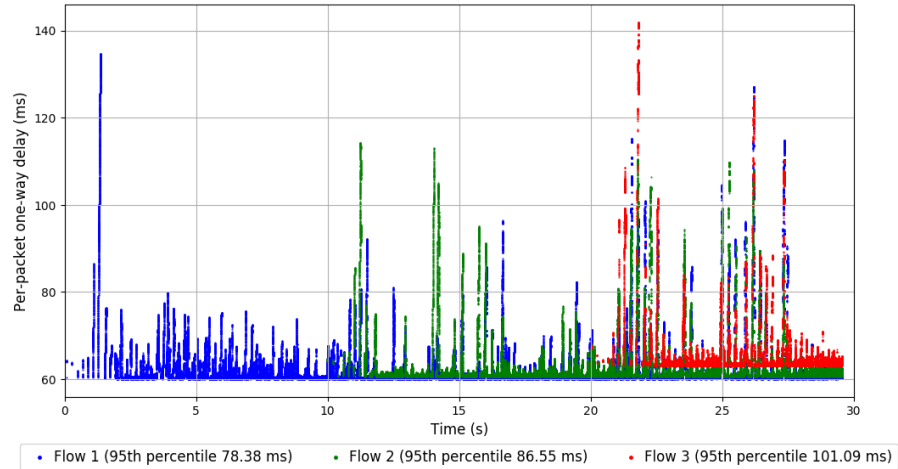
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-07-22 07:42:14
End at: 2018-07-22 07:42:44
Local clock offset: -0.671 ms
Remote clock offset: -36.544 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.81 Mbit/s
95th percentile per-packet one-way delay: 98.781 ms
Loss rate: 19.08%
-- Flow 1:
Average throughput: 72.90 Mbit/s
95th percentile per-packet one-way delay: 90.767 ms
Loss rate: 11.62%
-- Flow 2:
Average throughput: 92.83 Mbit/s
95th percentile per-packet one-way delay: 101.375 ms
Loss rate: 24.74%
-- Flow 3:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 110.794 ms
Loss rate: 26.33%
```

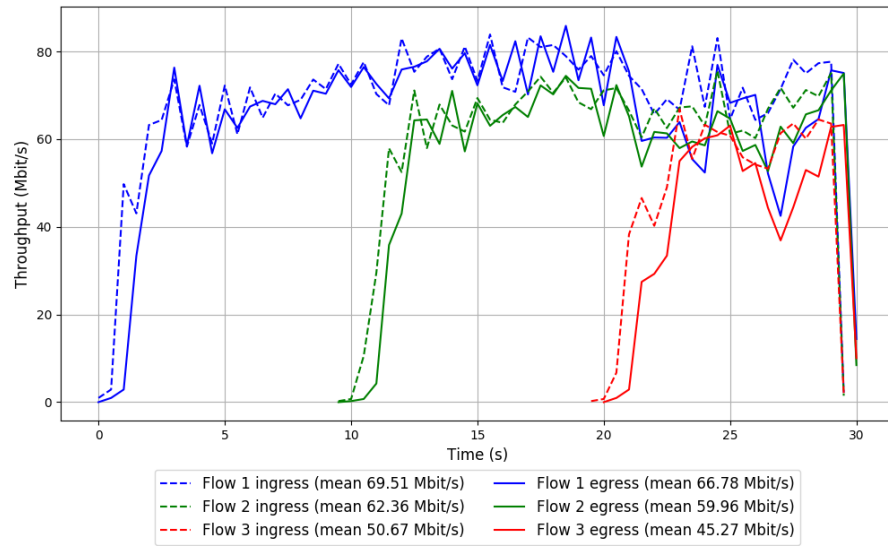## Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-07-22 08:22:13
End at: 2018-07-22 08:22:43
Local clock offset: 0.067 ms
Remote clock offset: -33.444 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.21 Mbit/s
95th percentile per-packet one-way delay: 84.626 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 66.78 Mbit/s
95th percentile per-packet one-way delay: 78.380 ms
Loss rate: 3.93%
-- Flow 2:
Average throughput: 59.96 Mbit/s
95th percentile per-packet one-way delay: 86.548 ms
Loss rate: 3.87%
-- Flow 3:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 101.092 ms
Loss rate: 10.68%
```

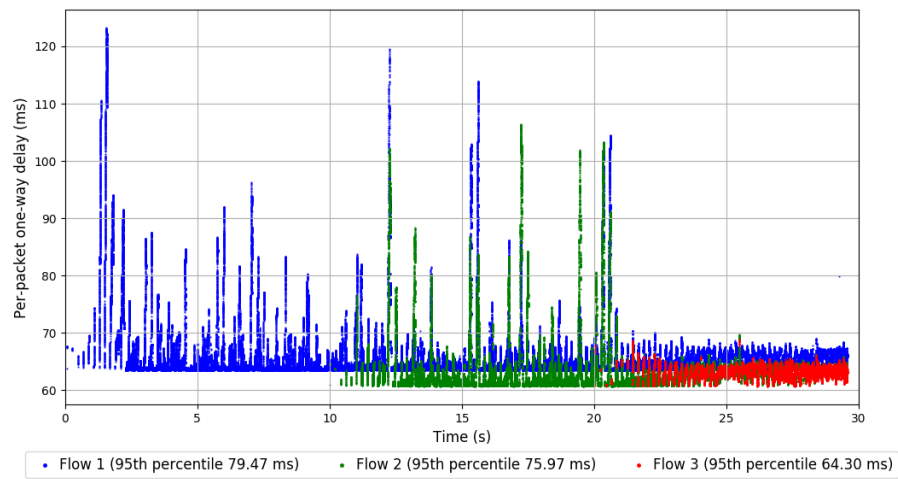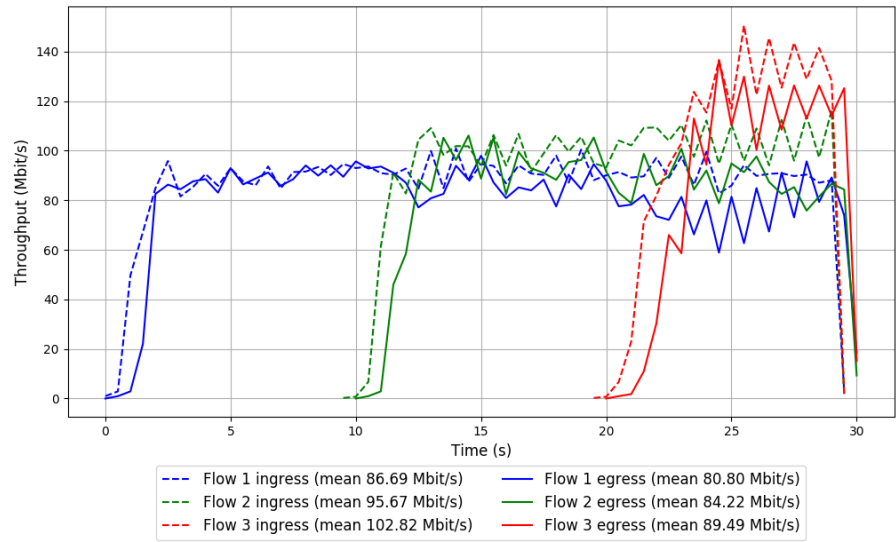Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2018-07-22 09:21:20
End at: 2018-07-22 09:21:50
Local clock offset: 0.424 ms
Remote clock offset: -33.001 ms

# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.54 Mbit/s
95th percentile per-packet one-way delay: 75.313 ms
Loss rate: 9.69%
-- Flow 1:
Average throughput: 80.80 Mbit/s
95th percentile per-packet one-way delay: 79.468 ms
Loss rate: 6.80%
-- Flow 2:
Average throughput: 84.22 Mbit/s
95th percentile per-packet one-way delay: 75.969 ms
Loss rate: 11.95%
-- Flow 3:
Average throughput: 89.49 Mbit/s
95th percentile per-packet one-way delay: 64.295 ms
Loss rate: 12.94%
```

Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-07-22 09:56:58
End at: 2018-07-22 09:57:28
Local clock offset: 0.556 ms
Remote clock offset: -43.157 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.78 Mbit/s
95th percentile per-packet one-way delay: 72.560 ms
Loss rate: 7.36%
-- Flow 1:
Average throughput: 66.53 Mbit/s
95th percentile per-packet one-way delay: 66.975 ms
Loss rate: 5.63%
-- Flow 2:
Average throughput: 73.59 Mbit/s
95th percentile per-packet one-way delay: 79.658 ms
Loss rate: 8.00%
-- Flow 3:
Average throughput: 70.09 Mbit/s
95th percentile per-packet one-way delay: 83.525 ms
Loss rate: 10.84%
```
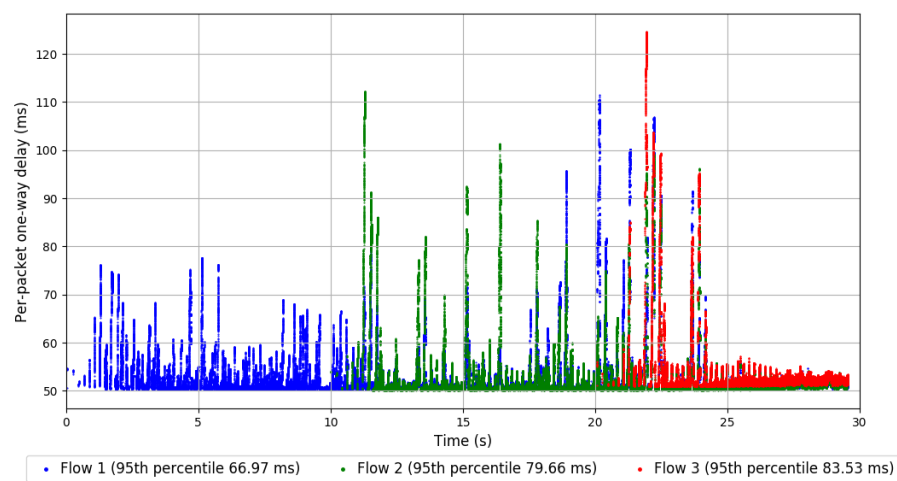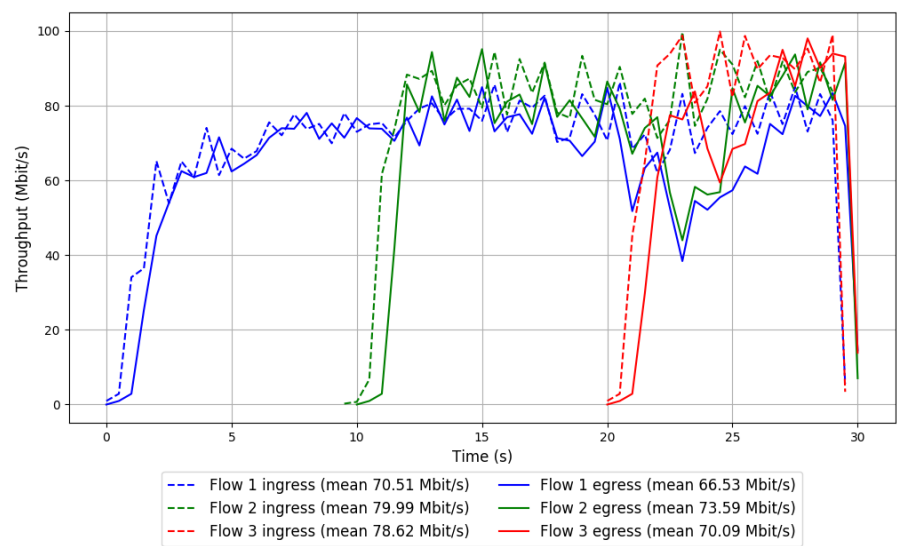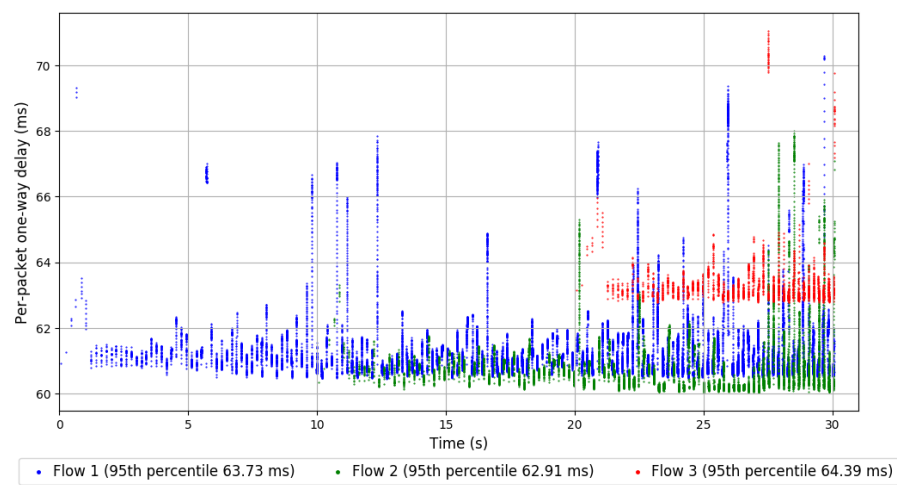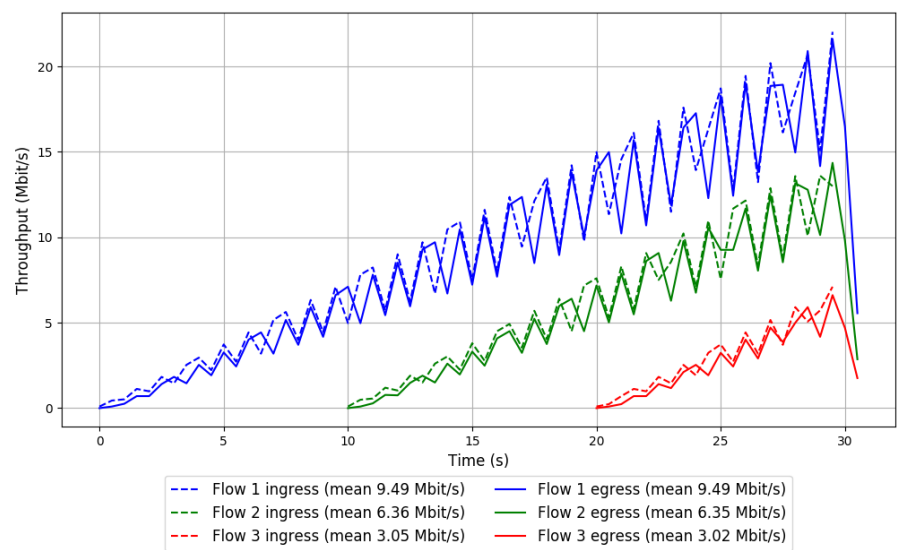
Run 10: Report of Indigo — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-07-22 04:42:16
End at: 2018-07-22 04:42:46
Local clock offset: -6.736 ms
Remote clock offset: -39.484 ms

# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.73 Mbit/s
95th percentile per-packet one-way delay: 63.806 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 63.728 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 62.911 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 64.387 ms
Loss rate: 1.08%
```
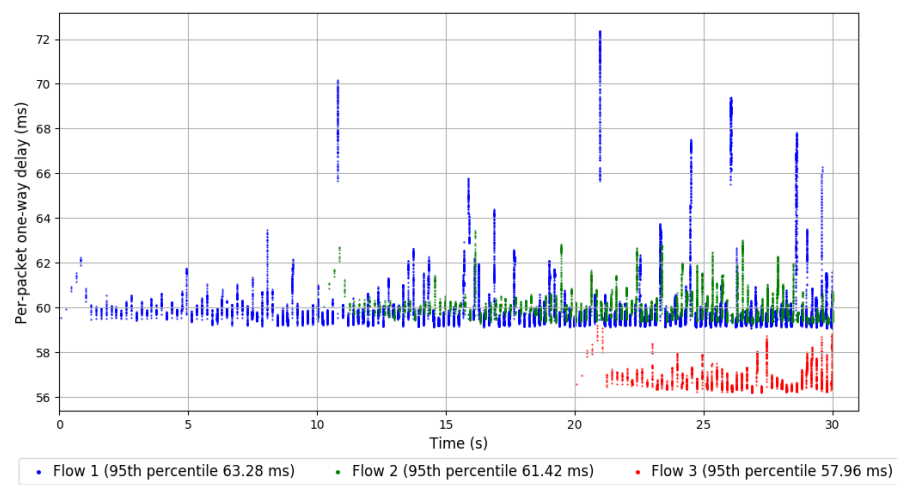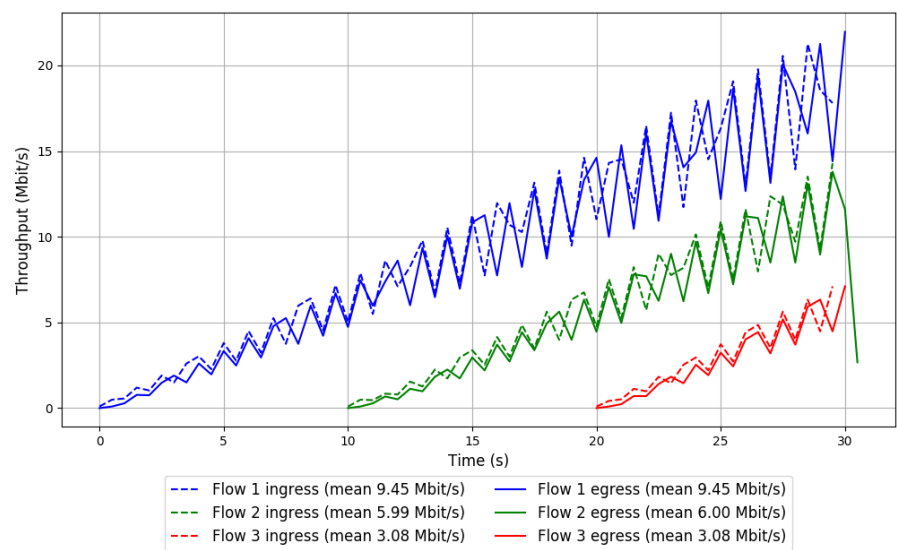
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-07-22 05:06:43
End at: 2018-07-22 05:07:13
Local clock offset: -1.862 ms
Remote clock offset: -37.752 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.45 Mbit/s
95th percentile per-packet one-way delay: 62.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 63.282 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 61.422 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 57.960 ms
Loss rate: 0.00%
```
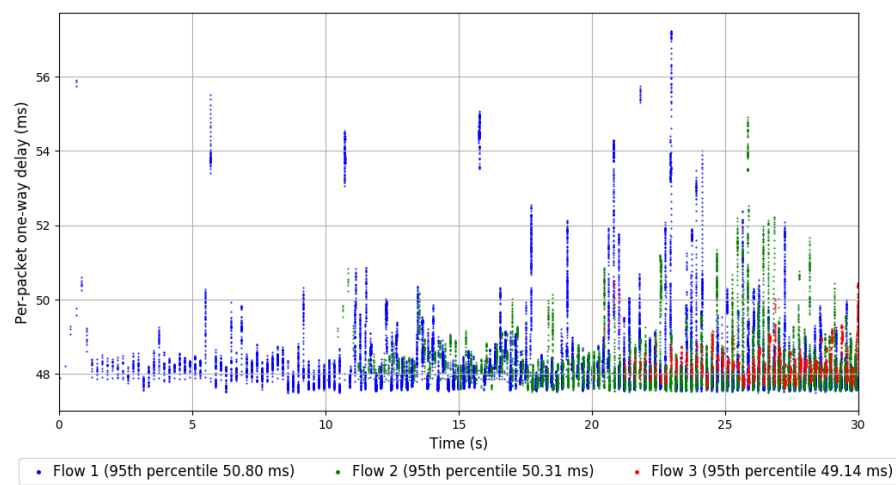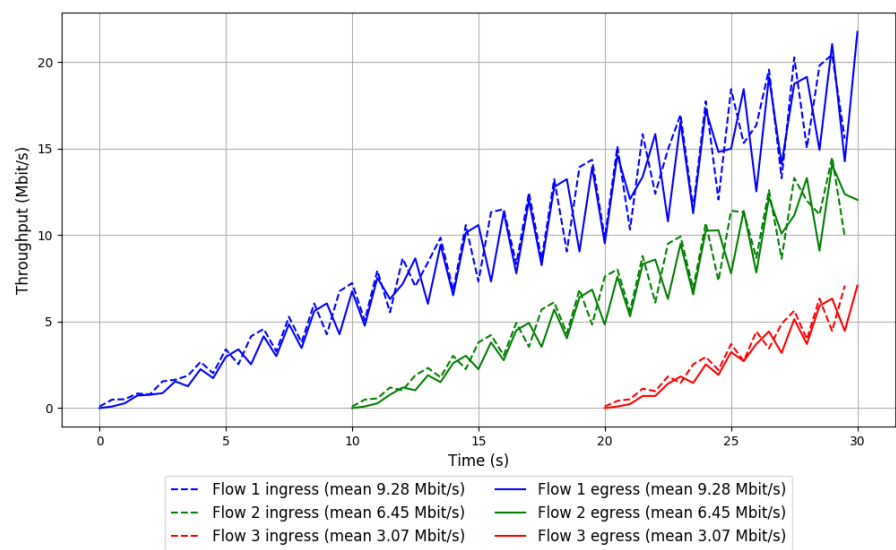
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-07-22 05:47:17
End at: 2018-07-22 05:47:47
Local clock offset: 1.387 ms
Remote clock offset: -43.604 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.56 Mbit/s
95th percentile per-packet one-way delay: 50.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 50.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 50.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 49.144 ms
Loss rate: 0.00%
```
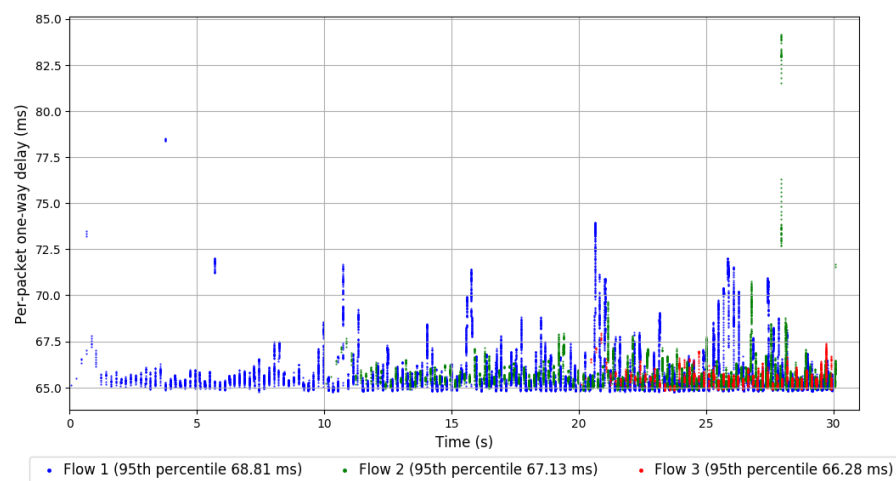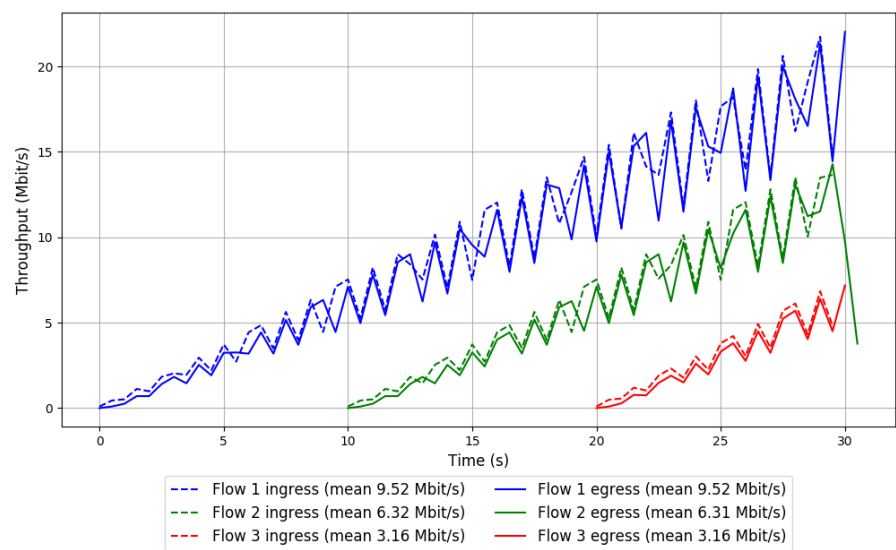
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-07-22 06:28:12
End at: 2018-07-22 06:28:42
Local clock offset: 0.953 ms
Remote clock offset: -28.796 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.73 Mbit/s
95th percentile per-packet one-way delay: 68.122 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 68.811 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.31 Mbit/s
95th percentile per-packet one-way delay: 67.131 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 66.283 ms
Loss rate: 0.00%
```
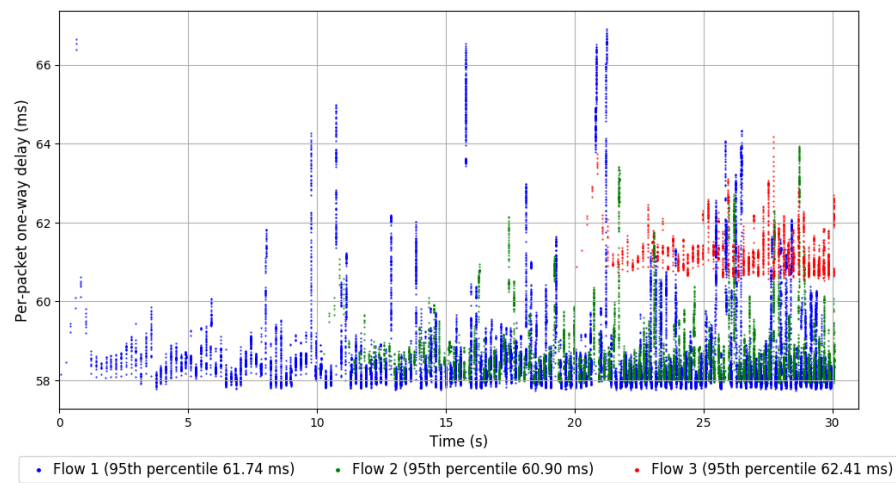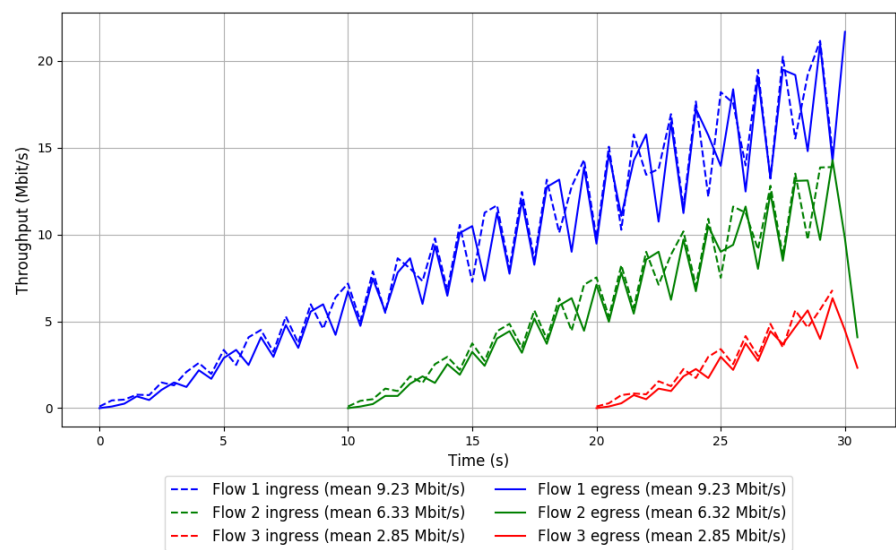
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-07-22 07:03:57
End at: 2018-07-22 07:04:27
Local clock offset: -0.821 ms
Remote clock offset: -38.244 ms

# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.35 Mbit/s
95th percentile per-packet one-way delay: 61.805 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 61.736 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 60.901 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 62.415 ms
Loss rate: 0.00%
```
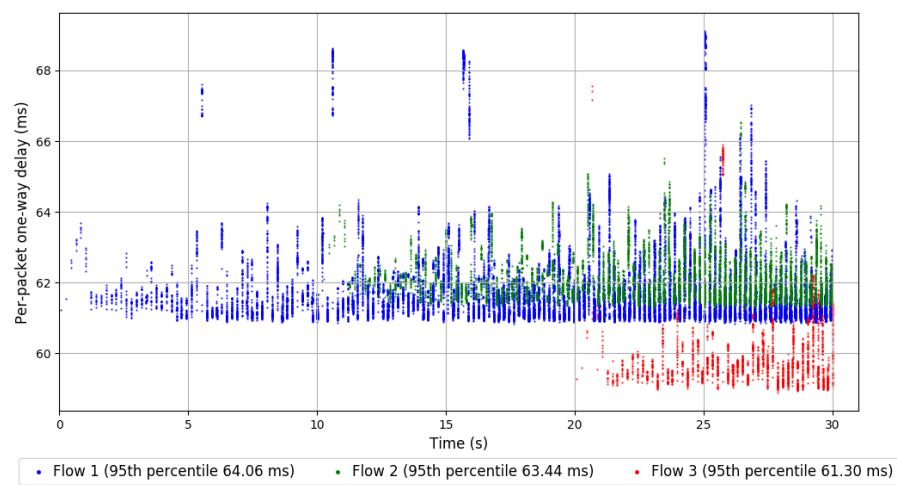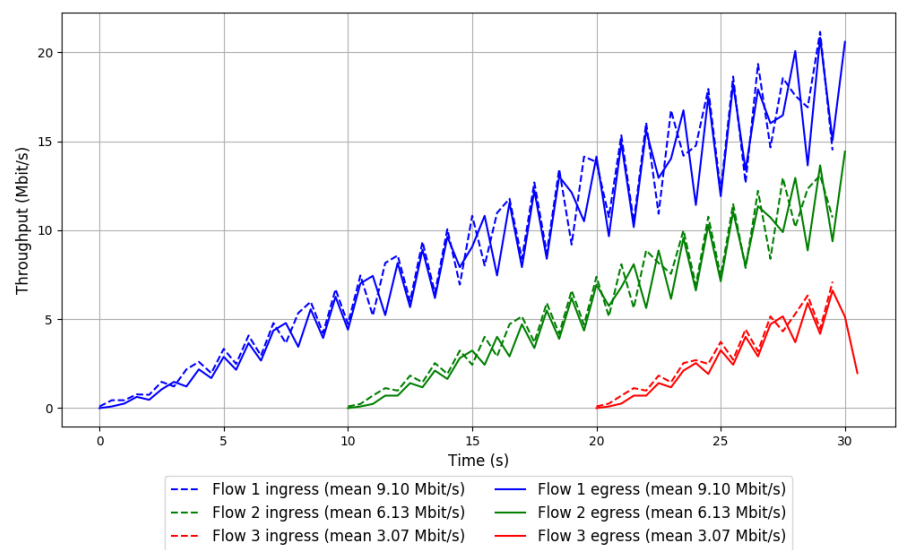
Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2018-07-22 07:33:57
End at: 2018-07-22 07:34:27
Local clock offset: -1.58 ms
Remote clock offset: -37.612 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.16 Mbit/s
95th percentile per-packet one-way delay: 63.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.10 Mbit/s
95th percentile per-packet one-way delay: 64.056 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 63.442 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 61.301 ms
Loss rate: 0.00%
```
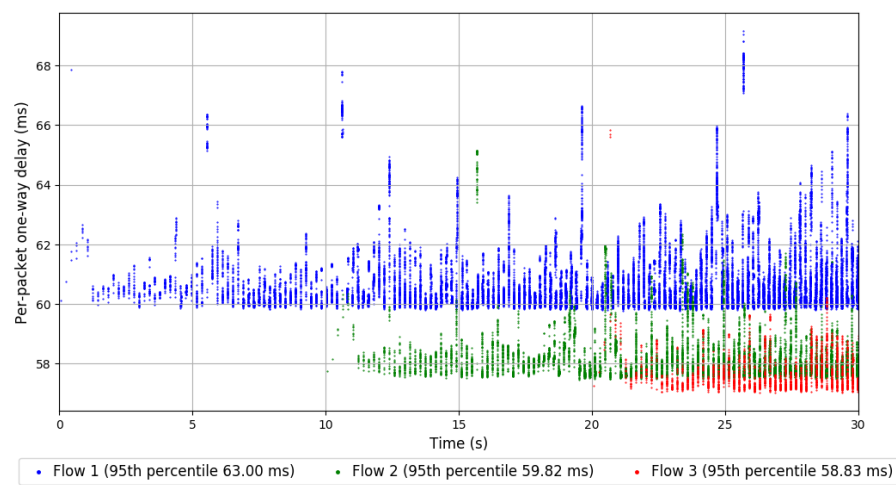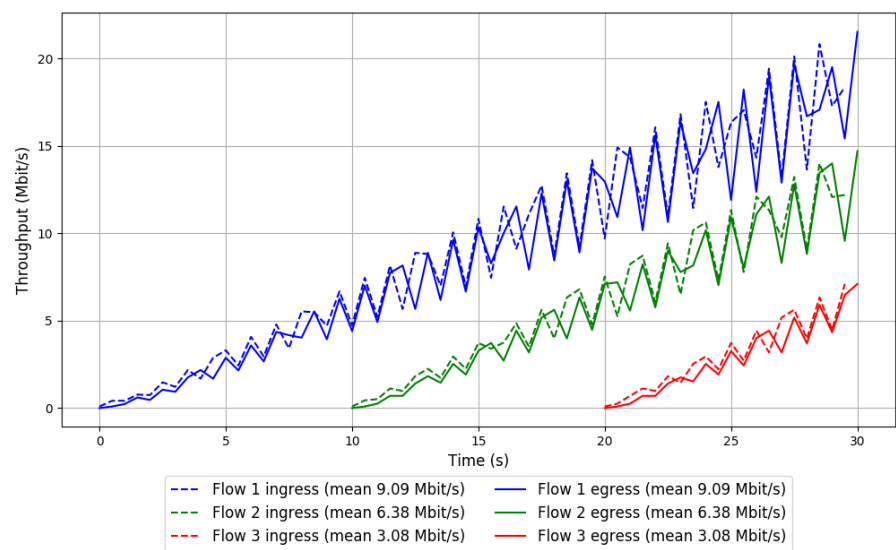
Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-07-22 08:08:19
End at: 2018-07-22 08:08:49
Local clock offset: -0.536 ms
Remote clock offset: -37.081 ms

# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.35 Mbit/s
95th percentile per-packet one-way delay: 62.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 62.999 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.38 Mbit/s
95th percentile per-packet one-way delay: 59.818 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 58.830 ms
Loss rate: 0.00%
```

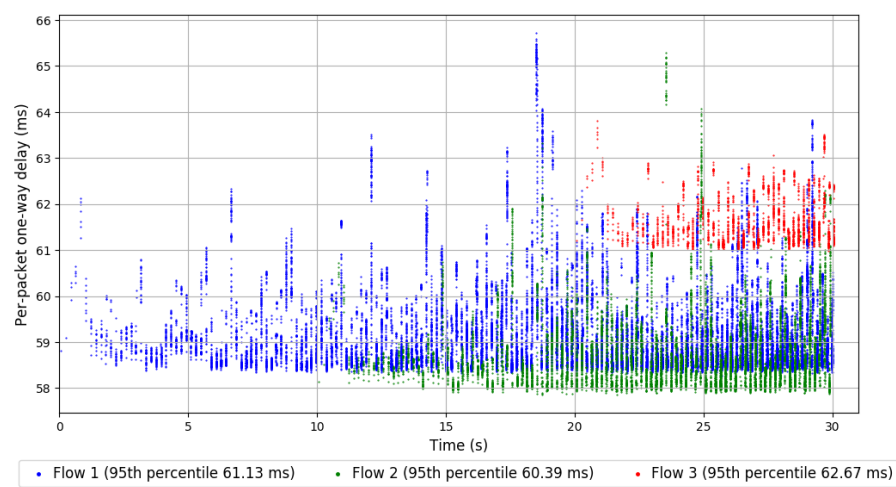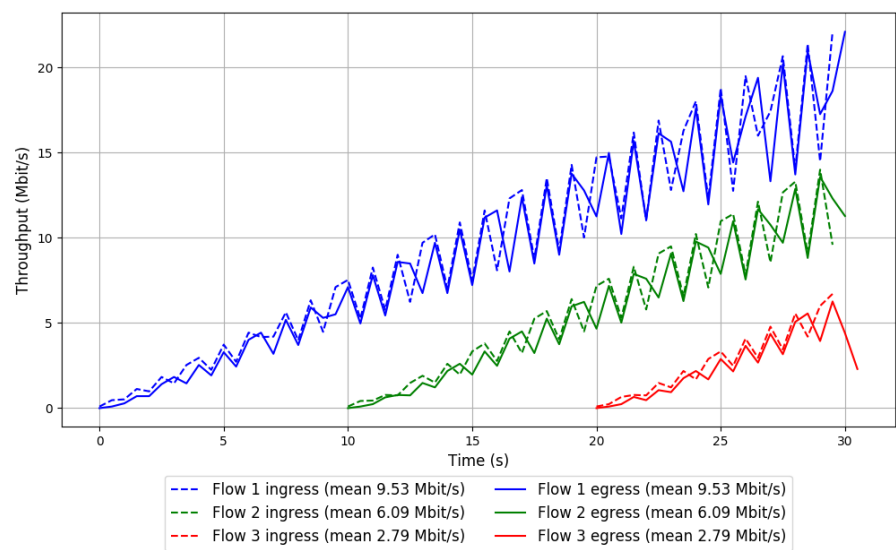# Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2018-07-22 09:04:18
End at: 2018-07-22 09:04:48
Local clock offset: 3.209 ms
Remote clock offset: -32.645 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.46 Mbit/s
95th percentile per-packet one-way delay: 61.619 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 61.126 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 60.392 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 62.670 ms
Loss rate: 0.00%
```

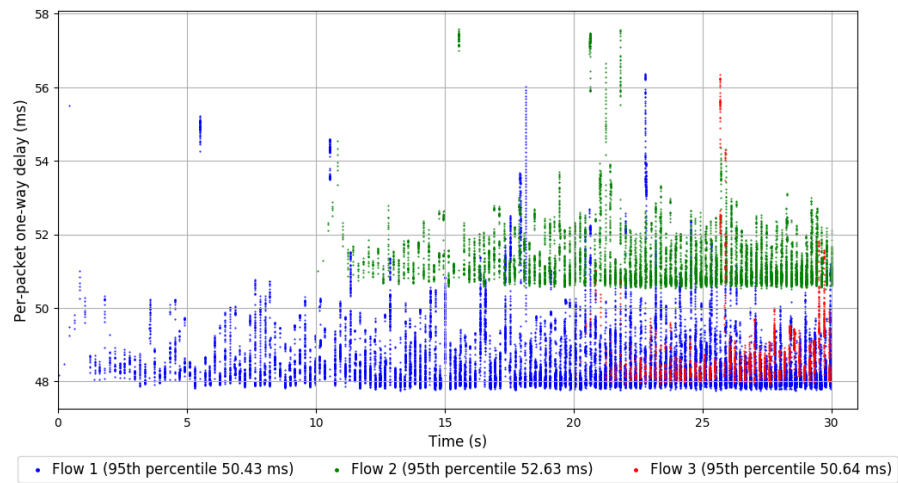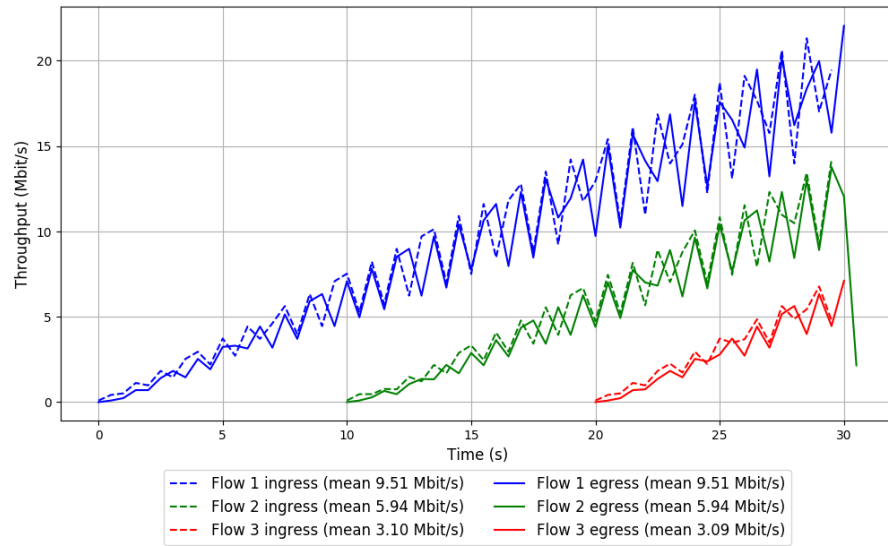# Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-07-22 09:48:42
End at: 2018-07-22 09:49:12
Local clock offset: 3.45 ms
Remote clock offset: -42.641 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.47 Mbit/s
95th percentile per-packet one-way delay: 52.013 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 50.426 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.94 Mbit/s
95th percentile per-packet one-way delay: 52.629 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 50.639 ms
Loss rate: 0.00%
```
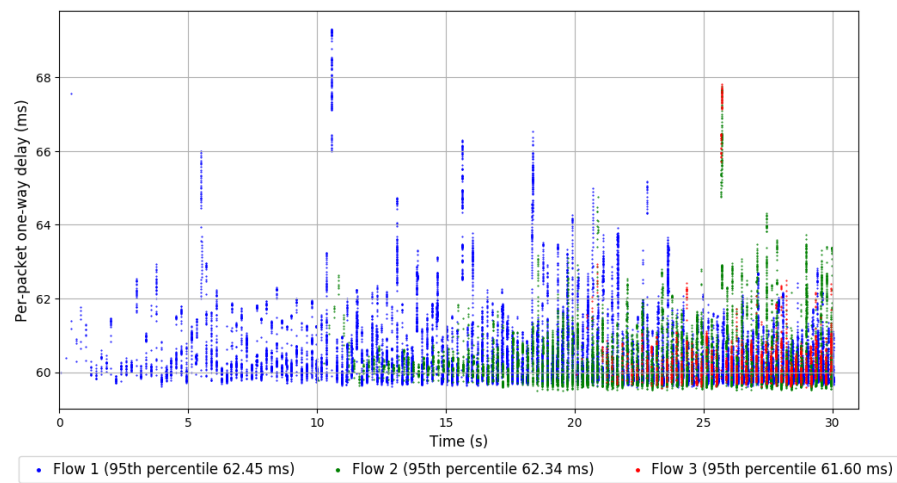
Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-07-22 10:18:43
End at: 2018-07-22 10:19:13
Local clock offset: 1.037 ms
Remote clock offset: -34.786 ms


# Below is generated by plot.py at 2018-07-22 10:54:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.50 Mbit/s
95th percentile per-packet one-way delay: 62.365 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 62.455 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.15 Mbit/s
95th percentile per-packet one-way delay: 62.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.82 Mbit/s
95th percentile per-packet one-way delay: 61.601 ms
Loss rate: 0.00%
```
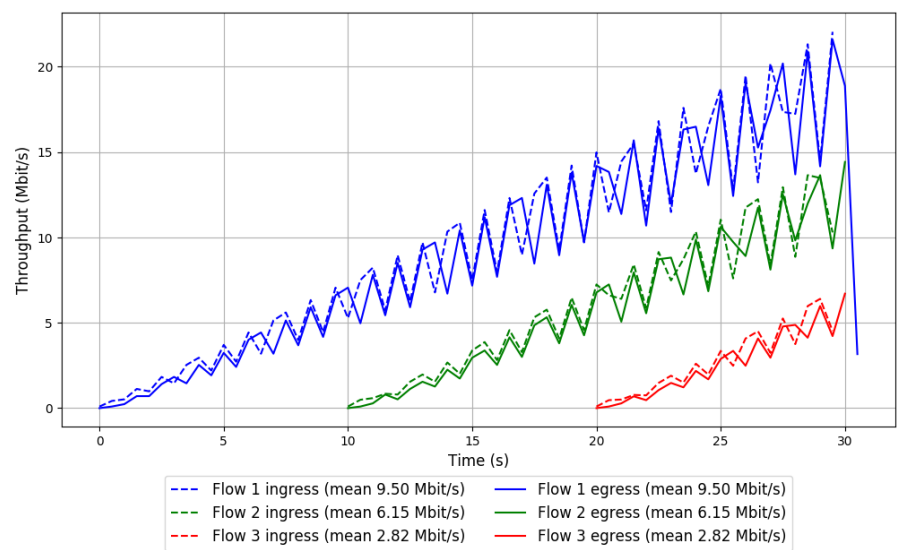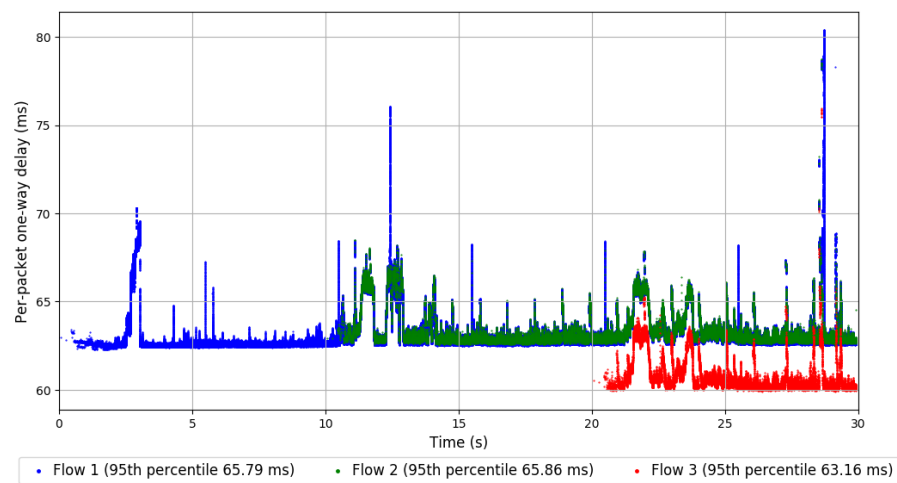
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-22 04:21:53
End at: 2018-07-22 04:22:23
Local clock offset: -1.201 ms
Remote clock offset: -34.282 ms


# Below is generated by plot.py at 2018-07-22 10:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.47 Mbit/s
95th percentile per-packet one-way delay: 65.776 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 369.75 Mbit/s
95th percentile per-packet one-way delay: 65.788 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 20.87 Mbit/s
95th percentile per-packet one-way delay: 65.859 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 32.91 Mbit/s
95th percentile per-packet one-way delay: 63.163 ms
Loss rate: 2.05%
```
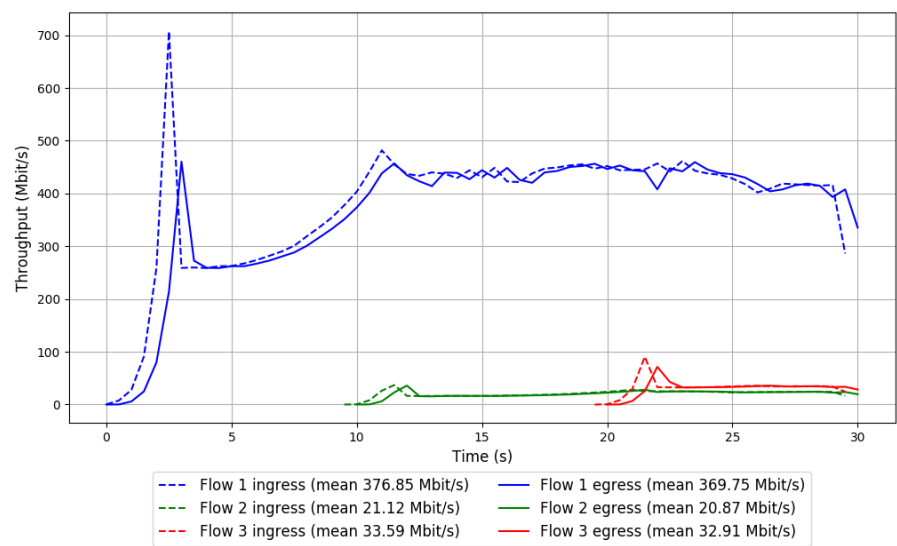
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-22 04:46:22
End at: 2018-07-22 04:46:52
Local clock offset: 0.642 ms
Remote clock offset: -36.991 ms


# Below is generated by plot.py at 2018-07-22 10:59:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.45 Mbit/s
95th percentile per-packet one-way delay: 61.249 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 423.90 Mbit/s
95th percentile per-packet one-way delay: 61.247 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 61.212 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 31.41 Mbit/s
95th percentile per-packet one-way delay: 61.341 ms
Loss rate: 3.31%
```

Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 445.67 Mbit/s) ---- Flow 1 egress (mean 423.90 Mbit/s) ——
Flow 2 ingress (mean 32.52 Mbit/s) ---- Flow 2 egress (mean 31.89 Mbit/s) ——
Flow 3 ingress (mean 32.49 Mbit/s) ---- Flow 3 egress (mean 31.41 Mbit/s) ——

Flow 1 (95th percentile 61.25 ms)   Flow 2 (95th percentile 61.21 ms)   Flow 3 (95th percentile 61.34 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-22 05:10:50
End at: 2018-07-22 05:11:20
Local clock offset: -0.071 ms
Remote clock offset: -37.62 ms


