Pantheon Report

Generated at 2018-05-22 07:16:30 (UTC).

Data path: AWS California 2 Ethernet (*local*) →Mexico Ethernet (*remote*).

Repeated the test of 16 congestion control schemes 10 times.

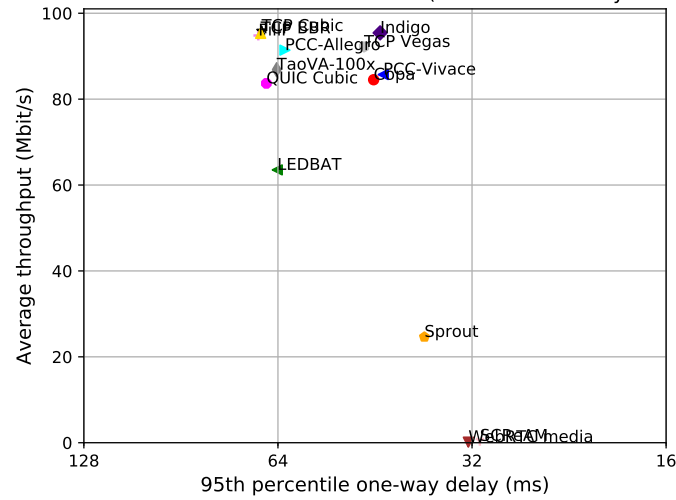Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.
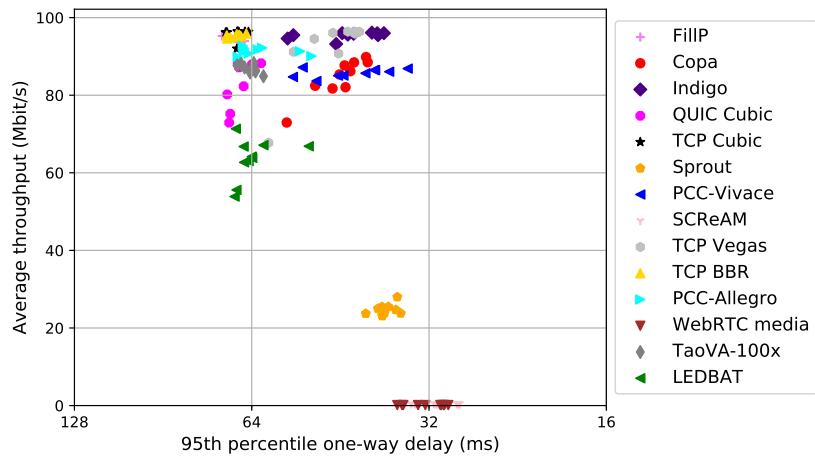
```
Git summary:
branch: master @ 2d1d4407e851ba626e5ca4626a306105793df686
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
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
third_party/sprout @ c838669682f0c19f6baf92afc9a596a406d48c1f
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

test from AWS California 2 Ethernet to Mexico Ethernet, 10 runs of 30s each per scheme
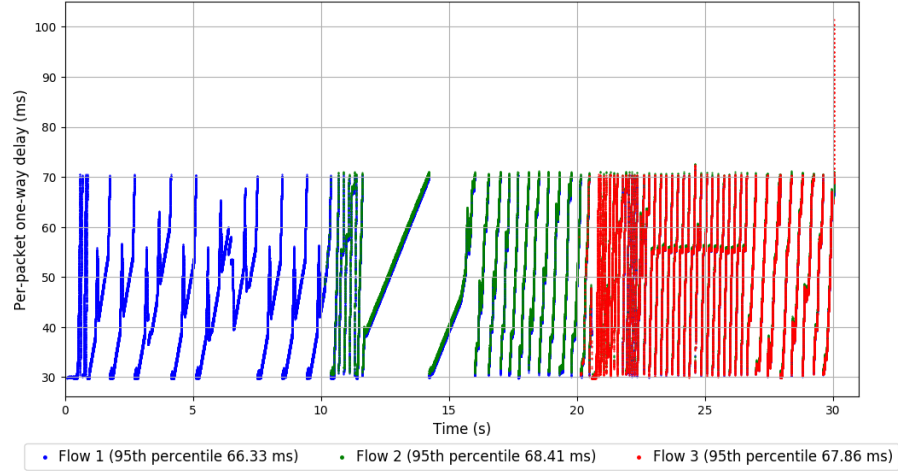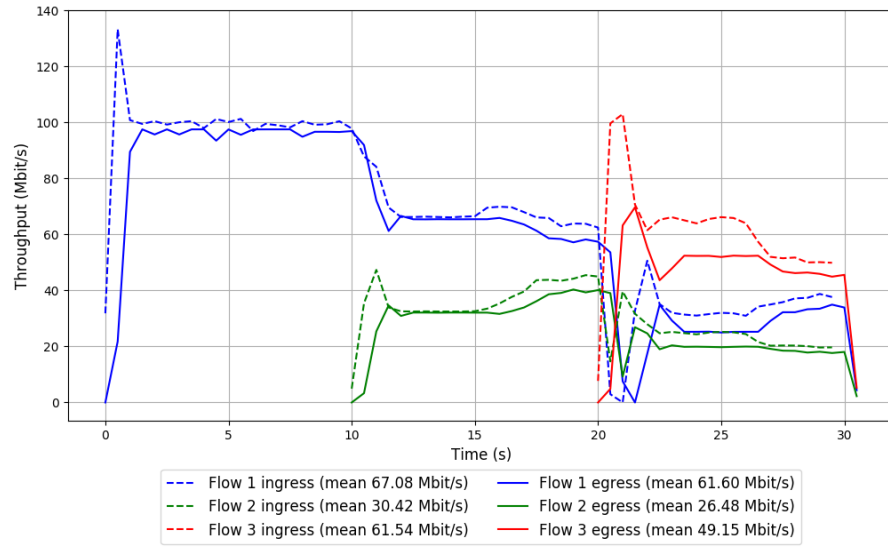**3 flows with 10s interval between flows**

scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	63.30	34.77	27.26	67.70	68.50	68.73	8.41	11.35	12.83
Copa	10	64.11	20.01	21.31	46.79	42.98	43.45	0.37	0.06	0.00
TCP Cubic	10	69.77	27.57	23.29	68.05	67.38	66.15	0.80	0.61	0.73
FillP	10	60.08	37.40	29.91	68.38	69.52	68.80	21.47	32.08	40.08
Indigo	10	65.06	30.10	31.76	42.15	47.40	50.72	0.04	0.05	0.24
LEDBAT	10	40.51	25.50	18.37	63.83	64.69	59.73	0.16	0.26	0.20
PCC-Allegro	10	79.71	13.40	8.47	62.02	64.26	62.70	3.45	4.16	4.21
PCC-Expr	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