# Below is generated by plot.py at 2018-07-22 10:59:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.04 Mbit/s
95th percentile per-packet one-way delay: 58.603 ms
Loss rate: 5.13%
-- Flow 1:
Average throughput: 427.11 Mbit/s
95th percentile per-packet one-way delay: 58.366 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 58.028 ms
Loss rate: 2.58%
-- Flow 3:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 60.888 ms
Loss rate: 4.45%
```
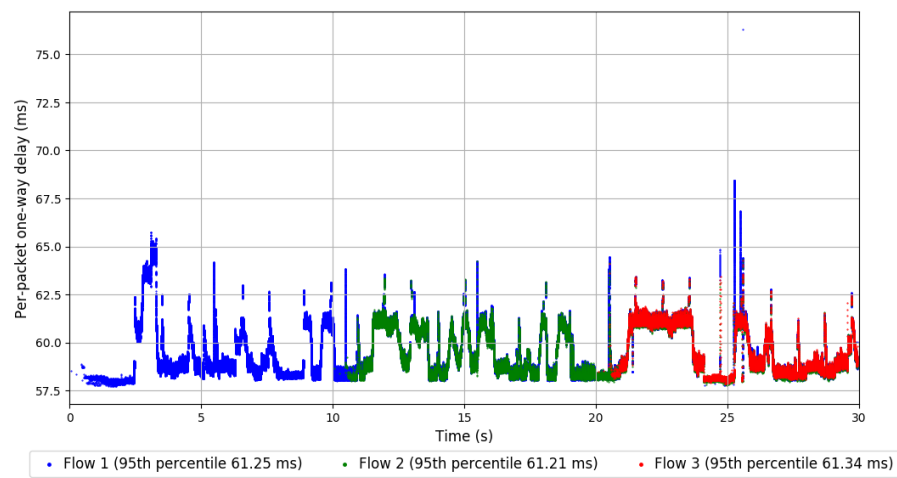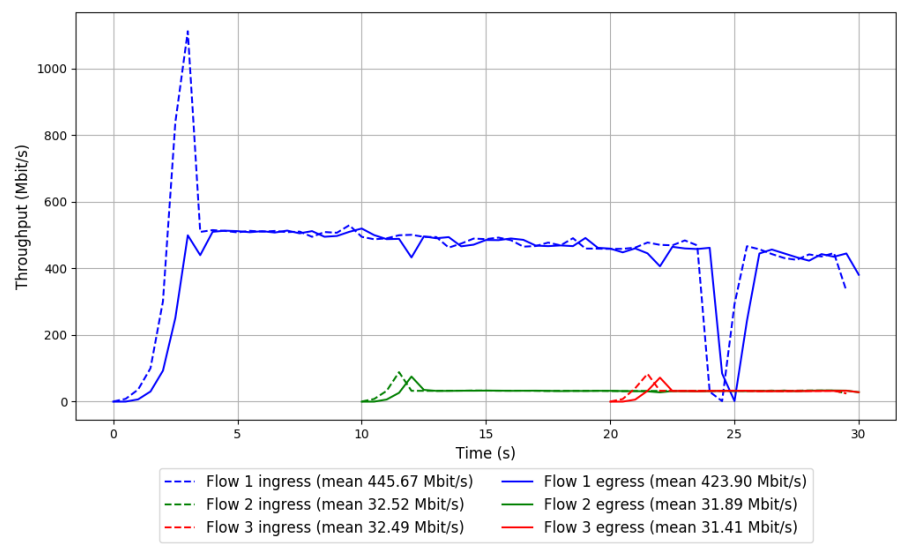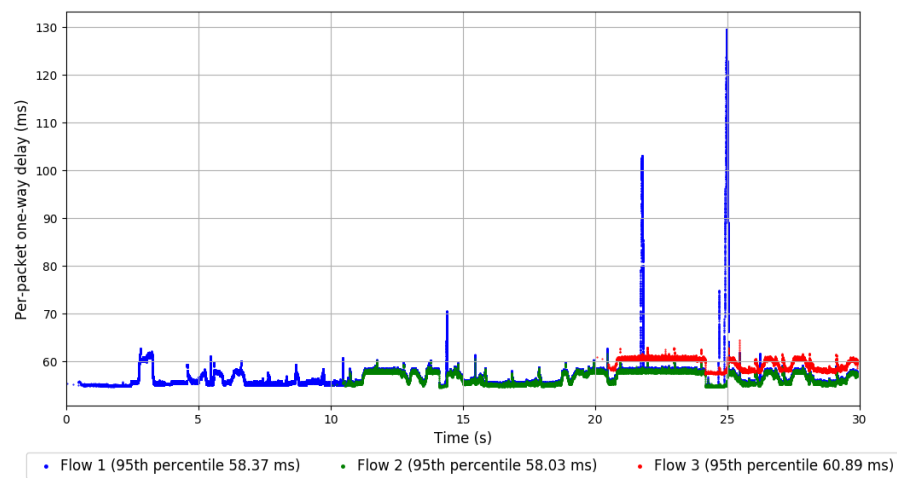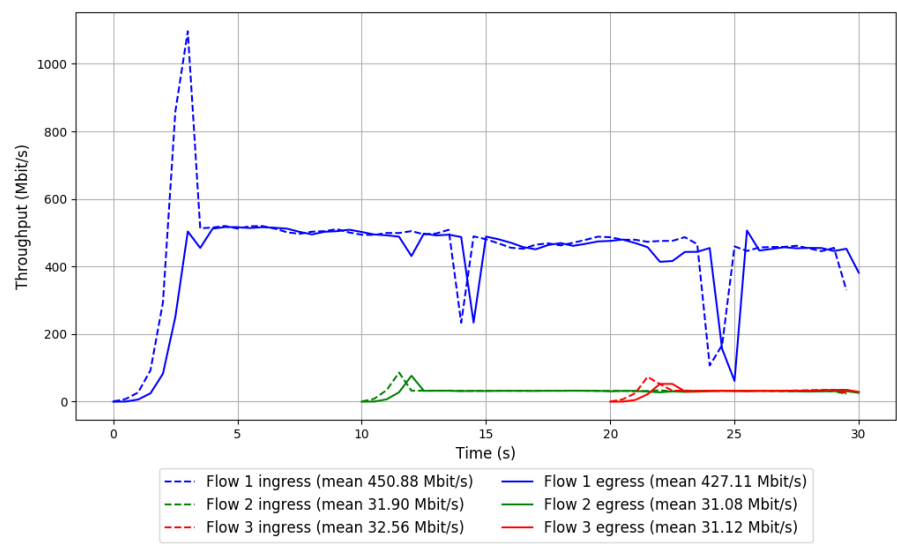
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 450.88 Mbit/s)   Flow 1 egress (mean 427.11 Mbit/s)
Flow 2 ingress (mean 31.90 Mbit/s)   Flow 2 egress (mean 31.08 Mbit/s)
Flow 3 ingress (mean 32.56 Mbit/s)   Flow 3 egress (mean 31.12 Mbit/s)

• Flow 1 (95th percentile 58.37 ms)   • Flow 2 (95th percentile 58.03 ms)   • Flow 3 (95th percentile 60.89 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-22 05:55:48
End at: 2018-07-22 05:56:18
Local clock offset: 1.794 ms
Remote clock offset: -34.468 ms


# Below is generated by plot.py at 2018-07-22 10:59:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.77 Mbit/s
95th percentile per-packet one-way delay: 61.786 ms
Loss rate: 5.04%
-- Flow 1:
Average throughput: 440.30 Mbit/s
95th percentile per-packet one-way delay: 60.102 ms
Loss rate: 5.18%
-- Flow 2:
Average throughput: 32.86 Mbit/s
95th percentile per-packet one-way delay: 62.837 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 32.27 Mbit/s
95th percentile per-packet one-way delay: 60.050 ms
Loss rate: 4.01%
```
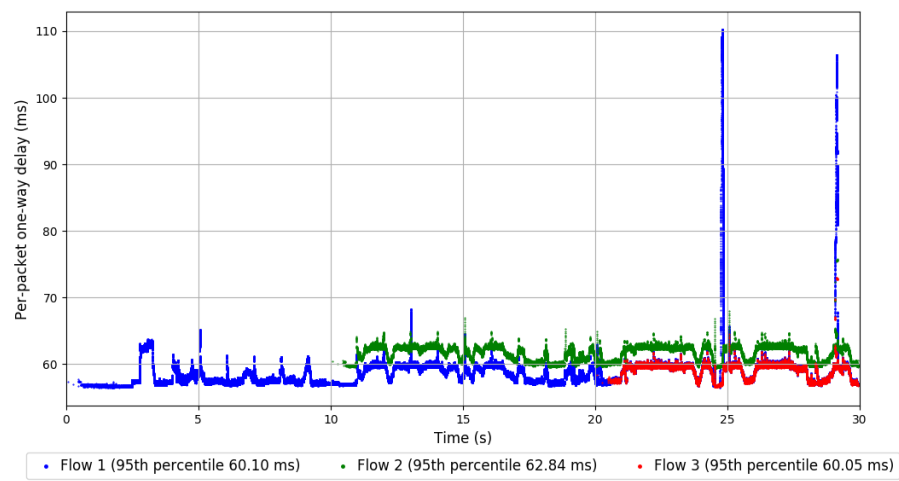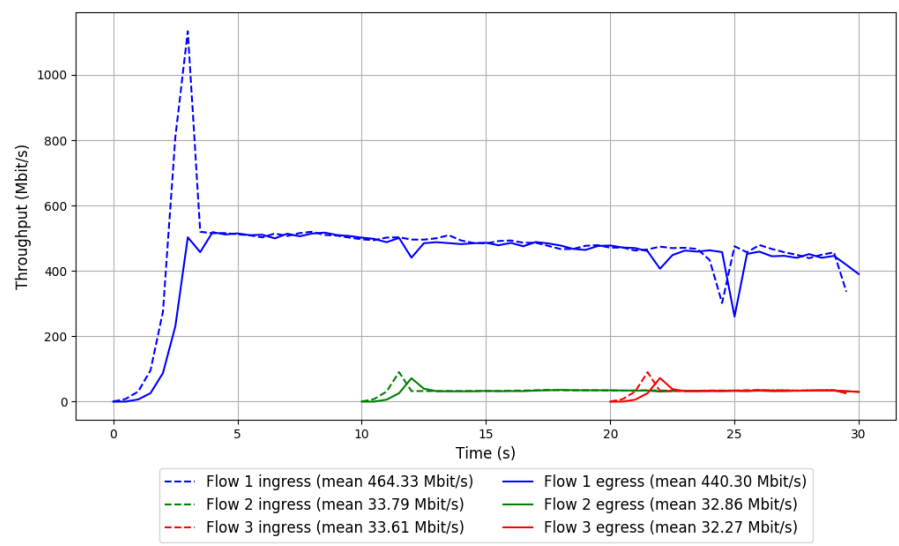
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 464.33 Mbit/s)   Flow 1 egress (mean 440.30 Mbit/s)
Flow 2 ingress (mean 33.79 Mbit/s)   Flow 2 egress (mean 32.86 Mbit/s)
Flow 3 ingress (mean 33.61 Mbit/s)   Flow 3 egress (mean 32.27 Mbit/s)

Flow 1 (95th percentile 60.10 ms)   Flow 2 (95th percentile 62.84 ms)   Flow 3 (95th percentile 60.05 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-22 06:37:57
End at: 2018-07-22 06:38:27
Local clock offset: -2.86 ms
Remote clock offset: -38.203 ms


# Below is generated by plot.py at 2018-07-22 10:59:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.24 Mbit/s
95th percentile per-packet one-way delay: 66.006 ms
Loss rate: 4.65%
-- Flow 1:
Average throughput: 435.03 Mbit/s
95th percentile per-packet one-way delay: 66.033 ms
Loss rate: 4.82%
-- Flow 2:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 63.070 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 63.228 ms
Loss rate: 2.95%
```
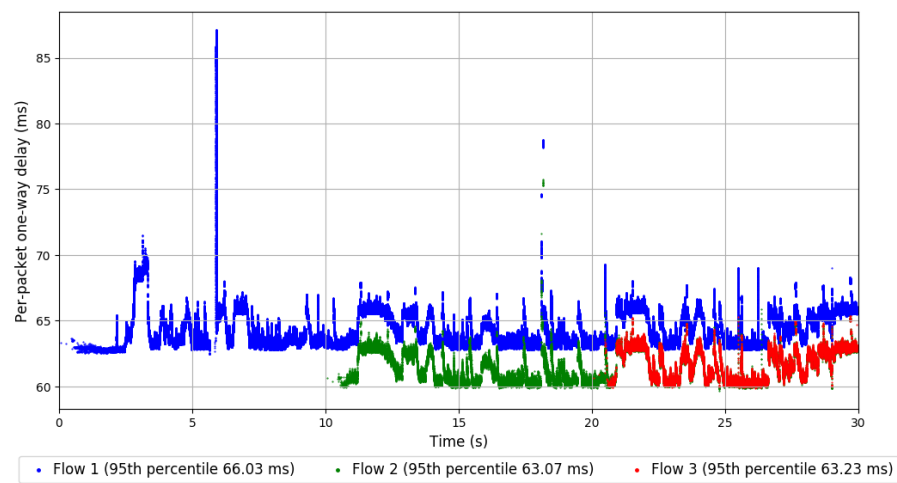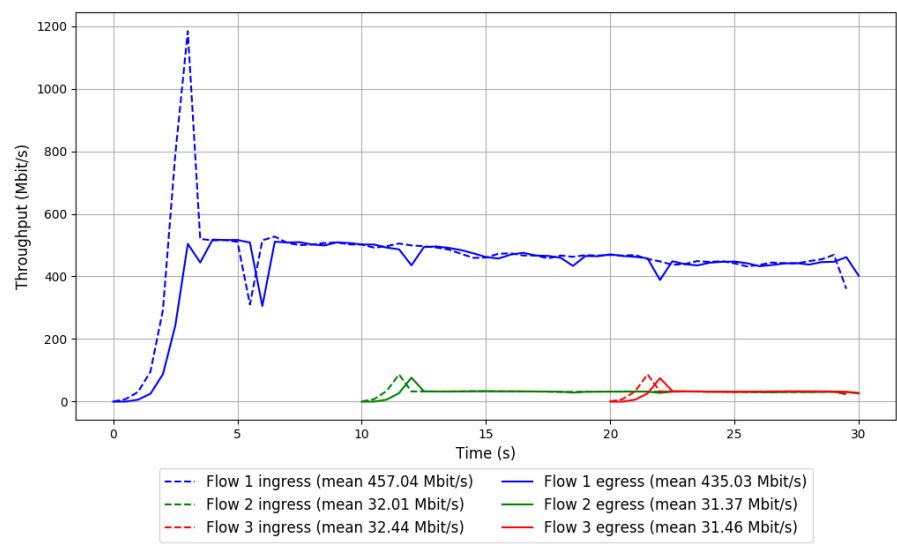
Run 5: Report of PCC-Allegro — Data Link

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-22 07:08:01
End at: 2018-07-22 07:08:31
Local clock offset: 1.372 ms
Remote clock offset: -29.533 ms


# Below is generated by plot.py at 2018-07-22 10:59:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.56 Mbit/s
95th percentile per-packet one-way delay: 71.280 ms
Loss rate: 6.43%
-- Flow 1:
Average throughput: 404.22 Mbit/s
95th percentile per-packet one-way delay: 71.290 ms
Loss rate: 6.53%
-- Flow 2:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 68.453 ms
Loss rate: 3.97%
-- Flow 3:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 68.025 ms
Loss rate: 2.81%
```
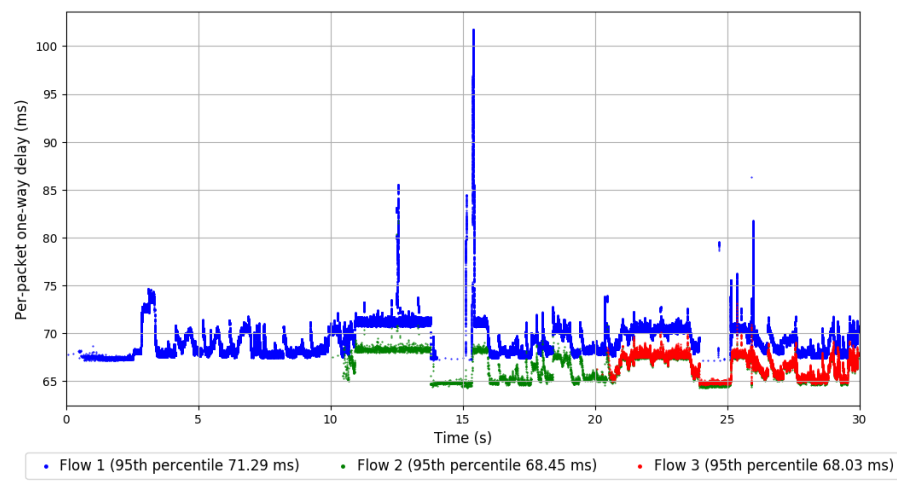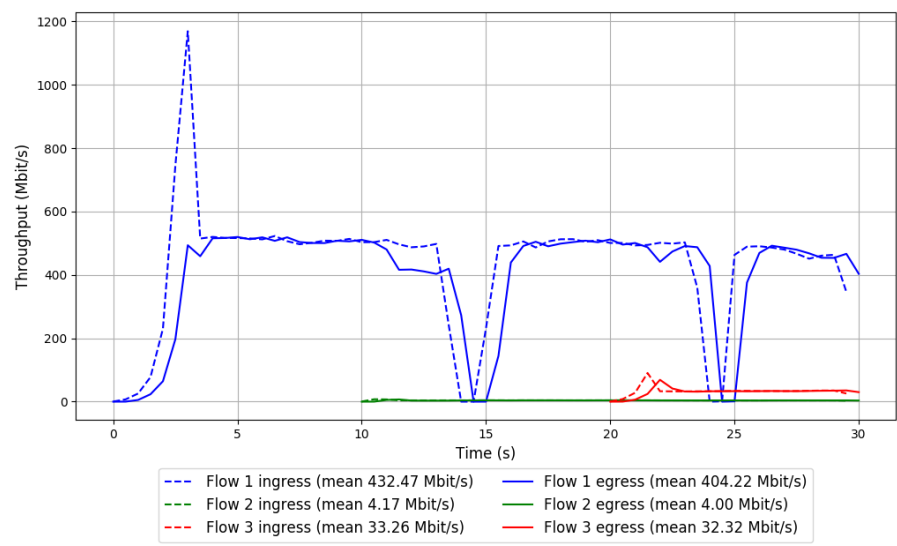
Run 6: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 432.47 Mbit/s) --- Flow 1 egress (mean 404.22 Mbit/s)
Flow 2 ingress (mean 4.17 Mbit/s) --- Flow 2 egress (mean 4.00 Mbit/s)
Flow 3 ingress (mean 33.26 Mbit/s) --- Flow 3 egress (mean 32.32 Mbit/s)

Flow 1 (95th percentile 71.29 ms) · Flow 2 (95th percentile 68.45 ms) · Flow 3 (95th percentile 68.03 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-22 07:38:03
End at: 2018-07-22 07:38:33
Local clock offset: 0.801 ms
Remote clock offset: -34.564 ms

# Below is generated by plot.py at 2018-07-22 10:59:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.52 Mbit/s
95th percentile per-packet one-way delay: 65.148 ms
Loss rate: 4.95%
-- Flow 1:
Average throughput: 438.09 Mbit/s
95th percentile per-packet one-way delay: 65.145 ms
Loss rate: 5.10%
-- Flow 2:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 62.257 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 31.00 Mbit/s
95th percentile per-packet one-way delay: 65.356 ms
Loss rate: 3.80%
```
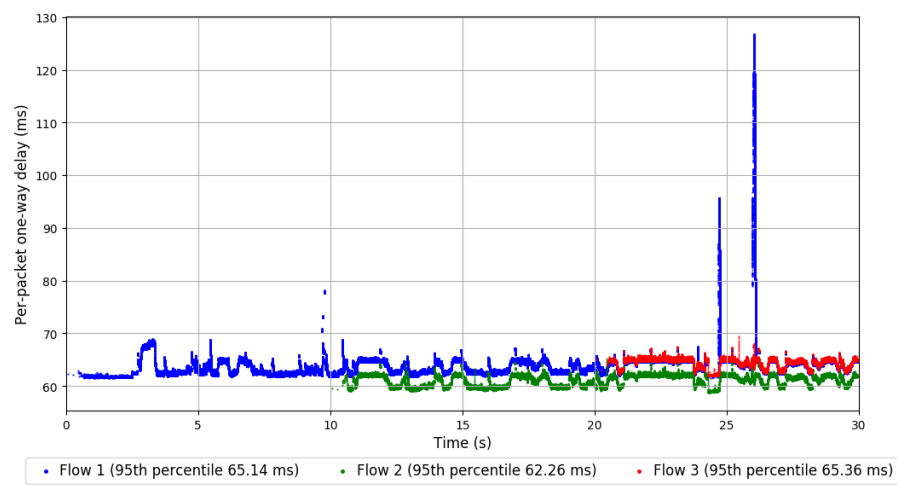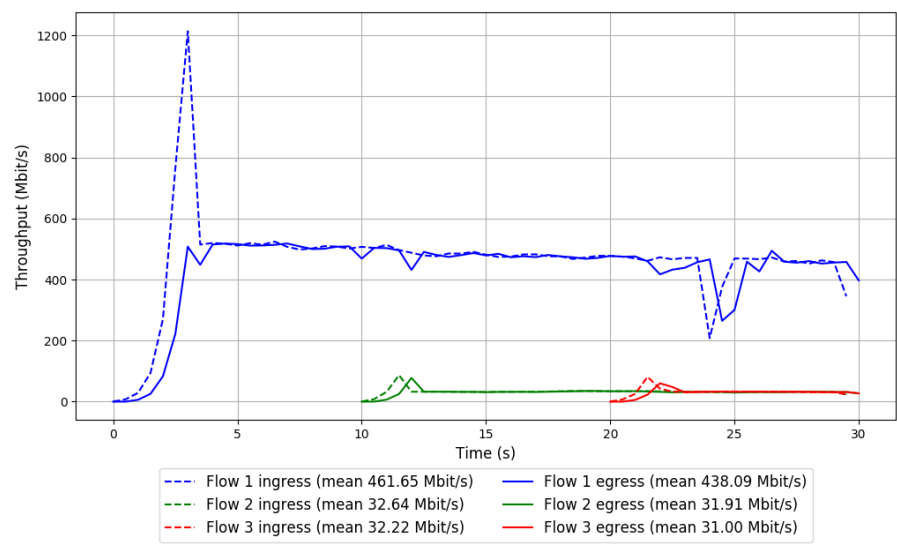
Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 461.65 Mbit/s) — Flow 1 egress (mean 438.09 Mbit/s)
Flow 2 ingress (mean 32.64 Mbit/s) — Flow 2 egress (mean 31.91 Mbit/s)
Flow 3 ingress (mean 32.22 Mbit/s) — Flow 3 egress (mean 31.00 Mbit/s)

Flow 1 (95th percentile 65.14 ms) • Flow 2 (95th percentile 62.26 ms) • Flow 3 (95th percentile 65.36 ms)

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```
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-22 08:12:26
End at: 2018-07-22 08:12:56
Local clock offset: 2.772 ms
Remote clock offset: -33.268 ms


# Below is generated by plot.py at 2018-07-22 10:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.74 Mbit/s
95th percentile per-packet one-way delay: 63.620 ms
Loss rate: 3.91%
-- Flow 1:
Average throughput: 450.54 Mbit/s
95th percentile per-packet one-way delay: 63.632 ms
Loss rate: 4.02%
-- Flow 2:
Average throughput: 17.38 Mbit/s
95th percentile per-packet one-way delay: 63.267 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 60.940 ms
Loss rate: 2.18%
```
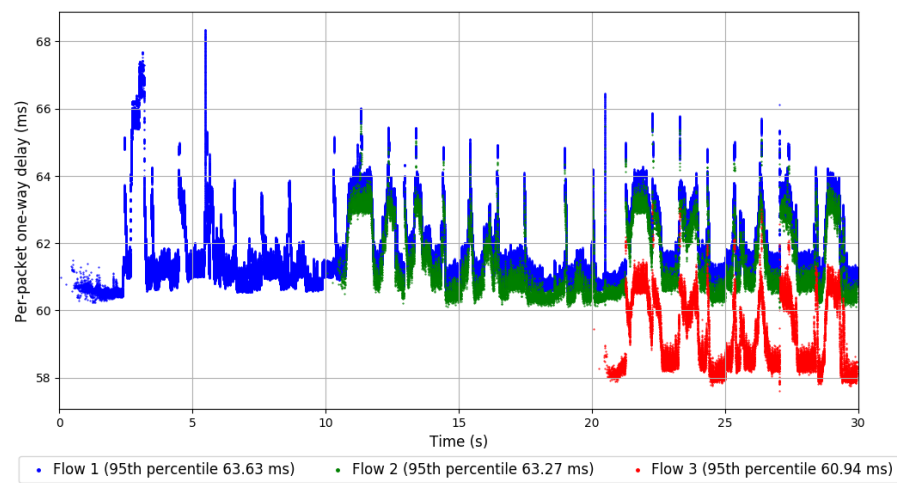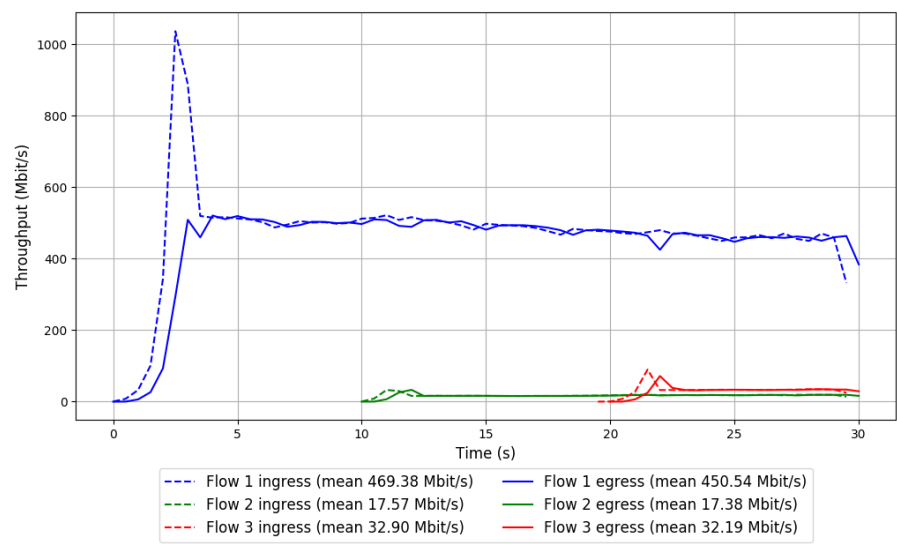
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 469.38 Mbit/s) ---- Flow 1 egress (mean 450.54 Mbit/s)
Flow 2 ingress (mean 17.57 Mbit/s) ---- Flow 2 egress (mean 17.38 Mbit/s)
Flow 3 ingress (mean 32.90 Mbit/s) ---- Flow 3 egress (mean 32.19 Mbit/s)

Flow 1 (95th percentile 63.63 ms)   Flow 2 (95th percentile 63.27 ms)   Flow 3 (95th percentile 60.94 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-22 09:08:23
End at: 2018-07-22 09:08:53
Local clock offset: 1.253 ms
Remote clock offset: -36.359 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.84 Mbit/s
95th percentile per-packet one-way delay: 61.814 ms
Loss rate: 5.54%
-- Flow 1:
Average throughput: 428.48 Mbit/s
95th percentile per-packet one-way delay: 59.734 ms
Loss rate: 5.74%
-- Flow 2:
Average throughput: 64.09 Mbit/s
95th percentile per-packet one-way delay: 62.212 ms
Loss rate: 3.73%
-- Flow 3:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 59.993 ms
Loss rate: 1.57%
```
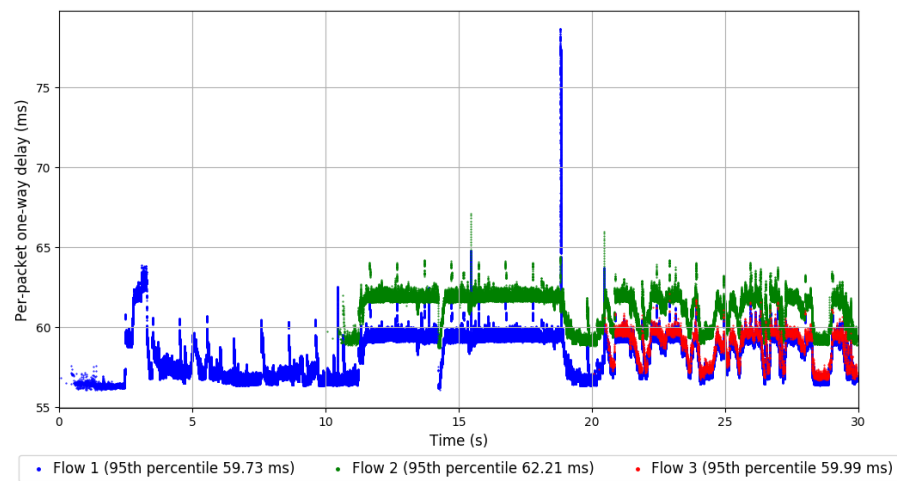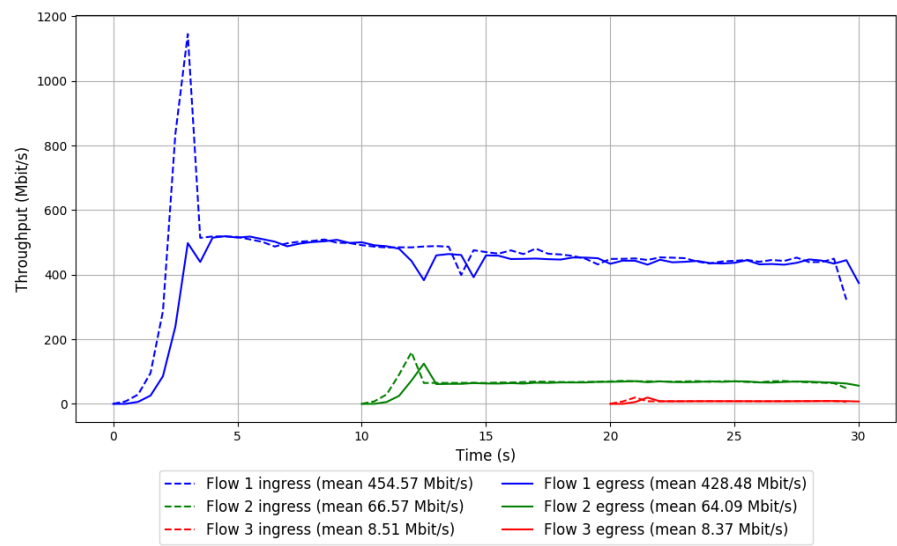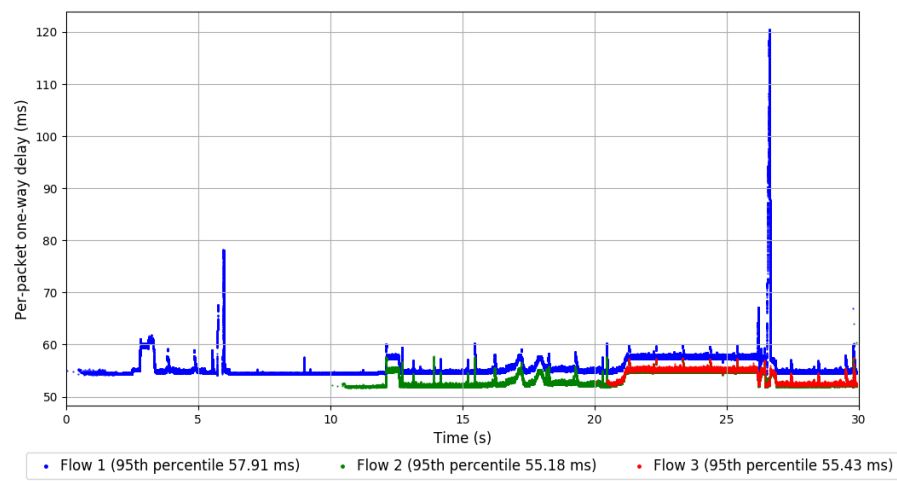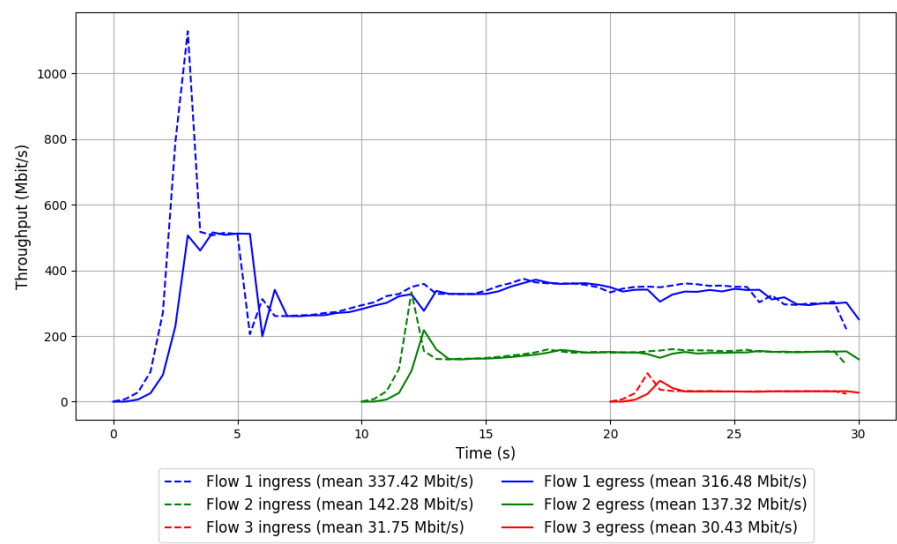
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 454.57 Mbit/s) ---- Flow 1 egress (mean 428.48 Mbit/s) ——
Flow 2 ingress (mean 66.57 Mbit/s) ---- Flow 2 egress (mean 64.09 Mbit/s) ——
Flow 3 ingress (mean 8.51 Mbit/s) ---- Flow 3 egress (mean 8.37 Mbit/s) ——

Flow 1 (95th percentile 59.73 ms) • Flow 2 (95th percentile 62.21 ms) • Flow 3 (95th percentile 59.99 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-22 09:52:47
End at: 2018-07-22 09:53:17
Local clock offset: 2.0 ms
Remote clock offset: -40.356 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.72 Mbit/s
95th percentile per-packet one-way delay: 57.763 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 316.48 Mbit/s
95th percentile per-packet one-way delay: 57.914 ms
Loss rate: 6.22%
-- Flow 2:
Average throughput: 137.32 Mbit/s
95th percentile per-packet one-way delay: 55.182 ms
Loss rate: 3.45%
-- Flow 3:
Average throughput: 30.43 Mbit/s
95th percentile per-packet one-way delay: 55.430 ms
Loss rate: 4.17%
```

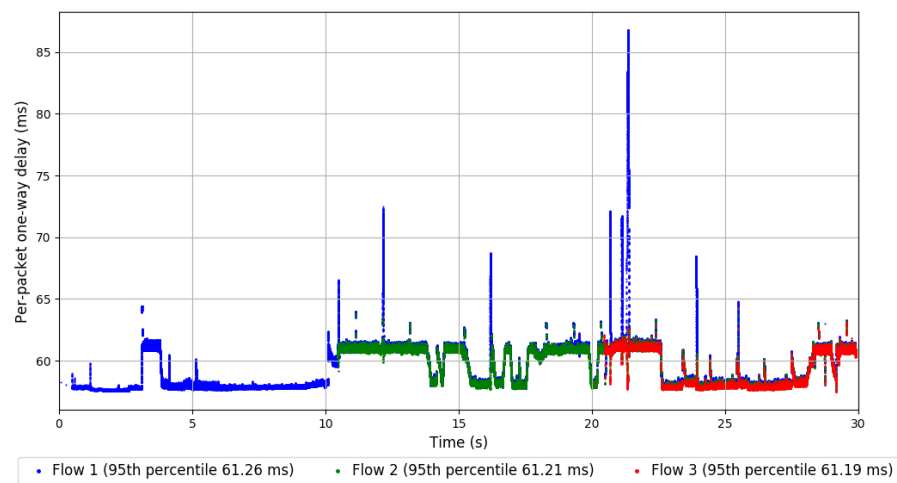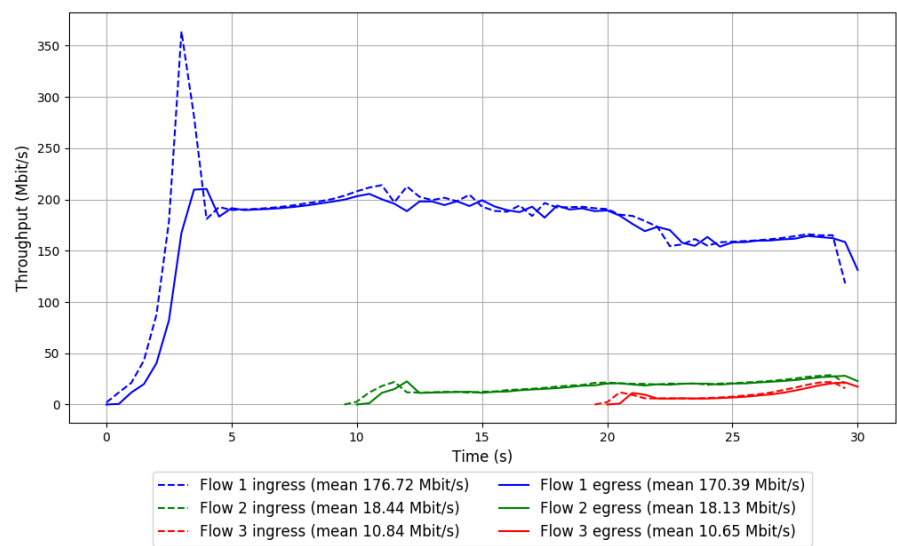## Run 10: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2018-07-22 04:40:41
End at: 2018-07-22 04:41:11
Local clock offset: 0.355 ms
Remote clock offset: -34.97 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.99 Mbit/s
95th percentile per-packet one-way delay: 61.259 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 170.39 Mbit/s
95th percentile per-packet one-way delay: 61.263 ms
Loss rate: 3.57%
-- Flow 2:
Average throughput: 18.13 Mbit/s
95th percentile per-packet one-way delay: 61.212 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 10.65 Mbit/s
95th percentile per-packet one-way delay: 61.187 ms
Loss rate: 1.70%
```
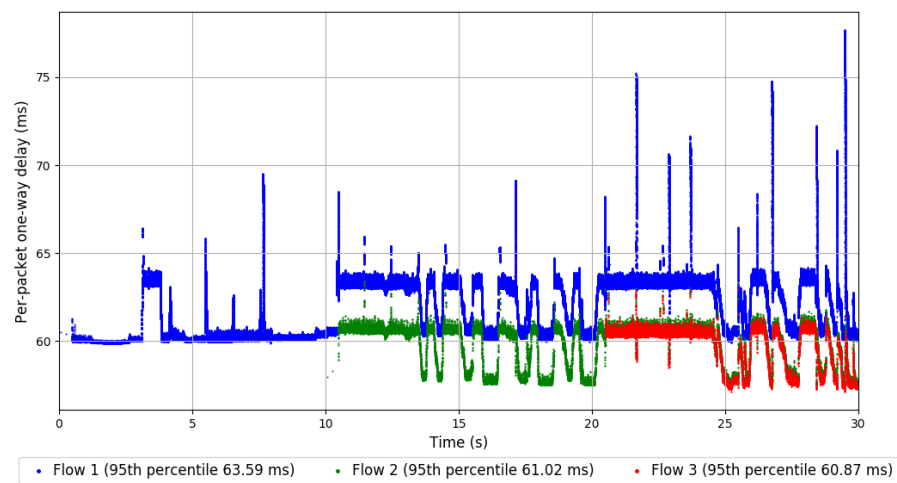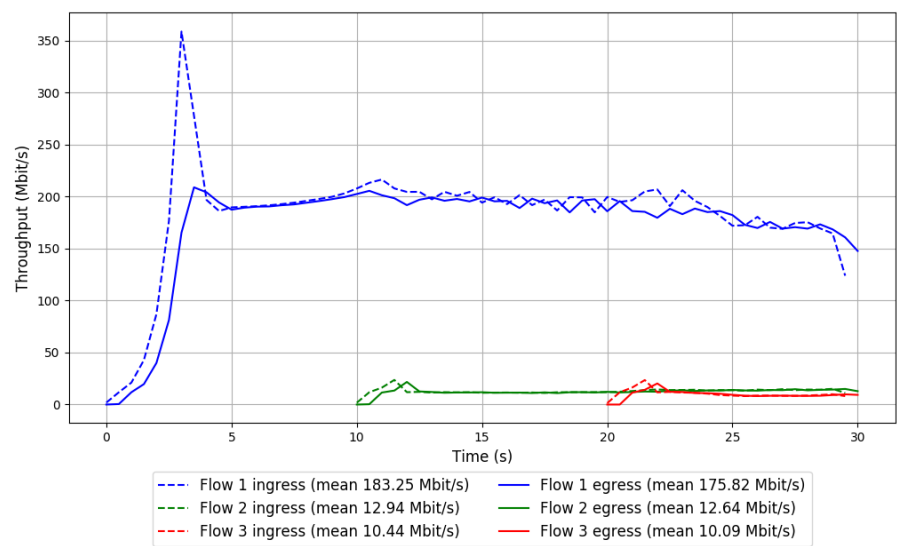
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 176.72 Mbit/s) — — — Flow 1 egress (mean 170.39 Mbit/s) ——
Flow 2 ingress (mean 18.44 Mbit/s) — — — Flow 2 egress (mean 18.13 Mbit/s) ——
Flow 3 ingress (mean 10.84 Mbit/s) — — — Flow 3 egress (mean 10.65 Mbit/s) ——

Flow 1 (95th percentile 61.26 ms) Flow 2 (95th percentile 61.21 ms) Flow 3 (95th percentile 61.19 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2018-07-22 05:05:08
End at: 2018-07-22 05:05:38
Local clock offset: -0.04 ms
Remote clock offset: -35.133 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.56 Mbit/s
95th percentile per-packet one-way delay: 63.573 ms
Loss rate: 3.98%
-- Flow 1:
Average throughput: 175.82 Mbit/s
95th percentile per-packet one-way delay: 63.585 ms
Loss rate: 4.06%
-- Flow 2:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 61.019 ms
Loss rate: 2.32%
-- Flow 3:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 60.870 ms
Loss rate: 3.42%
```
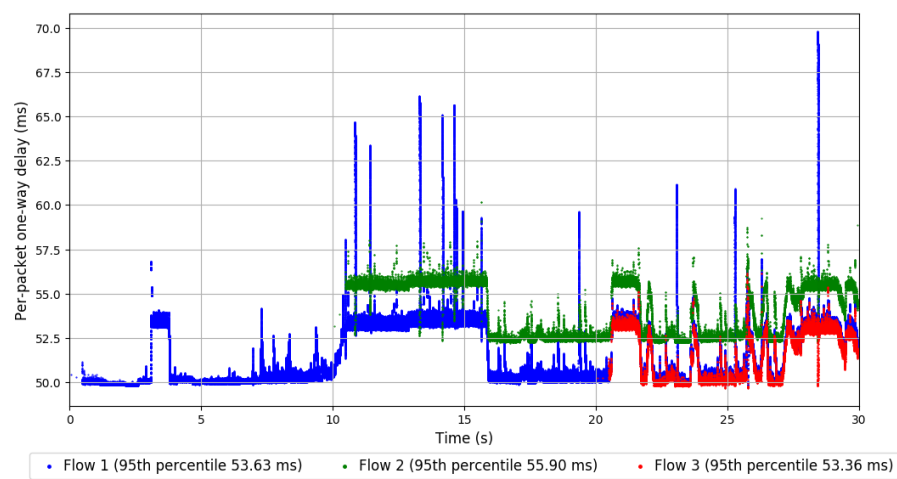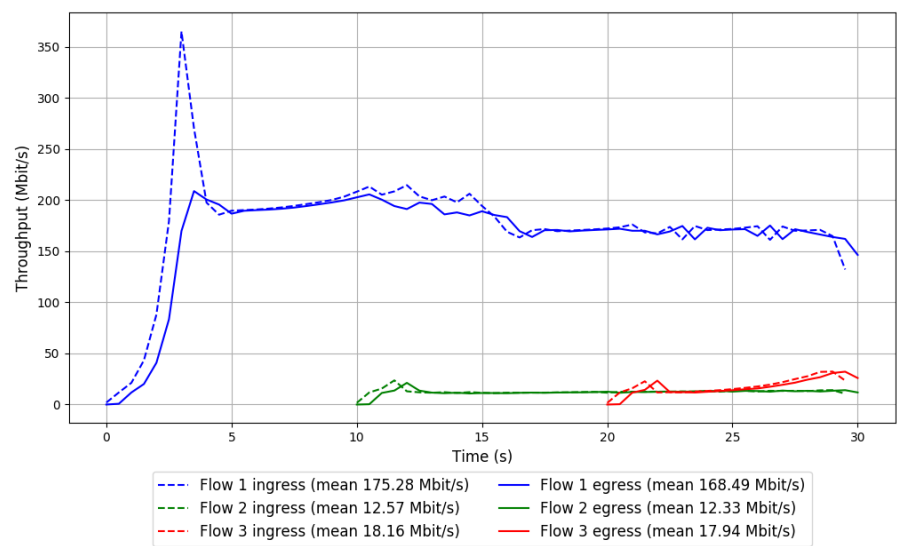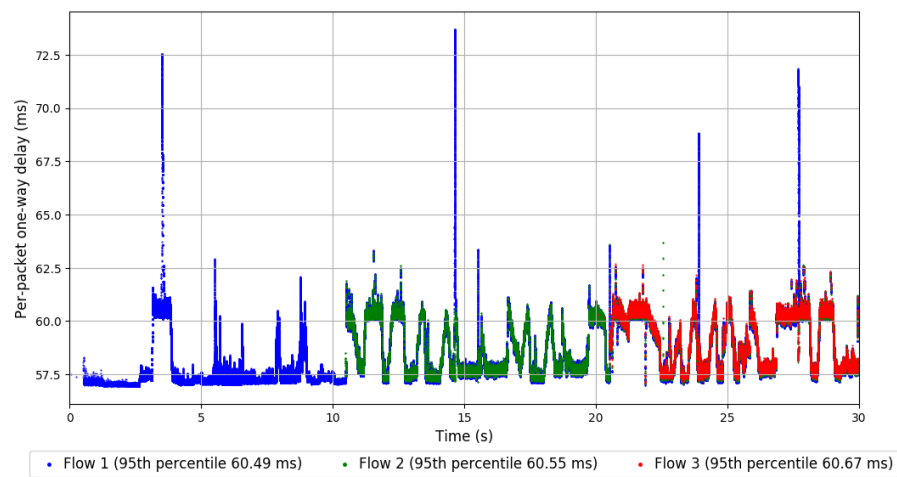
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 183.25 Mbit/s) — Flow 1 egress (mean 175.82 Mbit/s)
Flow 2 ingress (mean 12.94 Mbit/s) — Flow 2 egress (mean 12.64 Mbit/s)
Flow 3 ingress (mean 10.44 Mbit/s) — Flow 3 egress (mean 10.09 Mbit/s)

Flow 1 (95th percentile 63.59 ms) — Flow 2 (95th percentile 61.02 ms) — Flow 3 (95th percentile 60.87 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2018-07-22 05:39:14
End at: 2018-07-22 05:39:44
Local clock offset: 1.315 ms
Remote clock offset: -41.483 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.59 Mbit/s
95th percentile per-packet one-way delay: 53.837 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 168.49 Mbit/s
95th percentile per-packet one-way delay: 53.634 ms
Loss rate: 3.87%
-- Flow 2:
Average throughput: 12.33 Mbit/s
95th percentile per-packet one-way delay: 55.895 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 17.94 Mbit/s
95th percentile per-packet one-way delay: 53.359 ms
Loss rate: 1.16%
```
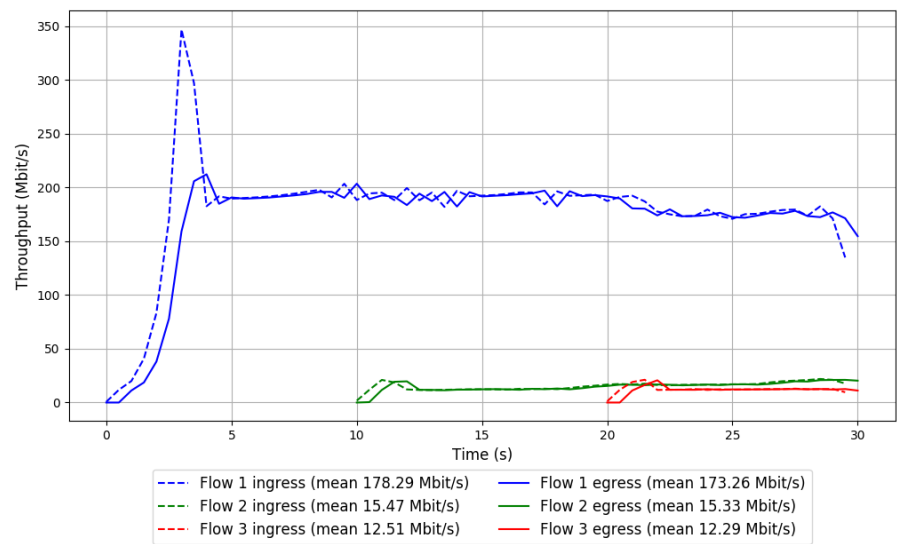
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 175.28 Mbit/s) --- Flow 1 egress (mean 168.49 Mbit/s)
Flow 2 ingress (mean 12.57 Mbit/s) --- Flow 2 egress (mean 12.33 Mbit/s)
Flow 3 ingress (mean 18.16 Mbit/s) --- Flow 3 egress (mean 17.94 Mbit/s)

Flow 1 (95th percentile 53.63 ms) • Flow 2 (95th percentile 55.90 ms) • Flow 3 (95th percentile 53.36 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-07-22 06:26:37
End at: 2018-07-22 06:27:07
Local clock offset: -0.84 ms
Remote clock offset: -38.344 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.52 Mbit/s
95th percentile per-packet one-way delay: 60.503 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 173.26 Mbit/s
95th percentile per-packet one-way delay: 60.487 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 15.33 Mbit/s
95th percentile per-packet one-way delay: 60.546 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 12.29 Mbit/s
95th percentile per-packet one-way delay: 60.669 ms
Loss rate: 1.82%
```
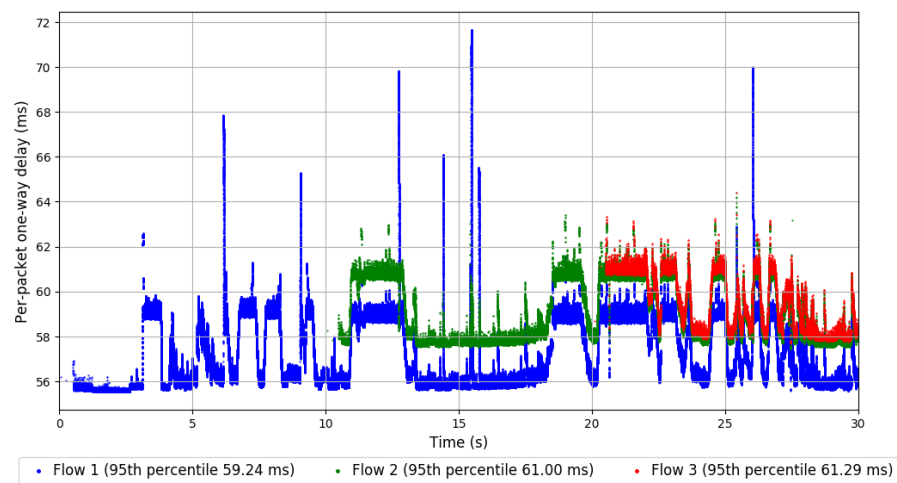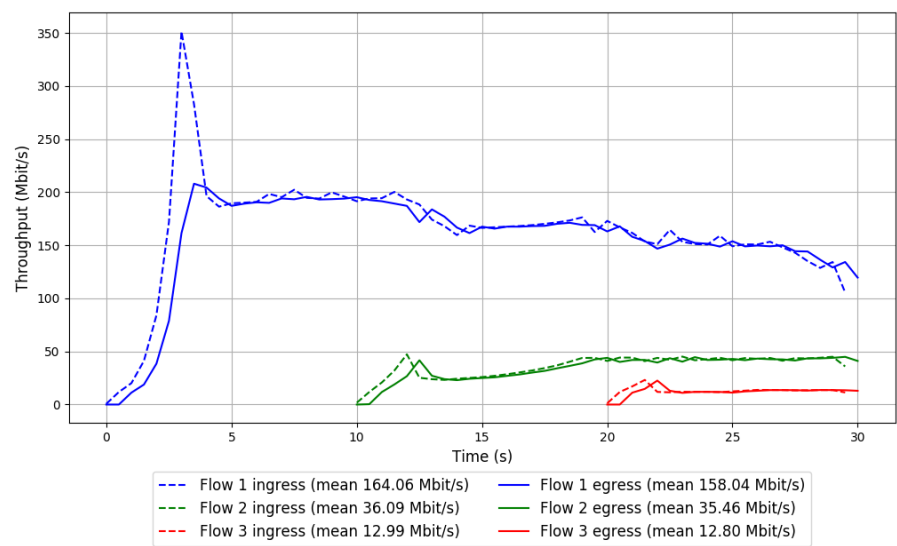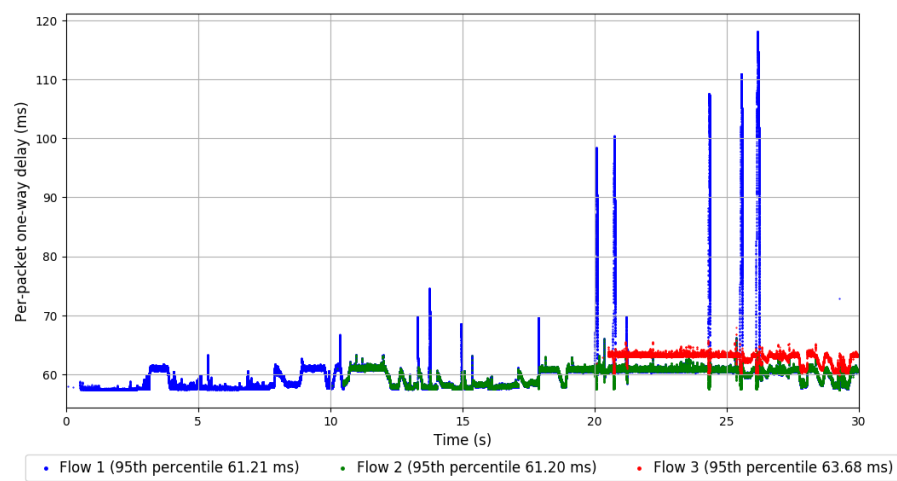
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 178.29 Mbit/s) Flow 1 egress (mean 173.26 Mbit/s)
Flow 2 ingress (mean 15.47 Mbit/s) Flow 2 egress (mean 15.33 Mbit/s)
Flow 3 ingress (mean 12.51 Mbit/s) Flow 3 egress (mean 12.29 Mbit/s)

Flow 1 (95th percentile 60.49 ms) Flow 2 (95th percentile 60.55 ms) Flow 3 (95th percentile 60.67 ms)
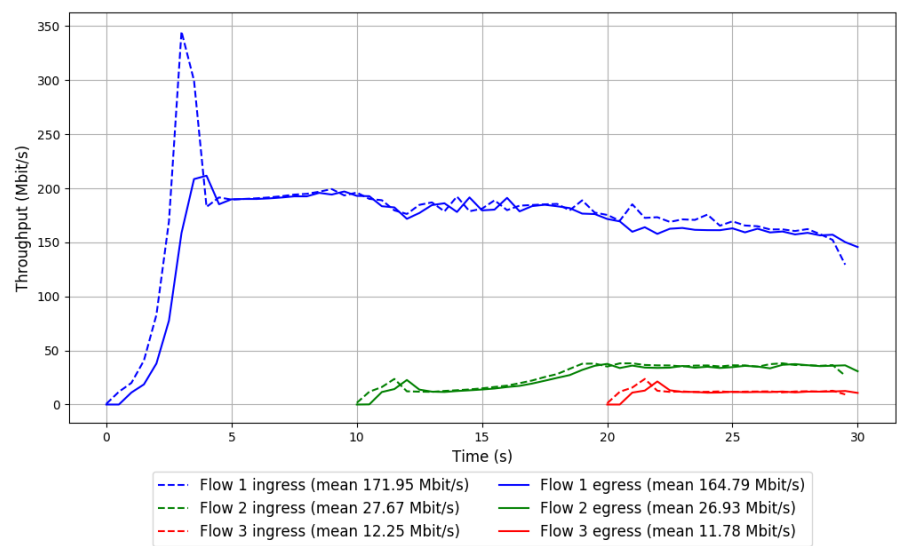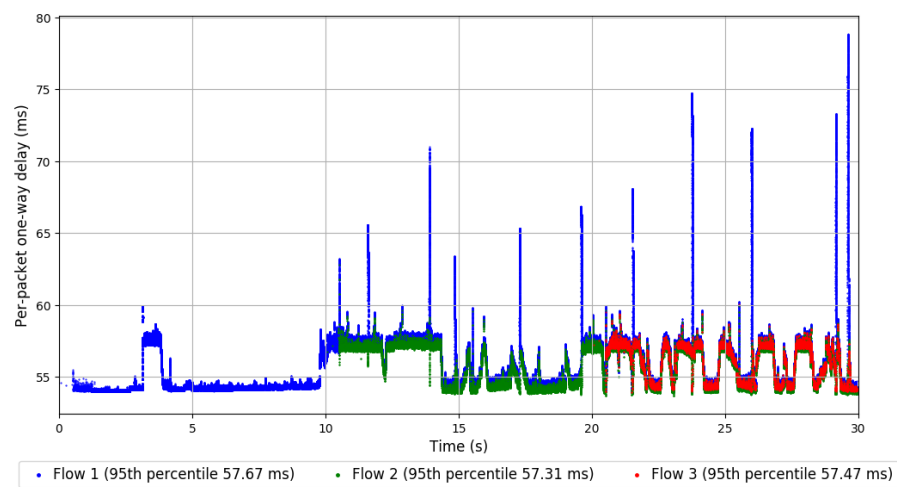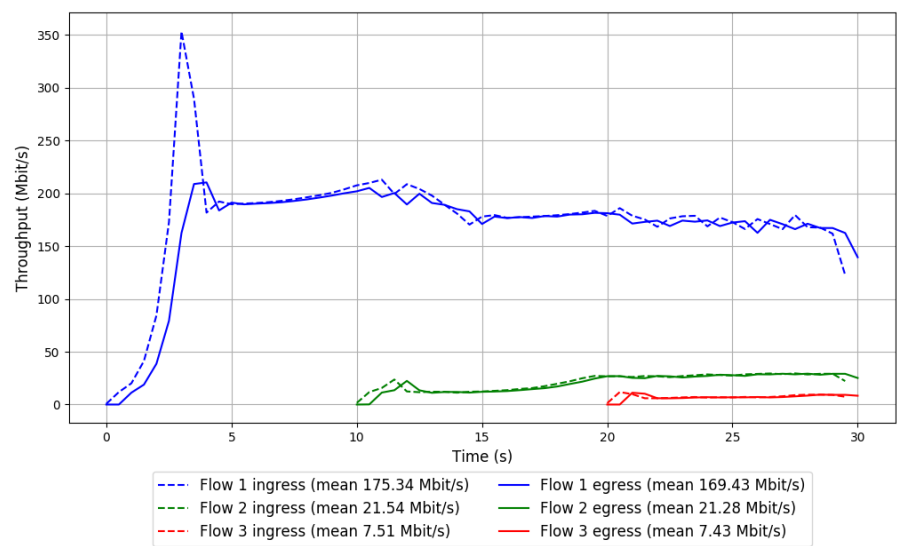
```
Run 5: Statistics of PCC-Expr

Start at: 2018-07-22 07:02:22
End at: 2018-07-22 07:02:52
Local clock offset: 0.485 ms
Remote clock offset: -39.742 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.84 Mbit/s
95th percentile per-packet one-way delay: 60.657 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 158.04 Mbit/s
95th percentile per-packet one-way delay: 59.238 ms
Loss rate: 3.67%
-- Flow 2:
Average throughput: 35.46 Mbit/s
95th percentile per-packet one-way delay: 61.002 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 61.294 ms
Loss rate: 1.51%
```

Run 5: Report of PCC-Expr — Data Link

- - - Flow 1 ingress (mean 164.06 Mbit/s)   — Flow 1 egress (mean 158.04 Mbit/s)
- - - Flow 2 ingress (mean 36.09 Mbit/s)   — Flow 2 egress (mean 35.46 Mbit/s)
- - - Flow 3 ingress (mean 12.99 Mbit/s)   — Flow 3 egress (mean 12.80 Mbit/s)

- Flow 1 (95th percentile 59.24 ms)   • Flow 2 (95th percentile 61.00 ms)   • Flow 3 (95th percentile 61.29 ms)
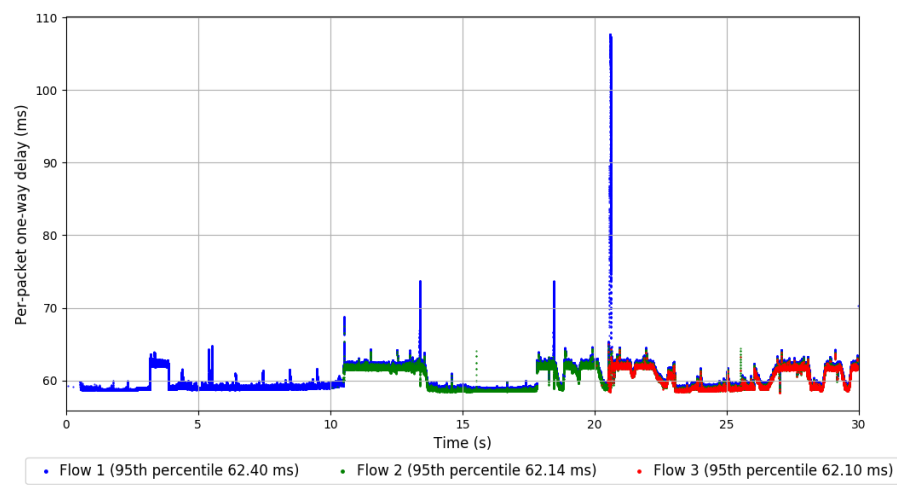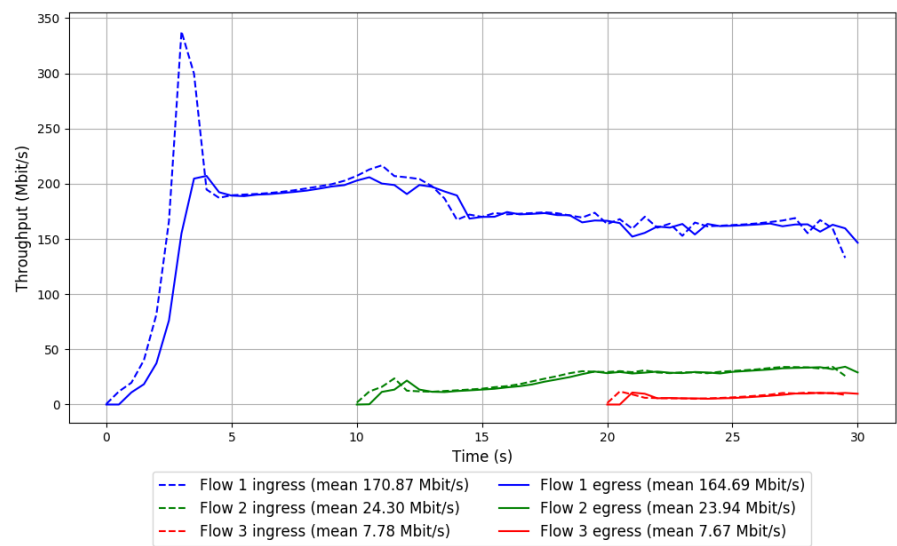
```
Run 6: Statistics of PCC-Expr

Start at: 2018-07-22 07:32:22
End at: 2018-07-22 07:32:52
Local clock offset: 0.842 ms
Remote clock offset: -36.414 ms


# Below is generated by plot.py at 2018-07-22 11:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.58 Mbit/s
95th percentile per-packet one-way delay: 61.430 ms
Loss rate: 4.01%
-- Flow 1:
Average throughput: 164.79 Mbit/s
95th percentile per-packet one-way delay: 61.211 ms
Loss rate: 4.16%
-- Flow 2:
Average throughput: 26.93 Mbit/s
95th percentile per-packet one-way delay: 61.204 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 63.676 ms
Loss rate: 3.79%
```

Run 6: Report of PCC-Expr — Data Link

```
Run 7: Statistics of PCC-Expr

Start at: 2018-07-22 08:06:45
End at: 2018-07-22 08:07:15
Local clock offset: -0.268 ms
Remote clock offset: -40.079 ms

# Below is generated by plot.py at 2018-07-22 11:07:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.04 Mbit/s
95th percentile per-packet one-way delay: 57.656 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 169.43 Mbit/s
95th percentile per-packet one-way delay: 57.671 ms
Loss rate: 3.37%
-- Flow 2:
Average throughput: 21.28 Mbit/s
95th percentile per-packet one-way delay: 57.307 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 57.473 ms
Loss rate: 1.16%
```
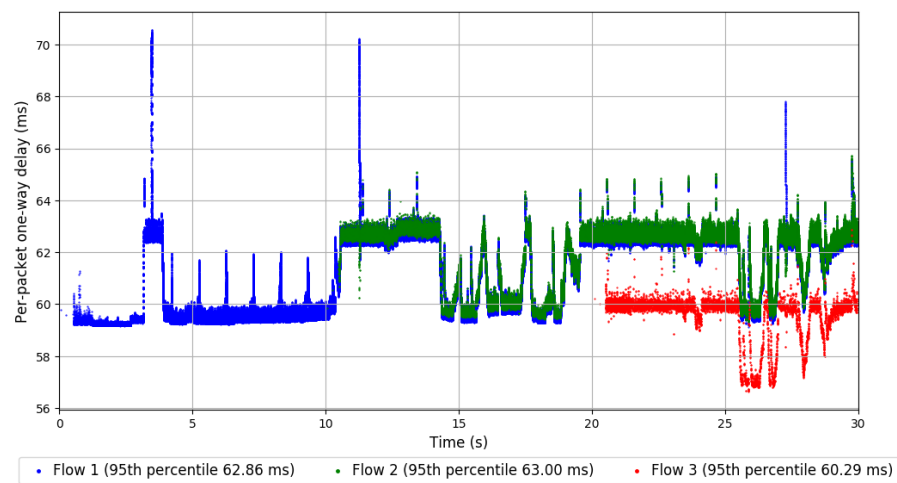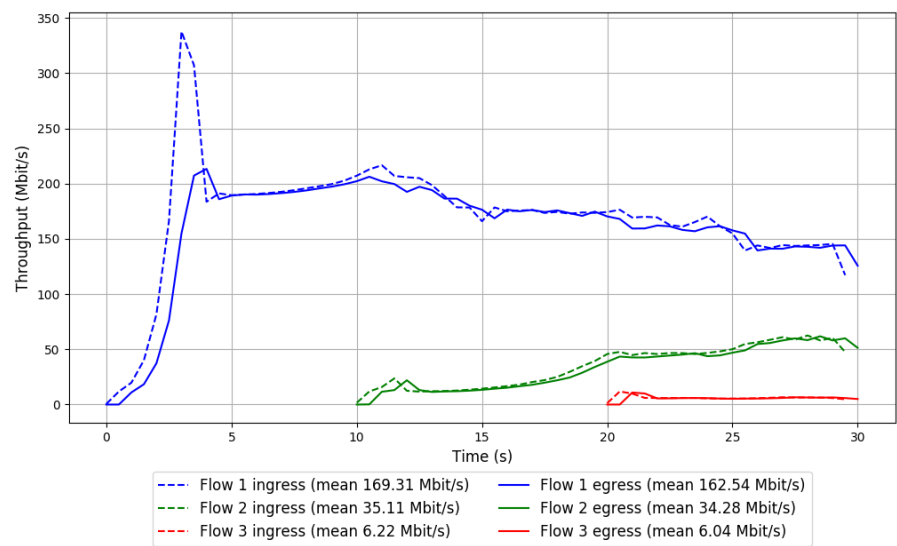
Run 7: Report of PCC-Expr — Data Link

```
Run 8: Statistics of PCC-Expr

Start at: 2018-07-22 09:02:43
End at: 2018-07-22 09:03:13
Local clock offset: 2.446 ms
Remote clock offset: -35.489 ms


# Below is generated by plot.py at 2018-07-22 11:07:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.14 Mbit/s
95th percentile per-packet one-way delay: 62.385 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 164.69 Mbit/s
95th percentile per-packet one-way delay: 62.398 ms
Loss rate: 3.59%
-- Flow 2:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 62.144 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 62.097 ms
Loss rate: 1.45%
```
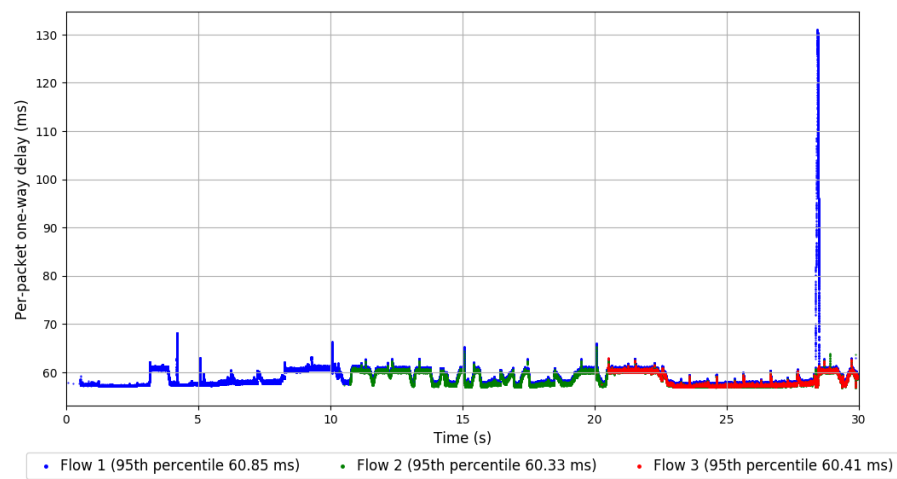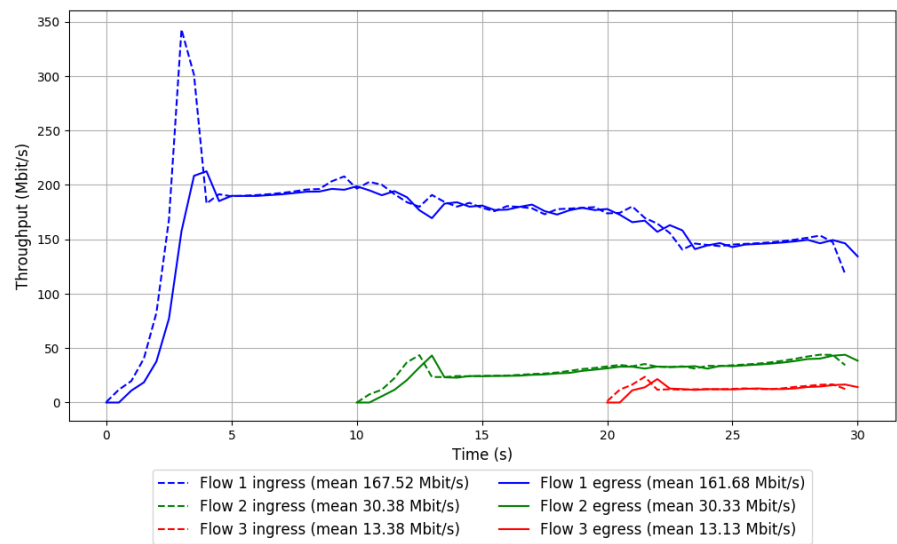
Run 8: Report of PCC-Expr — Data Link

```
Run 9: Statistics of PCC-Expr

Start at: 2018-07-22 09:47:06
End at: 2018-07-22 09:47:36
Local clock offset: 2.805 ms
Remote clock offset: -34.663 ms


# Below is generated by plot.py at 2018-07-22 11:08:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.34 Mbit/s
95th percentile per-packet one-way delay: 62.878 ms
Loss rate: 3.79%
-- Flow 1:
Average throughput: 162.54 Mbit/s
95th percentile per-packet one-way delay: 62.856 ms
Loss rate: 4.00%
-- Flow 2:
Average throughput: 34.28 Mbit/s
95th percentile per-packet one-way delay: 63.004 ms
Loss rate: 2.35%
-- Flow 3:
Average throughput: 6.04 Mbit/s
95th percentile per-packet one-way delay: 60.286 ms
Loss rate: 2.92%
```
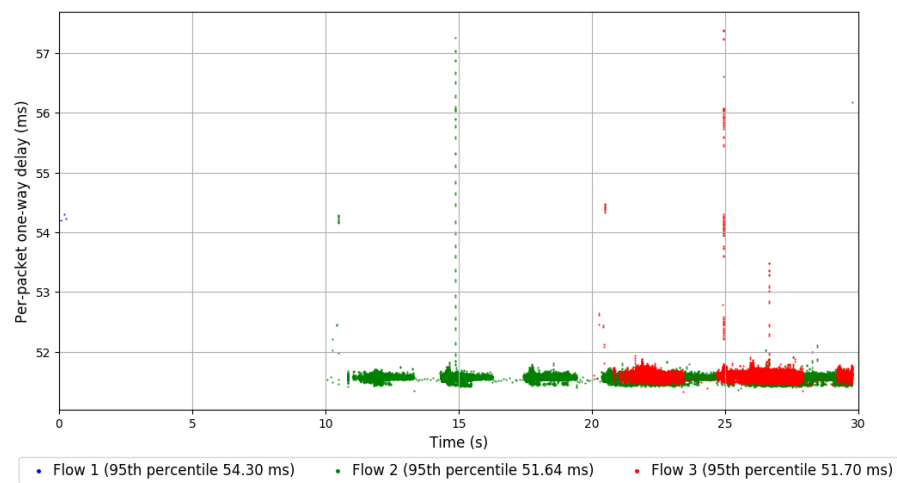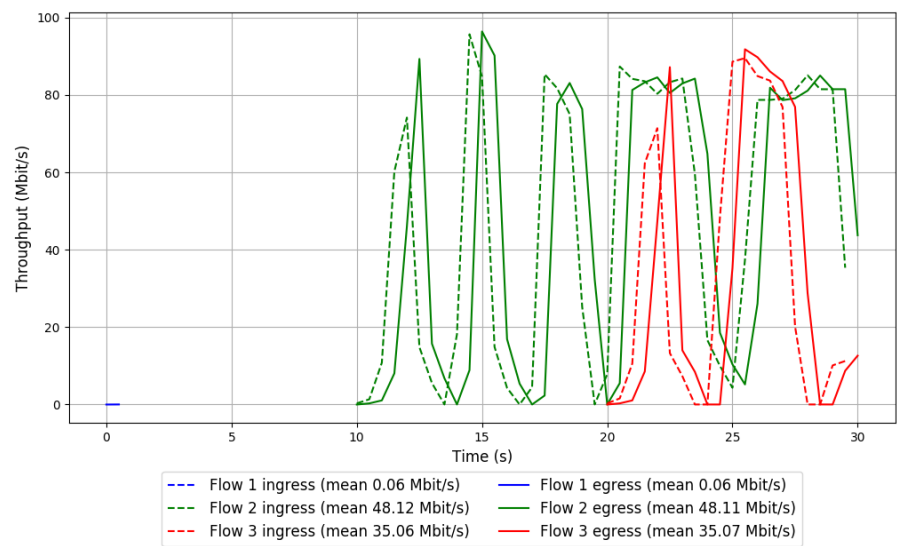
Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-07-22 10:17:08
End at: 2018-07-22 10:17:38
Local clock offset: 1.305 ms
Remote clock offset: -36.885 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.93 Mbit/s
95th percentile per-packet one-way delay: 60.826 ms
Loss rate: 3.25%
-- Flow 1:
Average throughput: 161.68 Mbit/s
95th percentile per-packet one-way delay: 60.849 ms
Loss rate: 3.50%
-- Flow 2:
Average throughput: 30.33 Mbit/s
95th percentile per-packet one-way delay: 60.334 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 60.409 ms
Loss rate: 1.91%
```

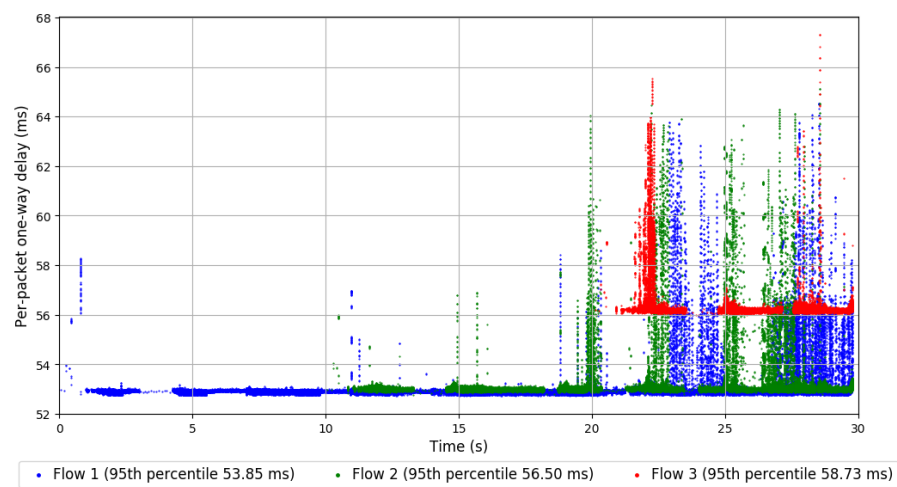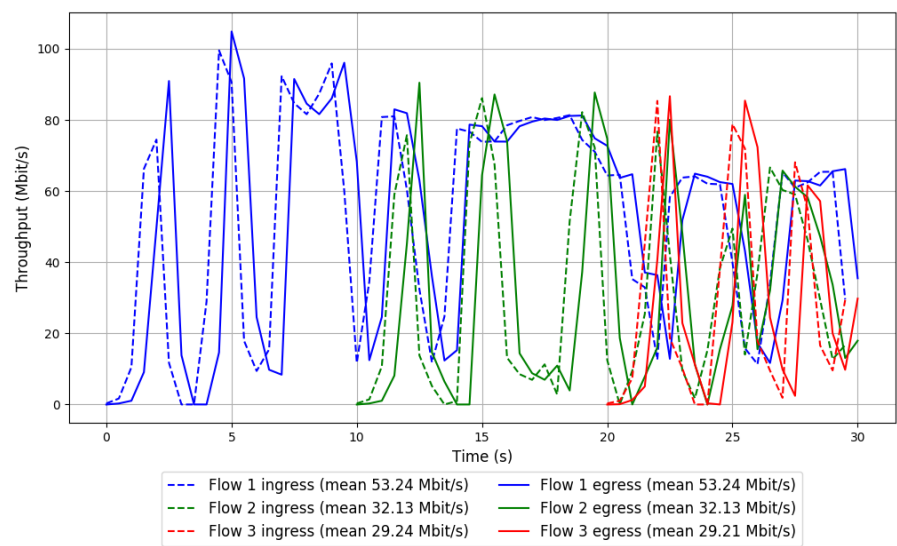Run 10: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-22 04:24:46
End at: 2018-07-22 04:25:16
Local clock offset: 1.654 ms
Remote clock offset: -39.943 ms

# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.36 Mbit/s
95th percentile per-packet one-way delay: 51.664 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 54.302 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.11 Mbit/s
95th percentile per-packet one-way delay: 51.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.07 Mbit/s
95th percentile per-packet one-way delay: 51.698 ms
Loss rate: 0.00%
```
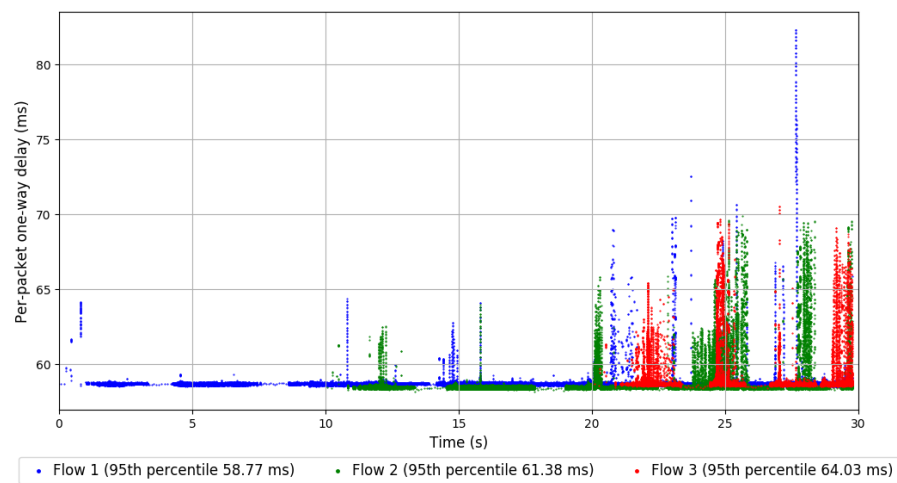
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-22 04:49:11
End at: 2018-07-22 04:49:41
Local clock offset: 2.097 ms
Remote clock offset: -37.528 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.02 Mbit/s
95th percentile per-packet one-way delay: 56.307 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.24 Mbit/s
95th percentile per-packet one-way delay: 53.854 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 56.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 58.730 ms
Loss rate: 0.12%
```

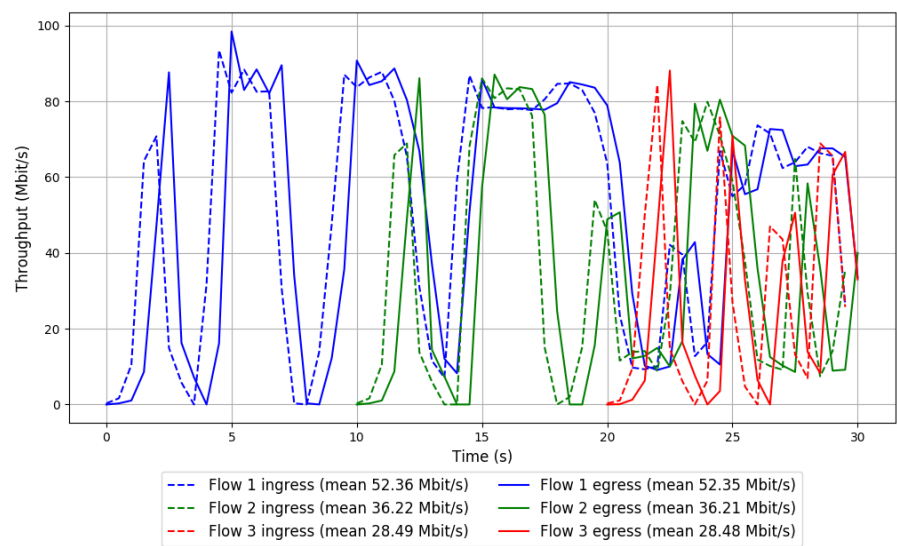# Run 2: Report of QUIC Cubic — Data Link

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```
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-22 05:13:39
End at: 2018-07-22 05:14:09
Local clock offset: -1.955 ms
Remote clock offset: -35.708 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.62 Mbit/s
95th percentile per-packet one-way delay: 59.626 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 52.35 Mbit/s
95th percentile per-packet one-way delay: 58.772 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 61.382 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 28.48 Mbit/s
95th percentile per-packet one-way delay: 64.026 ms
Loss rate: 0.00%
```

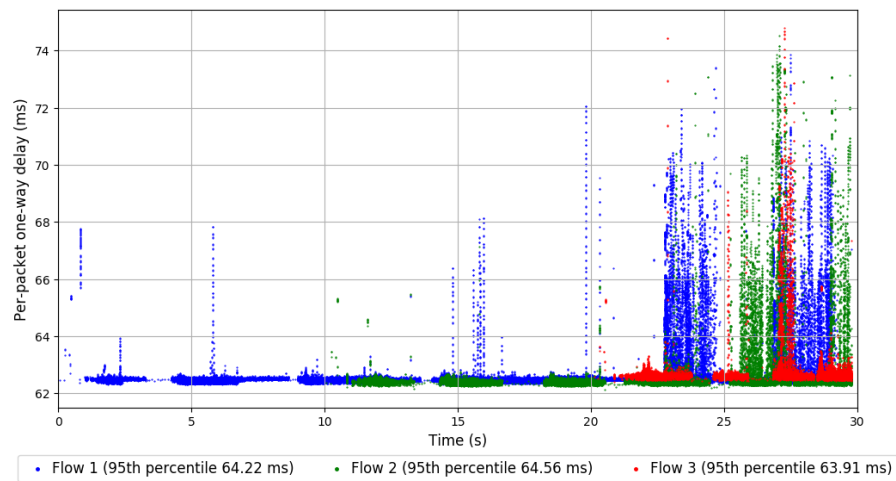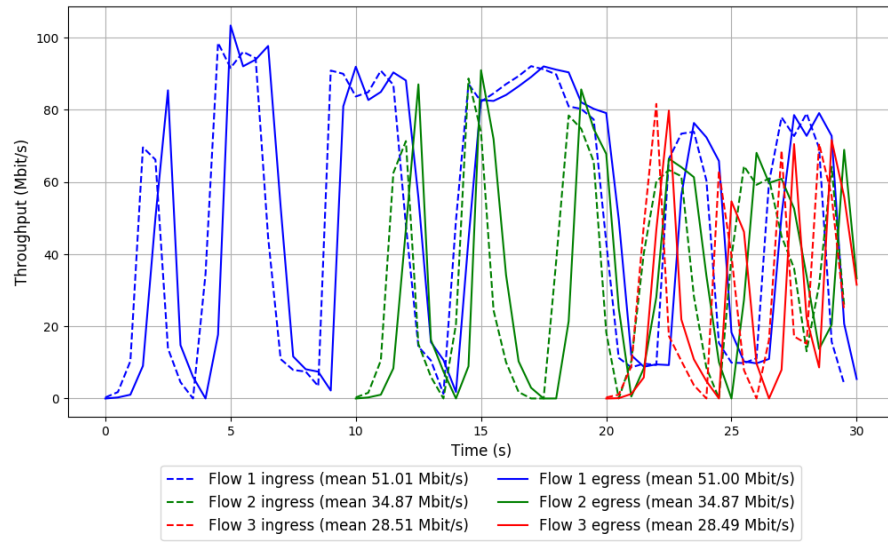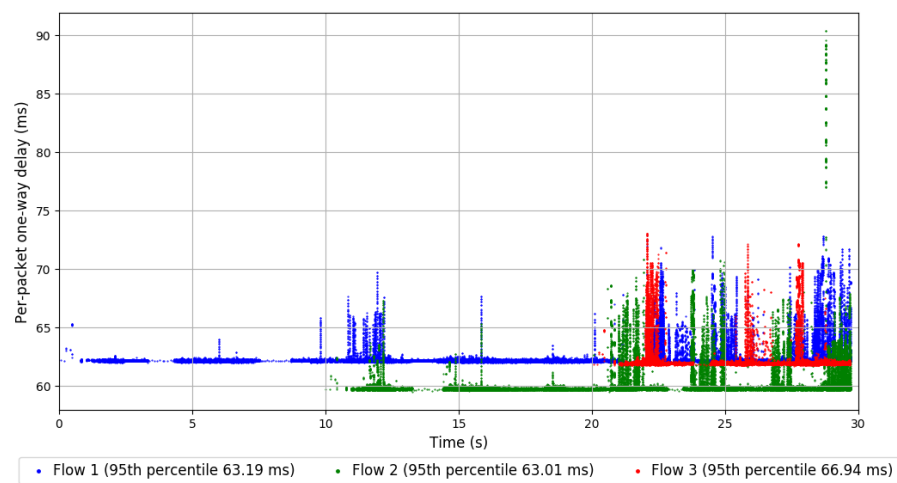Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-22 05:58:46
End at: 2018-07-22 05:59:16
Local clock offset: -2.691 ms
Remote clock offset: -33.582 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.38 Mbit/s
95th percentile per-packet one-way delay: 64.293 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 51.00 Mbit/s
95th percentile per-packet one-way delay: 64.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.87 Mbit/s
95th percentile per-packet one-way delay: 64.559 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.49 Mbit/s
95th percentile per-packet one-way delay: 63.915 ms
Loss rate: 0.00%
```
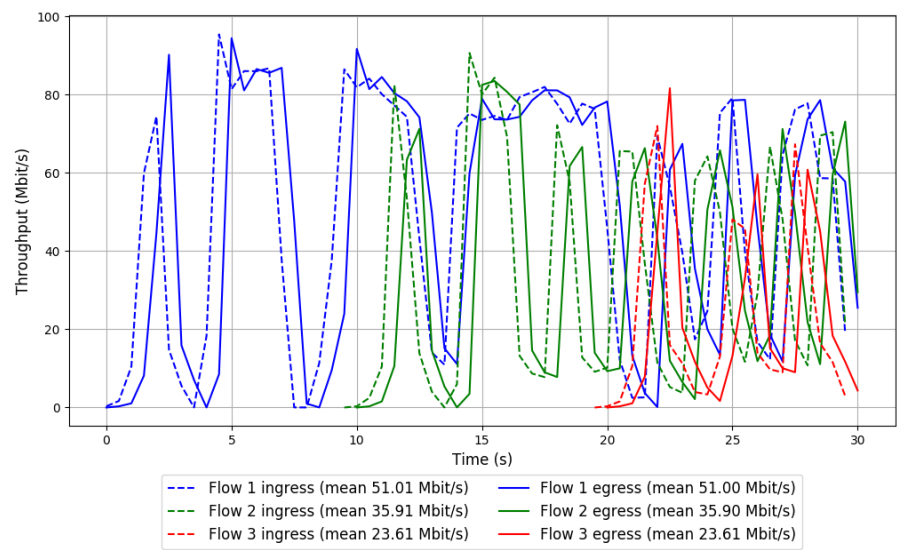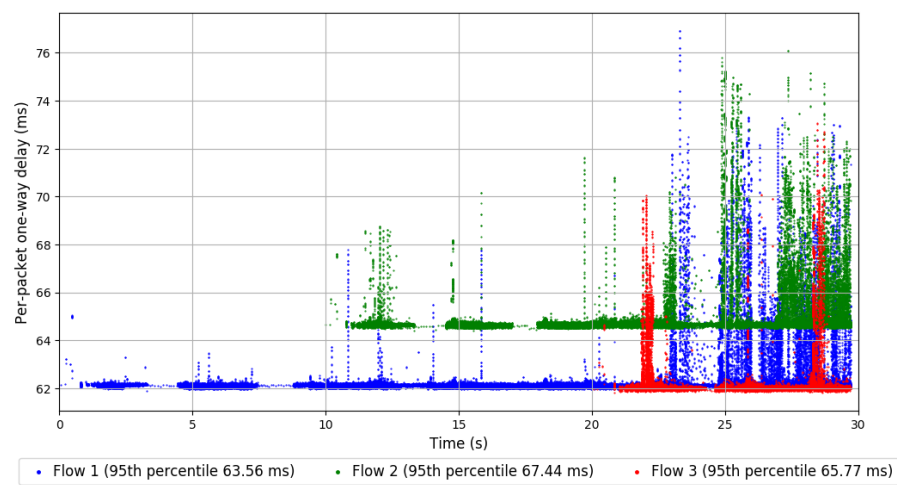
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.01 Mbit/s) — Flow 1 egress (mean 51.00 Mbit/s)
Flow 2 ingress (mean 34.87 Mbit/s) — Flow 2 egress (mean 34.87 Mbit/s)
Flow 3 ingress (mean 28.51 Mbit/s) — Flow 3 egress (mean 28.49 Mbit/s)

Flow 1 (95th percentile 64.22 ms) — Flow 2 (95th percentile 64.56 ms) — Flow 3 (95th percentile 63.91 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-22 06:40:47
End at: 2018-07-22 06:41:17
Local clock offset: -0.046 ms
Remote clock offset: -35.991 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.52 Mbit/s
95th percentile per-packet one-way delay: 63.592 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.00 Mbit/s
95th percentile per-packet one-way delay: 63.192 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 35.90 Mbit/s
95th percentile per-packet one-way delay: 63.007 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 23.61 Mbit/s
95th percentile per-packet one-way delay: 66.935 ms
Loss rate: 0.00%
```
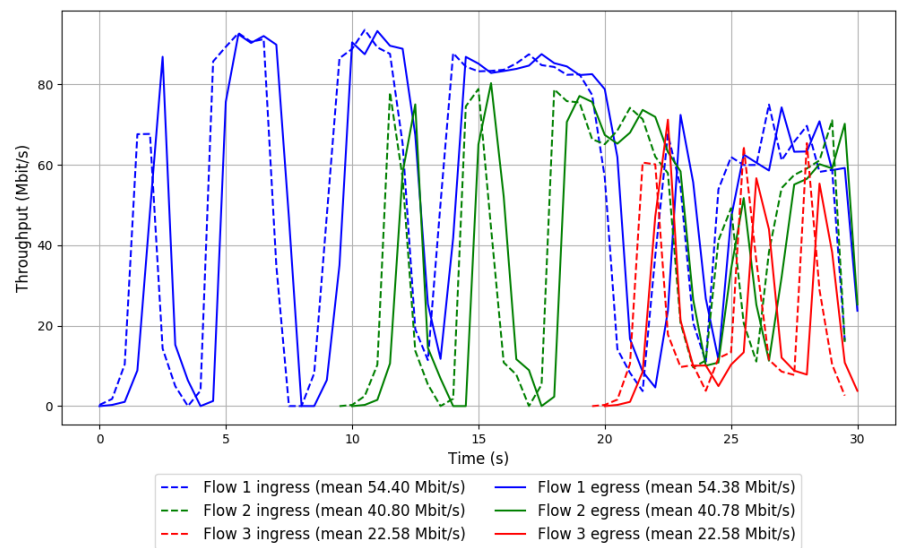
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.01 Mbit/s) — Flow 1 egress (mean 51.00 Mbit/s)
Flow 2 ingress (mean 35.91 Mbit/s) — Flow 2 egress (mean 35.90 Mbit/s)
Flow 3 ingress (mean 23.61 Mbit/s) — Flow 3 egress (mean 23.61 Mbit/s)