QUIC Cubic	10	59.84	24.88	22.19	66.07	67.04	67.50	2.58	1.36	1.62
SCReAM	10	0.22	0.22	0.22	30.87	30.82	30.80	0.00	0.00	0.00
Sprout	10	12.32	12.50	12.12	37.17	38.36	38.09	0.02	0.00	0.01
TaoVA-100x	10	51.76	38.73	28.13	61.89	65.24	66.67	13.65	23.90	18.75
TCP Vegas	10	70.95	20.62	22.51	45.88	46.49	44.98	0.31	0.02	0.05
Verus	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCC-Vivace	10	64.09	25.96	13.21	42.37	44.77	44.63	0.06	0.05	0.02
WebRTC media	10	0.05	0.04	0.05	31.80	32.61	32.50	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-05-22 03:34:48
End at: 2018-05-22 03:35:18
Local clock offset: 1.677 ms
Remote clock offset: -3.003 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.57 Mbit/s
95th percentile per-packet one-way delay: 67.157 ms
Loss rate: 11.23%
-- Flow 1:
Average throughput: 61.60 Mbit/s
95th percentile per-packet one-way delay: 66.327 ms
Loss rate: 8.05%
-- Flow 2:
Average throughput: 26.48 Mbit/s
95th percentile per-packet one-way delay: 68.408 ms
Loss rate: 12.87%
-- Flow 3:
Average throughput: 49.15 Mbit/s
95th percentile per-packet one-way delay: 67.864 ms
Loss rate: 20.05%
```
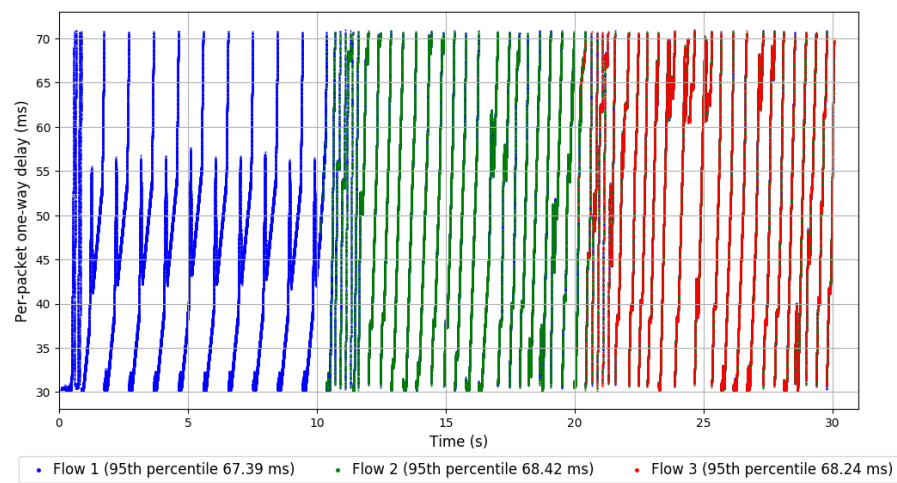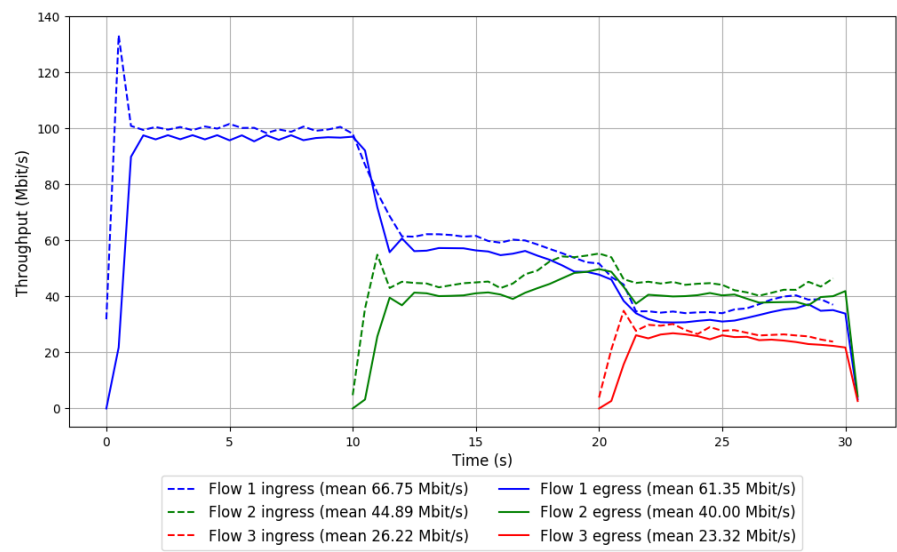
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 67.08 Mbit/s) — Flow 1 egress (mean 61.60 Mbit/s)
Flow 2 ingress (mean 30.42 Mbit/s) — Flow 2 egress (mean 26.48 Mbit/s)
Flow 3 ingress (mean 61.54 Mbit/s) — Flow 3 egress (mean 49.15 Mbit/s)