Flow 1 (95th percentile 63.19 ms) • Flow 2 (95th percentile 63.01 ms) • Flow 3 (95th percentile 66.94 ms)
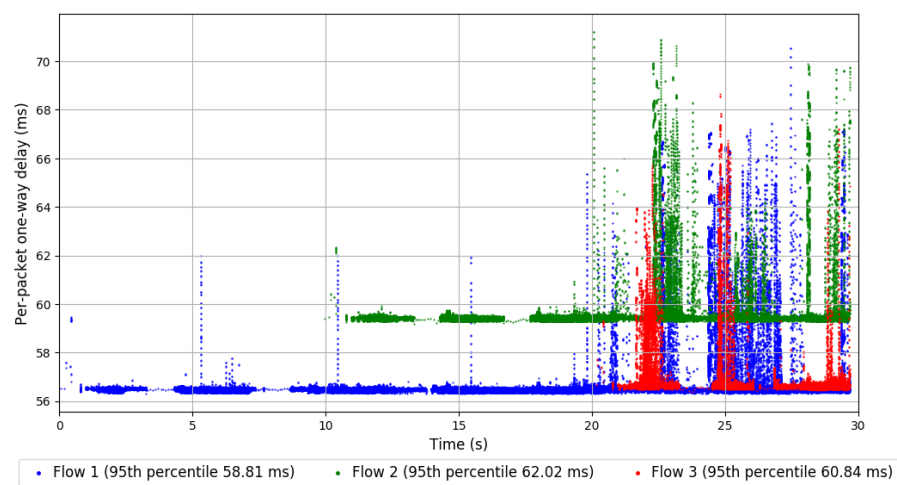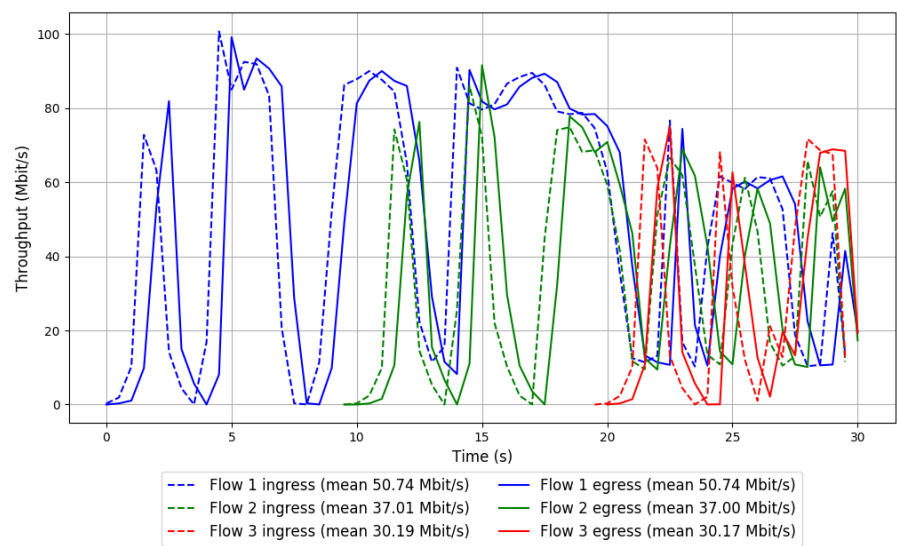
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```
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-22 07:10:50
End at: 2018-07-22 07:11:20
Local clock offset: -5.31 ms
Remote clock offset: -38.76 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.84 Mbit/s
95th percentile per-packet one-way delay: 65.797 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 63.557 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.78 Mbit/s
95th percentile per-packet one-way delay: 67.435 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 22.58 Mbit/s
95th percentile per-packet one-way delay: 65.770 ms
Loss rate: 0.00%
```
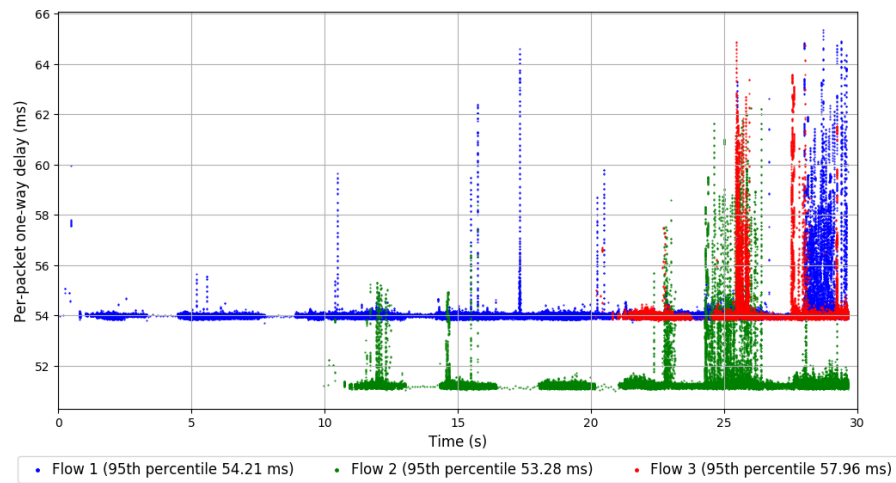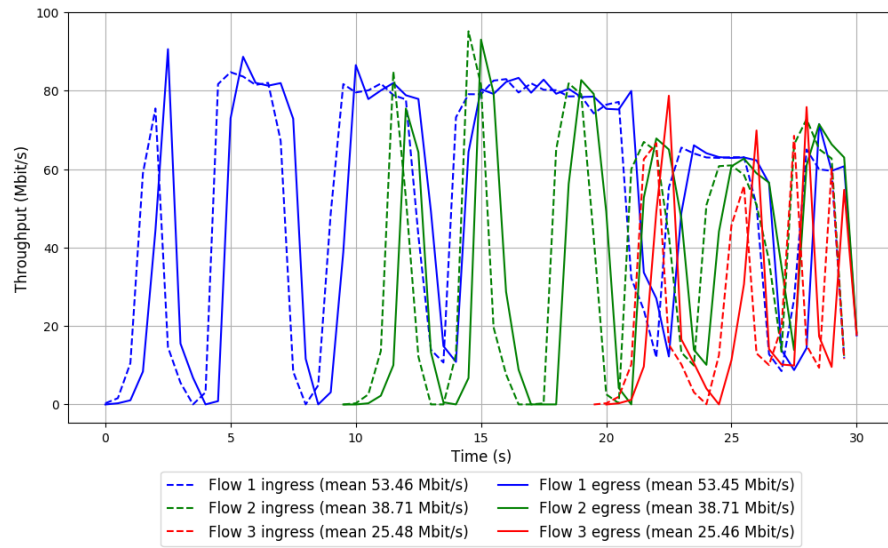
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-22 07:40:53
End at: 2018-07-22 07:41:23
Local clock offset: 0.798 ms
Remote clock offset: -37.027 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.17 Mbit/s
95th percentile per-packet one-way delay: 60.344 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.74 Mbit/s
95th percentile per-packet one-way delay: 58.807 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.00 Mbit/s
95th percentile per-packet one-way delay: 62.016 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.17 Mbit/s
95th percentile per-packet one-way delay: 60.845 ms
Loss rate: 0.00%
```
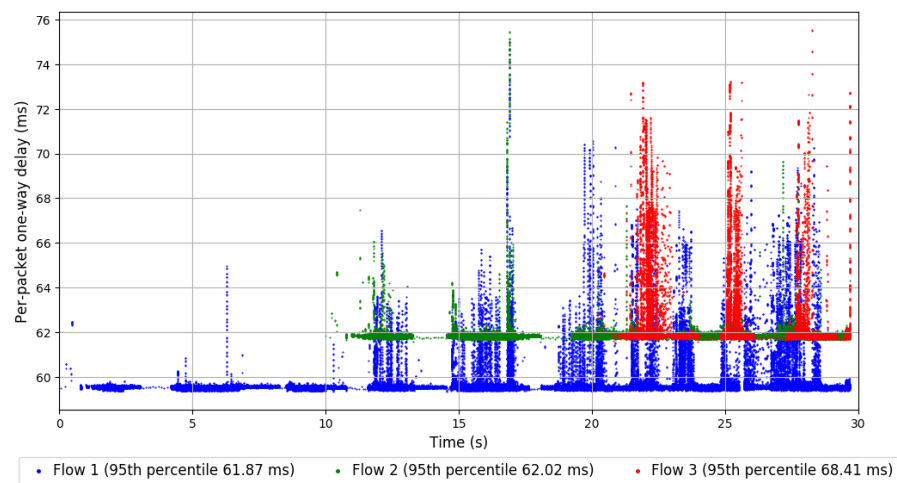
Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-22 08:20:43
End at: 2018-07-22 08:21:13
Local clock offset: -0.02 ms
Remote clock offset: -42.47 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.49 Mbit/s
95th percentile per-packet one-way delay: 54.369 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 53.45 Mbit/s
95th percentile per-packet one-way delay: 54.212 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 53.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.46 Mbit/s
95th percentile per-packet one-way delay: 57.961 ms
Loss rate: 0.05%
```

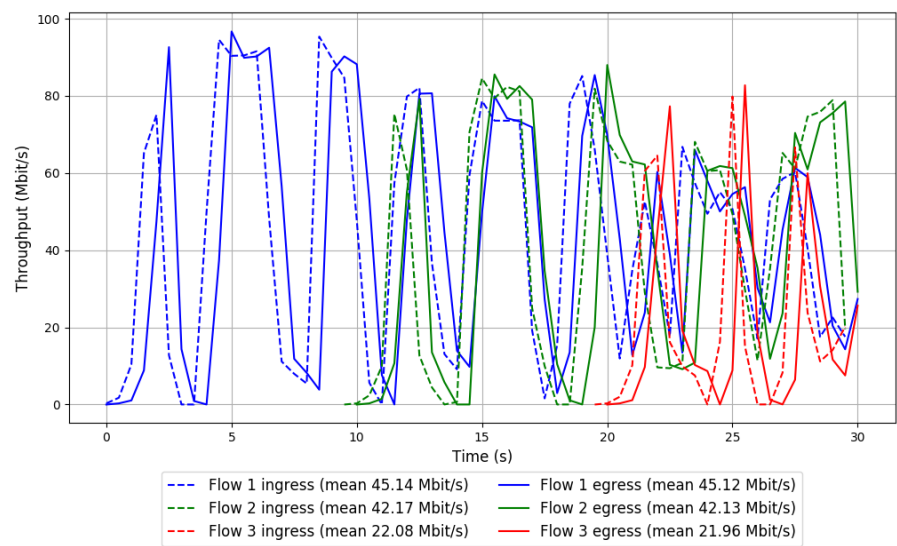Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-22 09:19:51
End at: 2018-07-22 09:20:21
Local clock offset: -1.447 ms
Remote clock offset: -36.434 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.25 Mbit/s
95th percentile per-packet one-way delay: 62.737 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 45.12 Mbit/s
95th percentile per-packet one-way delay: 61.874 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 42.13 Mbit/s
95th percentile per-packet one-way delay: 62.020 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 21.96 Mbit/s
95th percentile per-packet one-way delay: 68.405 ms
Loss rate: 0.55%
```
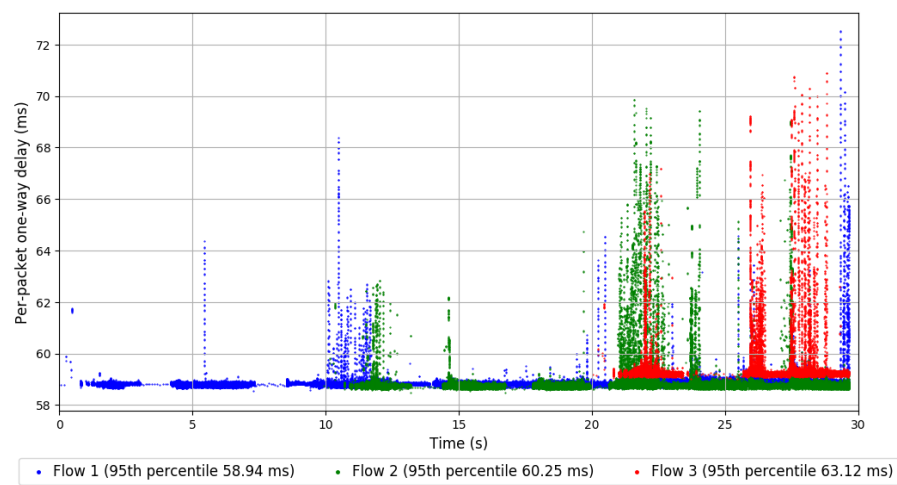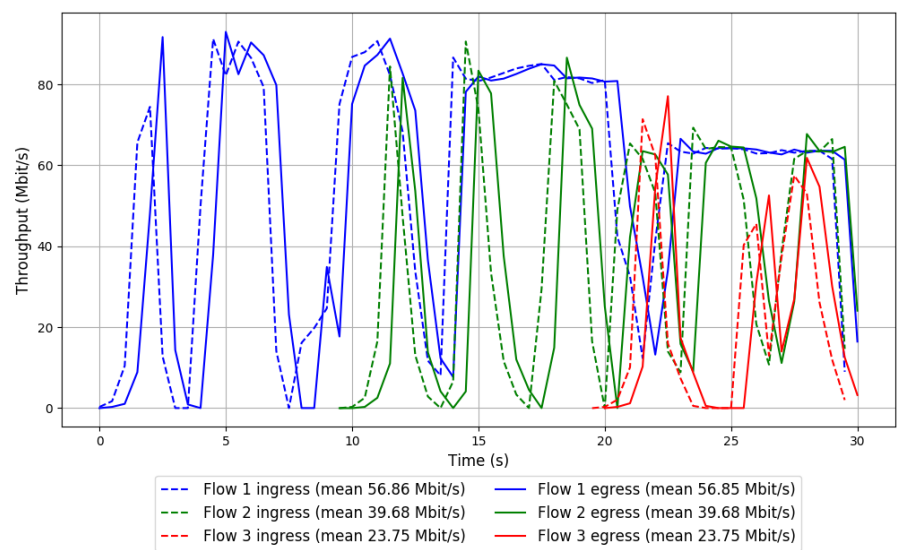
Run 9: Report of QUIC Cubic — Data Link

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-22 09:55:36
End at: 2018-07-22 09:56:06
Local clock offset: 1.396 ms
Remote clock offset: -33.802 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.98 Mbit/s
95th percentile per-packet one-way delay: 59.421 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 58.942 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 60.249 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.75 Mbit/s
95th percentile per-packet one-way delay: 63.121 ms
Loss rate: 0.00%
```

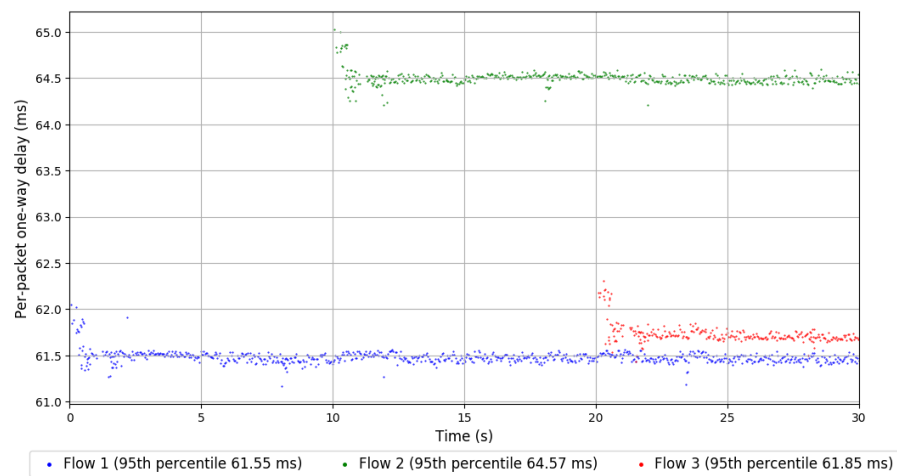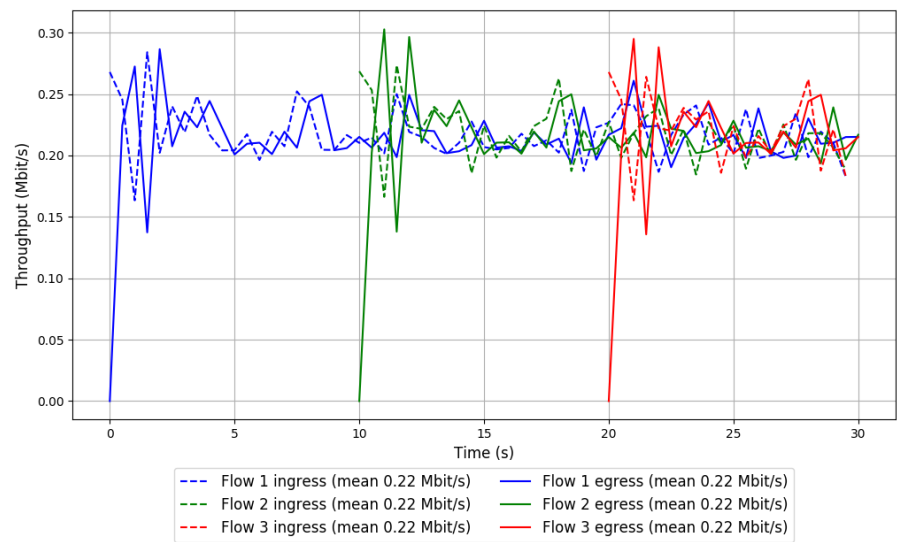Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-07-22 04:23:32
End at: 2018-07-22 04:24:02
Local clock offset: -1.673 ms
Remote clock offset: -33.413 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 64.534 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.546 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.573 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.855 ms
Loss rate: 0.00%
```
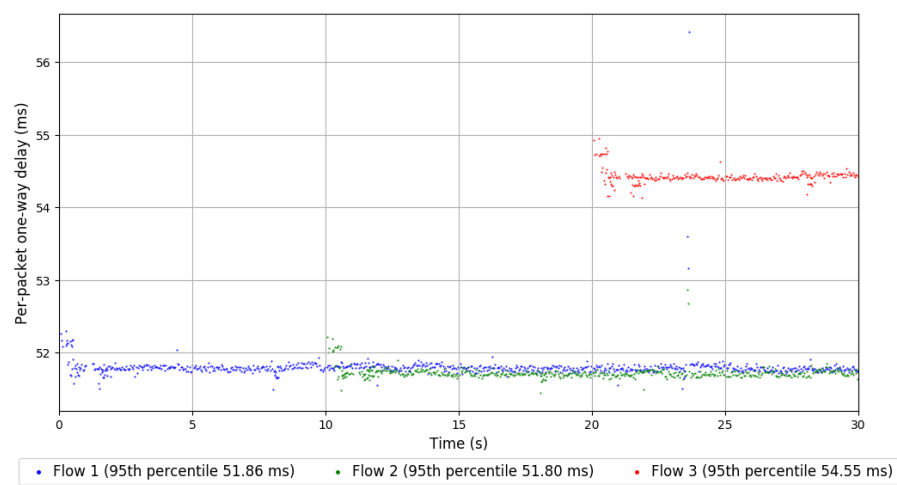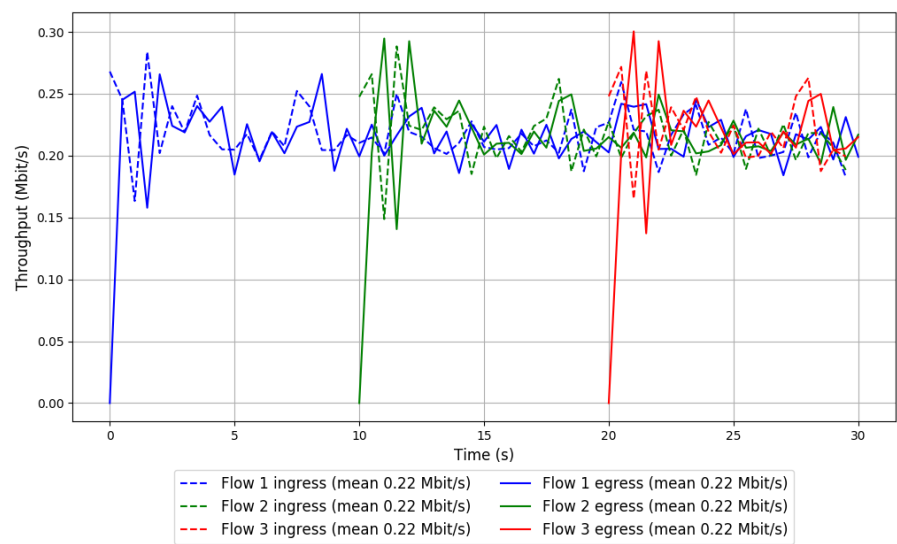
Run 1: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) --- Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s) --- Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s) --- Flow 3 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 61.55 ms)　　Flow 2 (95th percentile 64.57 ms)　　Flow 3 (95th percentile 61.85 ms)

```
Run 2: Statistics of SCReAM

Start at: 2018-07-22 04:47:57
End at: 2018-07-22 04:48:27
Local clock offset: 1.496 ms
Remote clock offset: -39.811 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 54.440 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.863 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.552 ms
Loss rate: 0.00%
```
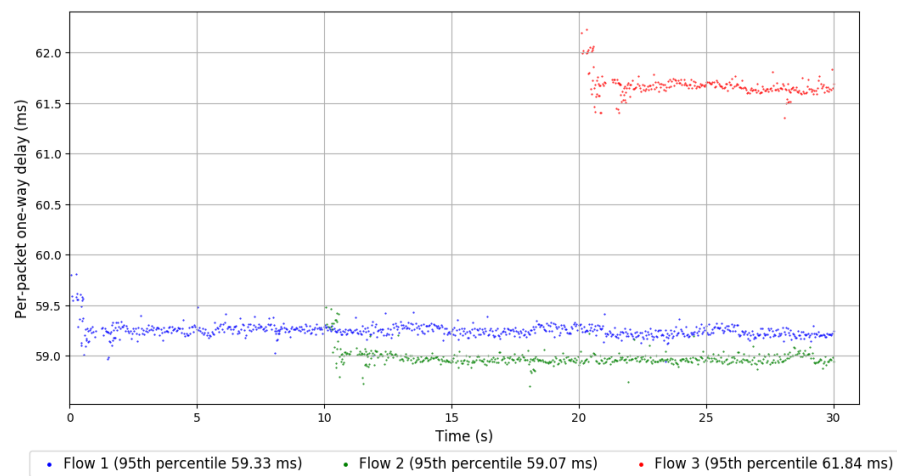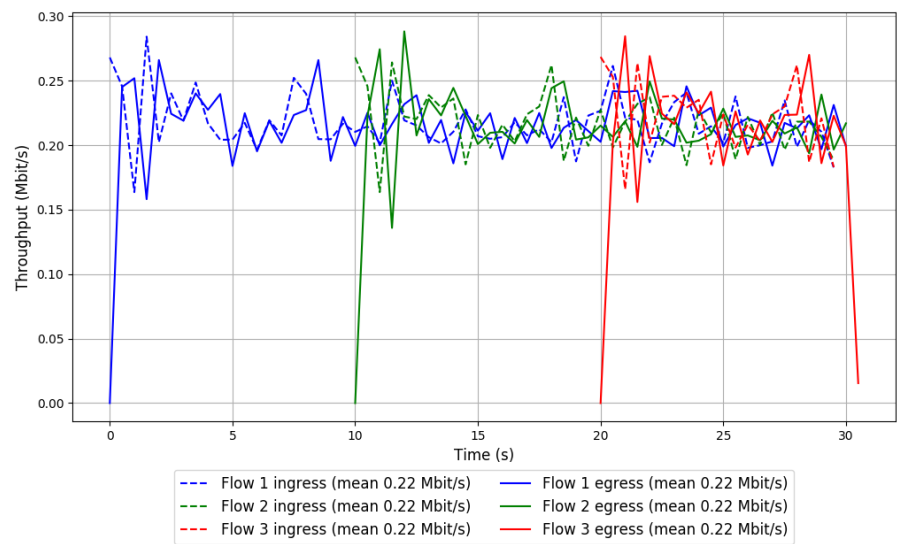
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-07-22 05:12:24
End at: 2018-07-22 05:12:54
Local clock offset: 0.482 ms
Remote clock offset: -32.896 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 61.691 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.070 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.839 ms
Loss rate: 0.00%
```
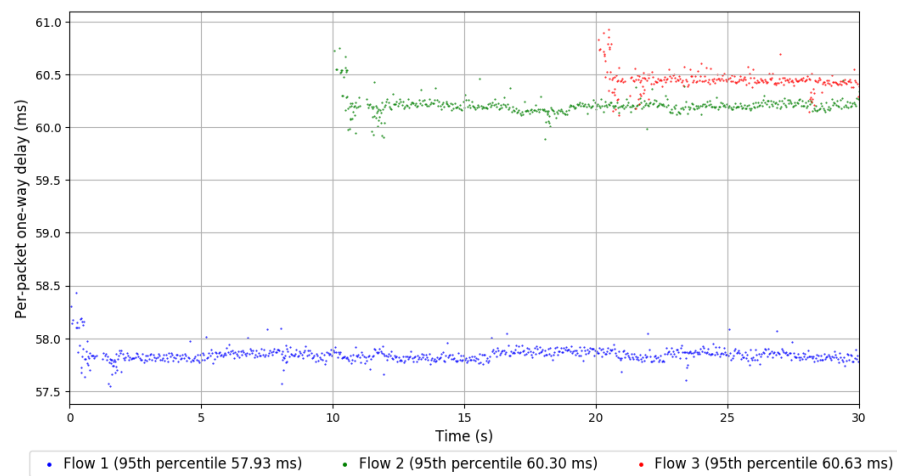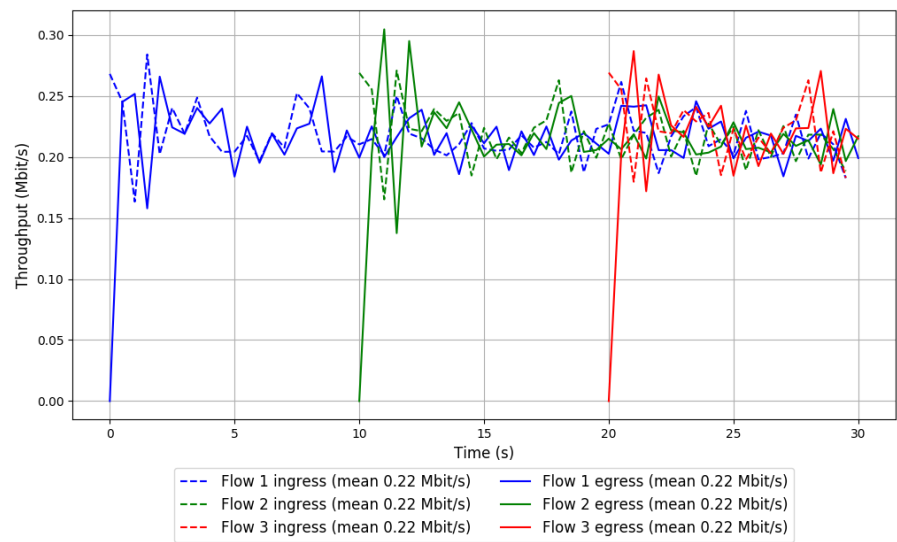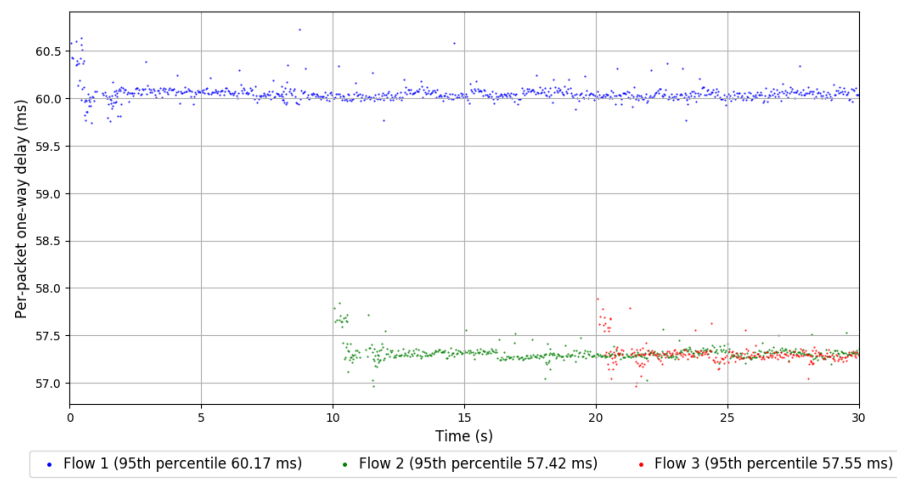
Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s)   Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)   Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)   Flow 3 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 59.33 ms)   Flow 2 (95th percentile 59.07 ms)   Flow 3 (95th percentile 61.84 ms)

```
Run 4: Statistics of SCReAM

Start at: 2018-07-22 05:57:31
End at: 2018-07-22 05:58:01
Local clock offset: -0.704 ms
Remote clock offset: -36.437 ms

# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 60.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.301 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.630 ms
Loss rate: 0.00%
```
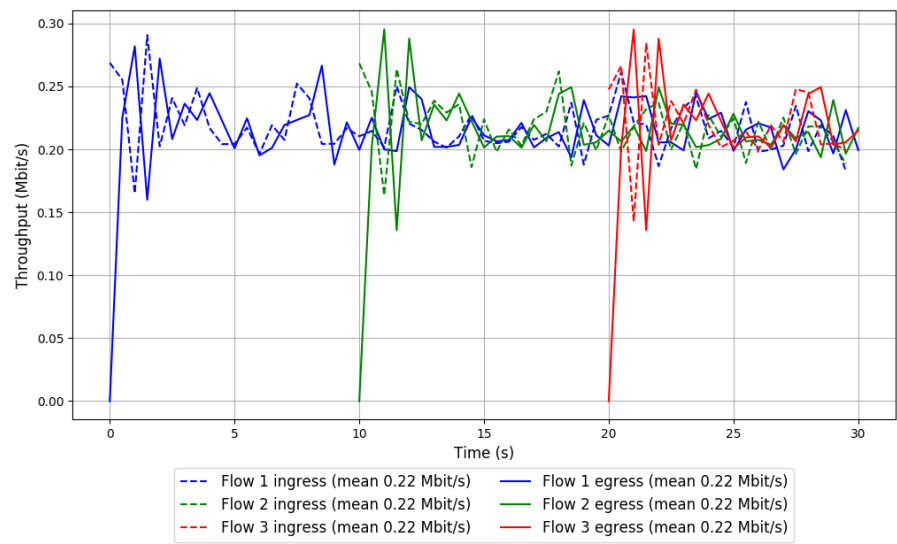
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-07-22 06:39:32
End at: 2018-07-22 06:40:02
Local clock offset: -0.498 ms
Remote clock offset: -38.748 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 60.106 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.174 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.553 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-07-22 07:09:36
End at: 2018-07-22 07:10:06
Local clock offset: 2.112 ms
Remote clock offset: -36.319 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 59.792 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.860 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.204 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.537 ms
Loss rate: 0.00%
```
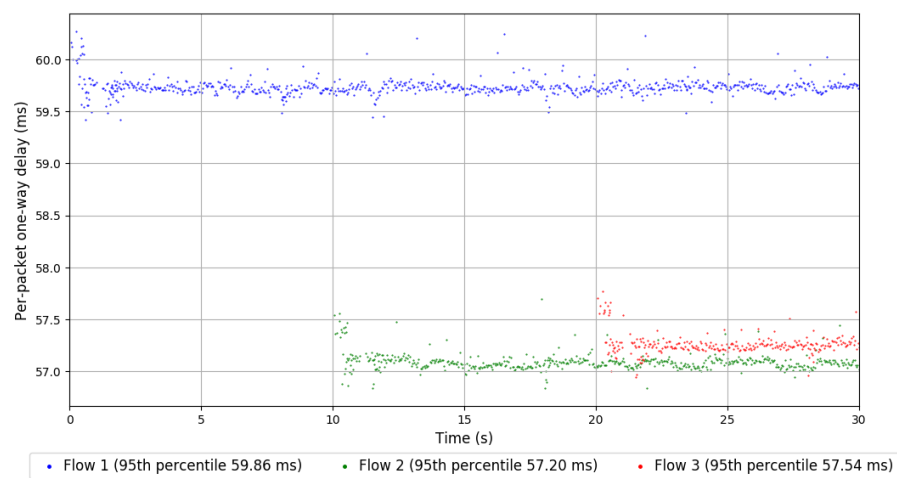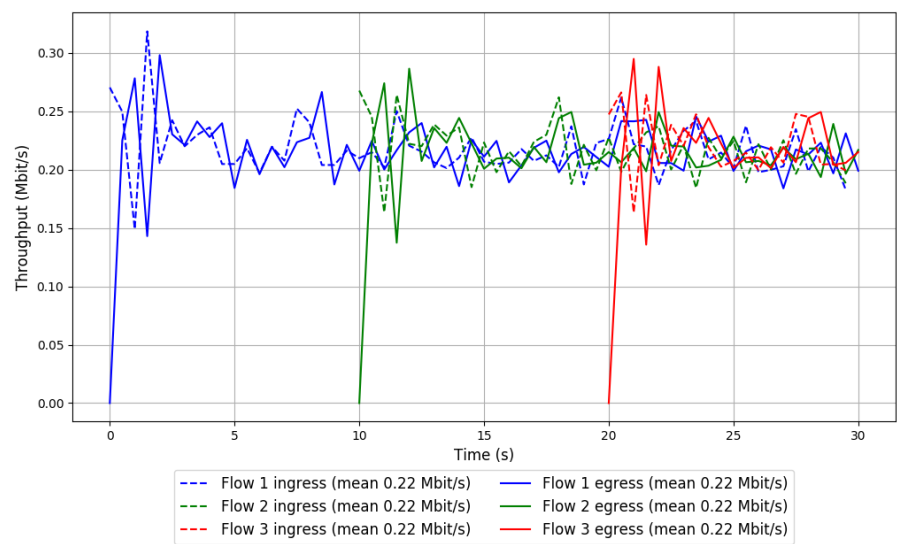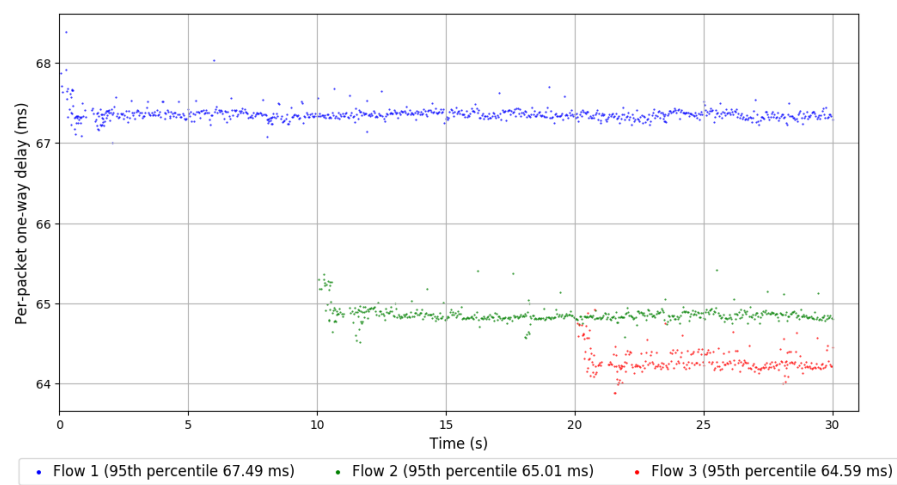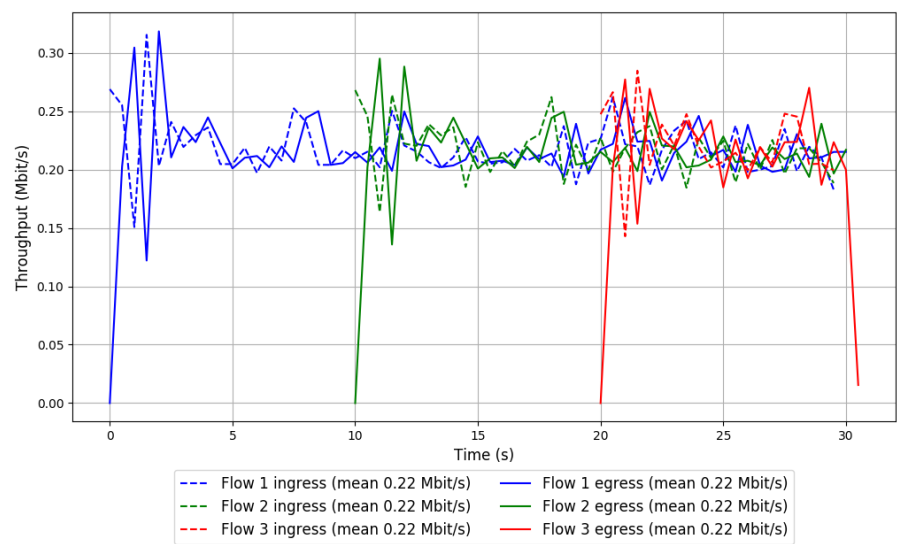
Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2018-07-22 07:39:38
End at: 2018-07-22 07:40:08
Local clock offset: -1.802 ms
Remote clock offset: -31.935 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 67.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 67.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.014 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.591 ms
Loss rate: 0.00%
```

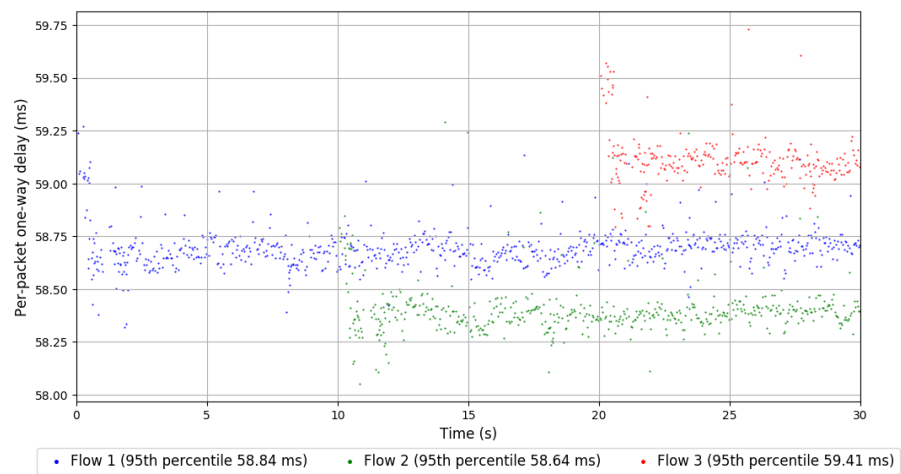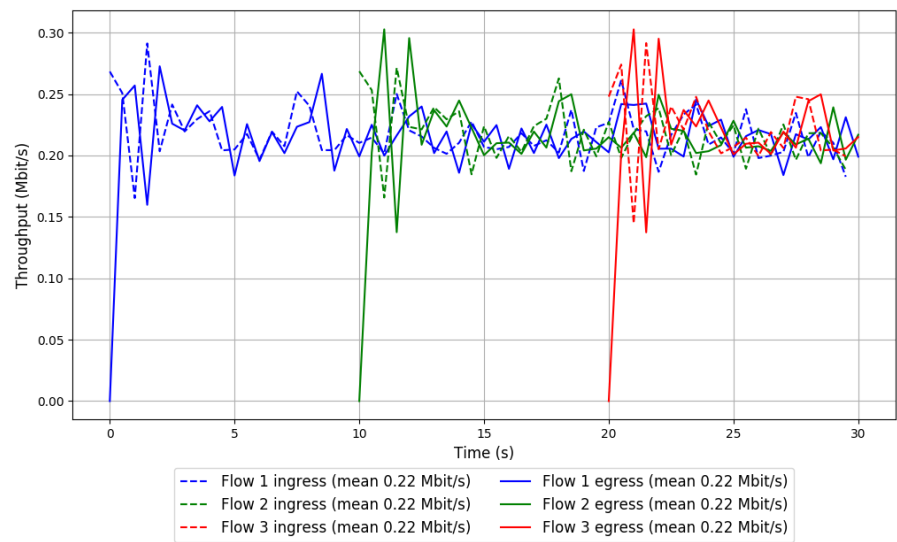Run 7: Report of SCReAM — Data Link

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```
Run 8: Statistics of SCReAM

Start at: 2018-07-22 08:14:02
End at: 2018-07-22 08:14:32
Local clock offset: 2.528 ms
Remote clock offset: -35.329 ms

# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 59.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.411 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link

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Run 9: Statistics of SCReAM

/home/ubuntu/pantheon/data/2018-07-22T04-21-AWS-India-2-to-Saudi-Arabia-10-runs-3-flows/scre
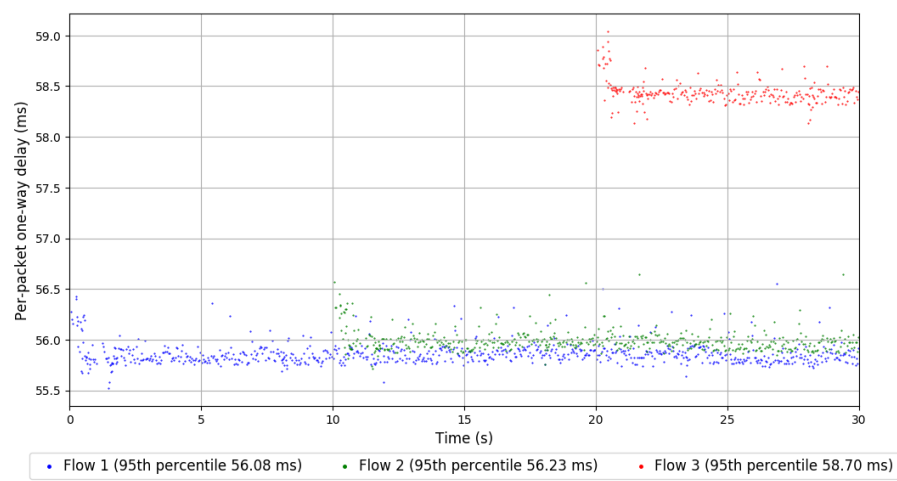
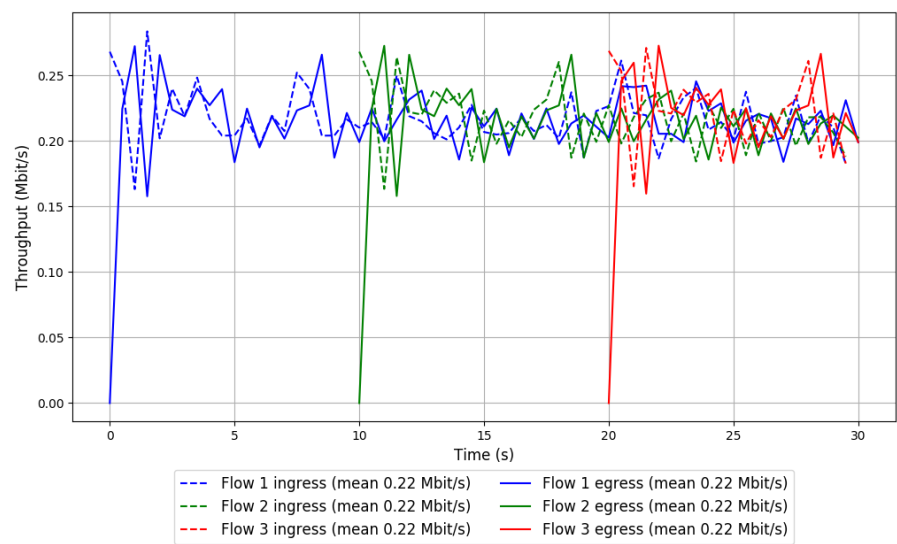Run 9: Report of SCReAM — Data Link

Figure is missing

Figure is missing

```
Run 10: Statistics of SCReAM

Start at: 2018-07-22 09:54:21
End at: 2018-07-22 09:54:51
Local clock offset: -0.756 ms
Remote clock offset: -39.018 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 58.463 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.077 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.229 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.697 ms
Loss rate: 0.00%
```

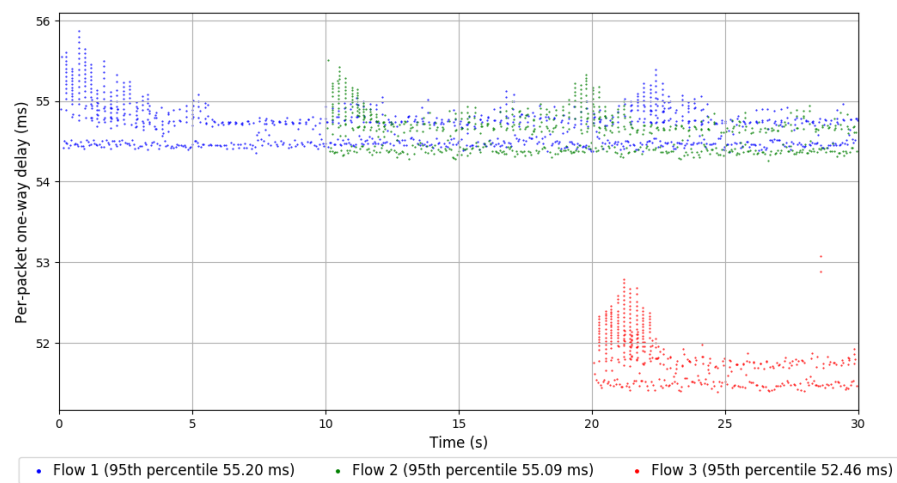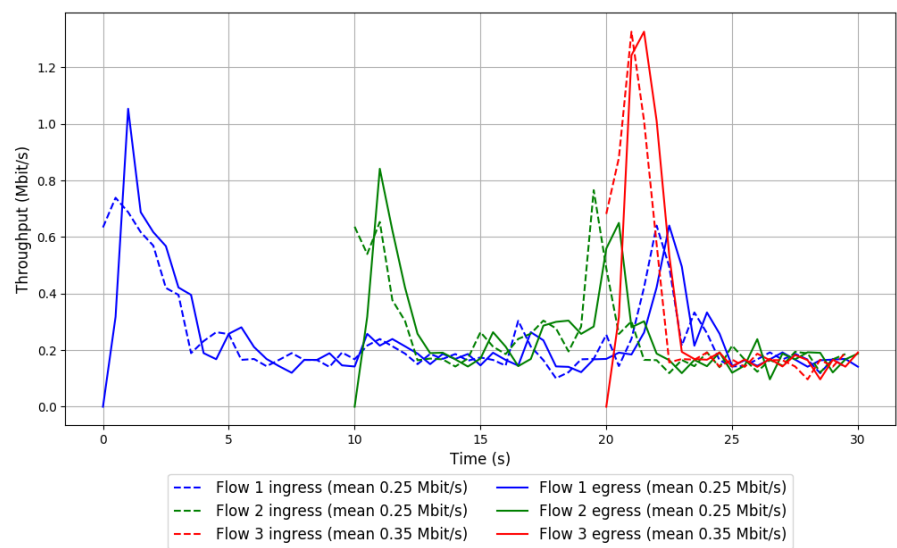## Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-07-22 04:37:52
End at: 2018-07-22 04:38:22
Local clock offset: 0.847 ms
Remote clock offset: -40.32 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 55.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 55.205 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 55.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 52.456 ms
Loss rate: 0.00%
```
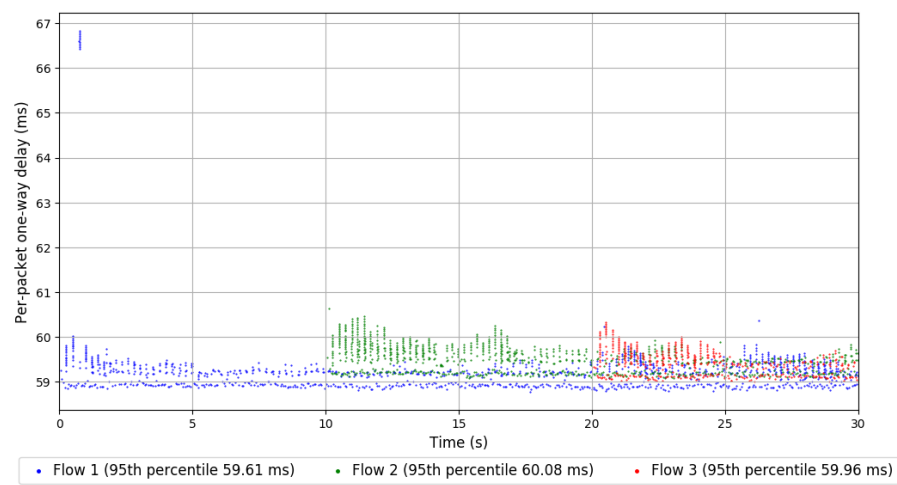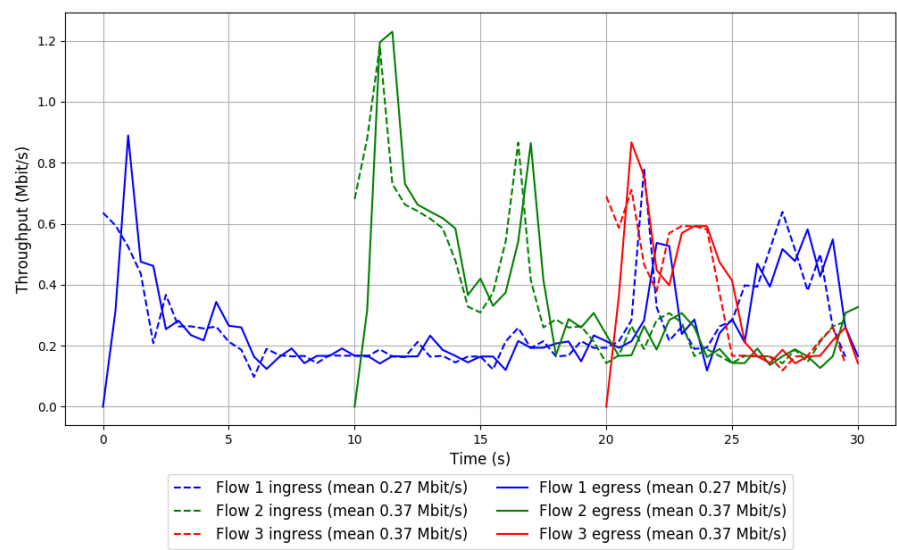
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-07-22 05:02:19
End at: 2018-07-22 05:02:49
Local clock offset: -1.04 ms
Remote clock offset: -34.469 ms

# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 59.953 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 59.614 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 60.083 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 59.957 ms
Loss rate: 0.00%
```
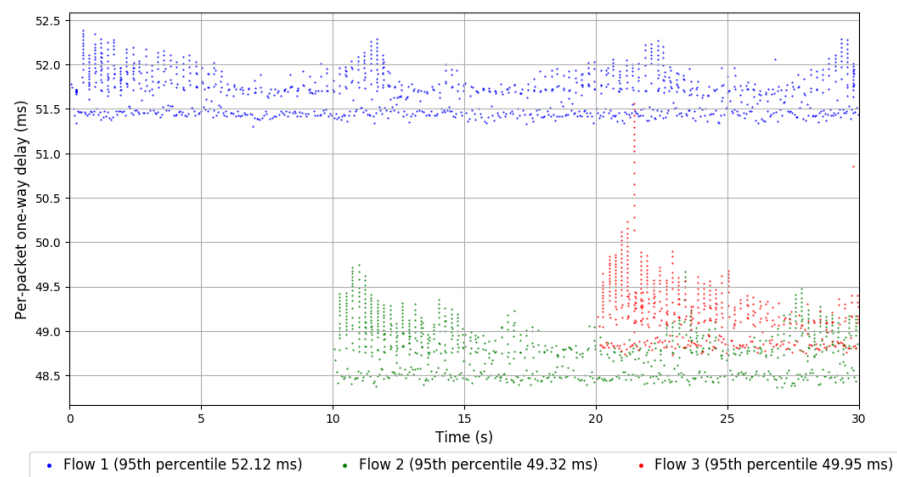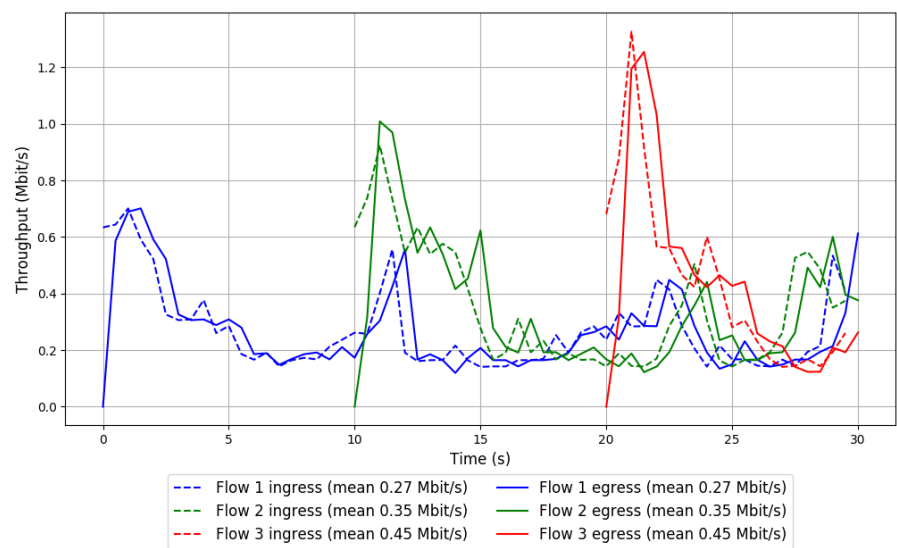
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-07-22 05:36:26
End at: 2018-07-22 05:36:56
Local clock offset: 1.001 ms
Remote clock offset: -42.42 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 52.010 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 52.119 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 49.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 49.950 ms
Loss rate: 0.00%
```
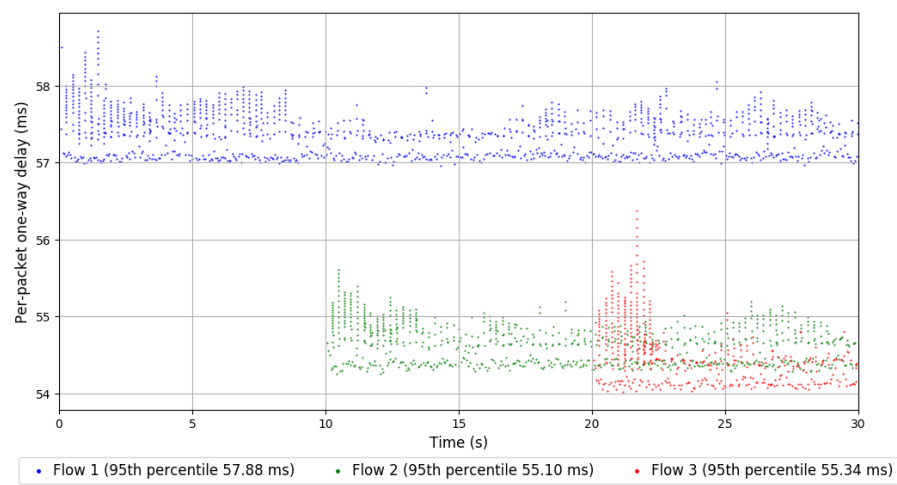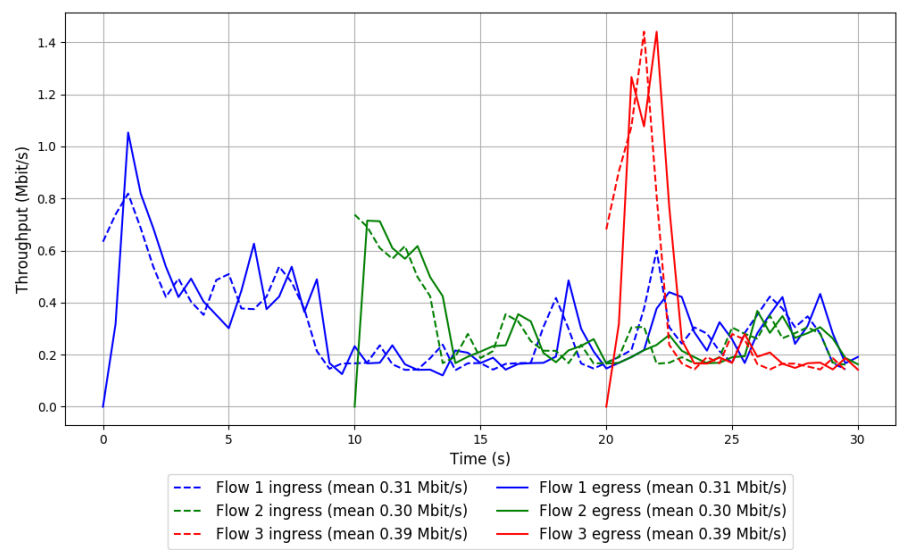
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-07-22 06:23:49
End at: 2018-07-22 06:24:19
Local clock offset: 2.519 ms
Remote clock offset: -37.777 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 57.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 57.877 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 55.099 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 55.345 ms
Loss rate: 0.00%
```
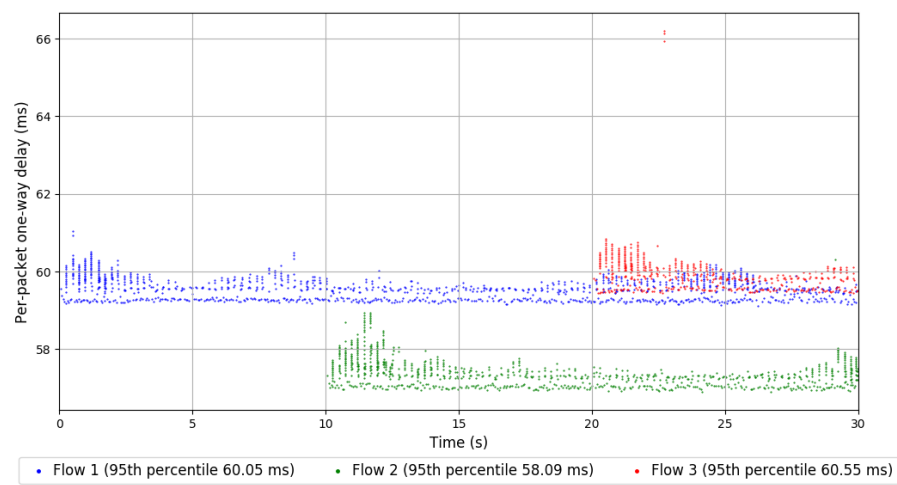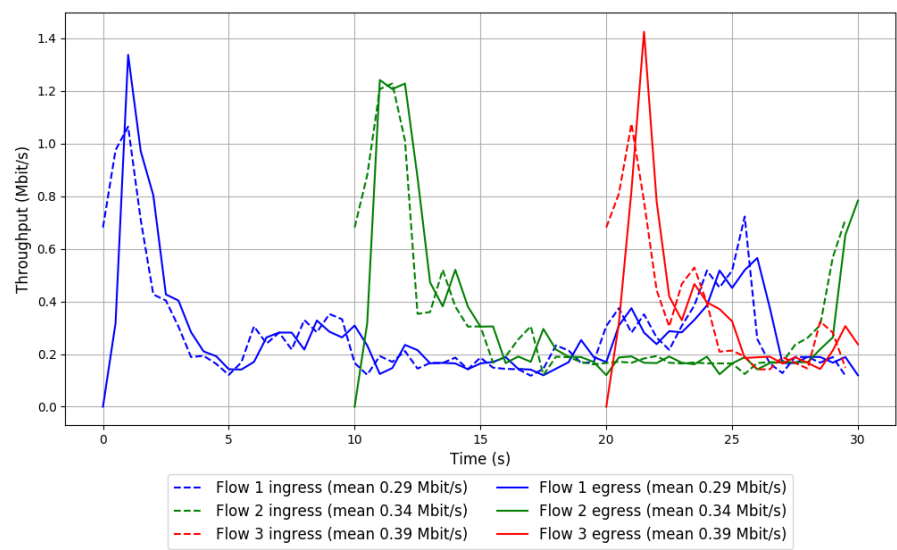
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-07-22 06:59:33
End at: 2018-07-22 07:00:03
Local clock offset: -0.346 ms
Remote clock offset: -39.131 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 60.179 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 60.053 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 58.095 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 60.553 ms
Loss rate: 0.00%
```
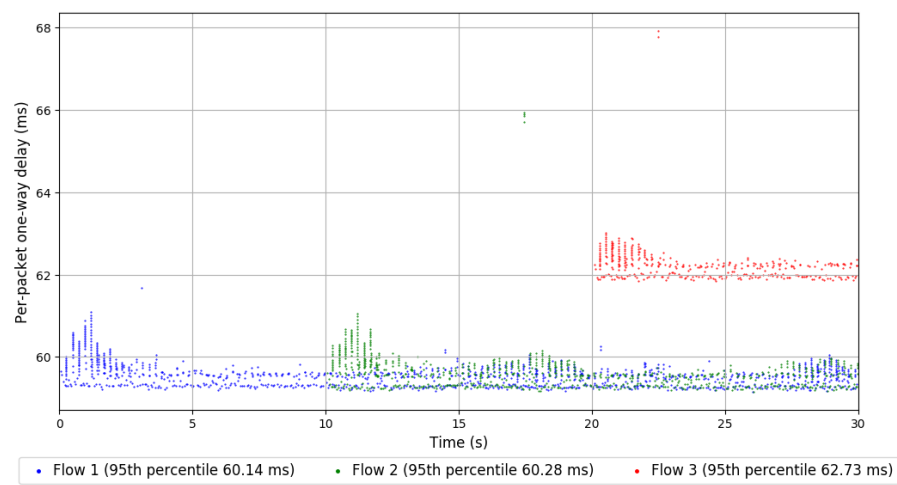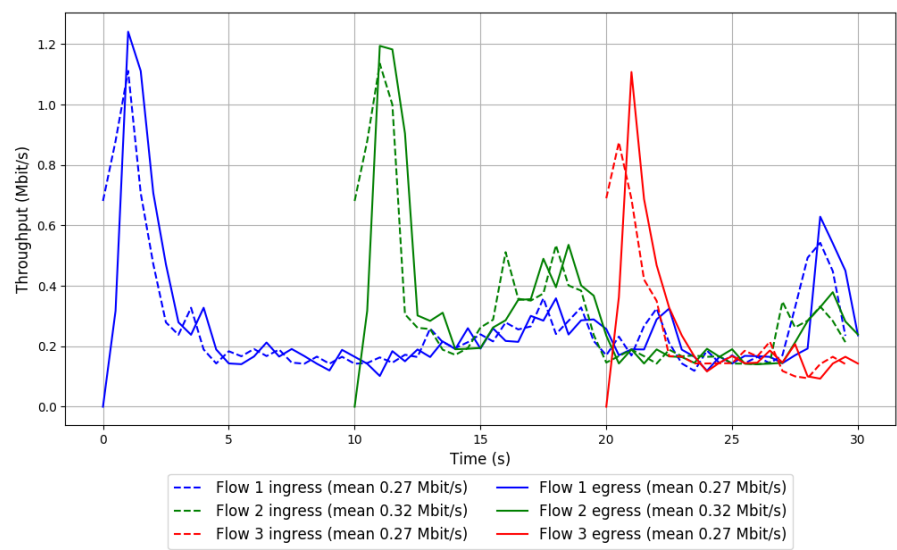
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-07-22 07:29:33
End at: 2018-07-22 07:30:03
Local clock offset: 1.109 ms
Remote clock offset: -34.15 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 62.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 60.141 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 60.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 62.735 ms
Loss rate: 0.00%
```
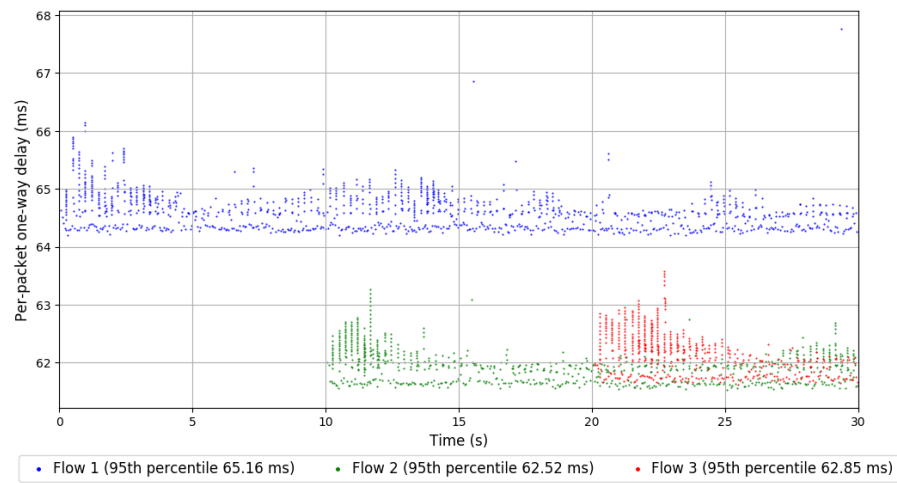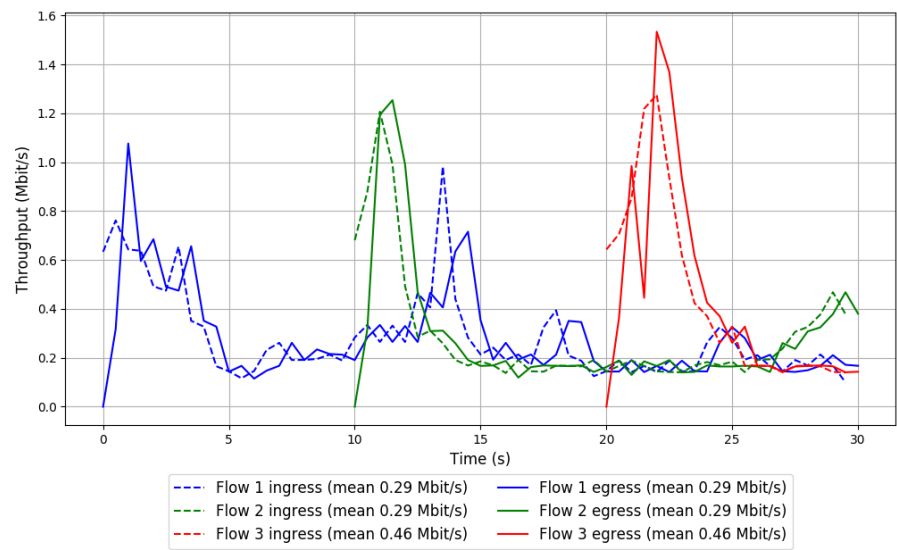
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-07-22 08:03:56
End at: 2018-07-22 08:04:26
Local clock offset: -1.325 ms
Remote clock offset: -33.432 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 64.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 65.163 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 62.516 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 62.848 ms
Loss rate: 0.00%
```

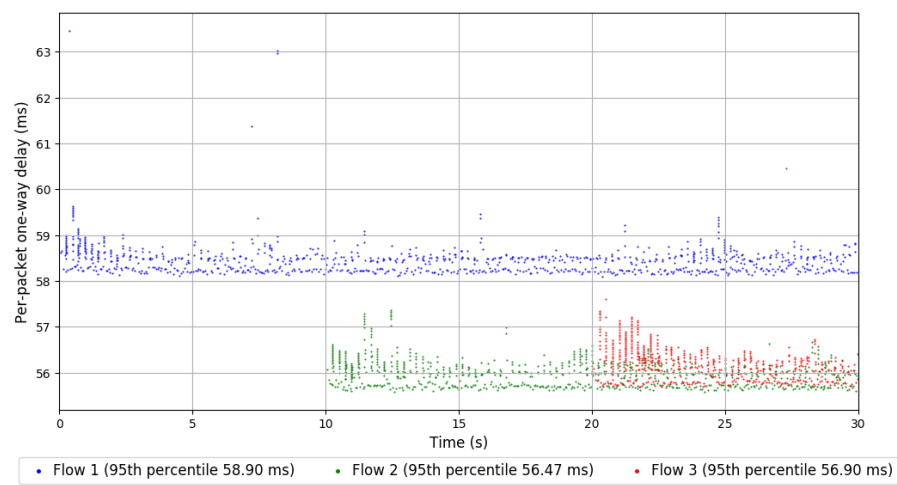## Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-07-22 08:44:17
End at: 2018-07-22 08:44:47
Local clock offset: 3.037 ms
Remote clock offset: -34.843 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 58.718 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 58.898 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 56.474 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 56.898 ms
Loss rate: 0.00%
```
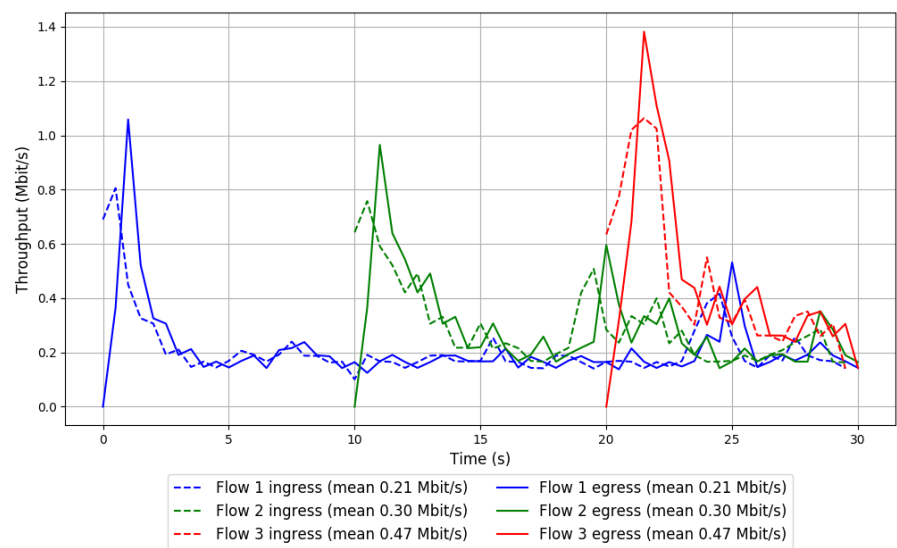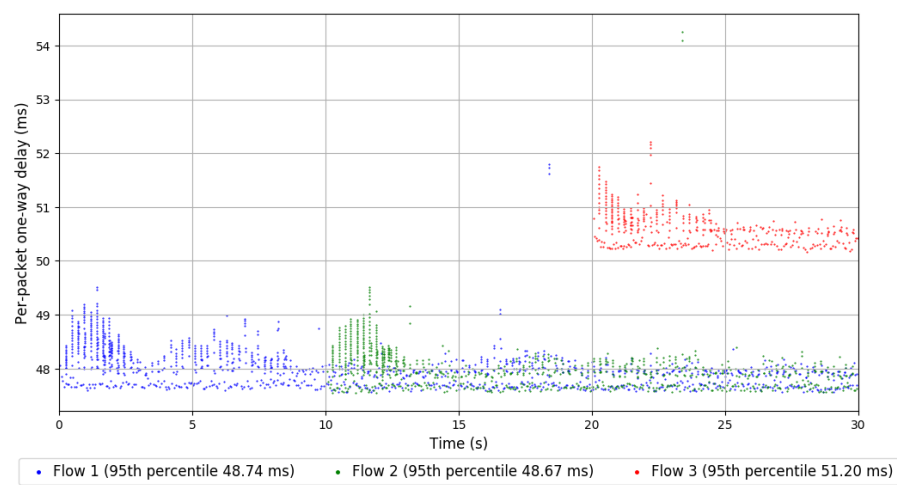
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-07-22 09:44:17
End at: 2018-07-22 09:44:47
Local clock offset: 3.357 ms
Remote clock offset: -42.896 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 50.750 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 48.739 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 48.671 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 51.204 ms
Loss rate: 0.00%
```
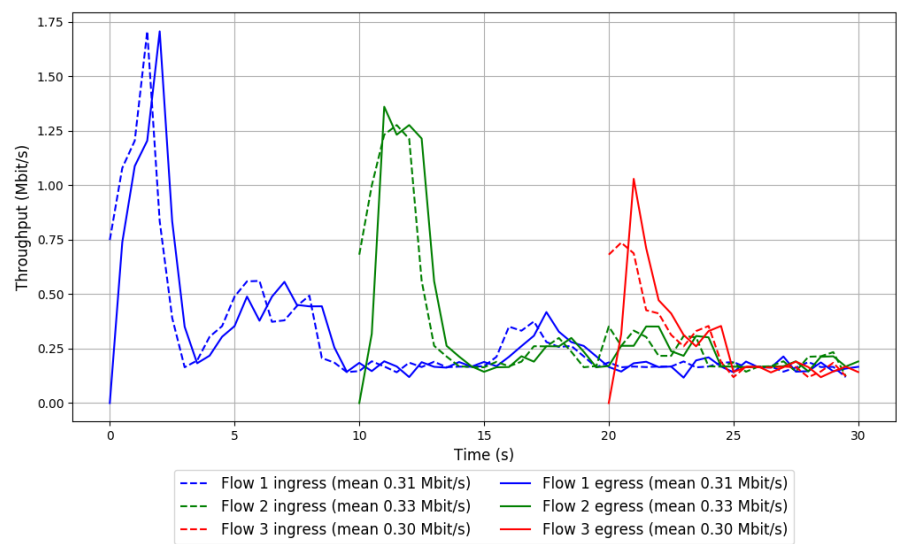
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-07-22 10:14:19
End at: 2018-07-22 10:14:49
Local clock offset: 3.625 ms
Remote clock offset: -37.396 ms


# Below is generated by plot.py at 2018-07-22 11:08:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 54.860 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 54.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 54.655 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 54.944 ms
Loss rate: 0.00%
```
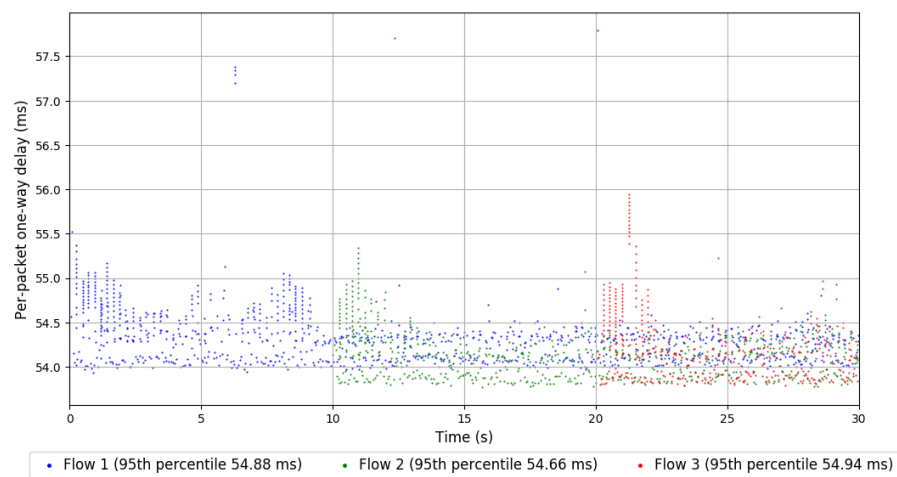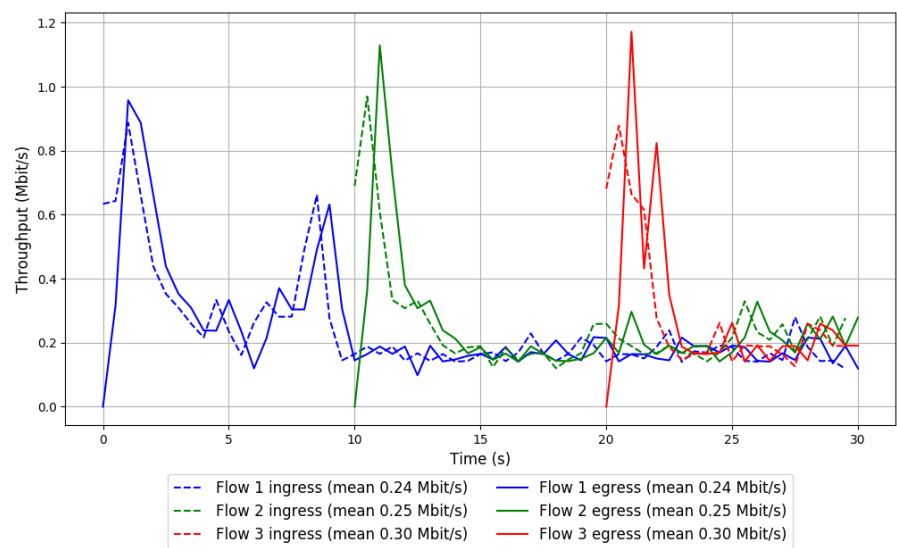
Run 10: Report of Sprout — Data Link

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

Start at: 2018-07-22 04:34:45
End at: 2018-07-22 04:35:15
Local clock offset: -1.766 ms
Remote clock offset: -35.412 ms


# Below is generated by plot.py at 2018-07-22 11:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.71 Mbit/s
95th percentile per-packet one-way delay: 81.697 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 77.01 Mbit/s
95th percentile per-packet one-way delay: 80.045 ms
Loss rate: 5.02%
-- Flow 2:
Average throughput: 59.27 Mbit/s
95th percentile per-packet one-way delay: 82.516 ms
Loss rate: 5.64%
-- Flow 3:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 90.870 ms
Loss rate: 8.79%
```

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

- - - - Flow 1 ingress (mean 81.08 Mbit/s) —— Flow 1 egress (mean 77.01 Mbit/s)
- - - - Flow 2 ingress (mean 62.83 Mbit/s) —— Flow 2 egress (mean 59.27 Mbit/s)
- - - - Flow 3 ingress (mean 53.46 Mbit/s) —— Flow 3 egress (mean 48.75 Mbit/s)

• Flow 1 (95th percentile 80.05 ms)   • Flow 2 (95th percentile 82.52 ms)   • Flow 3 (95th percentile 90.87 ms)
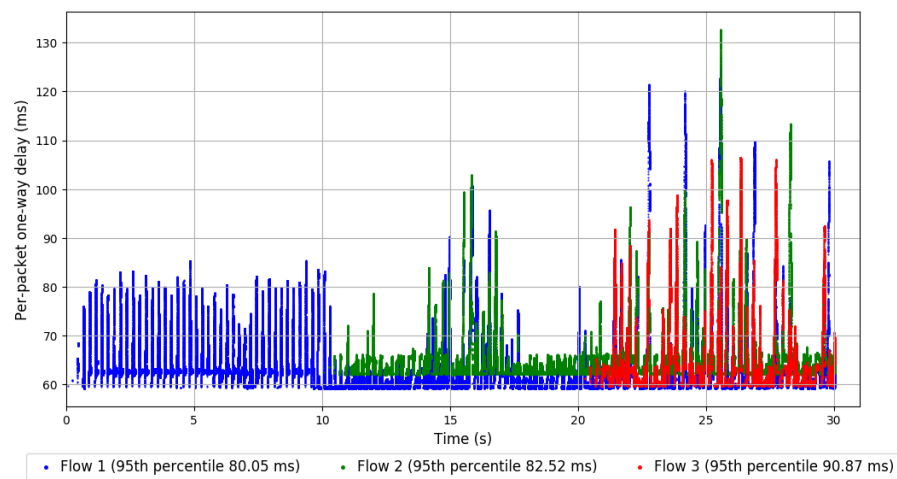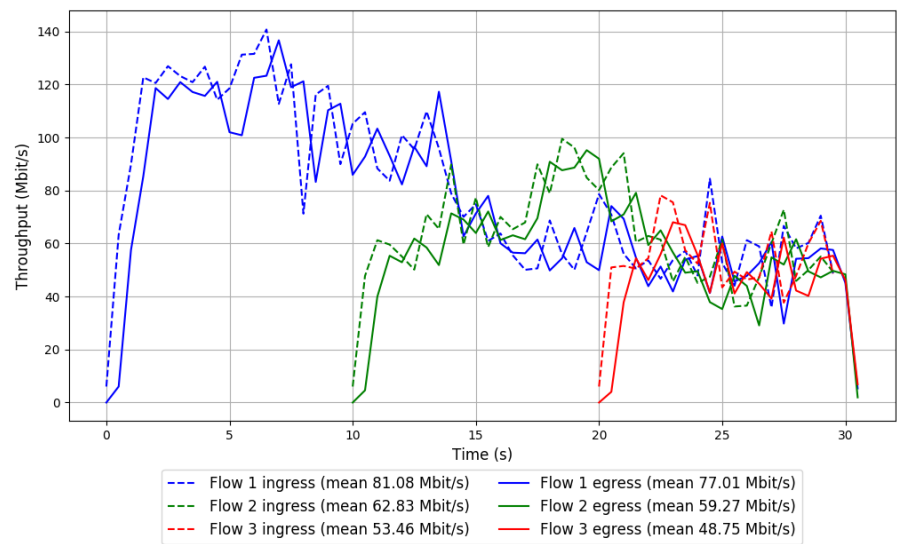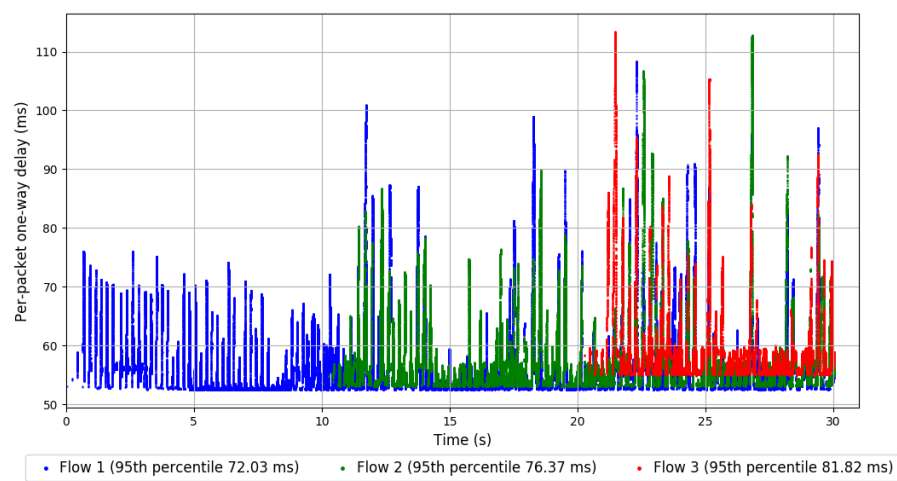
```
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-22 04:59:13
End at: 2018-07-22 04:59:43
Local clock offset: -3.159 ms
Remote clock offset: -43.128 ms


# Below is generated by plot.py at 2018-07-22 11:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.43 Mbit/s
95th percentile per-packet one-way delay: 74.604 ms
Loss rate: 5.84%
-- Flow 1:
Average throughput: 71.63 Mbit/s
95th percentile per-packet one-way delay: 72.027 ms
Loss rate: 4.72%
-- Flow 2:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: 76.370 ms
Loss rate: 6.19%
-- Flow 3:
Average throughput: 47.61 Mbit/s
95th percentile per-packet one-way delay: 81.821 ms
Loss rate: 9.80%
```
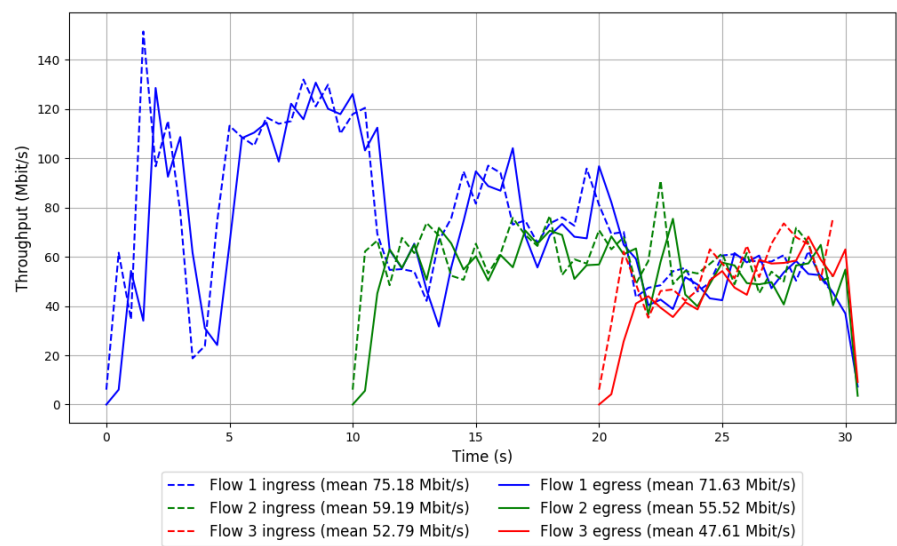
Run 2: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 75.18 Mbit/s)   —— Flow 1 egress (mean 71.63 Mbit/s)
- - - - Flow 2 ingress (mean 59.19 Mbit/s)   —— Flow 2 egress (mean 55.52 Mbit/s)
- - - - Flow 3 ingress (mean 52.79 Mbit/s)   —— Flow 3 egress (mean 47.61 Mbit/s)

• Flow 1 (95th percentile 72.03 ms)   • Flow 2 (95th percentile 76.37 ms)   • Flow 3 (95th percentile 81.82 ms)
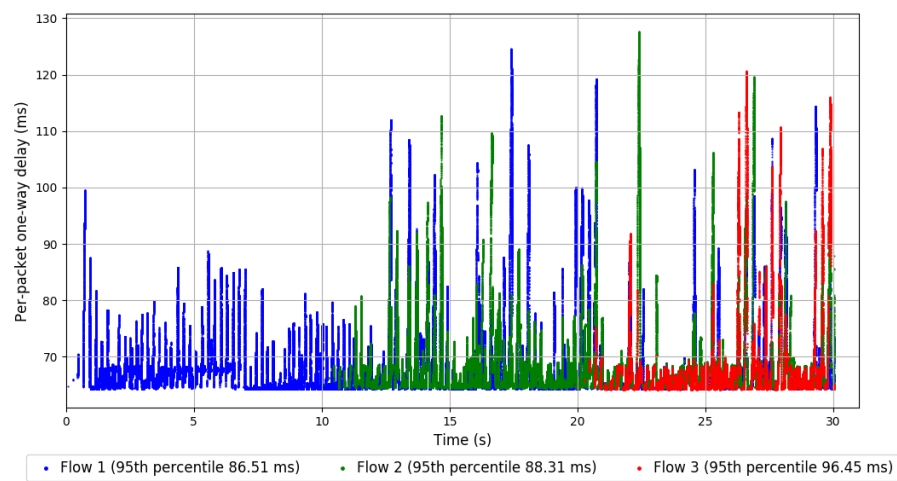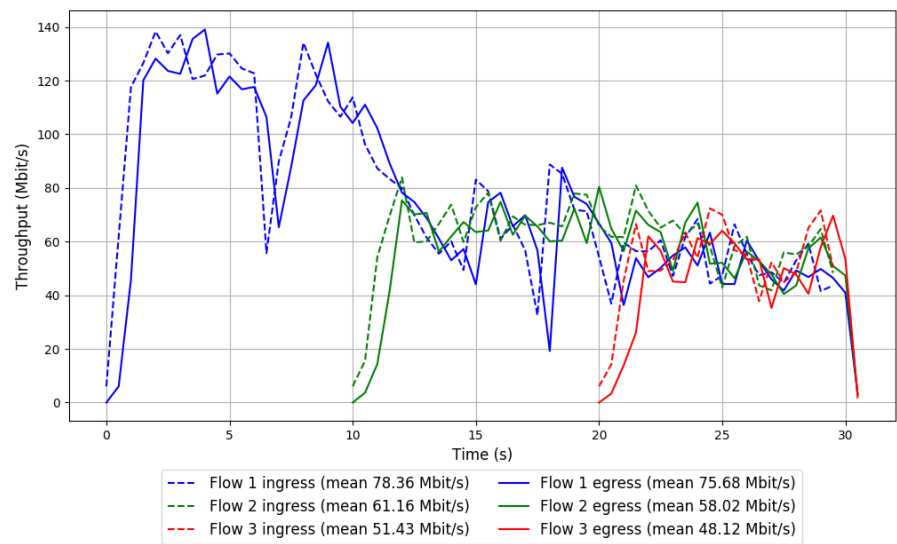
```
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-22 05:33:19
End at: 2018-07-22 05:33:49
Local clock offset: 1.538 ms
Remote clock offset: -26.443 ms

# Below is generated by plot.py at 2018-07-22 11:09:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.32 Mbit/s
95th percentile per-packet one-way delay: 88.399 ms
Loss rate: 4.30%
-- Flow 1:
Average throughput: 75.68 Mbit/s
95th percentile per-packet one-way delay: 86.511 ms
Loss rate: 3.42%
-- Flow 2:
Average throughput: 58.02 Mbit/s
95th percentile per-packet one-way delay: 88.315 ms
Loss rate: 5.12%
-- Flow 3:
Average throughput: 48.12 Mbit/s
95th percentile per-packet one-way delay: 96.446 ms
Loss rate: 6.43%
```

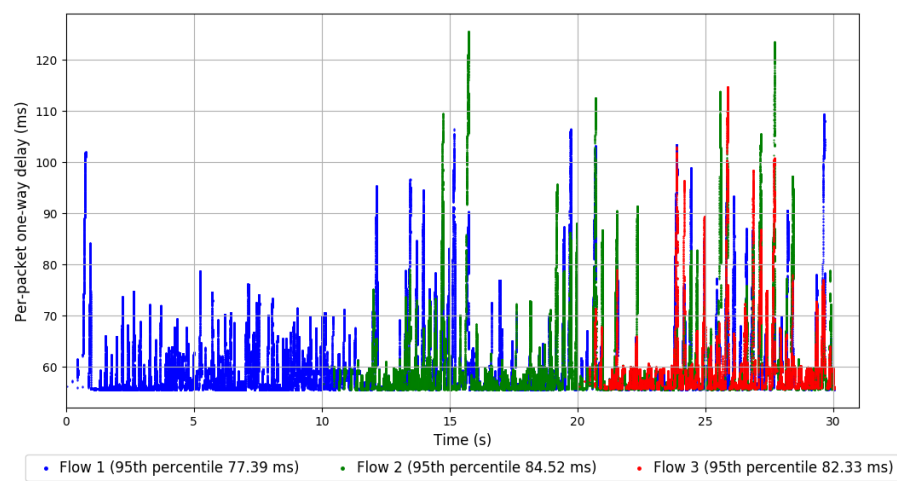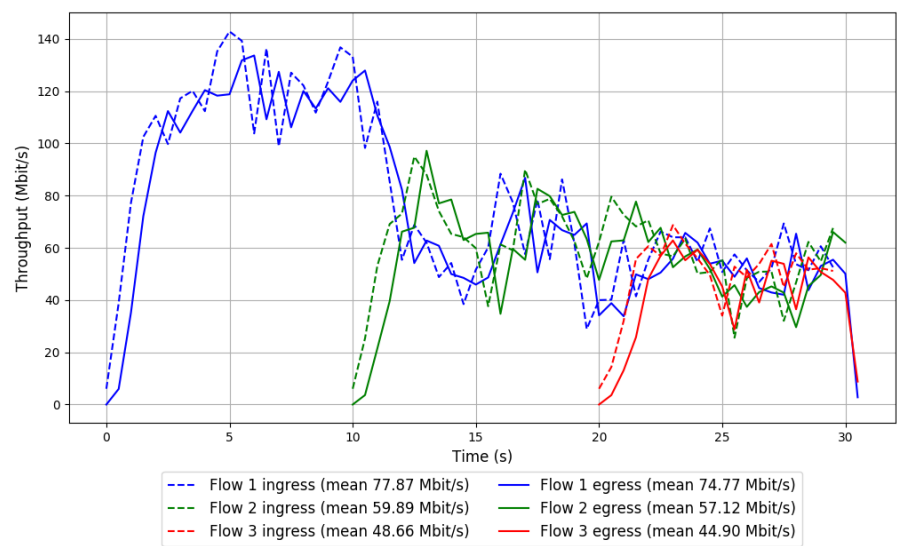# Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-22 06:20:22
End at: 2018-07-22 06:20:52
Local clock offset: -0.469 ms
Remote clock offset: -39.302 ms

# Below is generated by plot.py at 2018-07-22 11:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.64 Mbit/s
95th percentile per-packet one-way delay: 79.998 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 74.77 Mbit/s
95th percentile per-packet one-way delay: 77.388 ms
Loss rate: 3.99%
-- Flow 2:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 84.523 ms
Loss rate: 4.61%
-- Flow 3:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 82.330 ms
Loss rate: 7.74%
```

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

Flow 1 ingress (mean 77.87 Mbit/s) --- Flow 1 egress (mean 74.77 Mbit/s)
Flow 2 ingress (mean 59.89 Mbit/s) --- Flow 2 egress (mean 57.12 Mbit/s)
Flow 3 ingress (mean 48.66 Mbit/s) --- Flow 3 egress (mean 44.90 Mbit/s)

Flow 1 (95th percentile 77.39 ms)   Flow 2 (95th percentile 84.52 ms)   Flow 3 (95th percentile 82.33 ms)
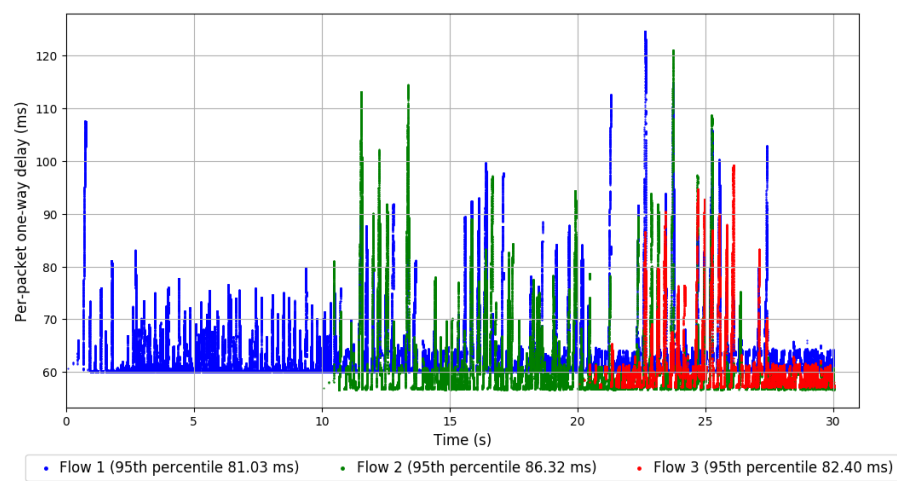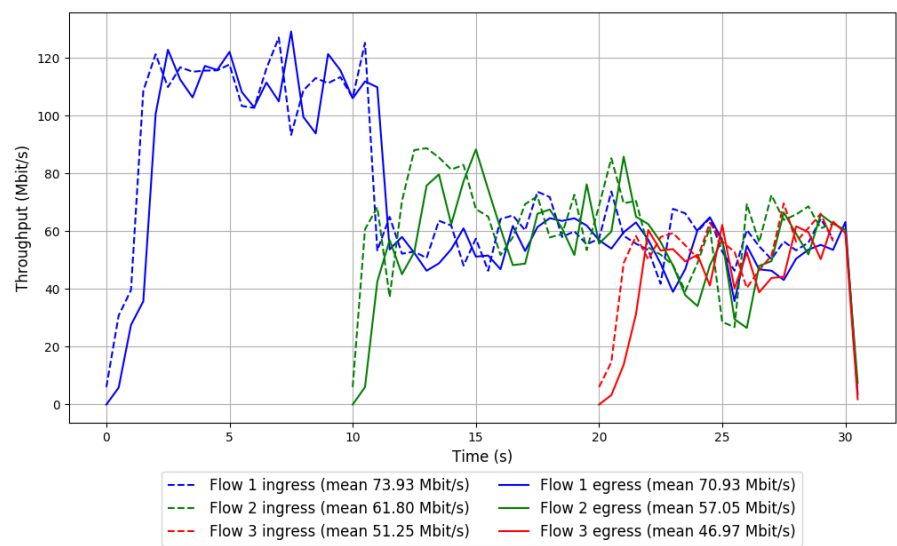
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-22 06:56:27
End at: 2018-07-22 06:56:57
Local clock offset: 2.573 ms
Remote clock offset: -35.801 ms


# Below is generated by plot.py at 2018-07-22 11:10:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.47 Mbit/s
95th percentile per-packet one-way delay: 82.723 ms
Loss rate: 5.74%
-- Flow 1:
Average throughput: 70.93 Mbit/s
95th percentile per-packet one-way delay: 81.027 ms
Loss rate: 4.05%
-- Flow 2:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 86.318 ms
Loss rate: 7.68%
-- Flow 3:
Average throughput: 46.97 Mbit/s
95th percentile per-packet one-way delay: 82.400 ms
Loss rate: 8.34%
```

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

Flow 1 ingress (mean 73.93 Mbit/s) --- Flow 1 egress (mean 70.93 Mbit/s)
Flow 2 ingress (mean 61.80 Mbit/s) --- Flow 2 egress (mean 57.05 Mbit/s)
Flow 3 ingress (mean 51.25 Mbit/s) --- Flow 3 egress (mean 46.97 Mbit/s)

Flow 1 (95th percentile 81.03 ms) • Flow 2 (95th percentile 86.32 ms) • Flow 3 (95th percentile 82.40 ms)
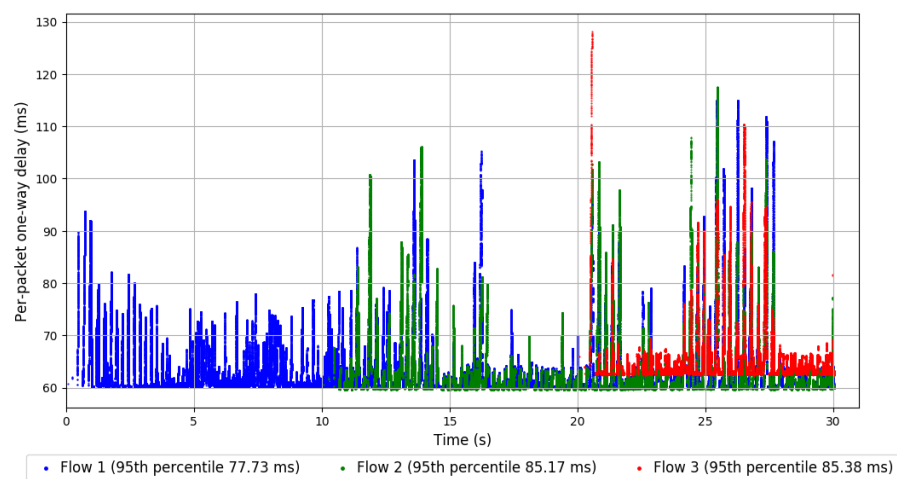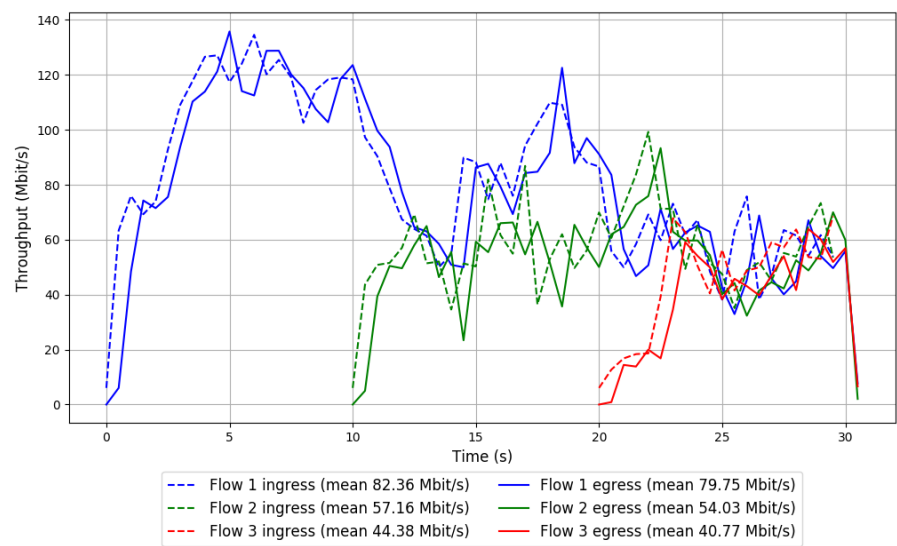
```
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-22 07:26:26
End at: 2018-07-22 07:26:56
Local clock offset: 3.372 ms
Remote clock offset: -31.639 ms


# Below is generated by plot.py at 2018-07-22 11:10:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.29 Mbit/s
95th percentile per-packet one-way delay: 81.163 ms
Loss rate: 4.36%
-- Flow 1:
Average throughput: 79.75 Mbit/s
95th percentile per-packet one-way delay: 77.731 ms
Loss rate: 3.17%
-- Flow 2:
Average throughput: 54.03 Mbit/s
95th percentile per-packet one-way delay: 85.168 ms
Loss rate: 5.46%
-- Flow 3:
Average throughput: 40.77 Mbit/s
95th percentile per-packet one-way delay: 85.379 ms
Loss rate: 8.18%
```

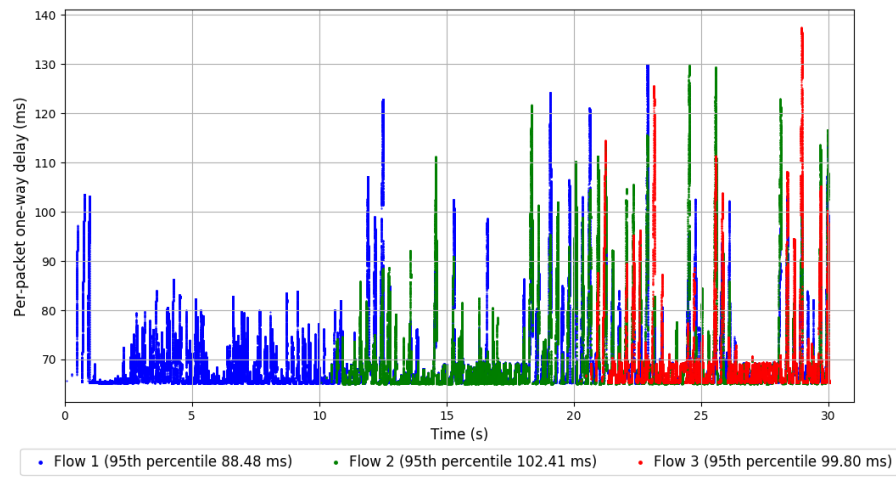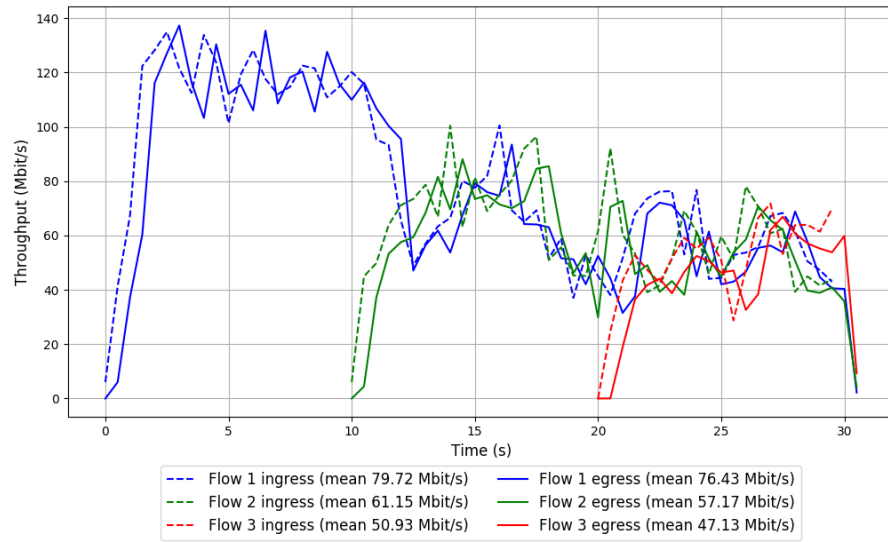# Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-22 08:00:48
End at: 2018-07-22 08:01:18
Local clock offset: 0.165 ms
Remote clock offset: -28.639 ms