Flow 1 (95th percentile 66.33 ms)   Flow 2 (95th percentile 68.41 ms)   Flow 3 (95th percentile 67.86 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-05-22 03:56:30
End at: 2018-05-22 03:57:00
Local clock offset: 1.632 ms
Remote clock offset: -5.312 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.74 Mbit/s
95th percentile per-packet one-way delay: 67.852 ms
Loss rate: 9.01%
-- Flow 1:
Average throughput: 61.35 Mbit/s
95th percentile per-packet one-way delay: 67.387 ms
Loss rate: 8.00%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 68.421 ms
Loss rate: 10.78%
-- Flow 3:
Average throughput: 23.32 Mbit/s
95th percentile per-packet one-way delay: 68.241 ms
Loss rate: 10.73%
```

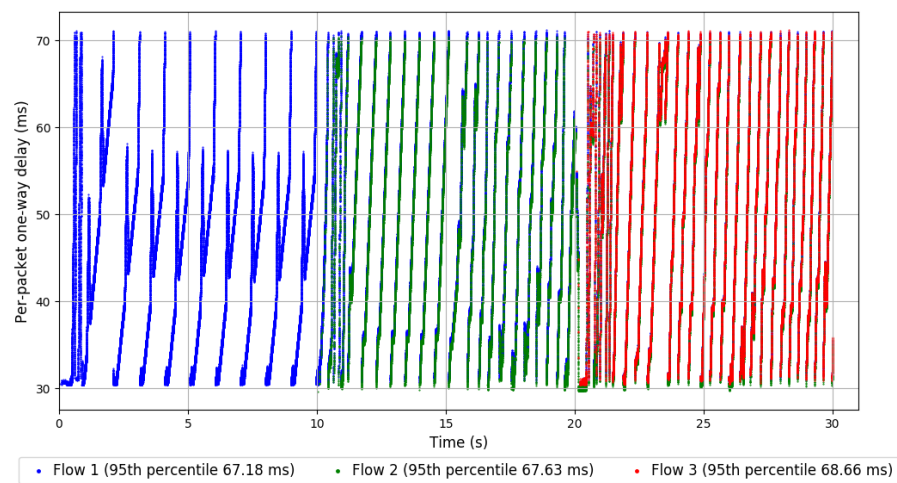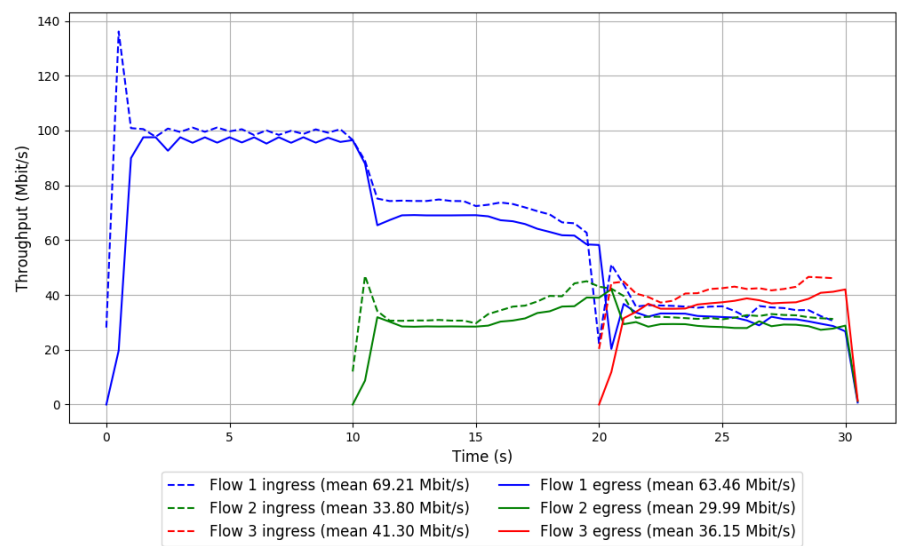Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-05-22 04:18:28
End at: 2018-05-22 04:18:58
Local clock offset: 0.707 ms
Remote clock offset: -7.854 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 67.569 ms
Loss rate: 9.49%
-- Flow 1:
Average throughput: 63.46 Mbit/s
95th percentile per-packet one-way delay: 67.178 ms
Loss rate: 8.30%
-- Flow 2:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 67.632 ms
Loss rate: 11.23%
-- Flow 3:
Average throughput: 36.15 Mbit/s
95th percentile per-packet one-way delay: 68.660 ms
Loss rate: 12.63%
```
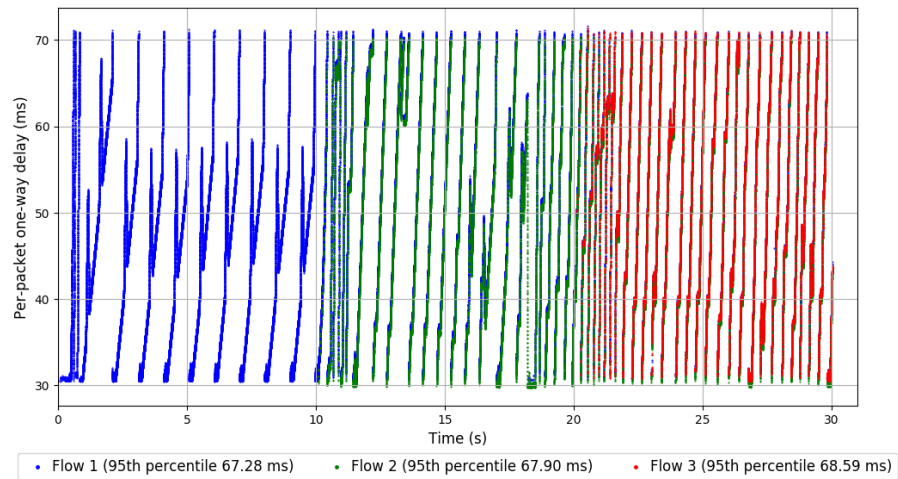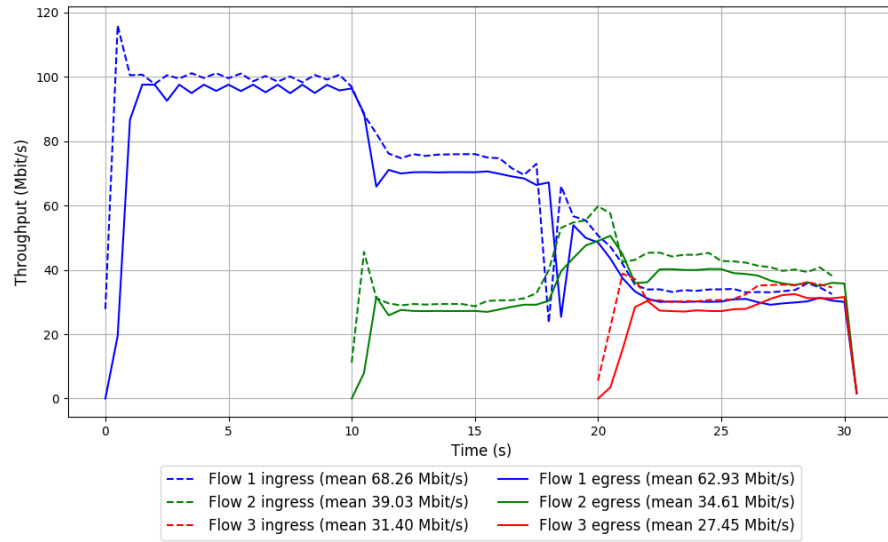
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 69.21 Mbit/s) --- Flow 1 egress (mean 63.46 Mbit/s)
Flow 2 ingress (mean 33.80 Mbit/s) --- Flow 2 egress (mean 29.99 Mbit/s)
Flow 3 ingress (mean 41.30 Mbit/s) --- Flow 3 egress (mean 36.15 Mbit/s)

Flow 1 (95th percentile 67.18 ms) • Flow 2 (95th percentile 67.63 ms) • Flow 3 (95th percentile 68.66 ms)

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```
Run 4: Statistics of TCP BBR

Start at: 2018-05-22 04:39:43
End at: 2018-05-22 04:40:13
Local clock offset: 0.831 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.14 Mbit/s
95th percentile per-packet one-way delay: 67.626 ms
Loss rate: 9.11%
-- Flow 1:
Average throughput: 62.93 Mbit/s
95th percentile per-packet one-way delay: 67.285 ms
Loss rate: 7.76%
-- Flow 2:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 67.897 ms
Loss rate: 11.28%
-- Flow 3:
Average throughput: 27.45 Mbit/s
95th percentile per-packet one-way delay: 68.586 ms
Loss rate: 12.55%
```
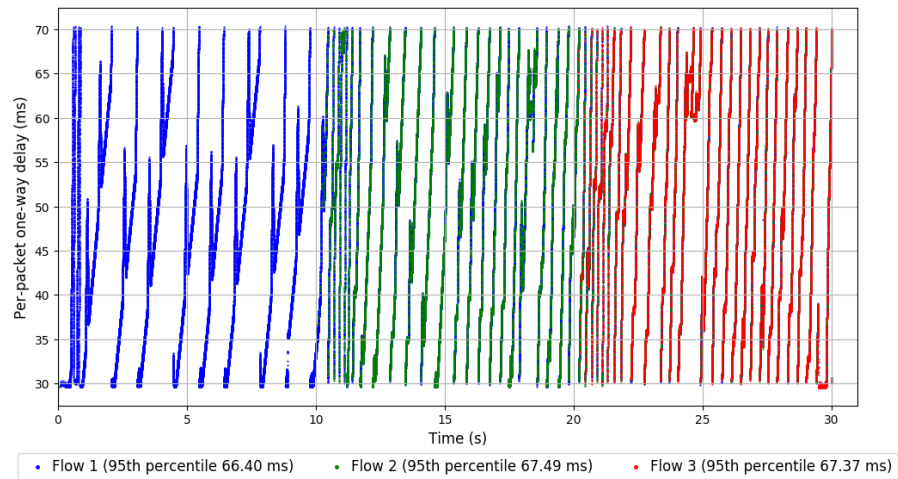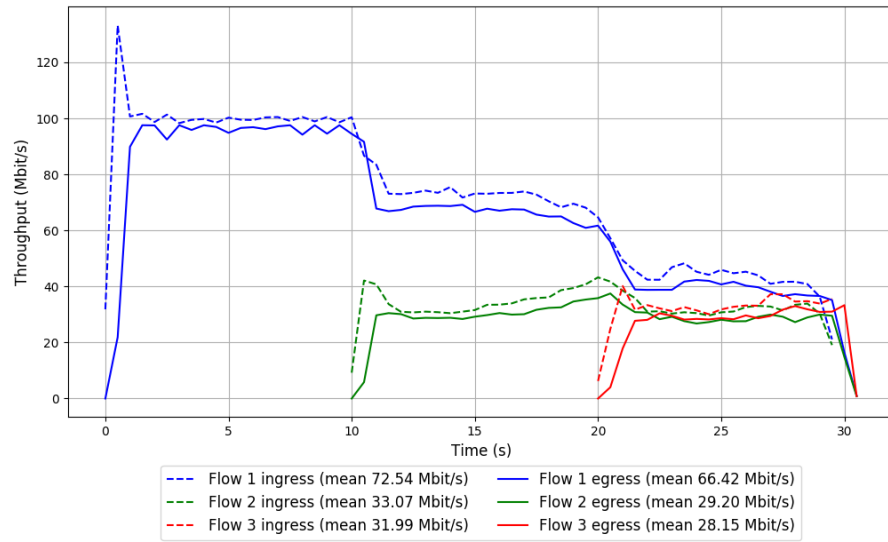
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 68.26 Mbit/s) --- Flow 1 egress (mean 62.93 Mbit/s)
Flow 2 ingress (mean 39.03 Mbit/s) --- Flow 2 egress (mean 34.61 Mbit/s)
Flow 3 ingress (mean 31.40 Mbit/s) --- Flow 3 egress (mean 27.45 Mbit/s)

Flow 1 (95th percentile 67.28 ms) · Flow 2 (95th percentile 67.90 ms) · Flow 3 (95th percentile 68.59 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2018-05-22 05:00:58
End at: 2018-05-22 05:01:28
Local clock offset: 0.725 ms
Remote clock offset: 2.28 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.20 Mbit/s
95th percentile per-packet one-way delay: 66.752 ms
Loss rate: 9.51%
-- Flow 1:
Average throughput: 66.42 Mbit/s
95th percentile per-packet one-way delay: 66.402 ms
Loss rate: 8.44%
-- Flow 2:
Average throughput: 29.20 Mbit/s
95th percentile per-packet one-way delay: 67.491 ms
Loss rate: 11.72%
-- Flow 3:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 67.368 ms
Loss rate: 12.24%
```
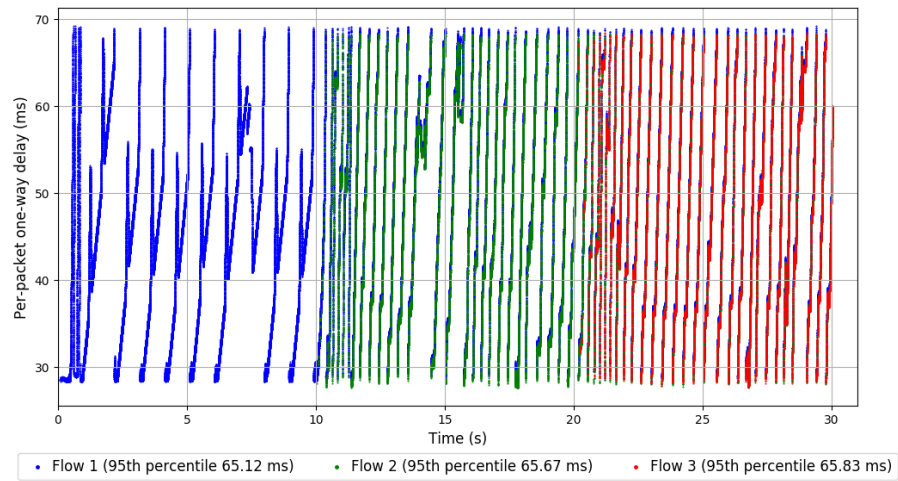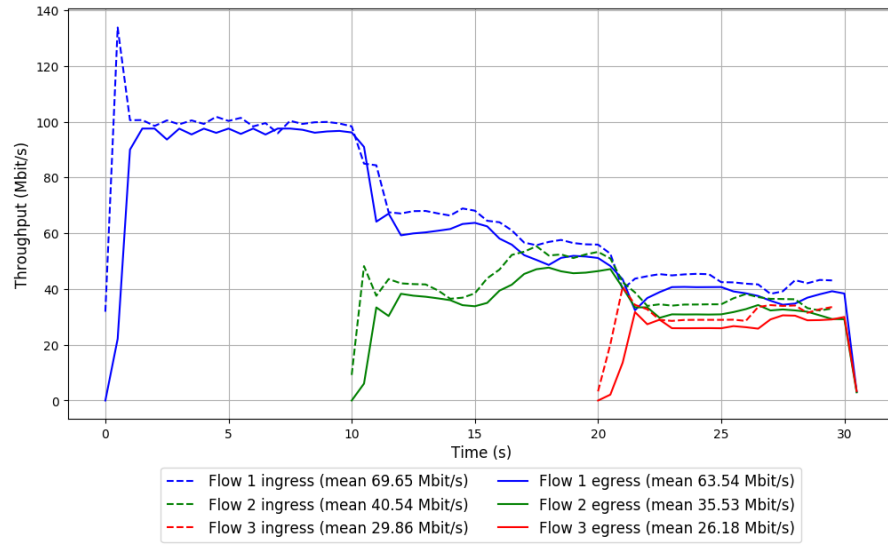
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 72.54 Mbit/s) --- Flow 1 egress (mean 66.42 Mbit/s)
Flow 2 ingress (mean 33.07 Mbit/s) --- Flow 2 egress (mean 29.20 Mbit/s)
Flow 3 ingress (mean 31.99 Mbit/s) --- Flow 3 egress (mean 28.15 Mbit/s)

Flow 1 (95th percentile 66.40 ms) • Flow 2 (95th percentile 67.49 ms) • Flow 3 (95th percentile 67.37 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-05-22 05:22:15
End at: 2018-05-22 05:22:45
Local clock offset: 0.454 ms
Remote clock offset: 2.242 ms

# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 65.372 ms
Loss rate: 9.92%
-- Flow 1:
Average throughput: 63.54 Mbit/s
95th percentile per-packet one-way delay: 65.118 ms
Loss rate: 8.70%
-- Flow 2:
Average throughput: 35.53 Mbit/s
95th percentile per-packet one-way delay: 65.669 ms
Loss rate: 12.22%
-- Flow 3:
Average throughput: 26.18 Mbit/s
95th percentile per-packet one-way delay: 65.825 ms
Loss rate: 12.28%
```
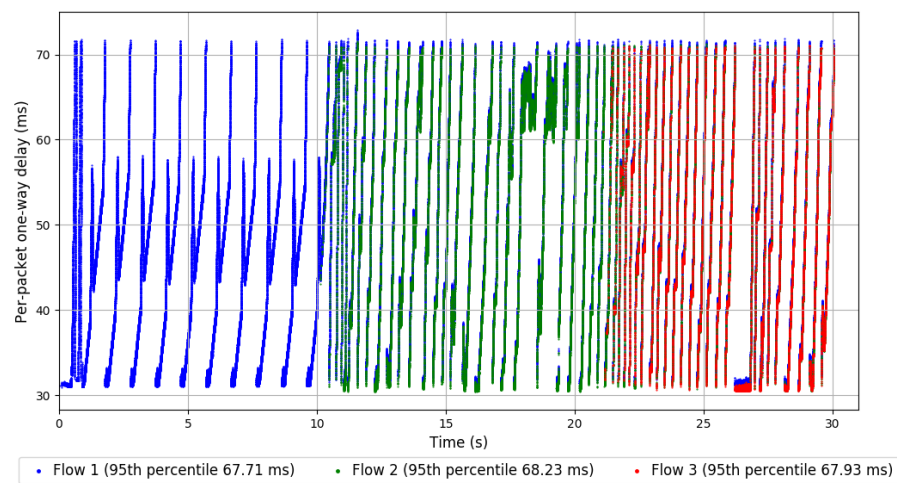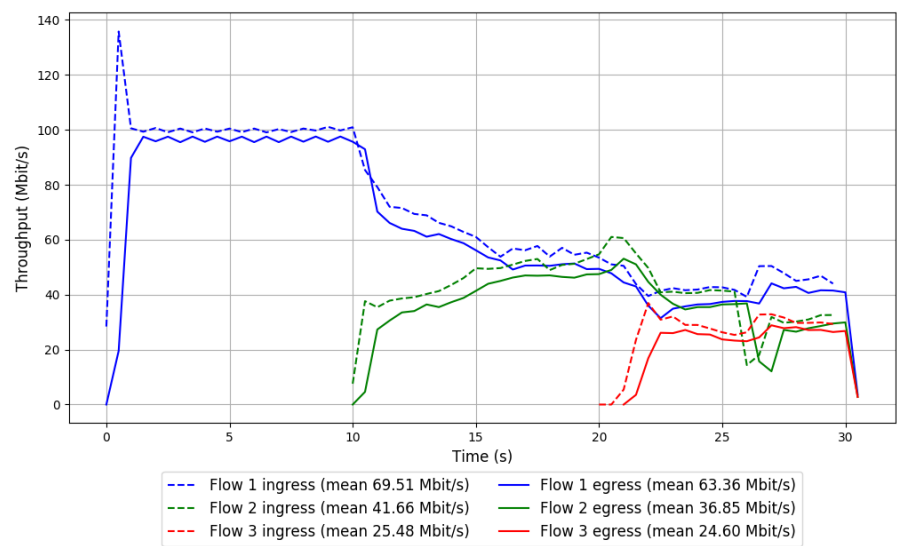
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 69.65 Mbit/s) --- Flow 1 egress (mean 63.54 Mbit/s)
Flow 2 ingress (mean 40.54 Mbit/s) --- Flow 2 egress (mean 35.53 Mbit/s)
Flow 3 ingress (mean 29.86 Mbit/s) --- Flow 3 egress (mean 26.18 Mbit/s)

Flow 1 (95th percentile 65.12 ms) Flow 2 (95th percentile 65.67 ms) Flow 3 (95th percentile 65.83 ms)

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```
Run 7: Statistics of TCP BBR

Start at: 2018-05-22 05:43:32
End at: 2018-05-22 05:44:02
Local clock offset: 1.378 ms
Remote clock offset: 0.113 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.23 Mbit/s
95th percentile per-packet one-way delay: 67.885 ms
Loss rate: 9.87%
-- Flow 1:
Average throughput: 63.36 Mbit/s
95th percentile per-packet one-way delay: 67.706 ms
Loss rate: 8.77%
-- Flow 2:
Average throughput: 36.85 Mbit/s
95th percentile per-packet one-way delay: 68.230 ms
Loss rate: 11.54%
-- Flow 3:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 67.934 ms
Loss rate: 13.40%
```
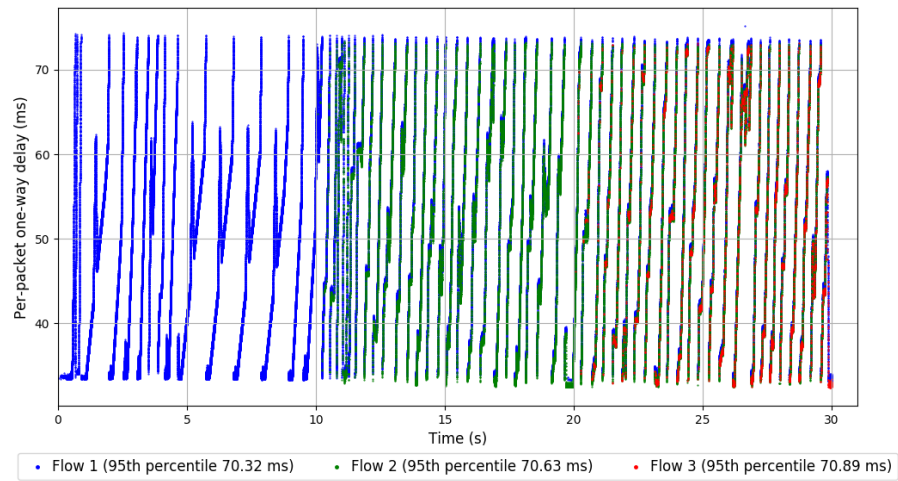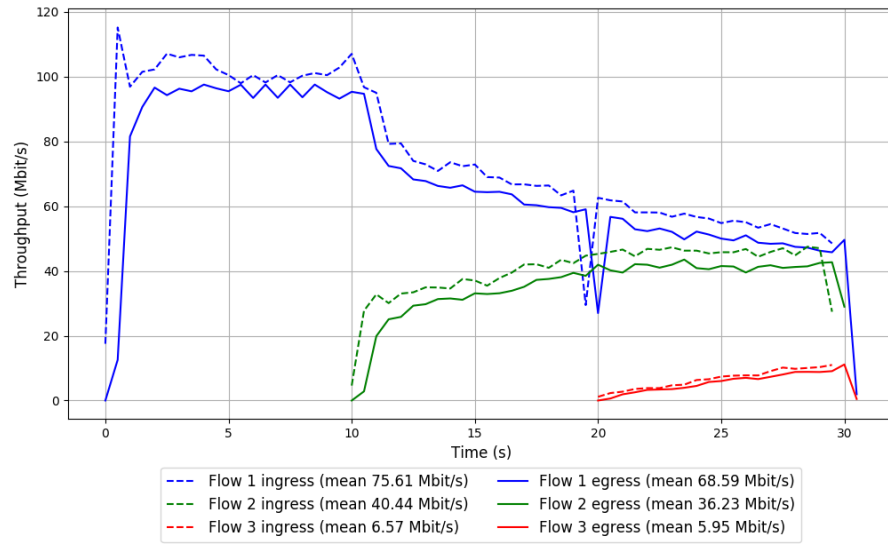
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 69.51 Mbit/s) --- Flow 1 egress (mean 63.36 Mbit/s)
Flow 2 ingress (mean 41.66 Mbit/s) --- Flow 2 egress (mean 36.85 Mbit/s)
Flow 3 ingress (mean 25.48 Mbit/s) --- Flow 3 egress (mean 24.60 Mbit/s)

Flow 1 (95th percentile 67.71 ms)   Flow 2 (95th percentile 68.23 ms)   Flow 3 (95th percentile 67.93 ms)

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```
Run 8: Statistics of TCP BBR

Start at: 2018-05-22 06:05:53
End at: 2018-05-22 06:06:23
Local clock offset: 0.997 ms
Remote clock offset: 0.565 ms