# Below is generated by plot.py at 2018-07-22 11:10:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.70 Mbit/s
95th percentile per-packet one-way delay: 95.199 ms
Loss rate: 5.47%
-- Flow 1:
Average throughput: 76.43 Mbit/s
95th percentile per-packet one-way delay: 88.483 ms
Loss rate: 4.12%
-- Flow 2:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 102.412 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 47.13 Mbit/s
95th percentile per-packet one-way delay: 99.797 ms
Loss rate: 9.33%
```

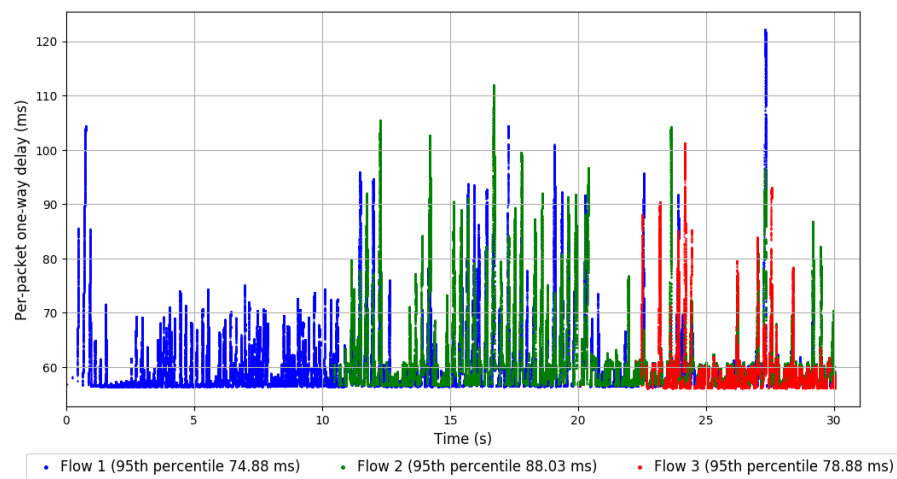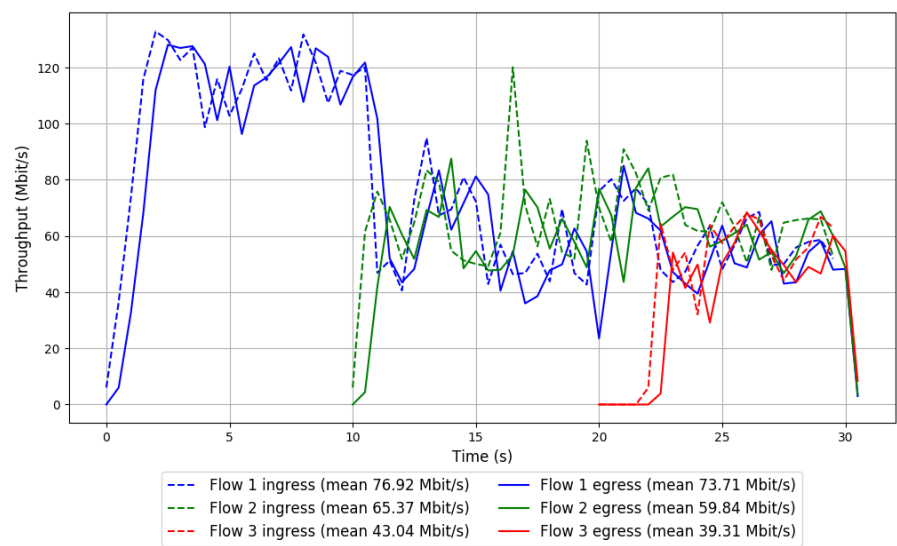# Run 7: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-22 08:41:02
End at: 2018-07-22 08:41:32
Local clock offset: 3.229 ms
Remote clock offset: -34.224 ms

# Below is generated by plot.py at 2018-07-22 11:10:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.64 Mbit/s
95th percentile per-packet one-way delay: 82.093 ms
Loss rate: 6.03%
-- Flow 1:
Average throughput: 73.71 Mbit/s
95th percentile per-packet one-way delay: 74.876 ms
Loss rate: 4.16%
-- Flow 2:
Average throughput: 59.84 Mbit/s
95th percentile per-packet one-way delay: 88.027 ms
Loss rate: 8.45%
-- Flow 3:
Average throughput: 39.31 Mbit/s
95th percentile per-packet one-way delay: 78.876 ms
Loss rate: 8.64%
```

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

Flow 1 ingress (mean 76.92 Mbit/s)   Flow 1 egress (mean 73.71 Mbit/s)
Flow 2 ingress (mean 65.37 Mbit/s)   Flow 2 egress (mean 59.84 Mbit/s)
Flow 3 ingress (mean 43.04 Mbit/s)   Flow 3 egress (mean 39.31 Mbit/s)

Flow 1 (95th percentile 74.88 ms)   Flow 2 (95th percentile 88.03 ms)   Flow 3 (95th percentile 78.88 ms)
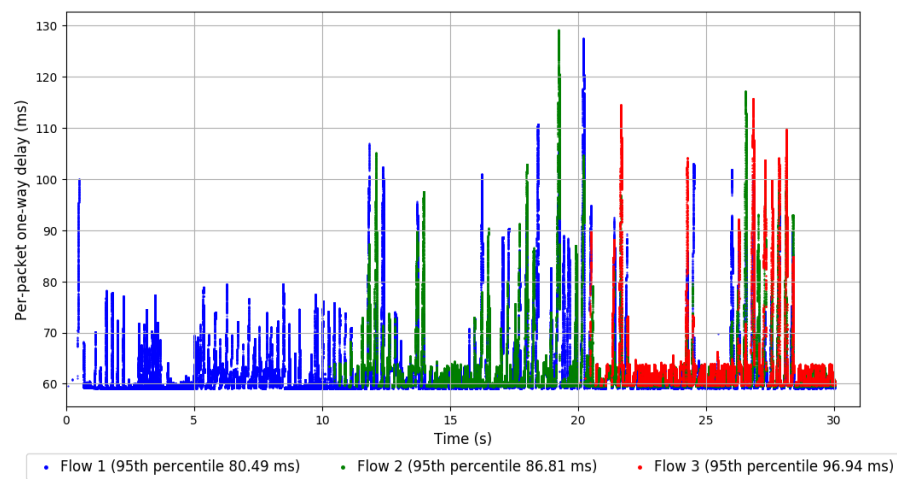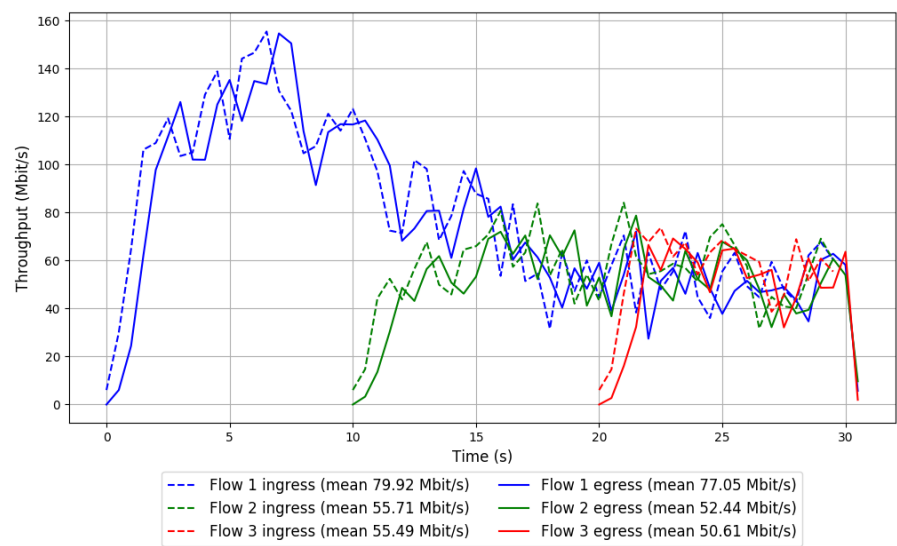
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```
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-22 09:41:03
End at: 2018-07-22 09:41:33
Local clock offset: 0.762 ms
Remote clock offset: -33.865 ms


# Below is generated by plot.py at 2018-07-22 11:12:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.76 Mbit/s
95th percentile per-packet one-way delay: 84.910 ms
Loss rate: 4.93%
-- Flow 1:
Average throughput: 77.05 Mbit/s
95th percentile per-packet one-way delay: 80.489 ms
Loss rate: 3.60%
-- Flow 2:
Average throughput: 52.44 Mbit/s
95th percentile per-packet one-way delay: 86.814 ms
Loss rate: 5.87%
-- Flow 3:
Average throughput: 50.61 Mbit/s
95th percentile per-packet one-way delay: 96.945 ms
Loss rate: 8.80%
```

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

Flow 1 ingress (mean 79.92 Mbit/s) ---- Flow 1 egress (mean 77.05 Mbit/s)
Flow 2 ingress (mean 55.71 Mbit/s) ---- Flow 2 egress (mean 52.44 Mbit/s)
Flow 3 ingress (mean 55.49 Mbit/s) ---- Flow 3 egress (mean 50.61 Mbit/s)

Flow 1 (95th percentile 80.49 ms)   Flow 2 (95th percentile 86.81 ms)   Flow 3 (95th percentile 96.94 ms)
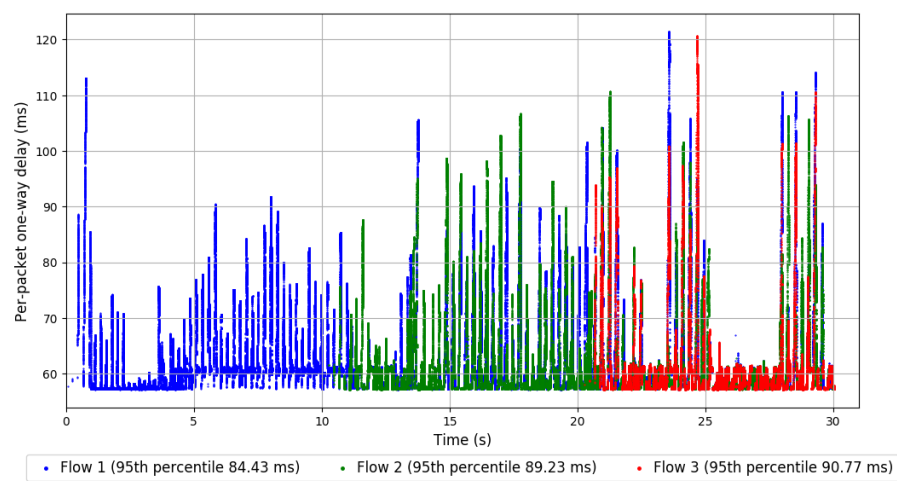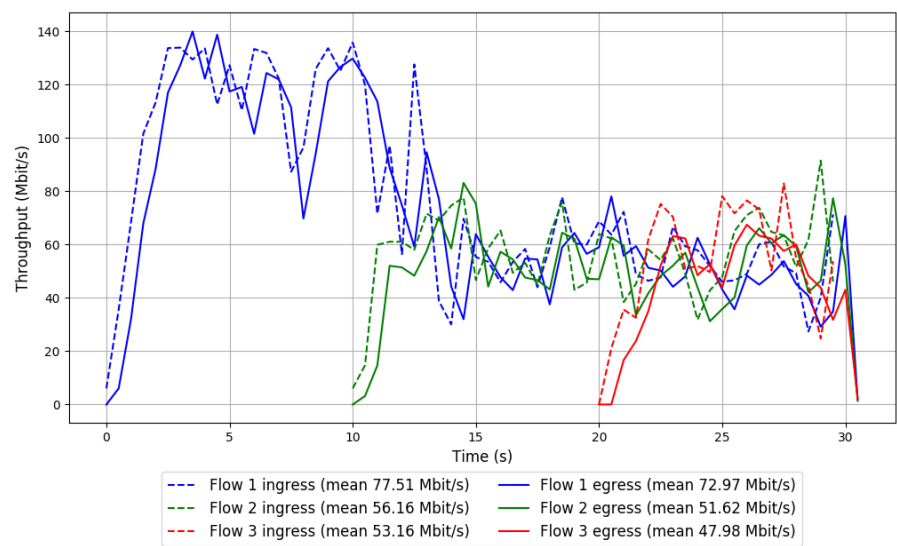
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-22 10:11:12
End at: 2018-07-22 10:11:42
Local clock offset: 1.185 ms
Remote clock offset: -36.345 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.99 Mbit/s
95th percentile per-packet one-way delay: 86.225 ms
Loss rate: 7.24%
-- Flow 1:
Average throughput: 72.97 Mbit/s
95th percentile per-packet one-way delay: 84.429 ms
Loss rate: 5.85%
-- Flow 2:
Average throughput: 51.62 Mbit/s
95th percentile per-packet one-way delay: 89.235 ms
Loss rate: 8.09%
-- Flow 3:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 90.771 ms
Loss rate: 11.56%
```

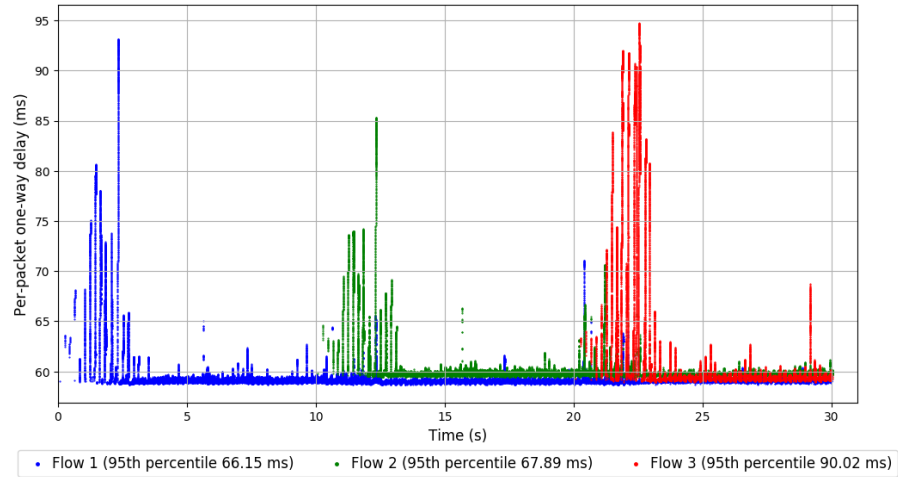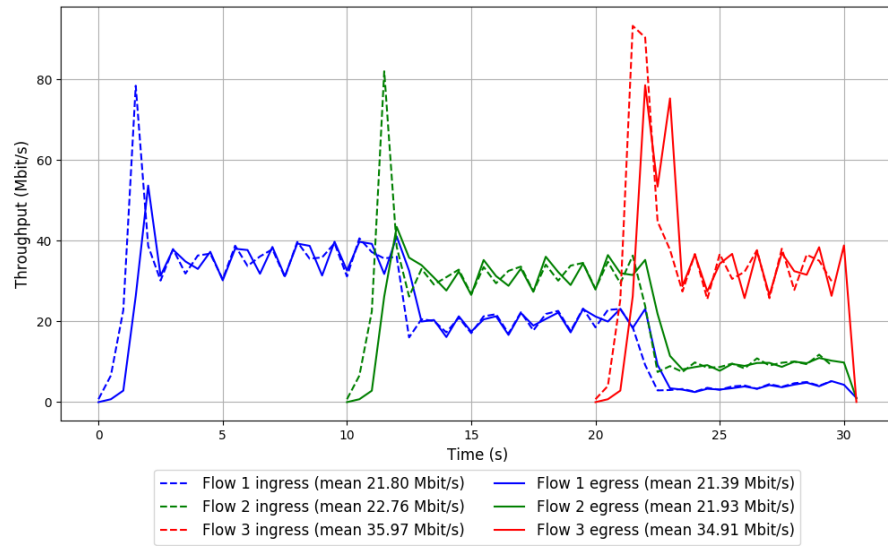Run 10: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-07-22 04:27:35
End at: 2018-07-22 04:28:05
Local clock offset: 0.286 ms
Remote clock offset: -33.879 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.56 Mbit/s
95th percentile per-packet one-way delay: 74.163 ms
Loss rate: 2.68%
-- Flow 1:
Average throughput: 21.39 Mbit/s
95th percentile per-packet one-way delay: 66.149 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 21.93 Mbit/s
95th percentile per-packet one-way delay: 67.894 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 34.91 Mbit/s
95th percentile per-packet one-way delay: 90.024 ms
Loss rate: 2.96%
```

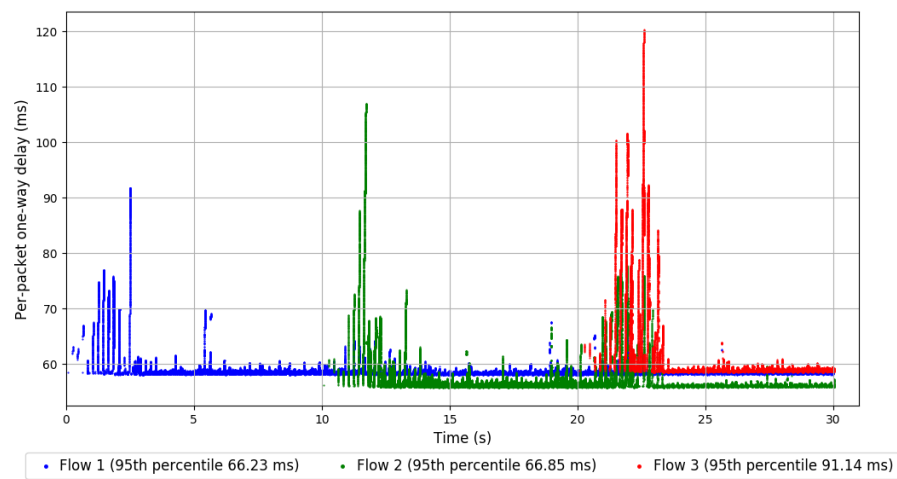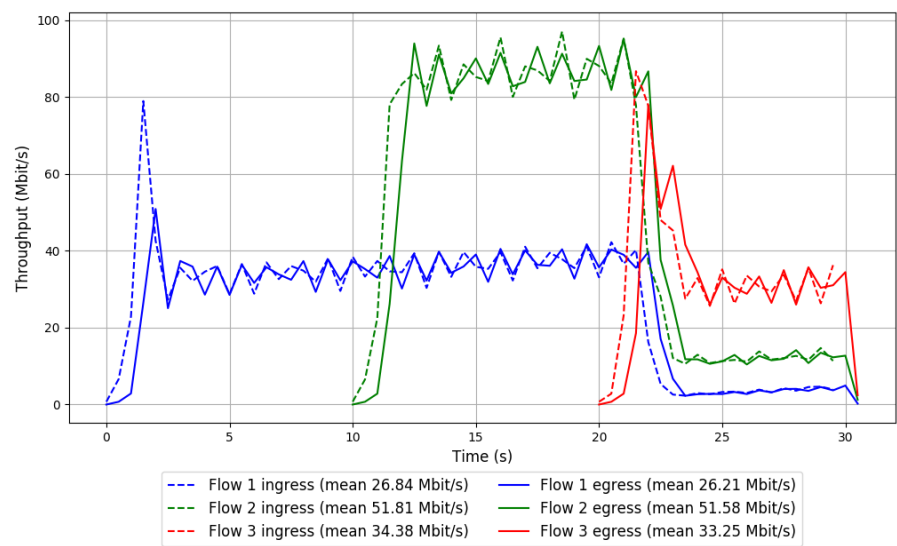## Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-07-22 04:52:01
End at: 2018-07-22 04:52:31
Local clock offset: 1.378 ms
Remote clock offset: -35.574 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.60 Mbit/s
95th percentile per-packet one-way delay: 71.786 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 26.21 Mbit/s
95th percentile per-packet one-way delay: 66.227 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 51.58 Mbit/s
95th percentile per-packet one-way delay: 66.849 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 33.25 Mbit/s
95th percentile per-packet one-way delay: 91.138 ms
Loss rate: 3.30%
```

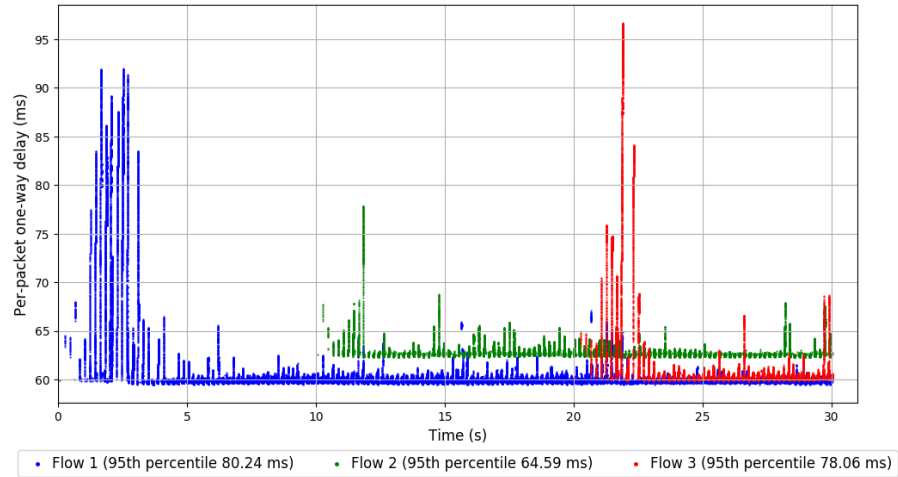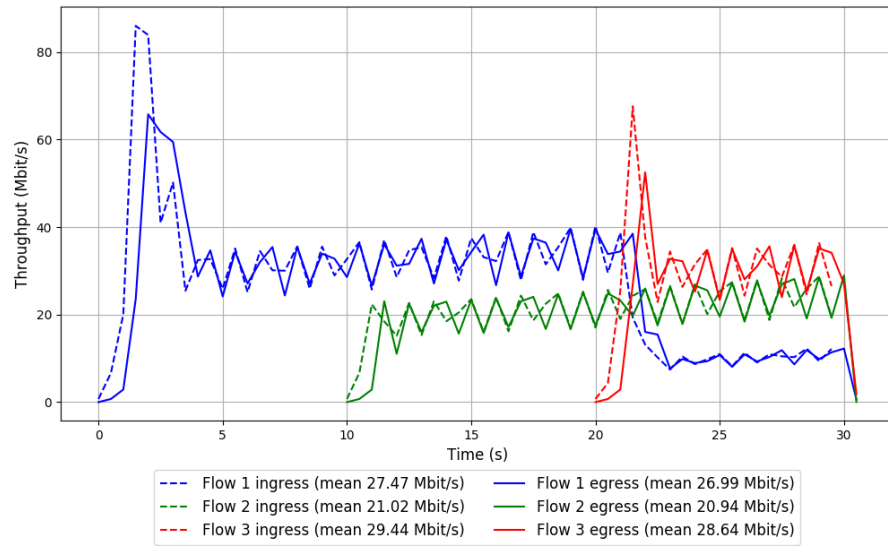Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-07-22 05:16:30
End at: 2018-07-22 05:17:00
Local clock offset: -0.565 ms
Remote clock offset: -32.855 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.41 Mbit/s
95th percentile per-packet one-way delay: 75.187 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 80.243 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 20.94 Mbit/s
95th percentile per-packet one-way delay: 64.586 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 28.64 Mbit/s
95th percentile per-packet one-way delay: 78.060 ms
Loss rate: 2.71%
```

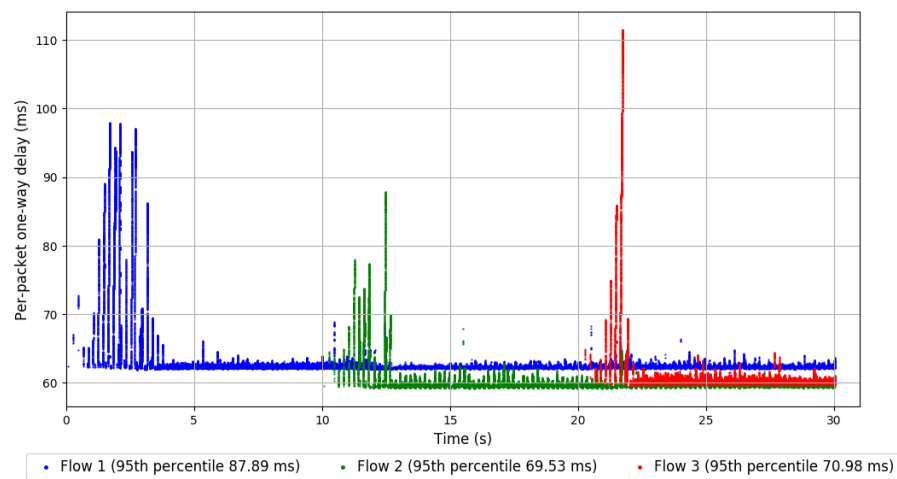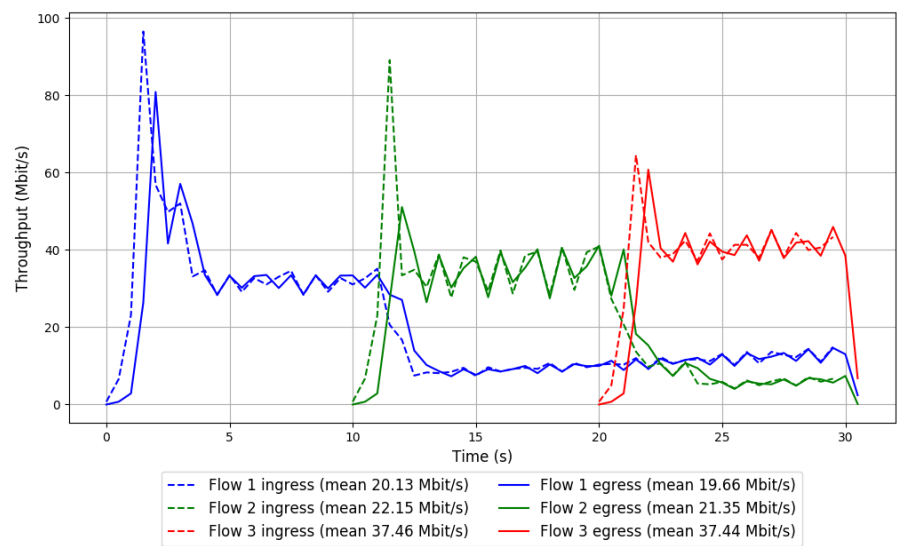Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-07-22 06:01:35
End at: 2018-07-22 06:02:05
Local clock offset: -1.319 ms
Remote clock offset: -35.061 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.31 Mbit/s
95th percentile per-packet one-way delay: 77.447 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 87.890 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 21.35 Mbit/s
95th percentile per-packet one-way delay: 69.525 ms
Loss rate: 3.63%
-- Flow 3:
Average throughput: 37.44 Mbit/s
95th percentile per-packet one-way delay: 70.982 ms
Loss rate: 0.07%
```

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 20.13 Mbit/s) --- Flow 1 egress (mean 19.66 Mbit/s)
Flow 2 ingress (mean 22.15 Mbit/s) --- Flow 2 egress (mean 21.35 Mbit/s)
Flow 3 ingress (mean 37.46 Mbit/s) --- Flow 3 egress (mean 37.44 Mbit/s)

Flow 1 (95th percentile 87.89 ms) • Flow 2 (95th percentile 69.53 ms) • Flow 3 (95th percentile 70.98 ms)
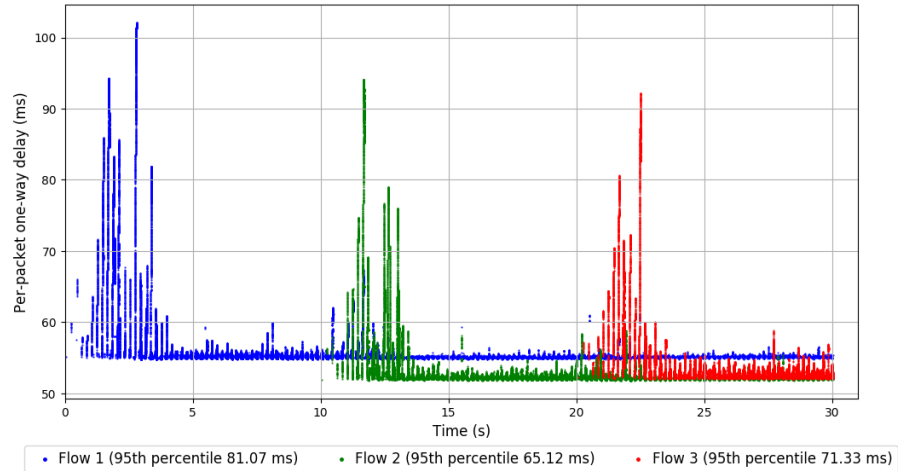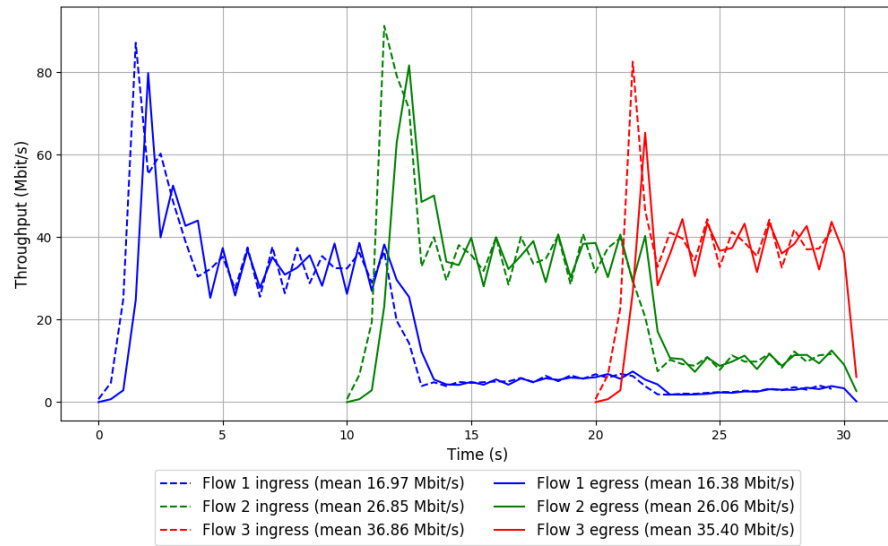
```
Run 5: Statistics of TCP Vegas

Start at: 2018-07-22 06:43:38
End at: 2018-07-22 06:44:08
Local clock offset: -1.203 ms
Remote clock offset: -44.522 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.50 Mbit/s
95th percentile per-packet one-way delay: 74.946 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 16.38 Mbit/s
95th percentile per-packet one-way delay: 81.071 ms
Loss rate: 3.49%
-- Flow 2:
Average throughput: 26.06 Mbit/s
95th percentile per-packet one-way delay: 65.117 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 35.40 Mbit/s
95th percentile per-packet one-way delay: 71.334 ms
Loss rate: 3.94%
```

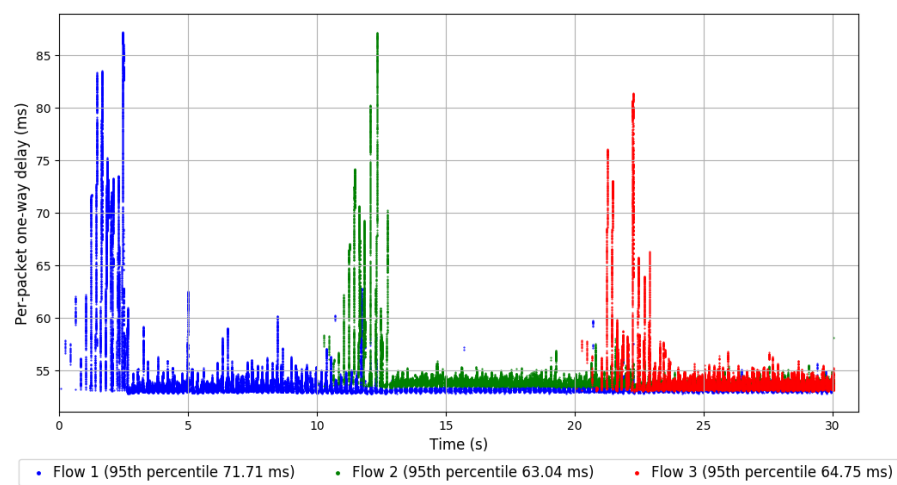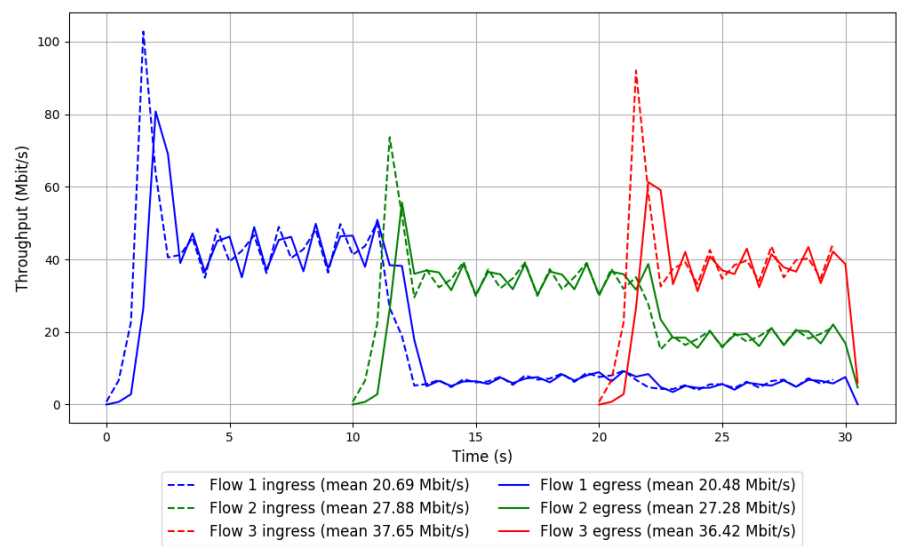Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-07-22 07:13:39
End at: 2018-07-22 07:14:09
Local clock offset: 0.152 ms
Remote clock offset: -42.056 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.72 Mbit/s
95th percentile per-packet one-way delay: 67.835 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 20.48 Mbit/s
95th percentile per-packet one-way delay: 71.711 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 27.28 Mbit/s
95th percentile per-packet one-way delay: 63.036 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 36.42 Mbit/s
95th percentile per-packet one-way delay: 64.750 ms
Loss rate: 3.27%
```

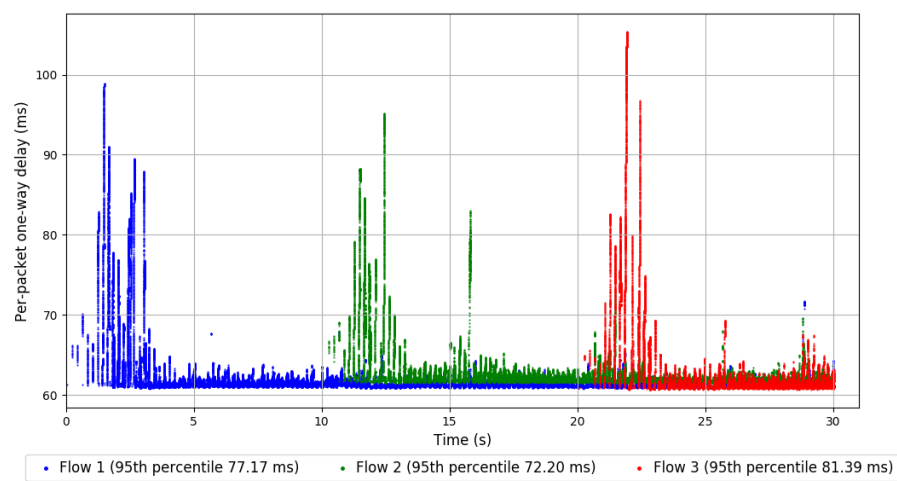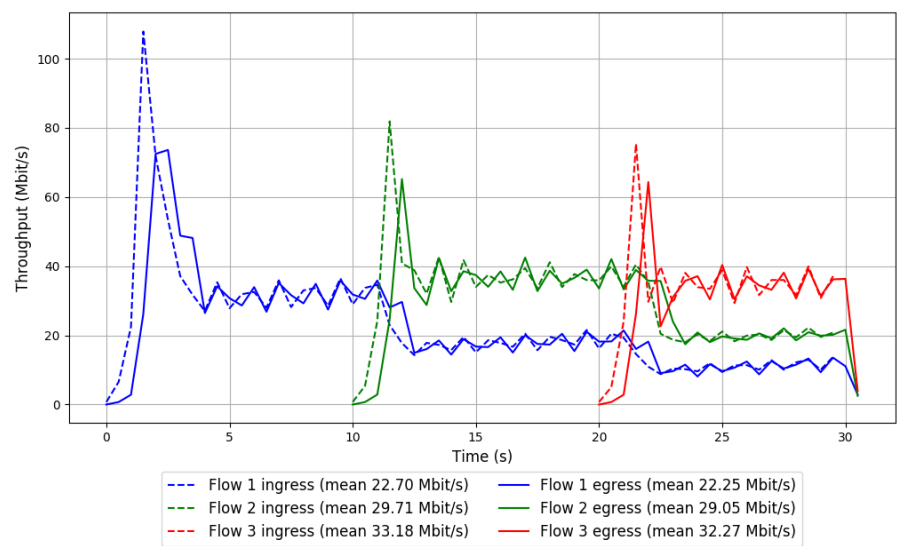Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-07-22 07:43:44
End at: 2018-07-22 07:44:14
Local clock offset: -1.029 ms
Remote clock offset: -34.393 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.30 Mbit/s
95th percentile per-packet one-way delay: 76.603 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 22.25 Mbit/s
95th percentile per-packet one-way delay: 77.171 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 29.05 Mbit/s
95th percentile per-packet one-way delay: 72.197 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 32.27 Mbit/s
95th percentile per-packet one-way delay: 81.387 ms
Loss rate: 2.75%
```

Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 22.70 Mbit/s) --- Flow 1 egress (mean 22.25 Mbit/s)
Flow 2 ingress (mean 29.71 Mbit/s) --- Flow 2 egress (mean 29.05 Mbit/s)
Flow 3 ingress (mean 33.18 Mbit/s) --- Flow 3 egress (mean 32.27 Mbit/s)

Flow 1 (95th percentile 77.17 ms)   Flow 2 (95th percentile 72.20 ms)   Flow 3 (95th percentile 81.39 ms)
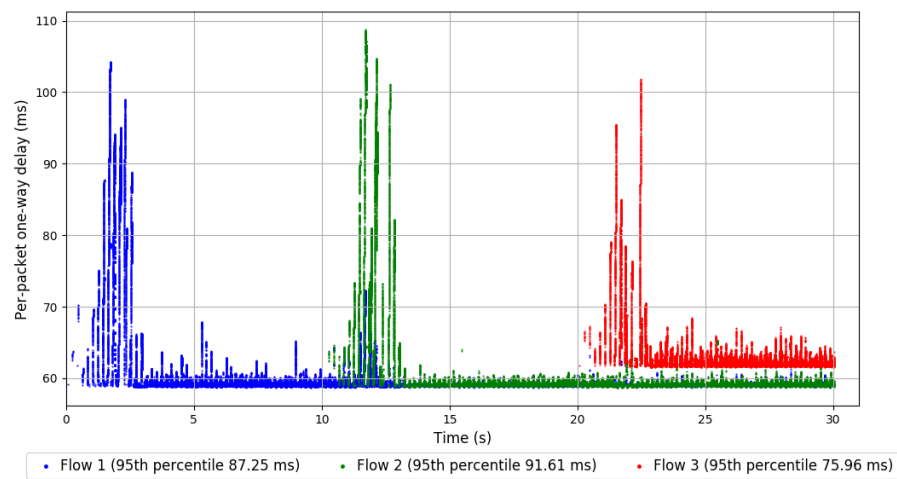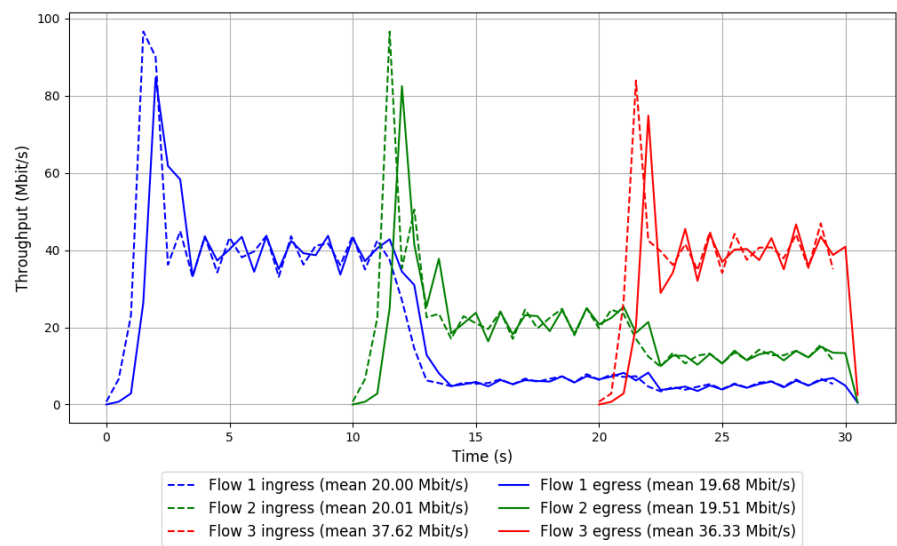
```
Run 8: Statistics of TCP Vegas

Start at: 2018-07-22 08:23:39
End at: 2018-07-22 08:24:09
Local clock offset: 2.148 ms
Remote clock offset: -32.643 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.75 Mbit/s
95th percentile per-packet one-way delay: 85.405 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 19.68 Mbit/s
95th percentile per-packet one-way delay: 87.251 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 19.51 Mbit/s
95th percentile per-packet one-way delay: 91.614 ms
Loss rate: 2.50%
-- Flow 3:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 75.964 ms
Loss rate: 3.43%
```

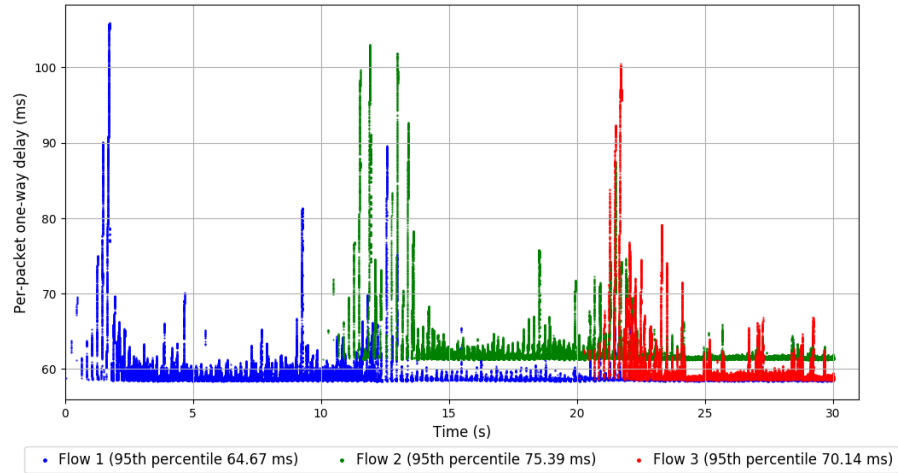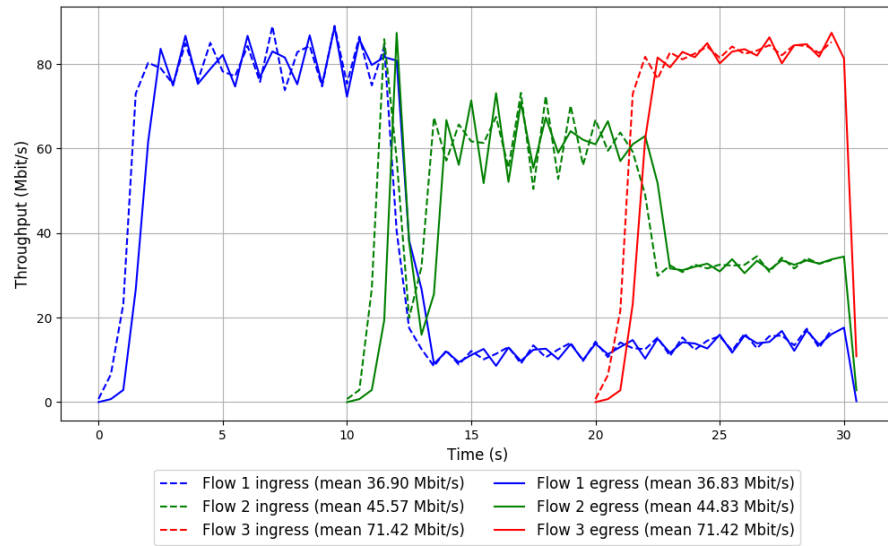Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-07-22 09:22:49
End at: 2018-07-22 09:23:19
Local clock offset: 0.64 ms
Remote clock offset: -34.703 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.40 Mbit/s
95th percentile per-packet one-way delay: 70.594 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 36.83 Mbit/s
95th percentile per-packet one-way delay: 64.665 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 75.393 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 71.42 Mbit/s
95th percentile per-packet one-way delay: 70.138 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Vegas — Data Link

- Flow 1 ingress (mean 36.90 Mbit/s)
- Flow 1 egress (mean 36.83 Mbit/s)
- Flow 2 ingress (mean 45.57 Mbit/s)
- Flow 2 egress (mean 44.83 Mbit/s)
- Flow 3 ingress (mean 71.42 Mbit/s)
- Flow 3 egress (mean 71.42 Mbit/s)

- Flow 1 (95th percentile 64.67 ms)
- Flow 2 (95th percentile 75.39 ms)
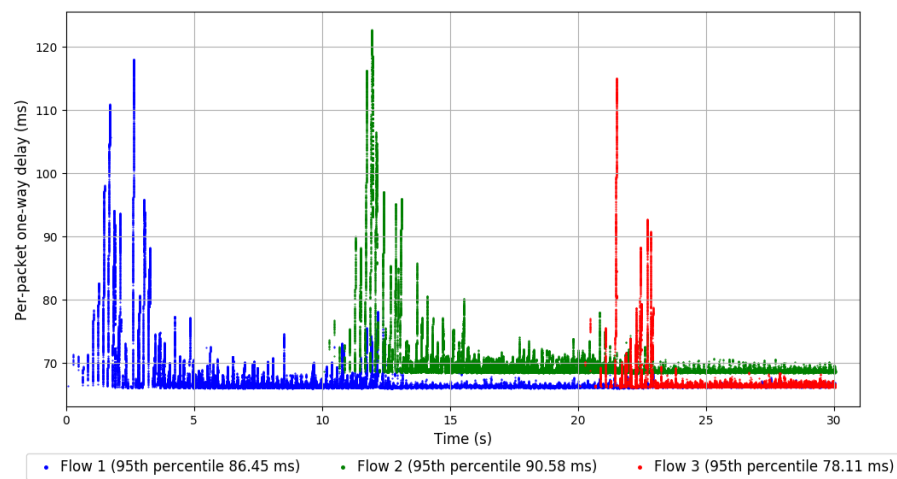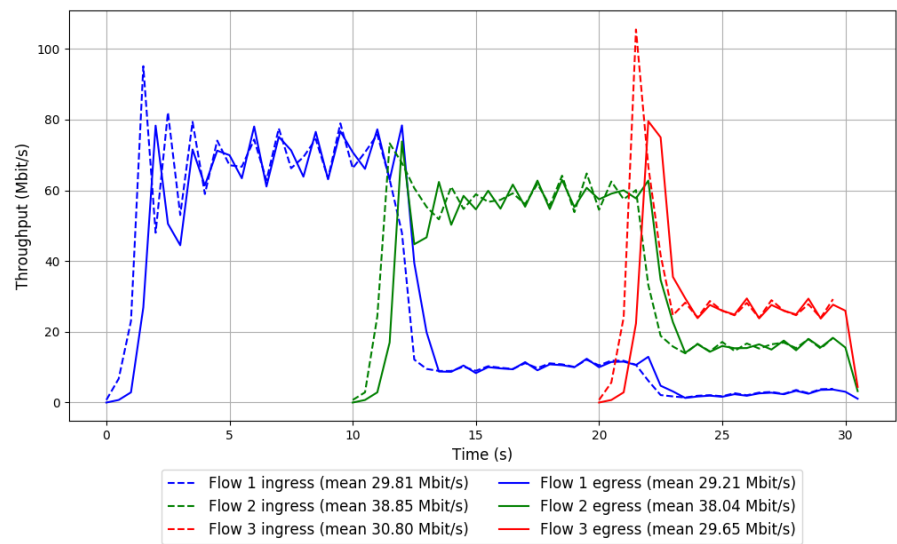- Flow 3 (95th percentile 70.14 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2018-07-22 09:58:25
End at: 2018-07-22 09:58:55
Local clock offset: 1.582 ms
Remote clock offset: -26.944 ms


# Below is generated by plot.py at 2018-07-22 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.39 Mbit/s
95th percentile per-packet one-way delay: 86.556 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 86.450 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 38.04 Mbit/s
95th percentile per-packet one-way delay: 90.585 ms
Loss rate: 2.09%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 78.105 ms
Loss rate: 3.73%
```

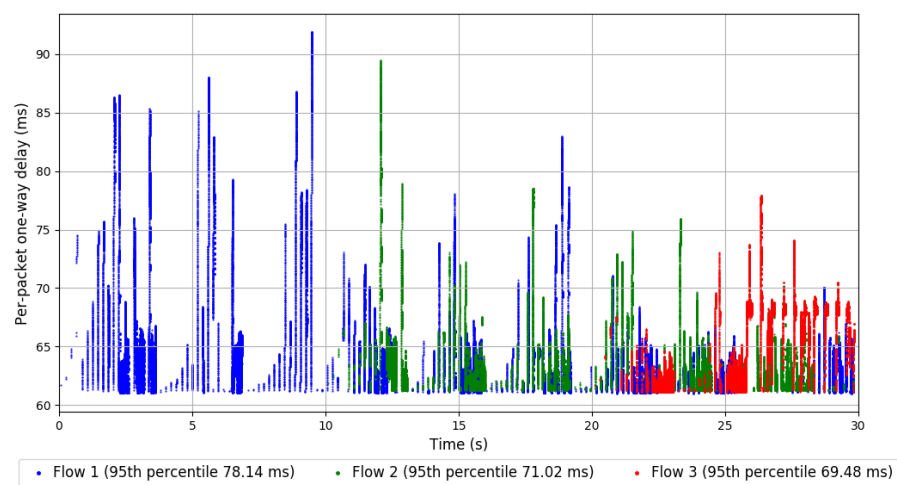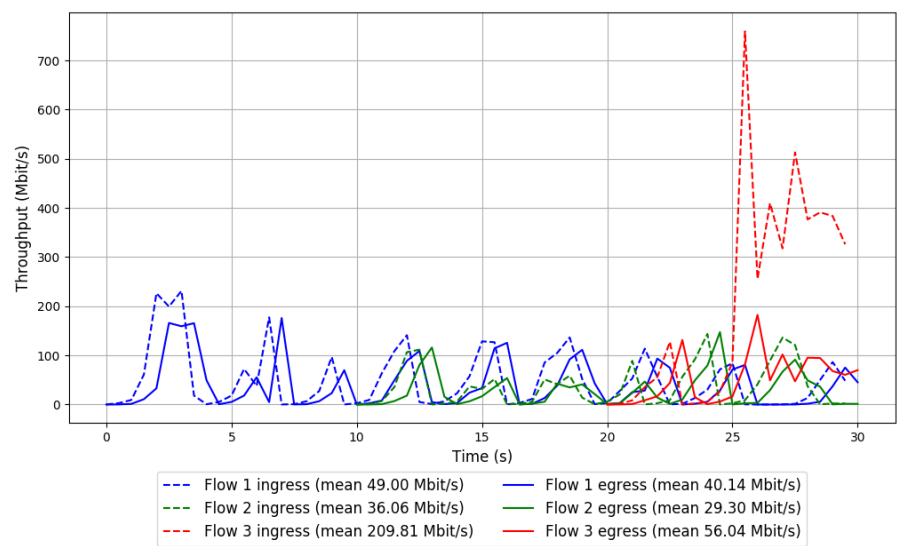# Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-07-22 04:30:10
End at: 2018-07-22 04:30:40
Local clock offset: -1.574 ms
Remote clock offset: -36.201 ms


# Below is generated by plot.py at 2018-07-22 11:12:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.87 Mbit/s
95th percentile per-packet one-way delay: 74.304 ms
Loss rate: 44.94%
-- Flow 1:
Average throughput: 40.14 Mbit/s
95th percentile per-packet one-way delay: 78.140 ms
Loss rate: 18.06%
-- Flow 2:
Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 71.023 ms
Loss rate: 18.76%
-- Flow 3:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 69.476 ms
Loss rate: 73.28%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 49.00 Mbit/s) — Flow 1 egress (mean 40.14 Mbit/s)
Flow 2 ingress (mean 36.06 Mbit/s) — Flow 2 egress (mean 29.30 Mbit/s)
Flow 3 ingress (mean 209.81 Mbit/s) — Flow 3 egress (mean 56.04 Mbit/s)

Flow 1 (95th percentile 78.14 ms)   Flow 2 (95th percentile 71.02 ms)   Flow 3 (95th percentile 69.48 ms)
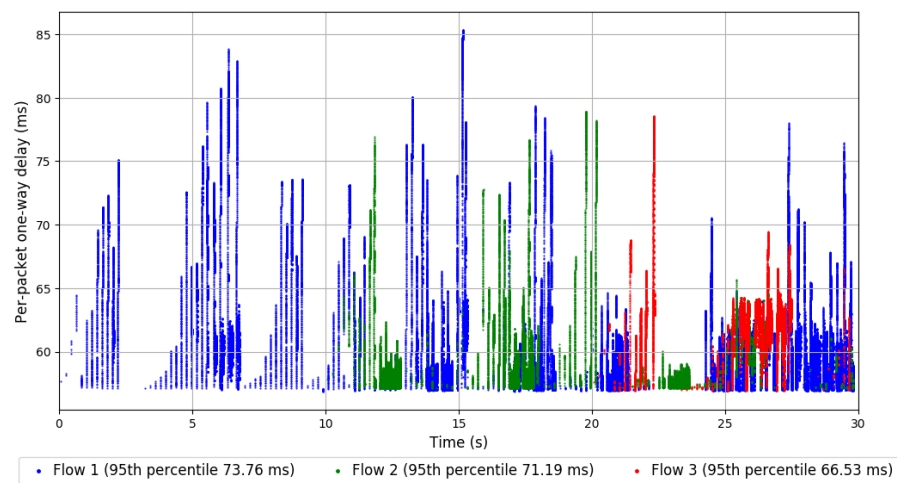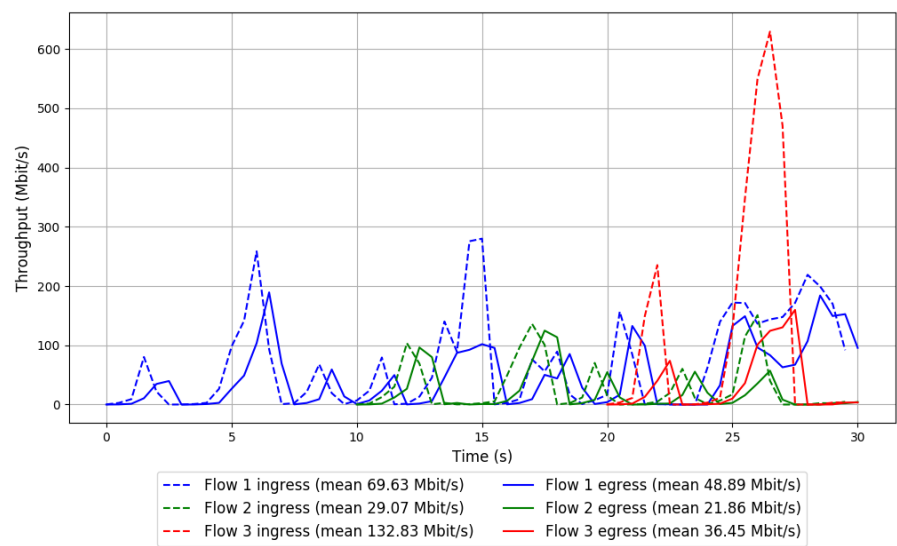
```
Run 2: Statistics of Verus

Start at: 2018-07-22 04:54:38
End at: 2018-07-22 04:55:08
Local clock offset: 0.37 ms
Remote clock offset: -35.328 ms


# Below is generated by plot.py at 2018-07-22 11:12:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.14 Mbit/s
95th percentile per-packet one-way delay: 72.871 ms
Loss rate: 42.95%
-- Flow 1:
Average throughput: 48.89 Mbit/s
95th percentile per-packet one-way delay: 73.764 ms
Loss rate: 29.78%
-- Flow 2:
Average throughput: 21.86 Mbit/s
95th percentile per-packet one-way delay: 71.194 ms
Loss rate: 24.78%
-- Flow 3:
Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 66.527 ms
Loss rate: 72.55%
```
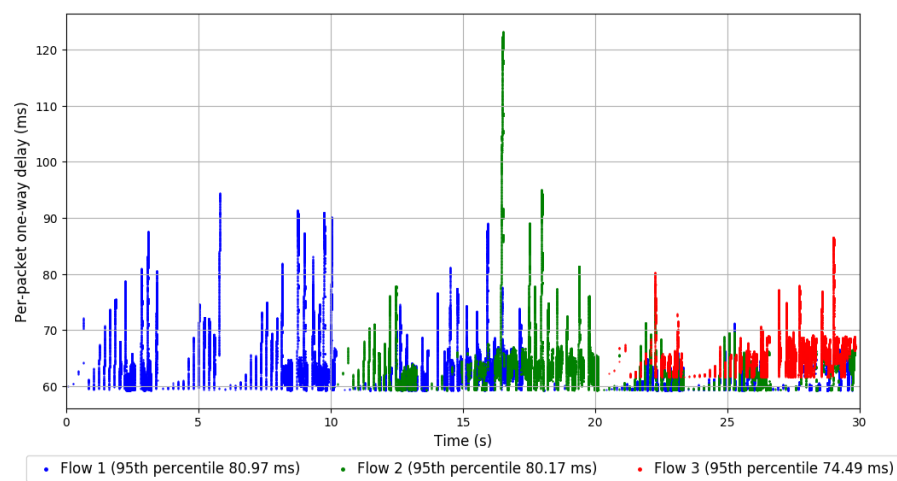
Run 2: Report of Verus — Data Link

- Flow 1 ingress (mean 69.63 Mbit/s)
- Flow 1 egress (mean 48.89 Mbit/s)
- Flow 2 ingress (mean 29.07 Mbit/s)
- Flow 2 egress (mean 21.86 Mbit/s)
- Flow 3 ingress (mean 132.83 Mbit/s)
- Flow 3 egress (mean 36.45 Mbit/s)

- Flow 1 (95th percentile 73.76 ms)
- Flow 2 (95th percentile 71.19 ms)
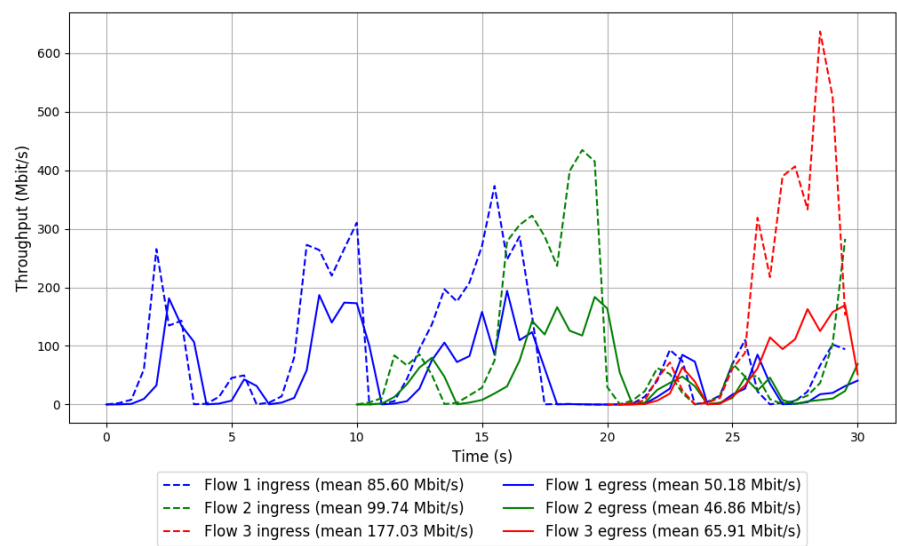- Flow 3 (95th percentile 66.53 ms)

```
Run 3: Statistics of Verus

Start at: 2018-07-22 05:19:05
End at: 2018-07-22 05:19:35
Local clock offset: 0.272 ms
Remote clock offset: -32.745 ms

# Below is generated by plot.py at 2018-07-22 11:13:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.84 Mbit/s
95th percentile per-packet one-way delay: 78.027 ms
Loss rate: 50.80%
-- Flow 1:
Average throughput: 50.18 Mbit/s
95th percentile per-packet one-way delay: 80.969 ms
Loss rate: 41.36%
-- Flow 2:
Average throughput: 46.86 Mbit/s
95th percentile per-packet one-way delay: 80.173 ms
Loss rate: 53.00%
-- Flow 3:
Average throughput: 65.91 Mbit/s
95th percentile per-packet one-way delay: 74.487 ms
Loss rate: 62.75%
```
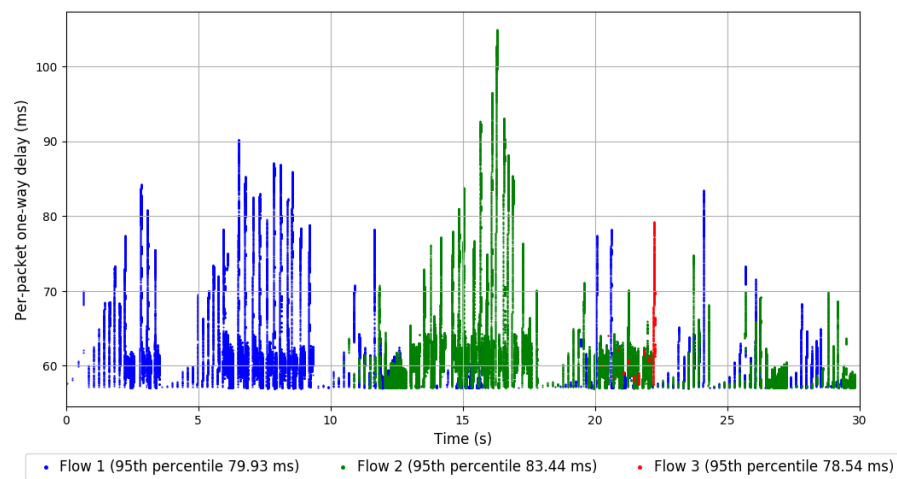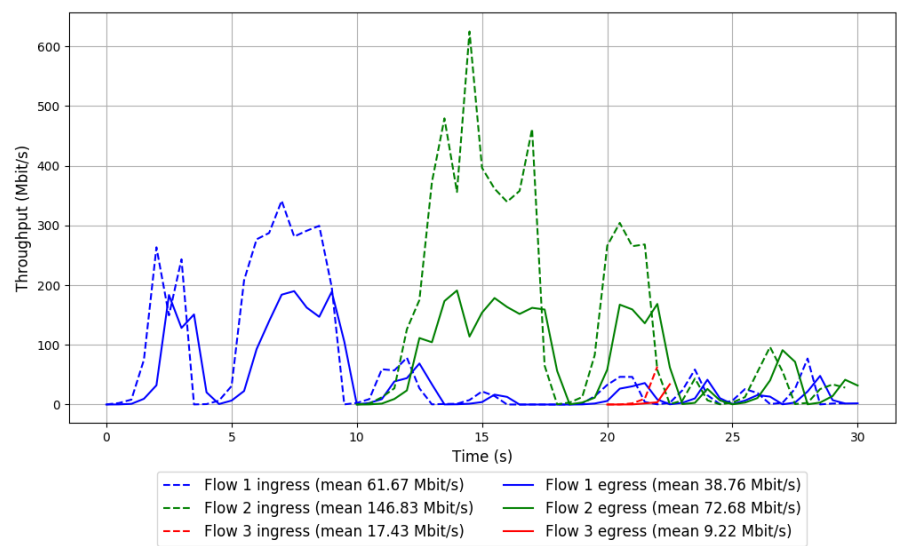
Run 3: Report of Verus — Data Link

- Flow 1 ingress (mean 85.60 Mbit/s)
- Flow 2 ingress (mean 99.74 Mbit/s)
- Flow 3 ingress (mean 177.03 Mbit/s)
- Flow 1 egress (mean 50.18 Mbit/s)
- Flow 2 egress (mean 46.86 Mbit/s)
- Flow 3 egress (mean 65.91 Mbit/s)

- Flow 1 (95th percentile 80.97 ms)
- Flow 2 (95th percentile 80.17 ms)
- Flow 3 (95th percentile 74.49 ms)

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```
Run 4: Statistics of Verus

Start at: 2018-07-22 06:04:11
End at: 2018-07-22 06:04:41
Local clock offset: -2.119 ms
Remote clock offset: -38.492 ms


# Below is generated by plot.py at 2018-07-22 11:13:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.43 Mbit/s
95th percentile per-packet one-way delay: 81.336 ms
Loss rate: 45.35%
-- Flow 1:
Average throughput: 38.76 Mbit/s
95th percentile per-packet one-way delay: 79.930 ms
Loss rate: 37.15%
-- Flow 2:
Average throughput: 72.68 Mbit/s
95th percentile per-packet one-way delay: 83.443 ms
Loss rate: 50.50%
-- Flow 3:
Average throughput: 9.22 Mbit/s
95th percentile per-packet one-way delay: 78.542 ms
Loss rate: 47.01%
```

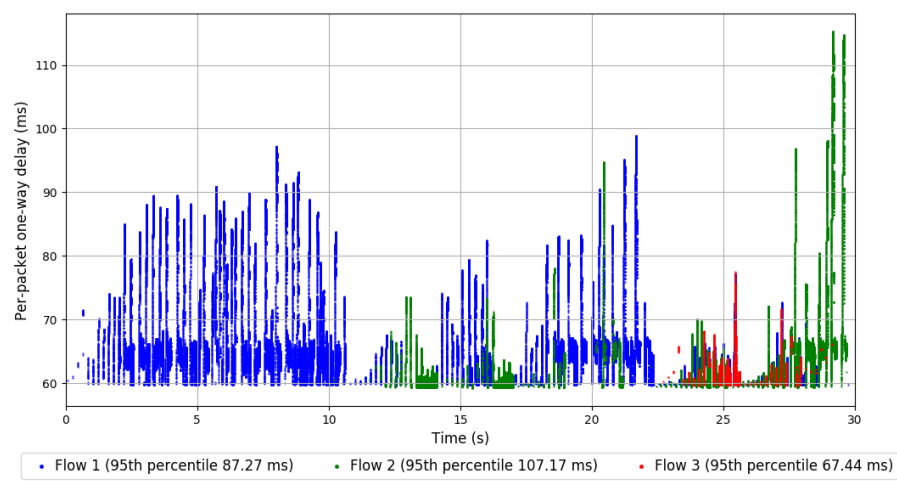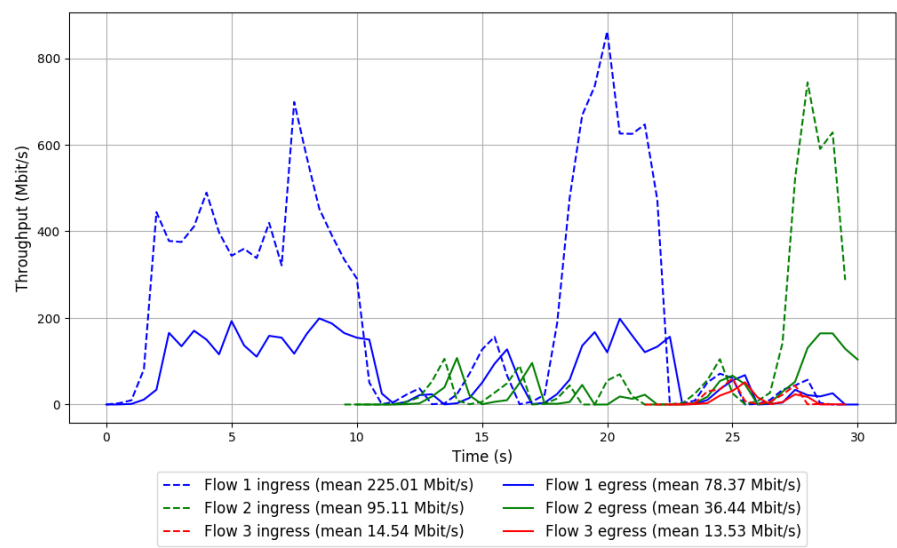# Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-07-22 06:46:13
End at: 2018-07-22 06:46:43
Local clock offset: -0.541 ms
Remote clock offset: -36.331 ms


# Below is generated by plot.py at 2018-07-22 11:13:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.40 Mbit/s
95th percentile per-packet one-way delay: 88.962 ms
Loss rate: 63.85%
-- Flow 1:
Average throughput: 78.37 Mbit/s
95th percentile per-packet one-way delay: 87.270 ms
Loss rate: 65.17%
-- Flow 2:
Average throughput: 36.44 Mbit/s
95th percentile per-packet one-way delay: 107.174 ms
Loss rate: 61.69%
-- Flow 3:
Average throughput: 13.53 Mbit/s
95th percentile per-packet one-way delay: 67.435 ms
Loss rate: 19.46%
```

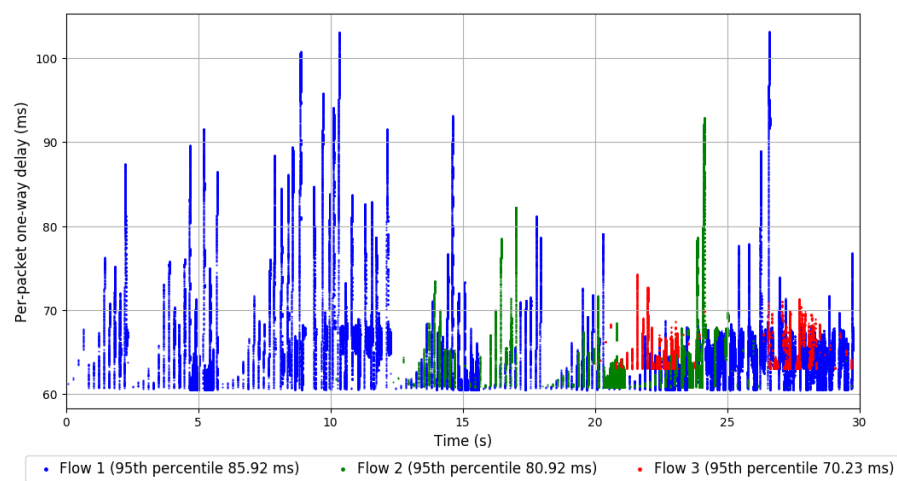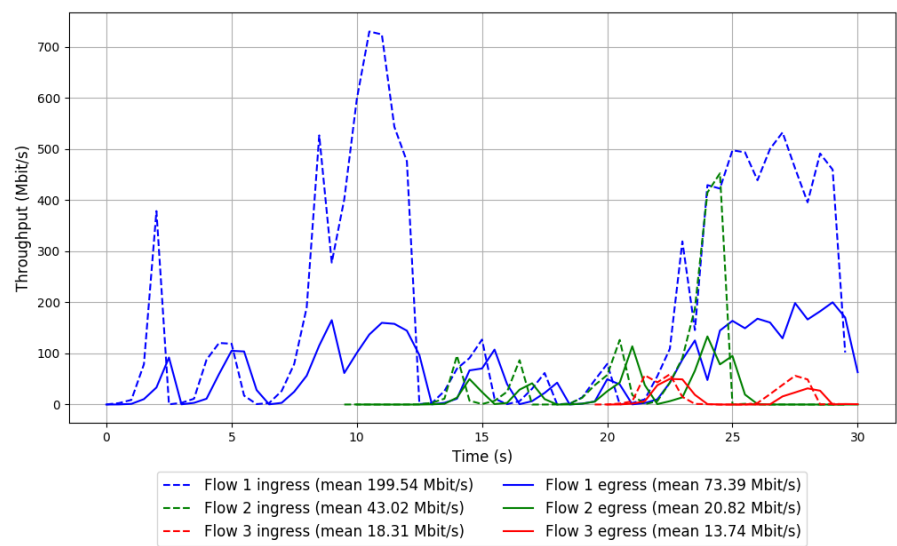Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-07-22 07:16:14
End at: 2018-07-22 07:16:44
Local clock offset: -0.829 ms
Remote clock offset: -35.57 ms


# Below is generated by plot.py at 2018-07-22 11:13:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 84.880 ms
Loss rate: 60.83%
-- Flow 1:
Average throughput: 73.39 Mbit/s
95th percentile per-packet one-way delay: 85.918 ms
Loss rate: 63.22%
-- Flow 2:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 80.918 ms
Loss rate: 51.61%
-- Flow 3:
Average throughput: 13.74 Mbit/s
95th percentile per-packet one-way delay: 70.227 ms
Loss rate: 24.94%
```
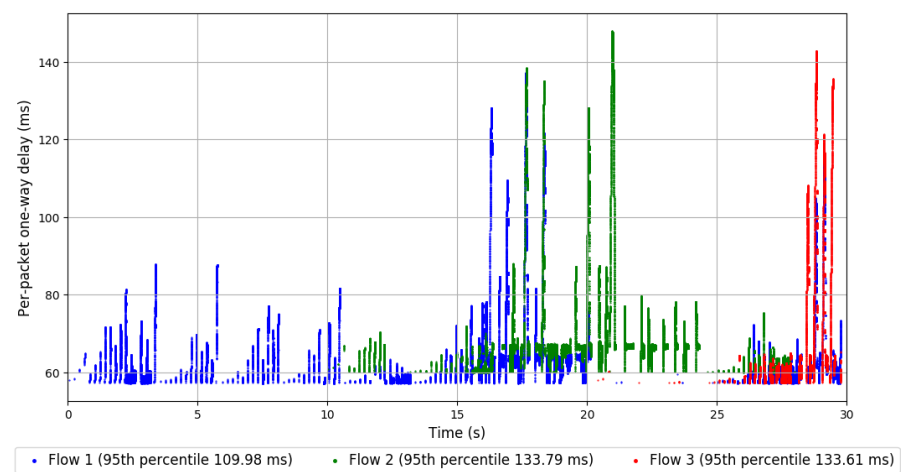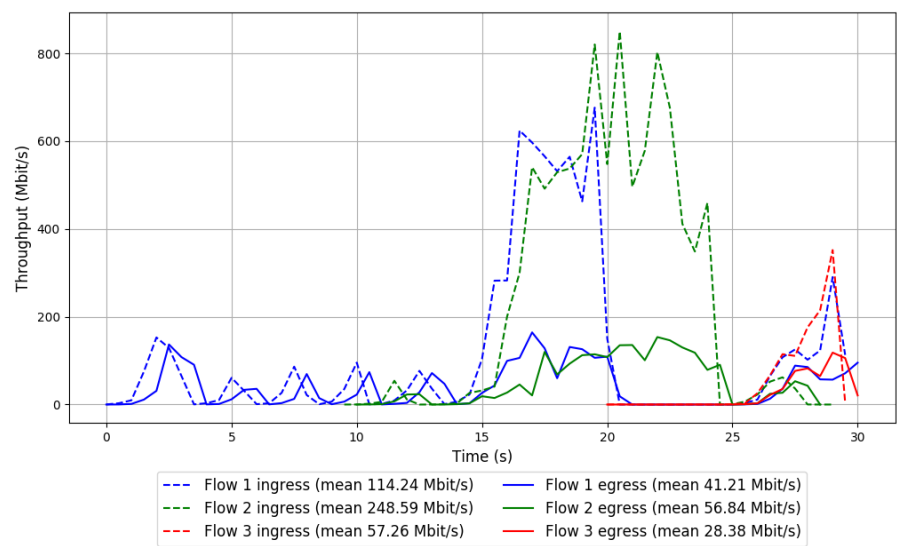
Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 199.54 Mbit/s) --- Flow 1 egress (mean 73.39 Mbit/s) ---
Flow 2 ingress (mean 43.02 Mbit/s) --- Flow 2 egress (mean 20.82 Mbit/s) ---
Flow 3 ingress (mean 18.31 Mbit/s) --- Flow 3 egress (mean 13.74 Mbit/s) ---

Flow 1 (95th percentile 85.92 ms) • Flow 2 (95th percentile 80.92 ms) • Flow 3 (95th percentile 70.23 ms)

```
Run 7: Statistics of Verus

Start at: 2018-07-22 07:46:24
End at: 2018-07-22 07:46:54
Local clock offset: 1.144 ms
Remote clock offset: -35.735 ms


# Below is generated by plot.py at 2018-07-22 11:14:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.52 Mbit/s
95th percentile per-packet one-way delay: 120.630 ms
Loss rate: 71.10%
-- Flow 1:
Average throughput: 41.21 Mbit/s
95th percentile per-packet one-way delay: 109.984 ms
Loss rate: 63.92%
-- Flow 2:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 133.794 ms
Loss rate: 78.54%
-- Flow 3:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 133.607 ms
Loss rate: 50.40%
```

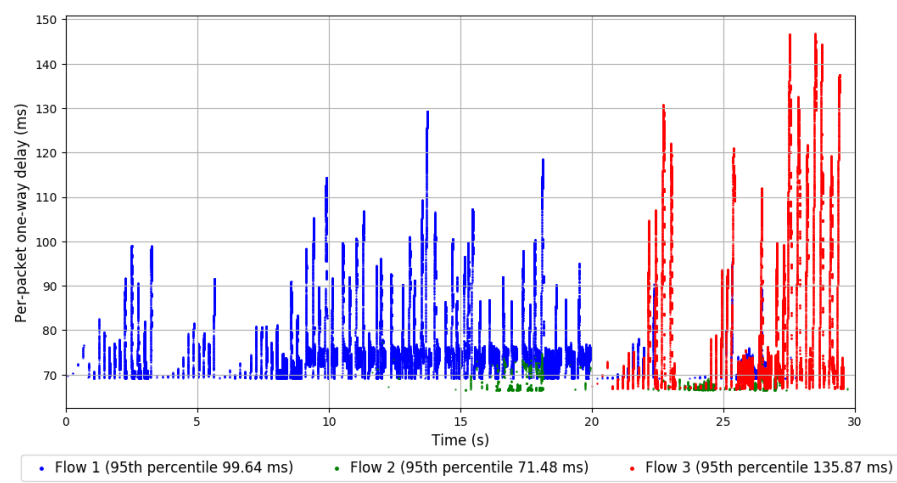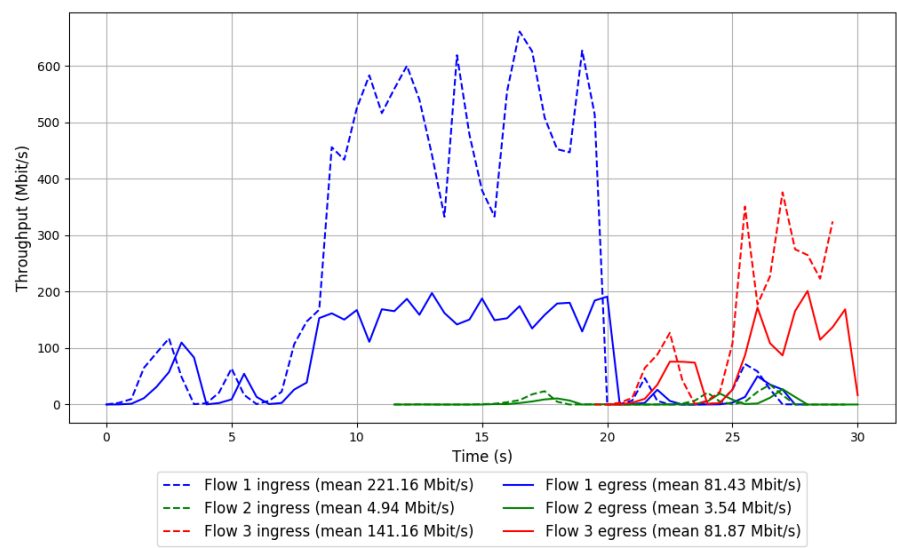## Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-07-22 08:30:48
End at: 2018-07-22 08:31:18
Local clock offset: -0.456 ms
Remote clock offset: -28.003 ms


# Below is generated by plot.py at 2018-07-22 11:14:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.55 Mbit/s
95th percentile per-packet one-way delay: 116.269 ms
Loss rate: 59.23%
-- Flow 1:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 99.637 ms
Loss rate: 63.44%
-- Flow 2:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 71.482 ms
Loss rate: 28.22%
-- Flow 3:
Average throughput: 81.87 Mbit/s
95th percentile per-packet one-way delay: 135.871 ms
Loss rate: 42.01%
```
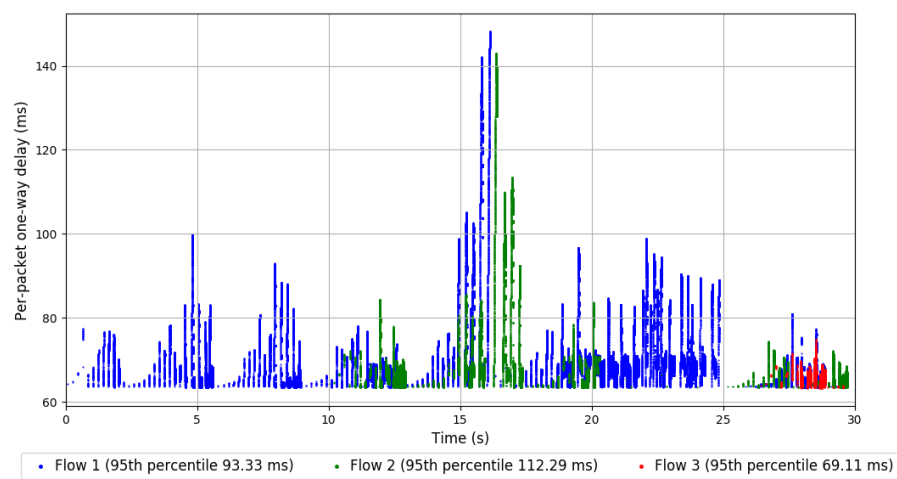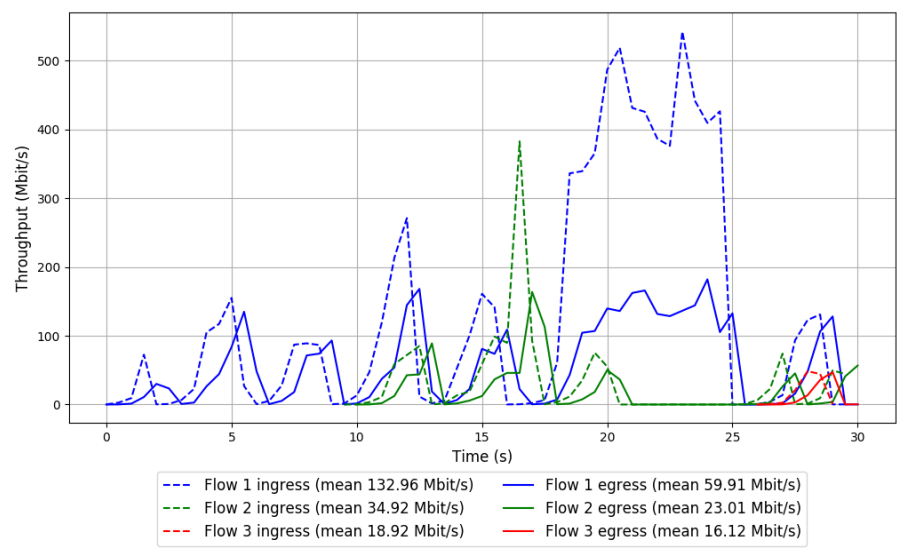
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 221.16 Mbit/s) --- Flow 1 egress (mean 81.43 Mbit/s)
Flow 2 ingress (mean 4.94 Mbit/s) --- Flow 2 egress (mean 3.54 Mbit/s)
Flow 3 ingress (mean 141.16 Mbit/s) --- Flow 3 egress (mean 81.87 Mbit/s)

Flow 1 (95th percentile 99.64 ms) · Flow 2 (95th percentile 71.48 ms) · Flow 3 (95th percentile 135.87 ms)

```
Run 9: Statistics of Verus

Start at: 2018-07-22 09:30:54
End at: 2018-07-22 09:31:24
Local clock offset: 1.606 ms
Remote clock offset: -29.119 ms


# Below is generated by plot.py at 2018-07-22 11:14:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.78 Mbit/s
95th percentile per-packet one-way delay: 97.798 ms
Loss rate: 51.37%
-- Flow 1:
Average throughput: 59.91 Mbit/s
95th percentile per-packet one-way delay: 93.328 ms
Loss rate: 54.94%
-- Flow 2:
Average throughput: 23.01 Mbit/s
95th percentile per-packet one-way delay: 112.291 ms
Loss rate: 34.10%
-- Flow 3:
Average throughput: 16.12 Mbit/s
95th percentile per-packet one-way delay: 69.109 ms
Loss rate: 14.79%
```

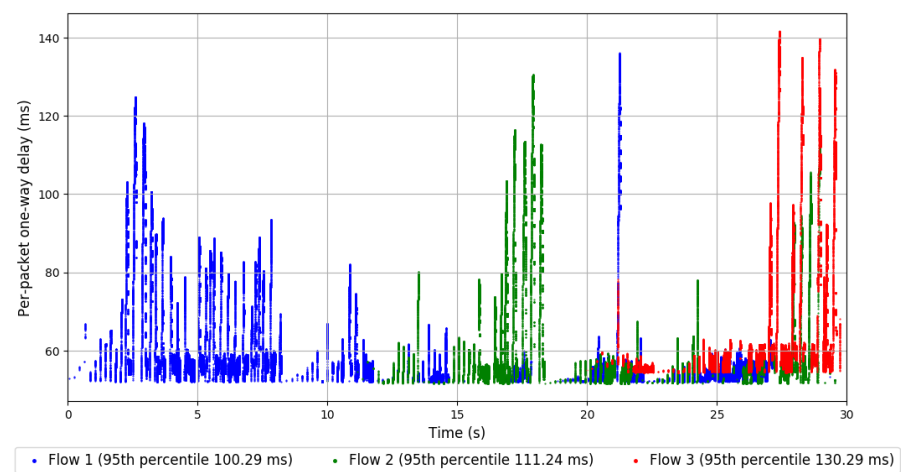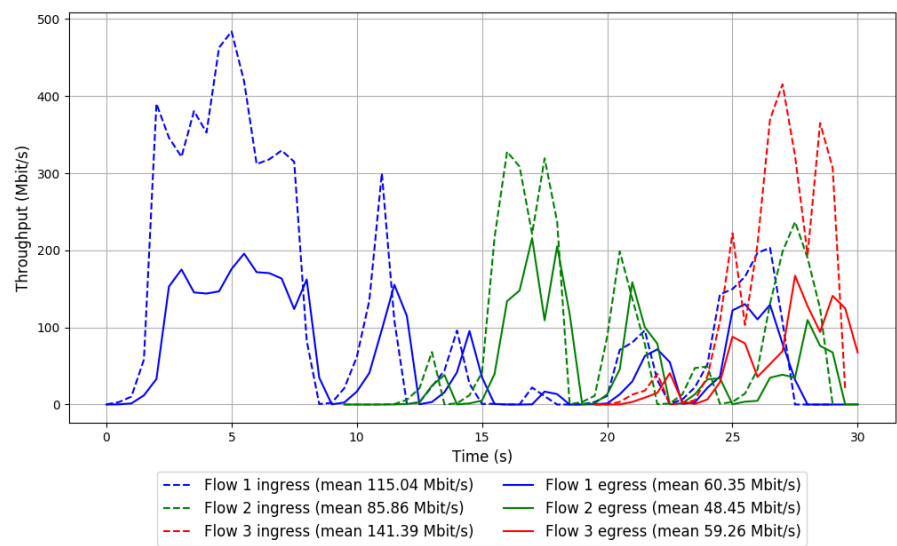## Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-07-22 10:01:00
End at: 2018-07-22 10:01:30
Local clock offset: 2.536 ms
Remote clock offset: -40.06 ms


# Below is generated by plot.py at 2018-07-22 11:14:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.37 Mbit/s
95th percentile per-packet one-way delay: 111.865 ms
Loss rate: 48.75%
-- Flow 1:
Average throughput: 60.35 Mbit/s
95th percentile per-packet one-way delay: 100.292 ms
Loss rate: 47.54%
-- Flow 2:
Average throughput: 48.45 Mbit/s
95th percentile per-packet one-way delay: 111.241 ms
Loss rate: 43.57%
-- Flow 3:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 130.293 ms
Loss rate: 58.03%
```

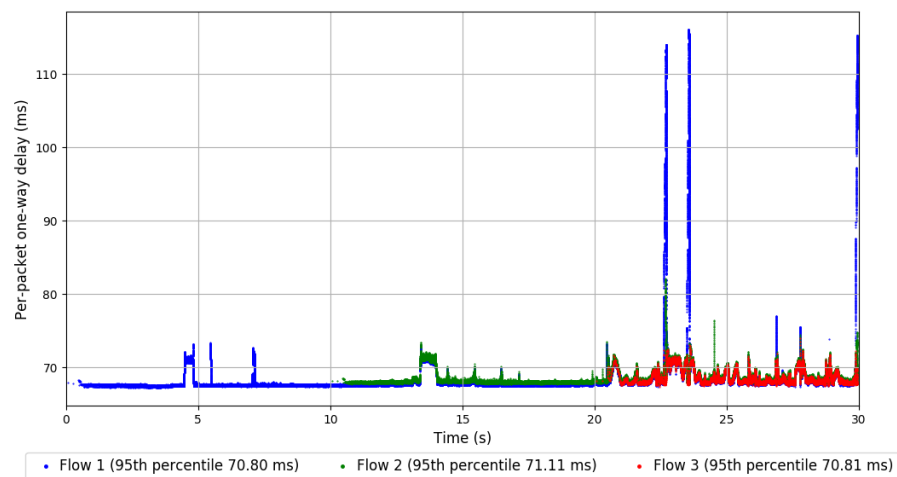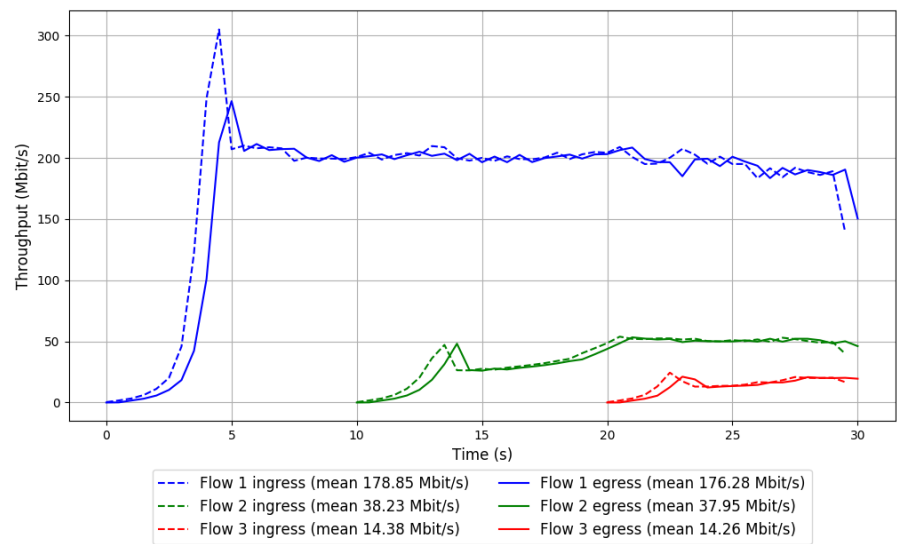## Run 10: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-22 04:39:08
End at: 2018-07-22 04:39:38
Local clock offset: -0.483 ms
Remote clock offset: -28.455 ms


# Below is generated by plot.py at 2018-07-22 11:15:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.23 Mbit/s
95th percentile per-packet one-way delay: 70.835 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 176.28 Mbit/s
95th percentile per-packet one-way delay: 70.799 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 37.95 Mbit/s
95th percentile per-packet one-way delay: 71.115 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 14.26 Mbit/s
95th percentile per-packet one-way delay: 70.814 ms
Loss rate: 0.89%
```

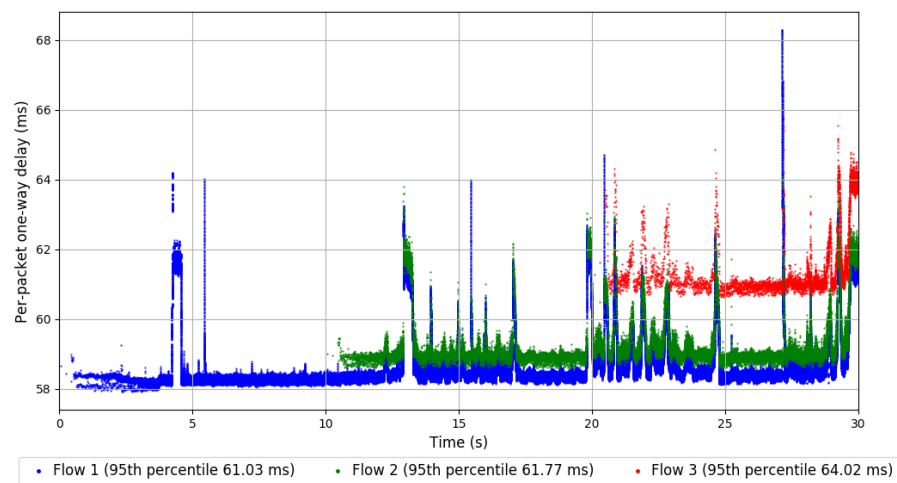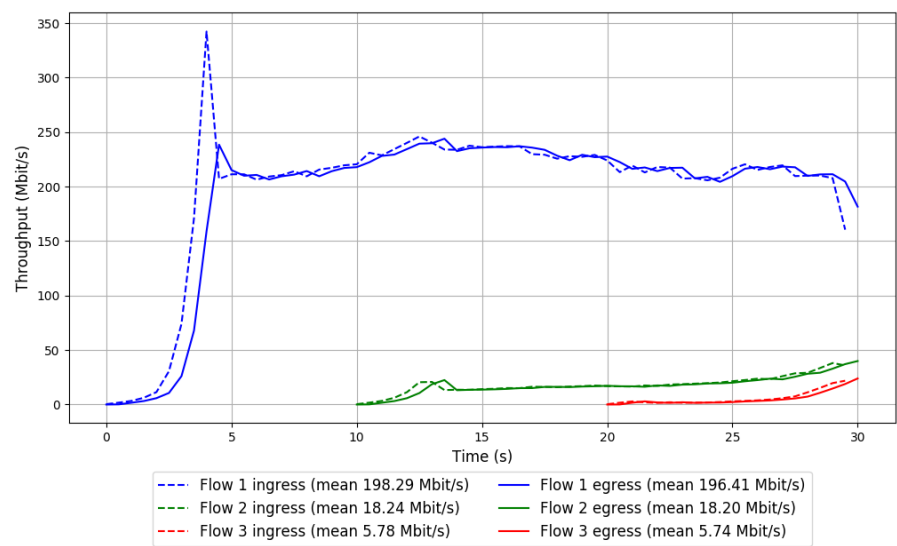Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 178.85 Mbit/s)   Flow 1 egress (mean 176.28 Mbit/s)
Flow 2 ingress (mean 38.23 Mbit/s)   Flow 2 egress (mean 37.95 Mbit/s)
Flow 3 ingress (mean 14.38 Mbit/s)   Flow 3 egress (mean 14.26 Mbit/s)

Flow 1 (95th percentile 70.80 ms)   Flow 2 (95th percentile 71.11 ms)   Flow 3 (95th percentile 70.81 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-22 05:03:35
End at: 2018-07-22 05:04:05
Local clock offset: -1.95 ms
Remote clock offset: -36.184 ms


# Below is generated by plot.py at 2018-07-22 11:15:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.40 Mbit/s
95th percentile per-packet one-way delay: 61.217 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 196.41 Mbit/s
95th percentile per-packet one-way delay: 61.028 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 18.20 Mbit/s
95th percentile per-packet one-way delay: 61.771 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 5.74 Mbit/s
95th percentile per-packet one-way delay: 64.021 ms
Loss rate: 0.69%
```

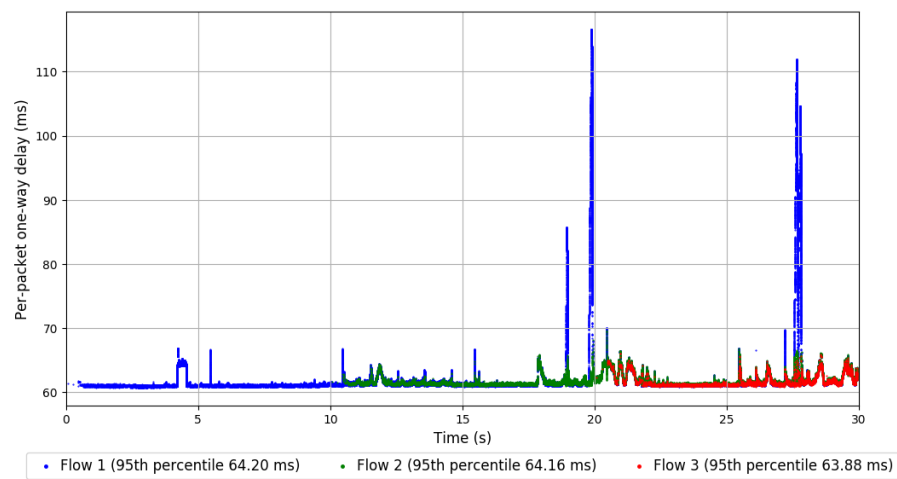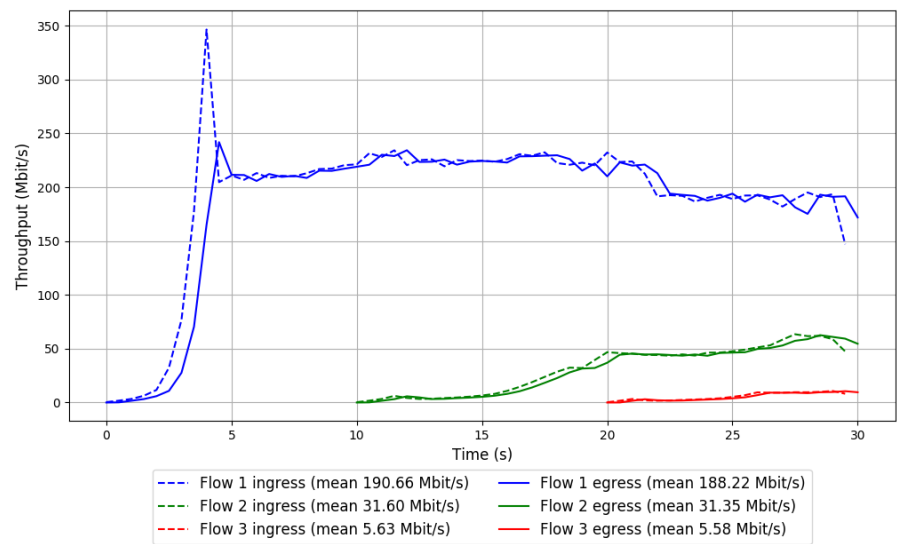Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-22 05:37:42
End at: 2018-07-22 05:38:12
Local clock offset: 0.784 ms
Remote clock offset: -30.522 ms


# Below is generated by plot.py at 2018-07-22 11:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.91 Mbit/s
95th percentile per-packet one-way delay: 64.192 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 188.22 Mbit/s
95th percentile per-packet one-way delay: 64.198 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 31.35 Mbit/s
95th percentile per-packet one-way delay: 64.155 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 63.883 ms
Loss rate: 0.88%
```
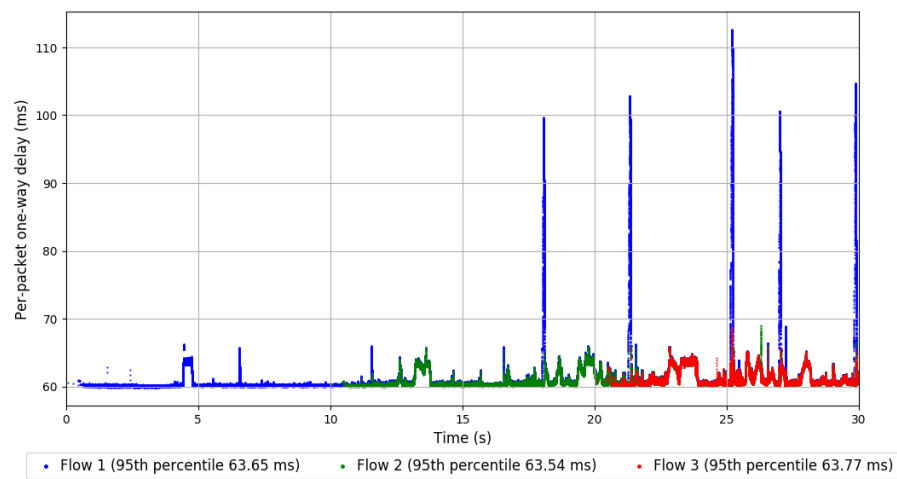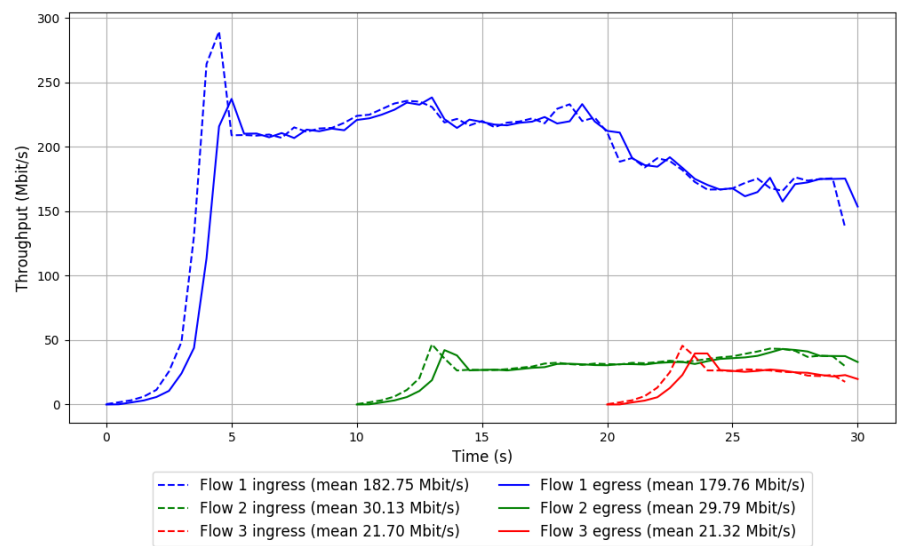
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 190.66 Mbit/s) --- Flow 1 egress (mean 188.22 Mbit/s)
Flow 2 ingress (mean 31.60 Mbit/s) --- Flow 2 egress (mean 31.35 Mbit/s)
Flow 3 ingress (mean 5.63 Mbit/s) --- Flow 3 egress (mean 5.58 Mbit/s)

Flow 1 (95th percentile 64.20 ms) · Flow 2 (95th percentile 64.16 ms) · Flow 3 (95th percentile 63.88 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-22 06:25:05
End at: 2018-07-22 06:25:35
Local clock offset: -2.729 ms
Remote clock offset: -37.305 ms


# Below is generated by plot.py at 2018-07-22 11:16:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.62 Mbit/s
95th percentile per-packet one-way delay: 63.651 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 179.76 Mbit/s
95th percentile per-packet one-way delay: 63.654 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 29.79 Mbit/s
95th percentile per-packet one-way delay: 63.543 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 21.32 Mbit/s
95th percentile per-packet one-way delay: 63.775 ms
Loss rate: 1.78%
```