# Below is generated by plot.py at 2018-05-22 06:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 70.438 ms
Loss rate: 9.61%
-- Flow 1:
Average throughput: 68.59 Mbit/s
95th percentile per-packet one-way delay: 70.324 ms
Loss rate: 9.28%
-- Flow 2:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 70.633 ms
Loss rate: 10.55%
-- Flow 3:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 70.894 ms
Loss rate: 9.58%
```
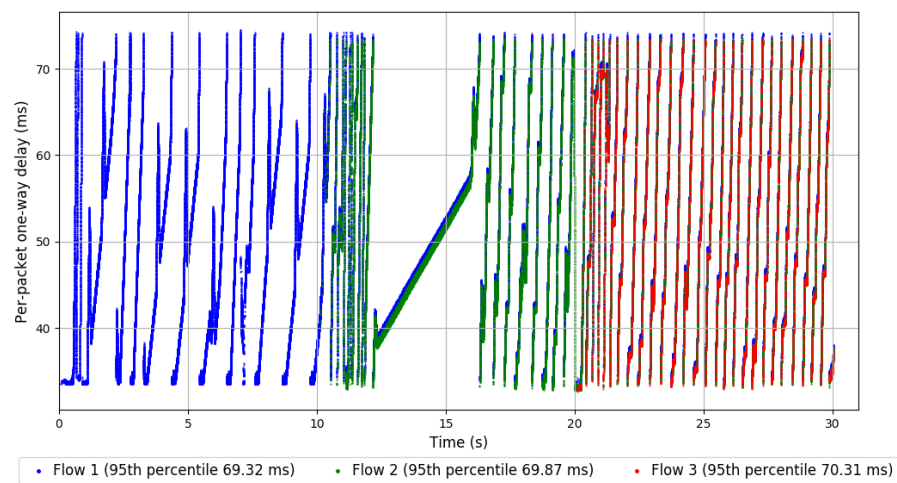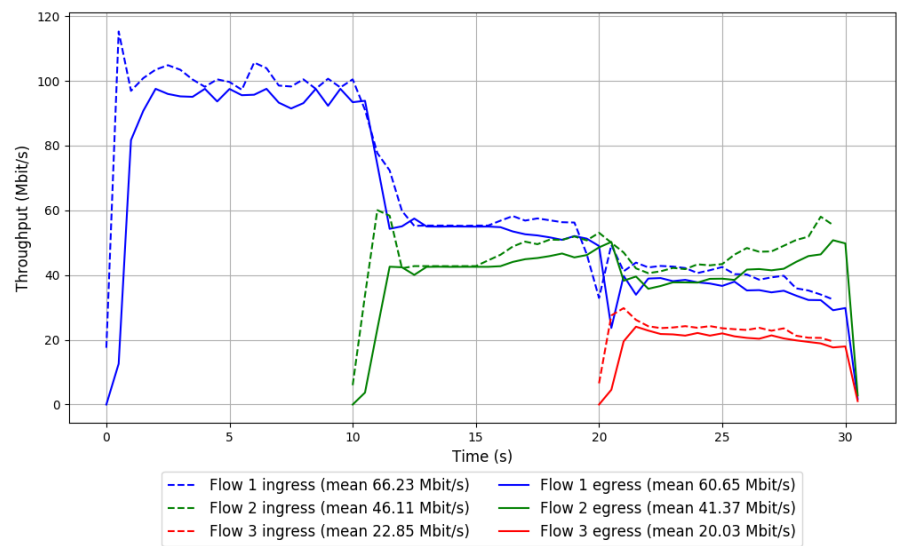
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-05-22 06:28:08
End at: 2018-05-22 06:28:38
Local clock offset: 0.676 ms
Remote clock offset: 6.858 ms


# Below is generated by plot.py at 2018-05-22 06:59:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 69.595 ms
Loss rate: 9.24%
-- Flow 1:
Average throughput: 60.65 Mbit/s
95th percentile per-packet one-way delay: 69.324 ms
Loss rate: 8.40%
-- Flow 2:
Average throughput: 41.37 Mbit/s
95th percentile per-packet one-way delay: 69.869 ms
Loss rate: 10.28%
-- Flow 3:
Average throughput: 20.03 Mbit/s
95th percentile per-packet one-way delay: 70.314 ms
Loss rate: 12.32%
```
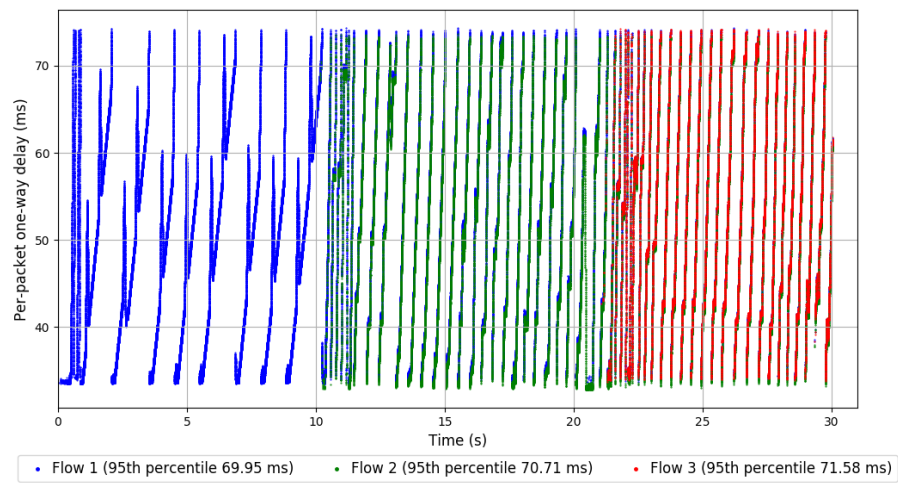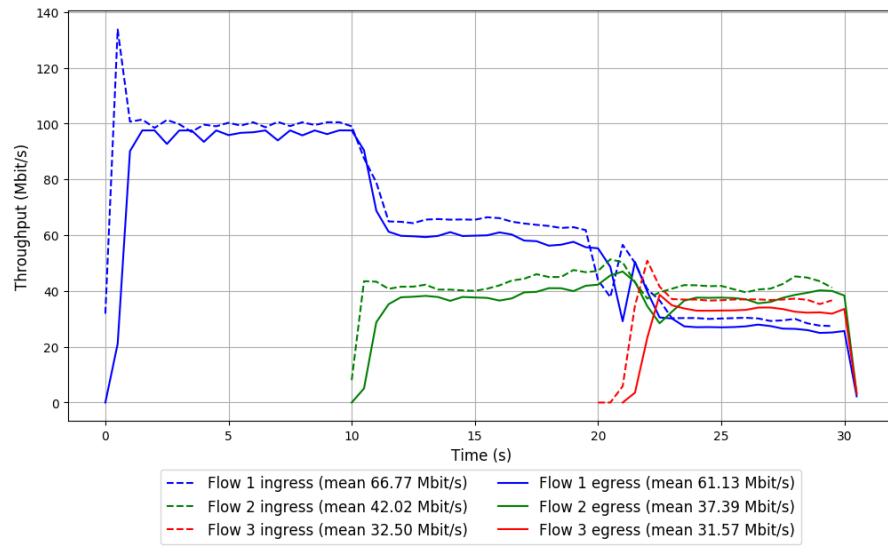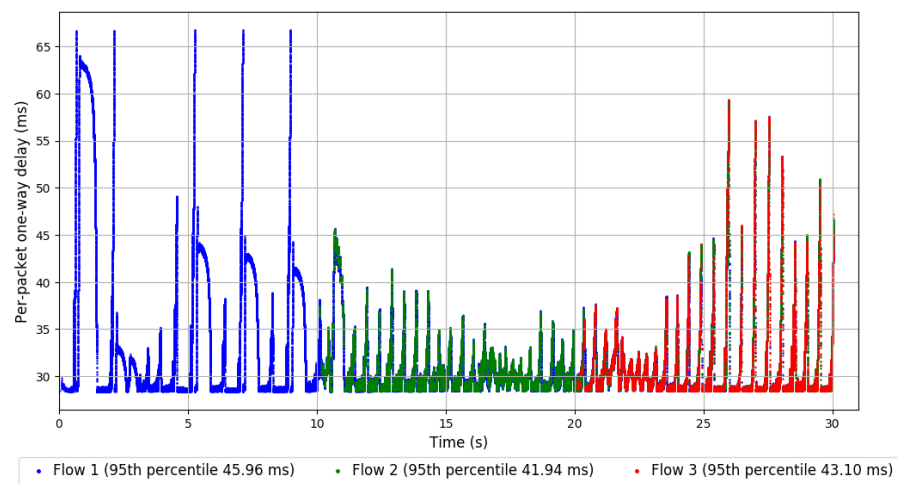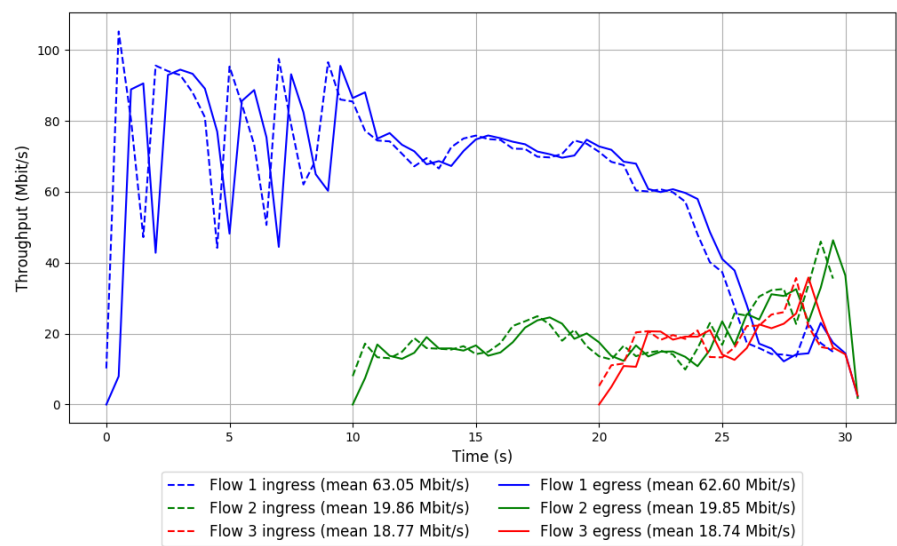
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 66.23 Mbit/s)   Flow 1 egress (mean 60.65 Mbit/s)
Flow 2 ingress (mean 46.11 Mbit/s)   Flow 2 egress (mean 41.37 Mbit/s)
Flow 3 ingress (mean 22.85 Mbit/s)   Flow 3 egress (mean 20.03 Mbit/s)

Flow 1 (95th percentile 69.32 ms)   Flow 2 (95th percentile 69.87 ms)   Flow 3 (95th percentile 70.31 ms)
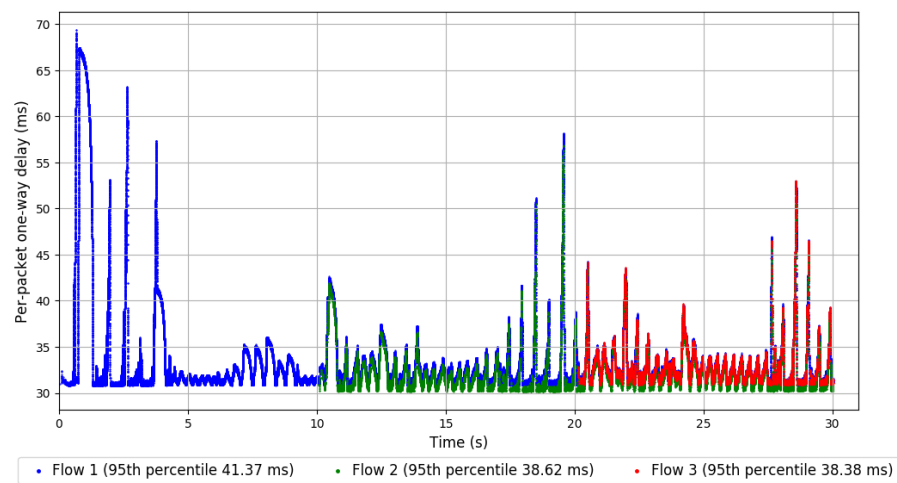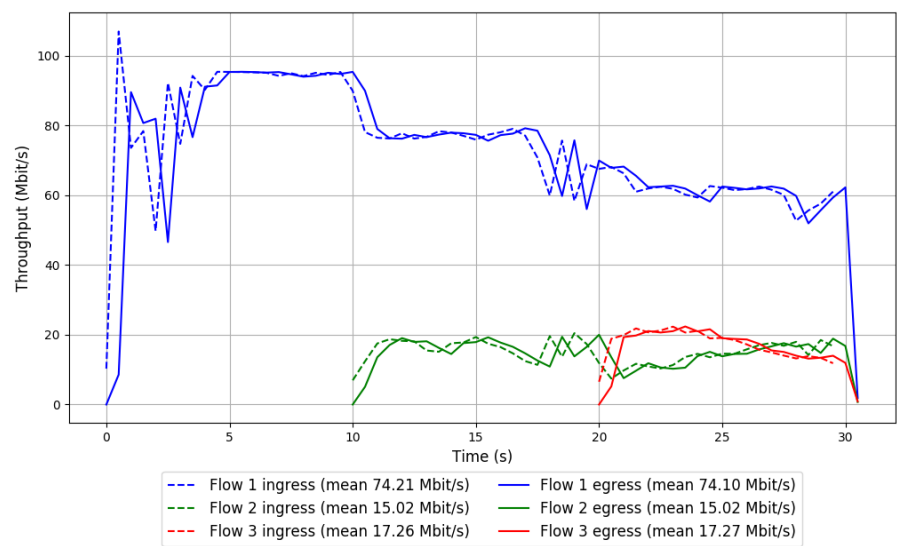
```
Run 10: Statistics of TCP BBR

Start at: 2018-05-22 06:49:45
End at: 2018-05-22 06:50:15
Local clock offset: 0.541 ms
Remote clock offset: 6.567 ms

# Below is generated by plot.py at 2018-05-22 06:59:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 70.554 ms
Loss rate: 9.51%
-- Flow 1:
Average throughput: 61.13 Mbit/s
95th percentile per-packet one-way delay: 69.946 ms
Loss rate: 8.38%
-- Flow 2:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 70.713 ms
Loss rate: 11.05%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 71.575 ms
Loss rate: 12.57%
```

Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 66.77 Mbit/s)   Flow 1 egress (mean 61.13 Mbit/s)
Flow 2 ingress (mean 42.02 Mbit/s)   Flow 2 egress (mean 37.39 Mbit/s)
Flow 3 ingress (mean 32.50 Mbit/s)   Flow 3 egress (mean 31.57 Mbit/s)