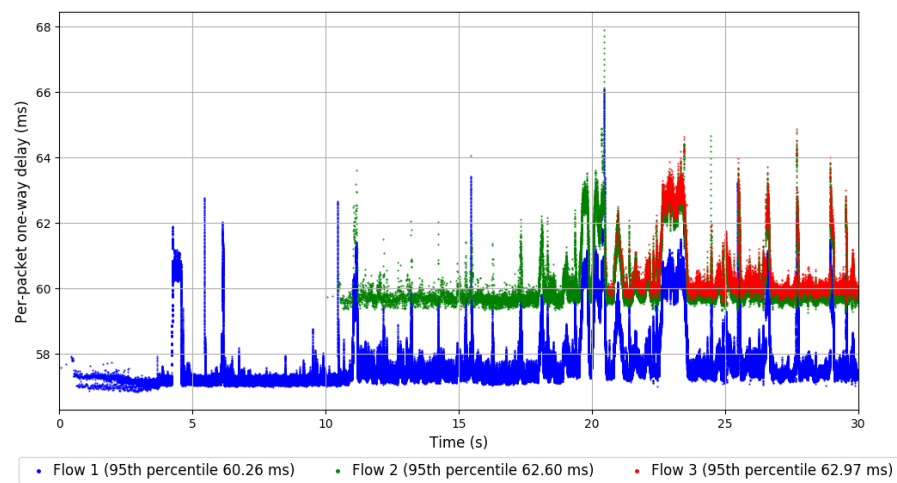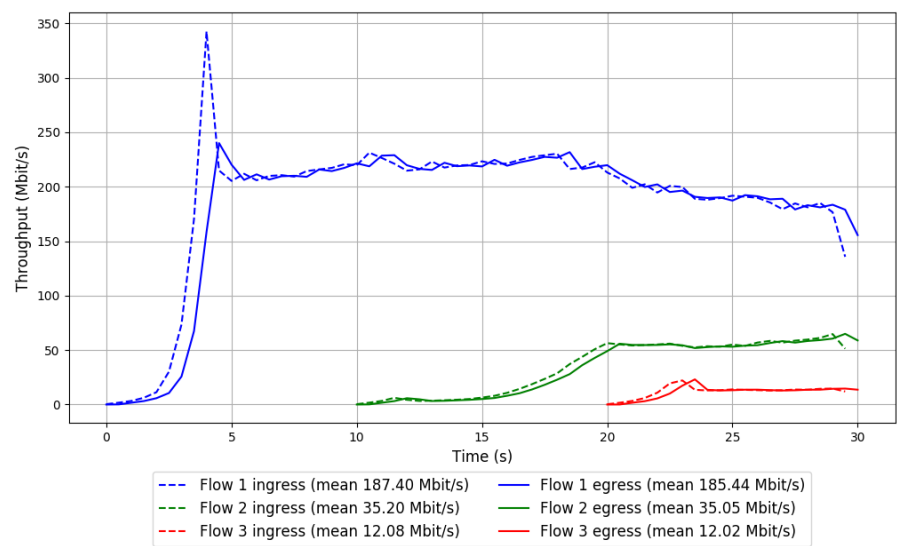Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-22 07:00:49
End at: 2018-07-22 07:01:19
Local clock offset: -0.316 ms
Remote clock offset: -38.654 ms


# Below is generated by plot.py at 2018-07-22 11:16:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.72 Mbit/s
95th percentile per-packet one-way delay: 60.491 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 185.44 Mbit/s
95th percentile per-packet one-way delay: 60.261 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 62.604 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 62.972 ms
Loss rate: 0.55%
```
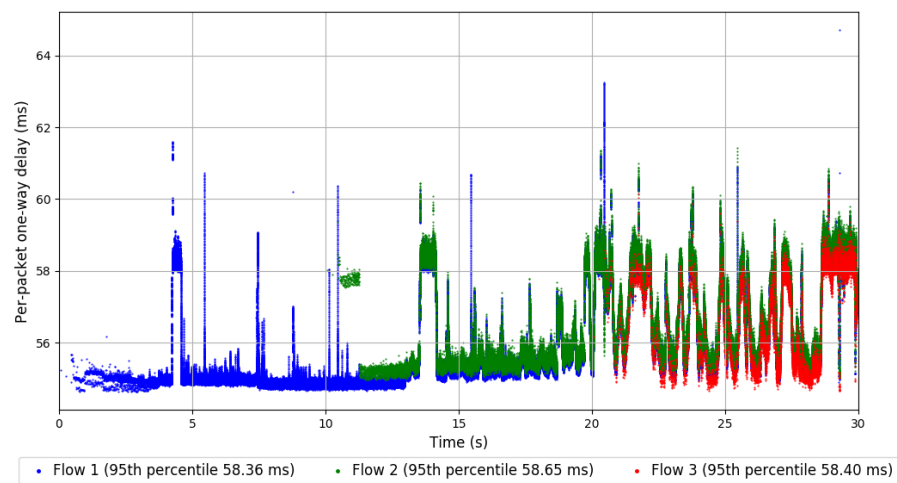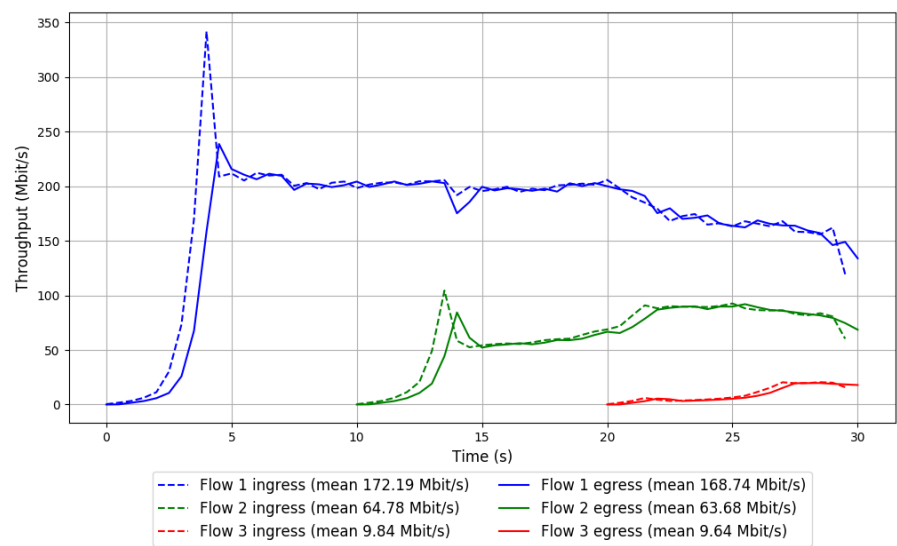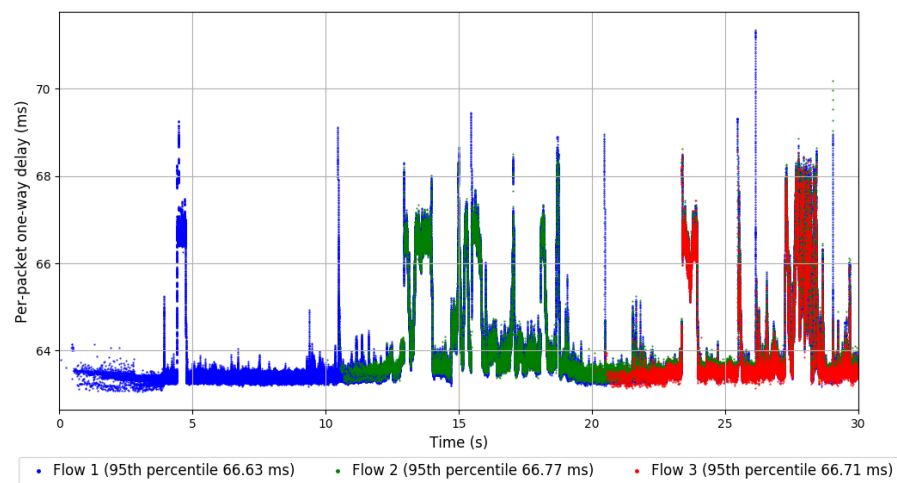
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 187.40 Mbit/s) Flow 1 egress (mean 185.44 Mbit/s)
Flow 2 ingress (mean 35.20 Mbit/s) Flow 2 egress (mean 35.05 Mbit/s)
Flow 3 ingress (mean 12.08 Mbit/s) Flow 3 egress (mean 12.02 Mbit/s)

Flow 1 (95th percentile 60.26 ms) Flow 2 (95th percentile 62.60 ms) Flow 3 (95th percentile 62.97 ms)

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-22 07:30:49
End at: 2018-07-22 07:31:19
Local clock offset: 1.656 ms
Remote clock offset: -38.2 ms


# Below is generated by plot.py at 2018-07-22 11:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.28 Mbit/s
95th percentile per-packet one-way delay: 58.443 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 168.74 Mbit/s
95th percentile per-packet one-way delay: 58.356 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 63.68 Mbit/s
95th percentile per-packet one-way delay: 58.648 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 9.64 Mbit/s
95th percentile per-packet one-way delay: 58.395 ms
Loss rate: 2.10%
```

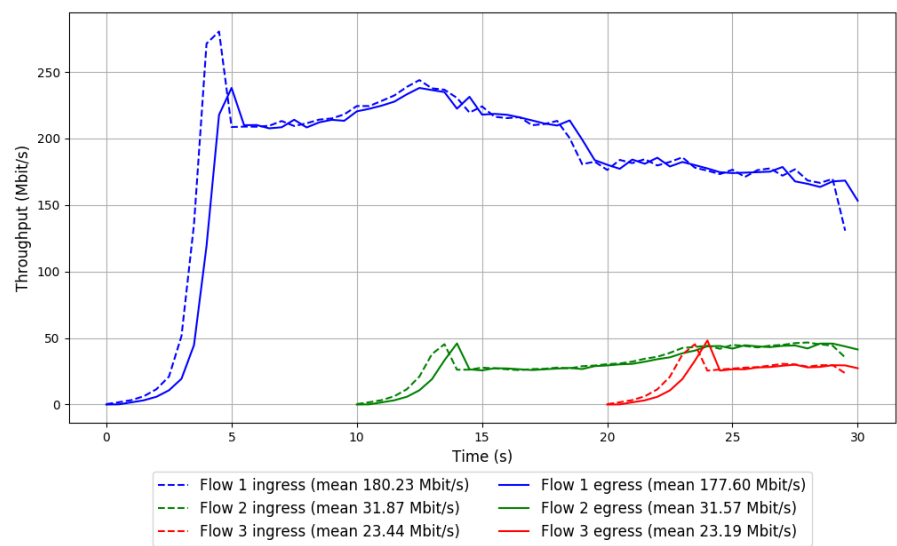Run 6: Report of PCC-Vivace — Data Link

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-22 08:05:12
End at: 2018-07-22 08:05:42
Local clock offset: -0.314 ms
Remote clock offset: -30.925 ms


# Below is generated by plot.py at 2018-07-22 11:16:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.25 Mbit/s
95th percentile per-packet one-way delay: 66.647 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 177.60 Mbit/s
95th percentile per-packet one-way delay: 66.632 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 66.765 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 66.712 ms
Loss rate: 1.08%
```

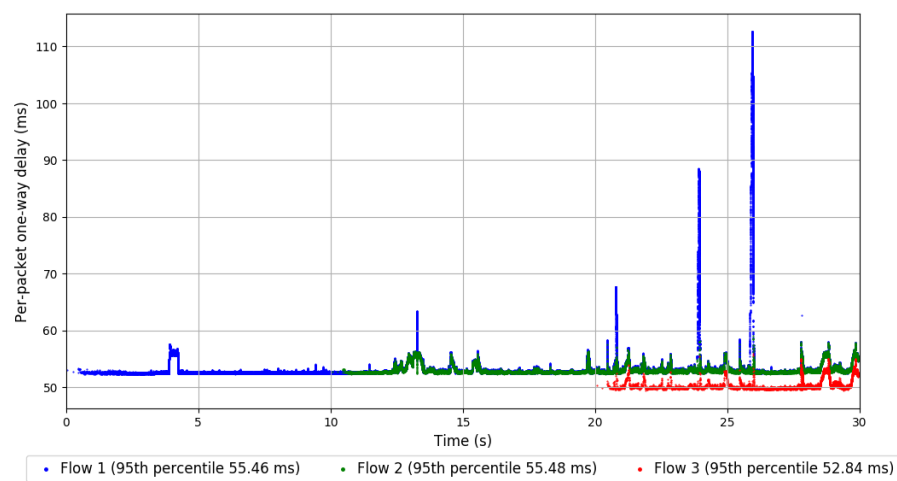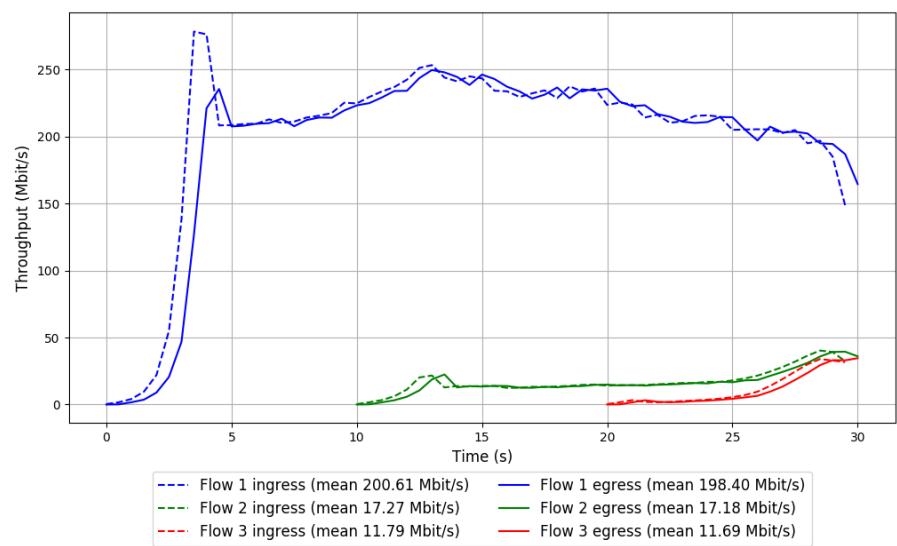# Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-22 09:01:09
End at: 2018-07-22 09:01:39
Local clock offset: 1.238 ms
Remote clock offset: -43.054 ms


# Below is generated by plot.py at 2018-07-22 11:16:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.68 Mbit/s
95th percentile per-packet one-way delay: 55.444 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 198.40 Mbit/s
95th percentile per-packet one-way delay: 55.462 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 17.18 Mbit/s
95th percentile per-packet one-way delay: 55.479 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 52.845 ms
Loss rate: 0.77%
```

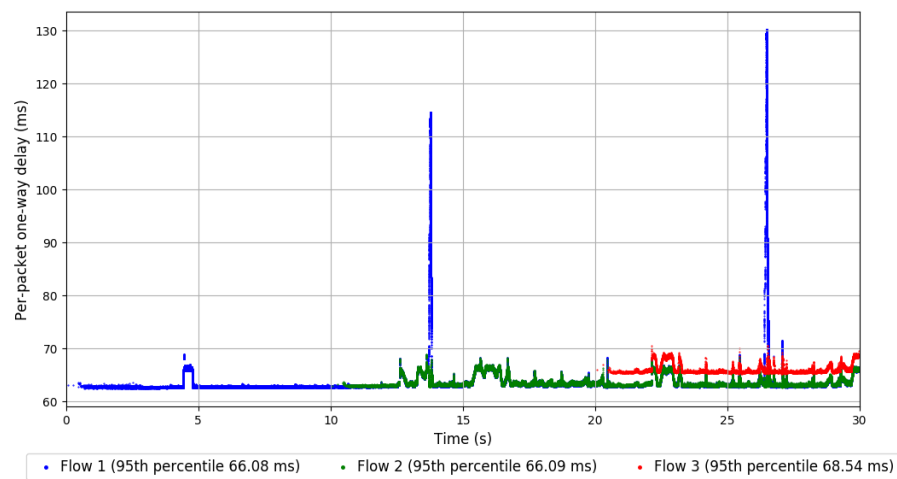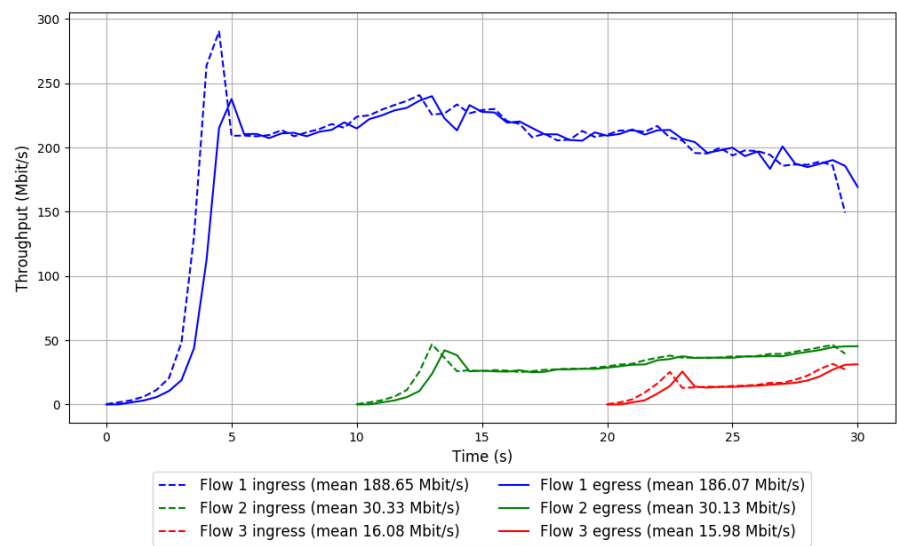Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-22 09:45:33
End at: 2018-07-22 09:46:03
Local clock offset: -0.131 ms
Remote clock offset: -31.214 ms


# Below is generated by plot.py at 2018-07-22 11:17:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.38 Mbit/s
95th percentile per-packet one-way delay: 66.132 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 186.07 Mbit/s
95th percentile per-packet one-way delay: 66.084 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 66.092 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 15.98 Mbit/s
95th percentile per-packet one-way delay: 68.540 ms
Loss rate: 0.60%
```

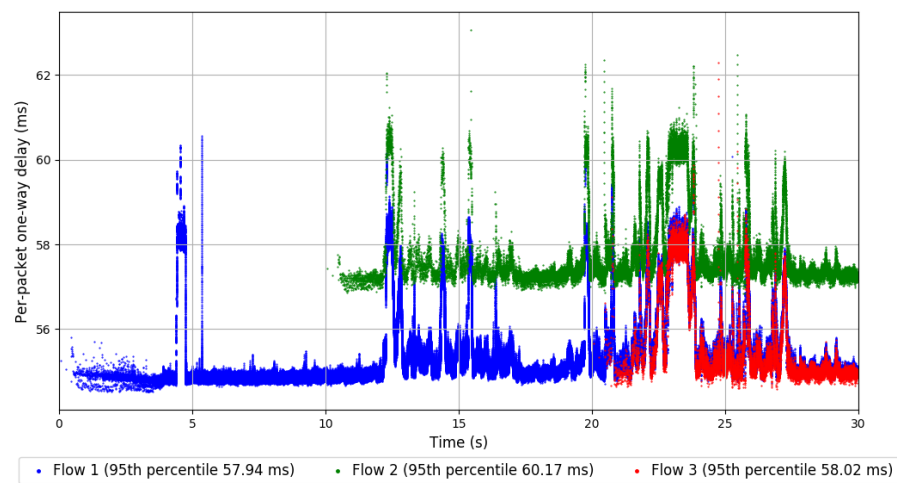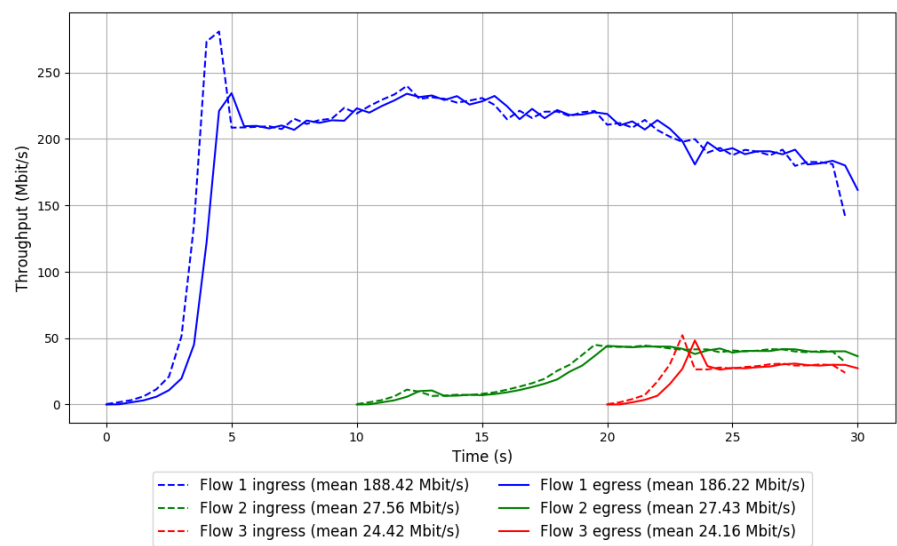Run 9: Report of PCC-Vivace — Data Link

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-22 10:15:35
End at: 2018-07-22 10:16:05
Local clock offset: -0.343 ms
Remote clock offset: -40.864 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.43 Mbit/s
95th percentile per-packet one-way delay: 58.056 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 186.22 Mbit/s
95th percentile per-packet one-way delay: 57.938 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 60.170 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 58.015 ms
Loss rate: 1.07%
```

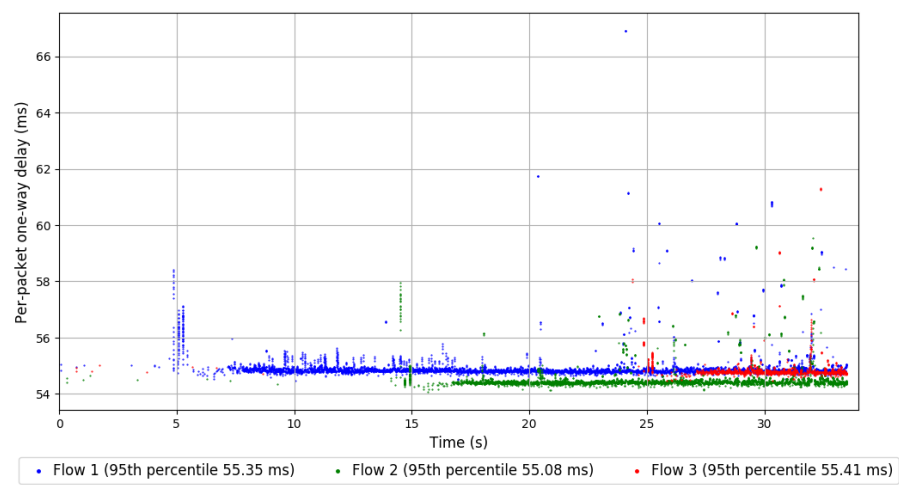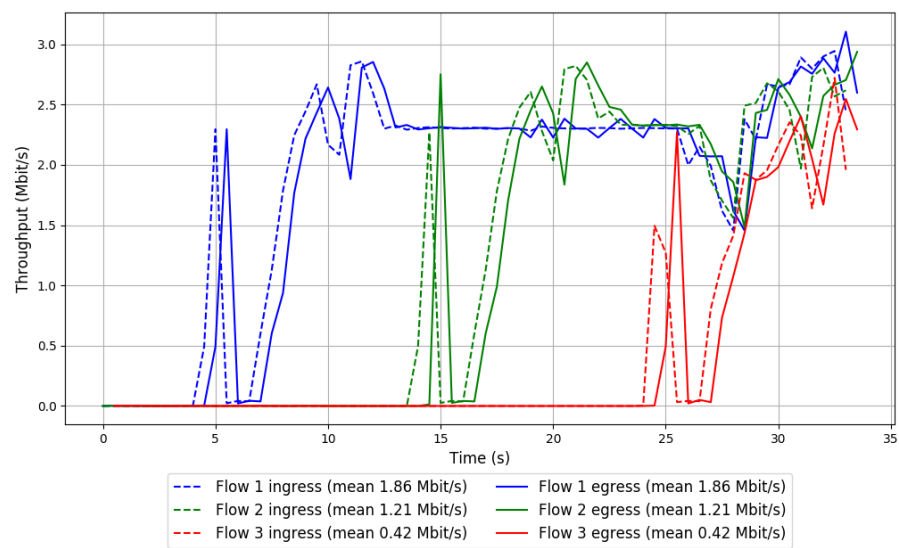## Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 188.42 Mbit/s)   Flow 1 egress (mean 186.22 Mbit/s)
Flow 2 ingress (mean 27.56 Mbit/s)   Flow 2 egress (mean 27.43 Mbit/s)
Flow 3 ingress (mean 24.42 Mbit/s)   Flow 3 egress (mean 24.16 Mbit/s)

Flow 1 (95th percentile 57.94 ms)   Flow 2 (95th percentile 60.17 ms)   Flow 3 (95th percentile 58.02 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2018-07-22 04:28:54
End at: 2018-07-22 04:29:24
Local clock offset: 0.761 ms
Remote clock offset: -37.818 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 55.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 55.352 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 55.080 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 55.408 ms
Loss rate: 0.00%
```

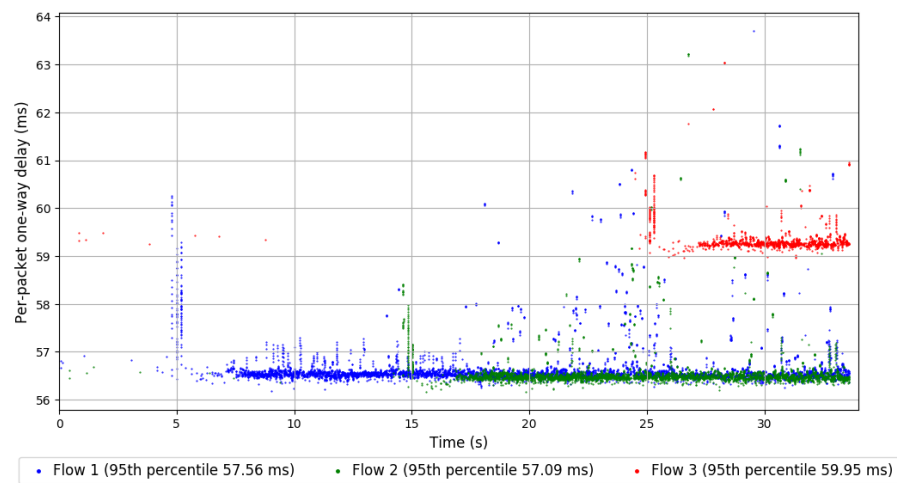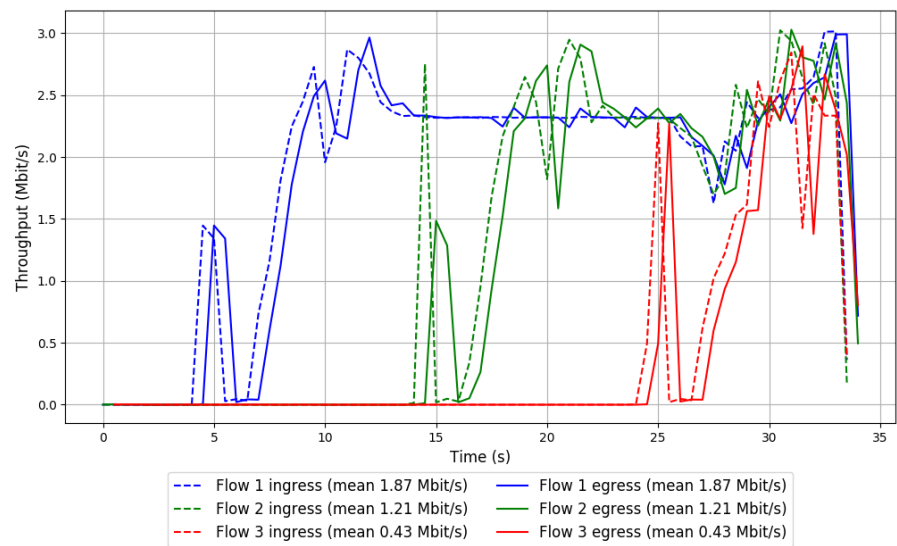Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-07-22 04:53:22
End at: 2018-07-22 04:53:52
Local clock offset: -1.214 ms
Remote clock offset: -37.496 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 59.293 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 57.556 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 57.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 59.950 ms
Loss rate: 0.00%
```

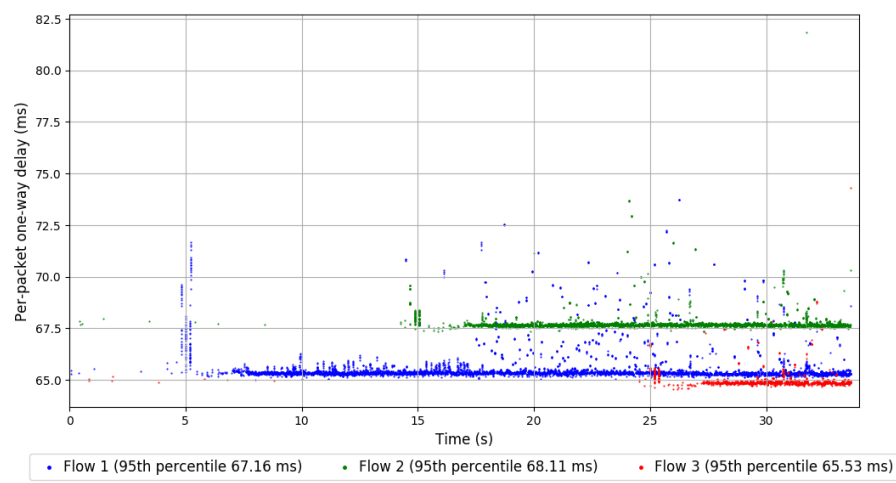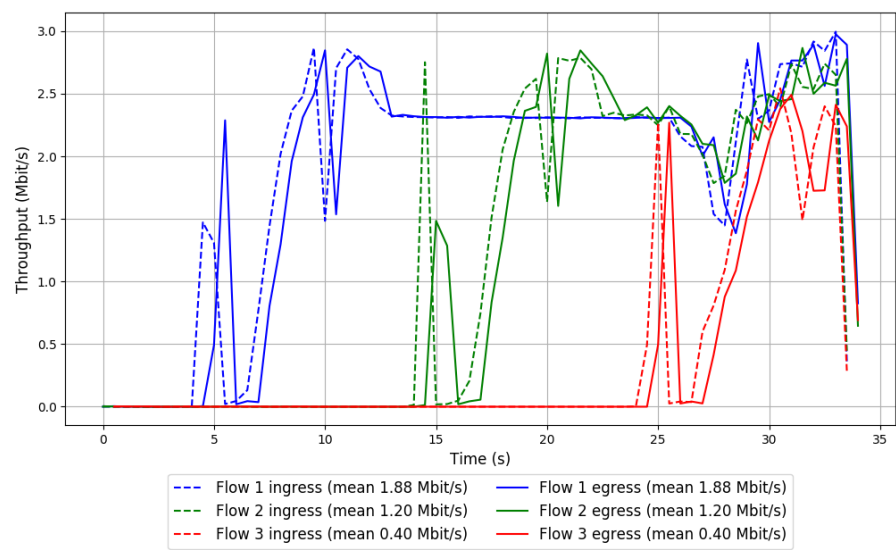Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-07-22 05:17:49
End at: 2018-07-22 05:18:19
Local clock offset: -1.247 ms
Remote clock offset: -28.577 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 67.825 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 67.160 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 68.115 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 65.527 ms
Loss rate: 0.00%
```

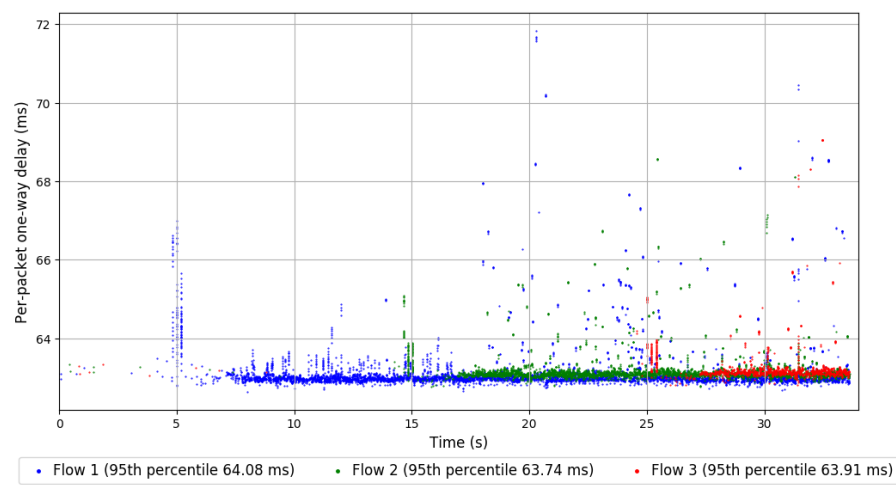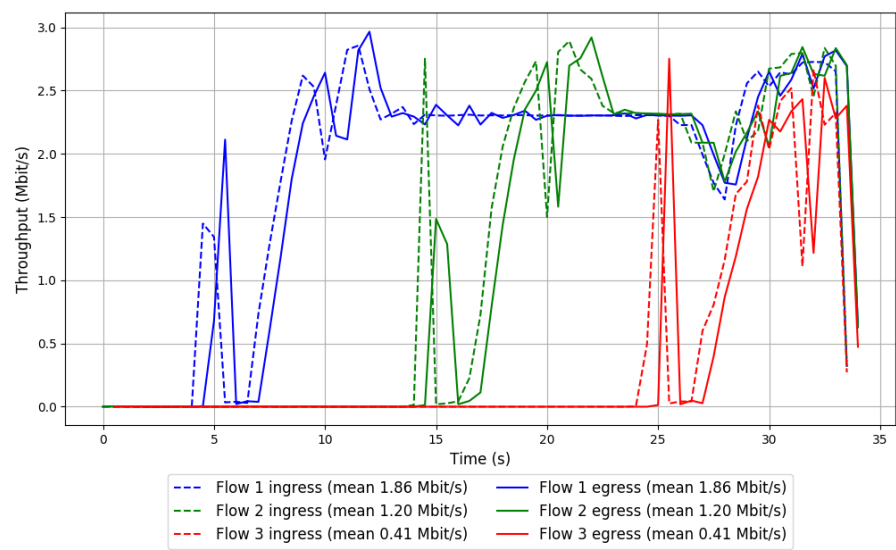Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-07-22 06:02:55
End at: 2018-07-22 06:03:25
Local clock offset: -2.888 ms
Remote clock offset: -33.236 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 63.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 64.075 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 63.745 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 63.911 ms
Loss rate: 0.00%
```

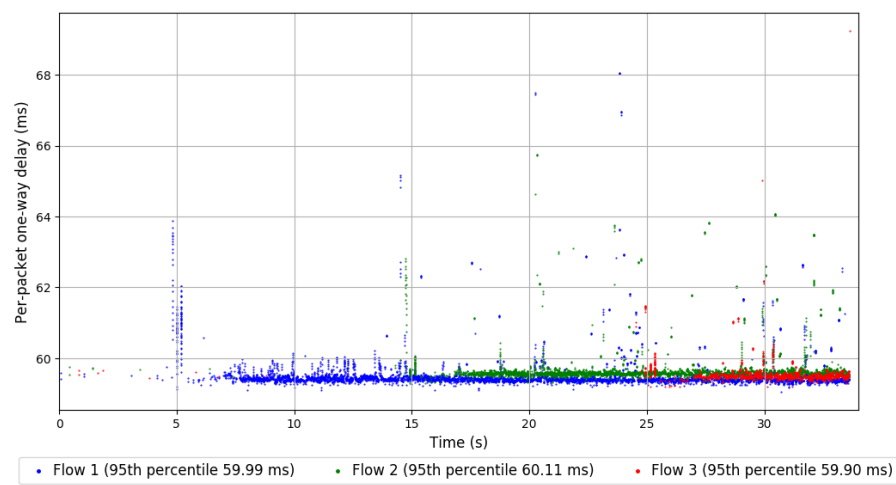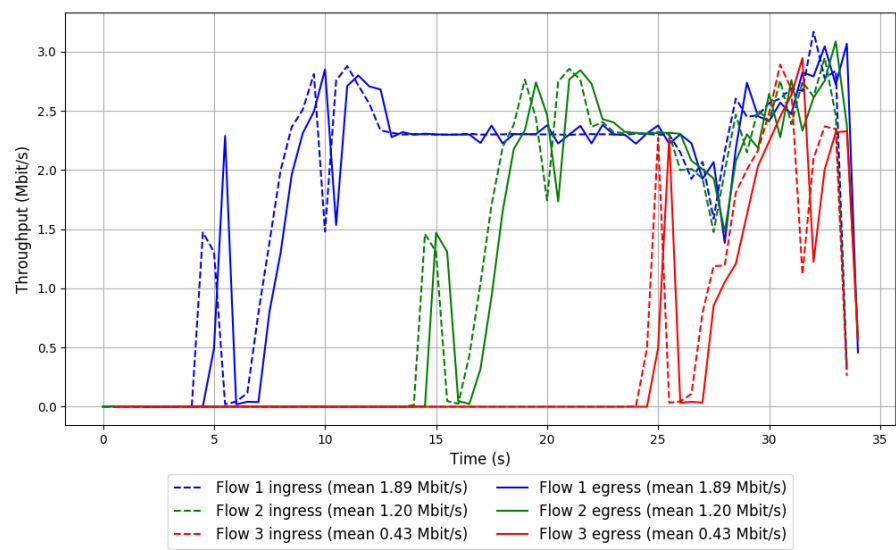Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-07-22 06:44:57
End at: 2018-07-22 06:45:27
Local clock offset: -0.966 ms
Remote clock offset: -37.036 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 60.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 59.987 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 60.107 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 59.896 ms
Loss rate: 0.00%
```

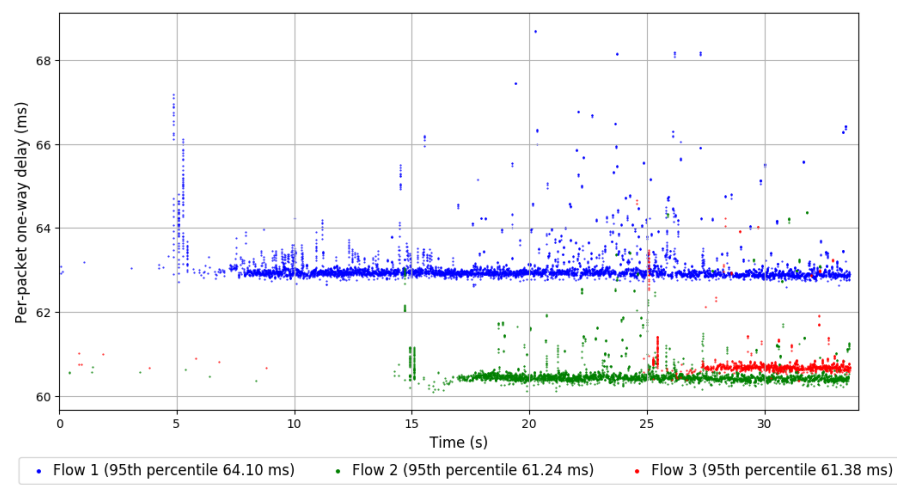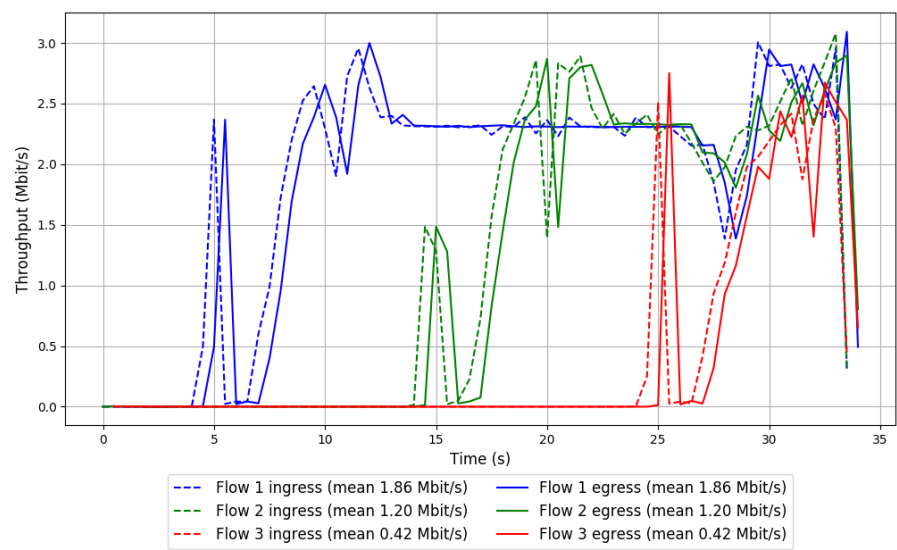Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-07-22 07:14:58
End at: 2018-07-22 07:15:28
Local clock offset: -1.462 ms
Remote clock offset: -36.369 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 63.452 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 64.098 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 61.237 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 61.383 ms
Loss rate: 0.00%
```
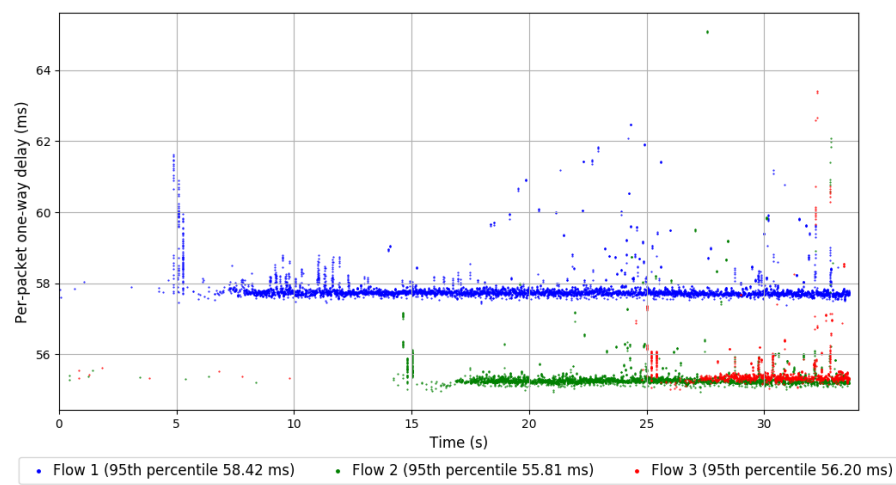
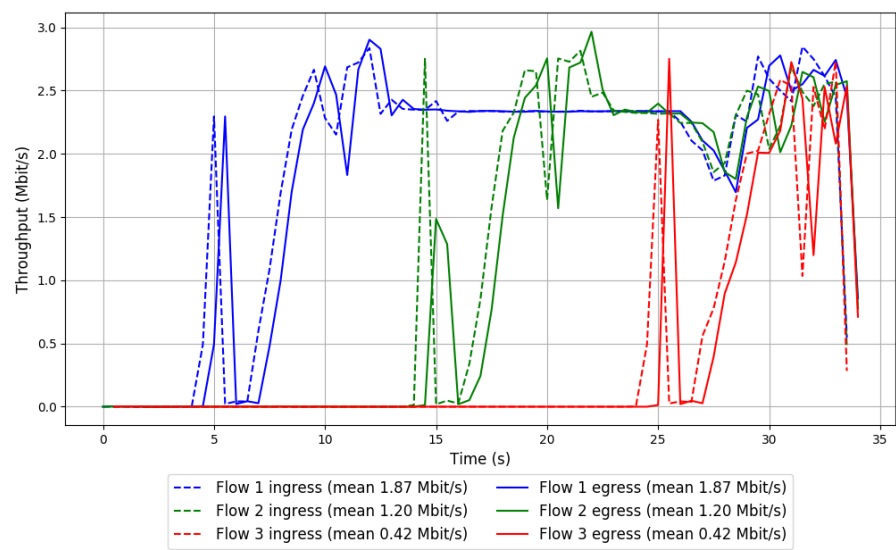Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-07-22 07:45:08
End at: 2018-07-22 07:45:38
Local clock offset: 0.482 ms
Remote clock offset: -38.759 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 58.087 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 58.416 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 55.810 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 56.202 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link

Run 8: Statistics of WebRTC media

/home/ubuntu/pantheon/data/2018-07-22T04-21-AWS-India-2-to-Saudi-Arabia-10-runs-3-flows/webr

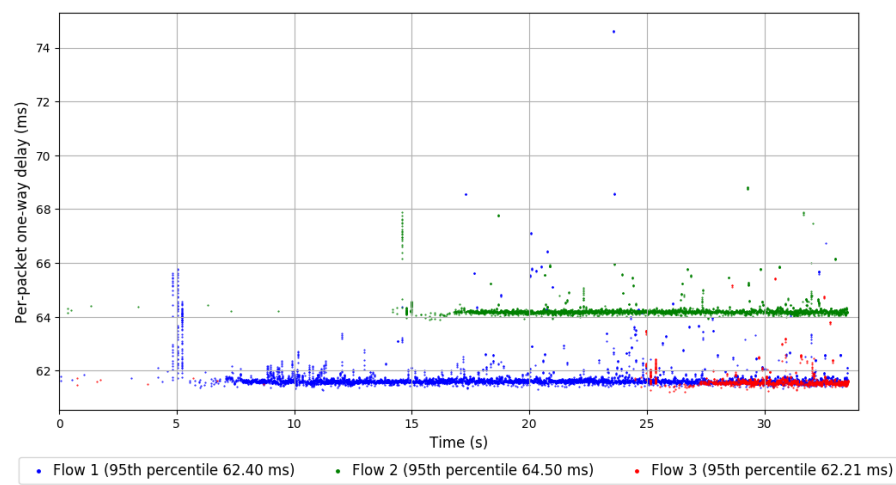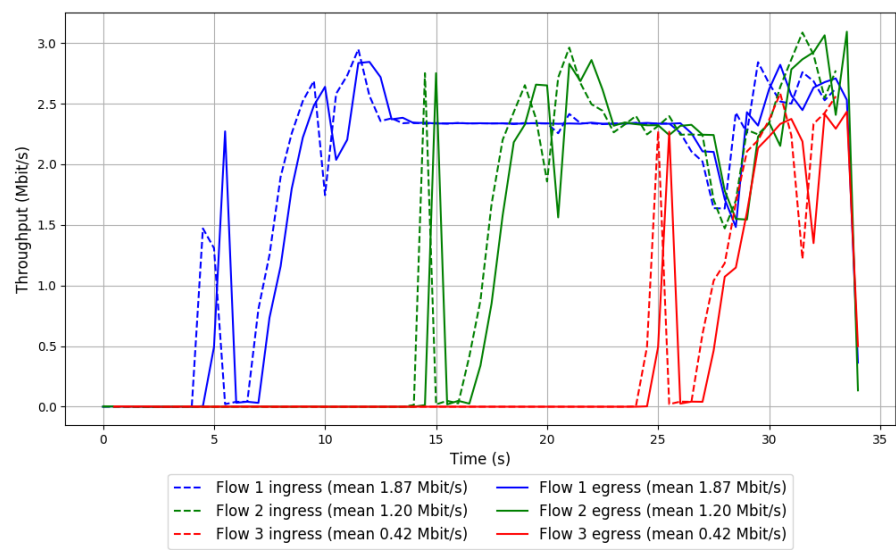Run 8: Report of WebRTC media — Data Link

Figure is missing

Figure is missing

```
Run 9: Statistics of WebRTC media

Start at: 2018-07-22 09:24:10
End at: 2018-07-22 09:24:40
Local clock offset: -0.57 ms
Remote clock offset: -33.251 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 64.273 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 62.402 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 64.504 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 62.209 ms
Loss rate: 0.01%
```

Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-07-22 09:59:45
End at: 2018-07-22 10:00:15
Local clock offset: 3.28 ms
Remote clock offset: -34.495 ms


# Below is generated by plot.py at 2018-07-22 11:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 59.376 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 57.309 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 57.172 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 59.958 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link