Flow 1 (95th percentile 69.95 ms)   Flow 2 (95th percentile 70.71 ms)   Flow 3 (95th percentile 71.58 ms)

```
Run 1: Statistics of Copa

Start at: 2018-05-22 03:30:49
End at: 2018-05-22 03:31:19
Local clock offset: 1.769 ms
Remote clock offset: -4.211 ms

# Below is generated by plot.py at 2018-05-22 07:00:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.06 Mbit/s
95th percentile per-packet one-way delay: 44.358 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 62.60 Mbit/s
95th percentile per-packet one-way delay: 45.957 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 19.85 Mbit/s
95th percentile per-packet one-way delay: 41.944 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 18.74 Mbit/s
95th percentile per-packet one-way delay: 43.098 ms
Loss rate: 0.00%
```
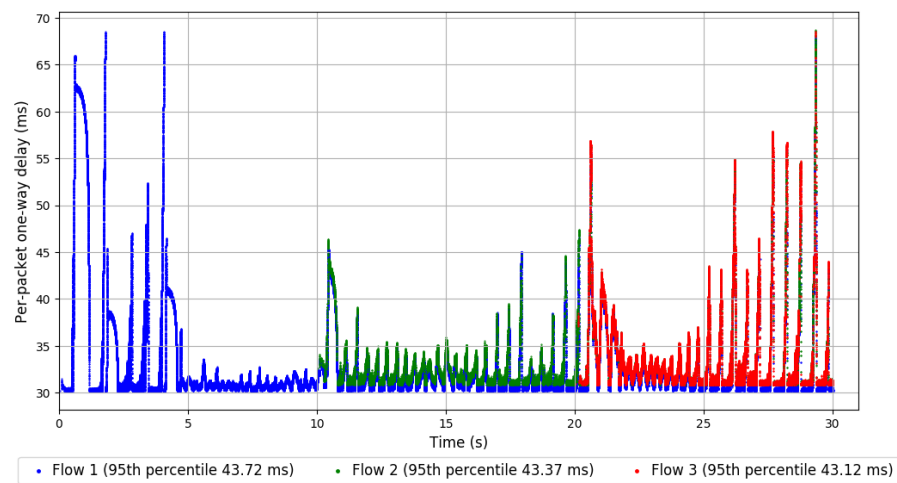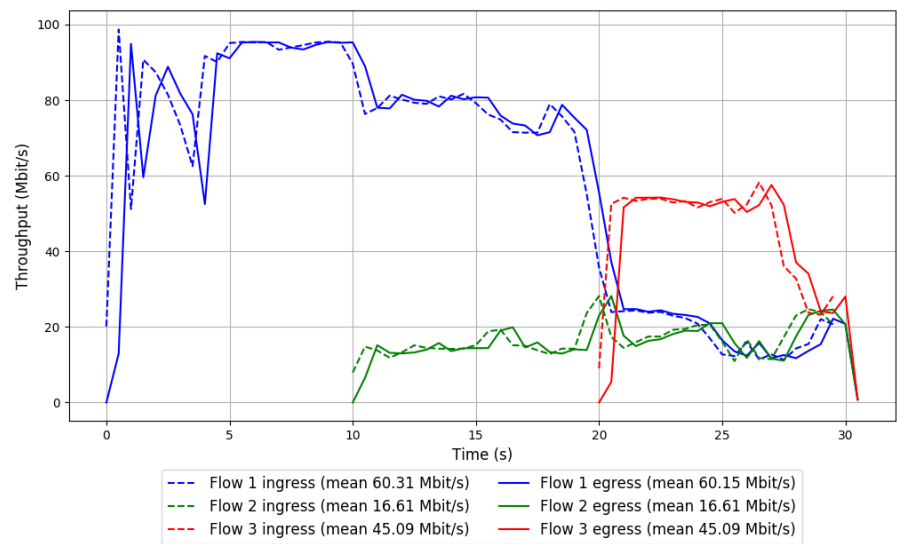
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 63.05 Mbit/s) --- Flow 1 egress (mean 62.60 Mbit/s)
Flow 2 ingress (mean 19.86 Mbit/s) --- Flow 2 egress (mean 19.85 Mbit/s)
Flow 3 ingress (mean 18.77 Mbit/s) --- Flow 3 egress (mean 18.74 Mbit/s)

Flow 1 (95th percentile 45.96 ms)   Flow 2 (95th percentile 41.94 ms)   Flow 3 (95th percentile 43.10 ms)

```
Run 2: Statistics of Copa

Start at: 2018-05-22 03:52:16
End at: 2018-05-22 03:52:46
Local clock offset: 1.651 ms
Remote clock offset: -4.885 ms


# Below is generated by plot.py at 2018-05-22 07:00:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.84 Mbit/s
95th percentile per-packet one-way delay: 40.935 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 74.10 Mbit/s
95th percentile per-packet one-way delay: 41.368 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 15.02 Mbit/s
95th percentile per-packet one-way delay: 38.623 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.27 Mbit/s
95th percentile per-packet one-way delay: 38.375 ms
Loss rate: 0.00%
```
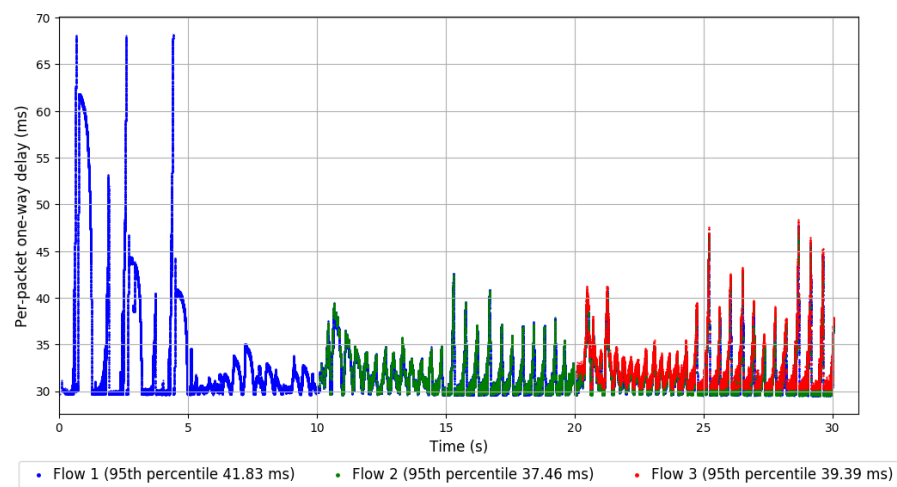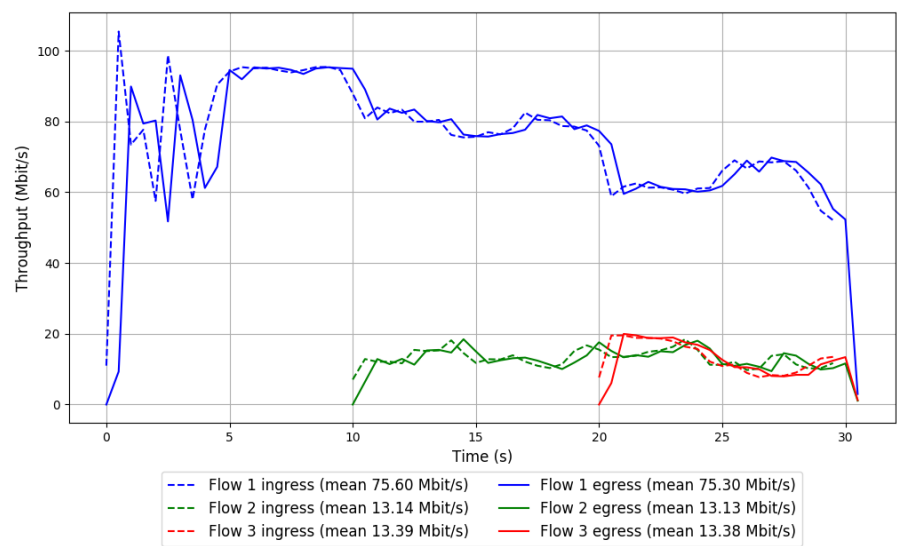
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-05-22 04:14:29
End at: 2018-05-22 04:14:59
Local clock offset: 0.792 ms
Remote clock offset: -7.025 ms


# Below is generated by plot.py at 2018-05-22 07:00:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.20 Mbit/s
95th percentile per-packet one-way delay: 43.518 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 60.15 Mbit/s
95th percentile per-packet one-way delay: 43.723 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 16.61 Mbit/s
95th percentile per-packet one-way delay: 43.369 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.09 Mbit/s
95th percentile per-packet one-way delay: 43.121 ms
Loss rate: 0.00%
```

Run 3: Report of Copa — Data Link

- - - Flow 1 ingress (mean 60.31 Mbit/s)   —— Flow 1 egress (mean 60.15 Mbit/s)
- - - Flow 2 ingress (mean 16.61 Mbit/s)   —— Flow 2 egress (mean 16.61 Mbit/s)
- - - Flow 3 ingress (mean 45.09 Mbit/s)   —— Flow 3 egress (mean 45.09 Mbit/s)

- Flow 1 (95th percentile 43.72 ms)   • Flow 2 (95th percentile 43.37 ms)   • Flow 3 (95th percentile 43.12 ms)

```
Run 4: Statistics of Copa

Start at: 2018-05-22 04:35:43
End at: 2018-05-22 04:36:13
Local clock offset: 0.806 ms
Remote clock offset: -1.109 ms


# Below is generated by plot.py at 2018-05-22 07:00:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.50 Mbit/s
95th percentile per-packet one-way delay: 40.670 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 75.30 Mbit/s
95th percentile per-packet one-way delay: 41.833 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 37.458 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 39.390 ms
Loss rate: 0.01%
```
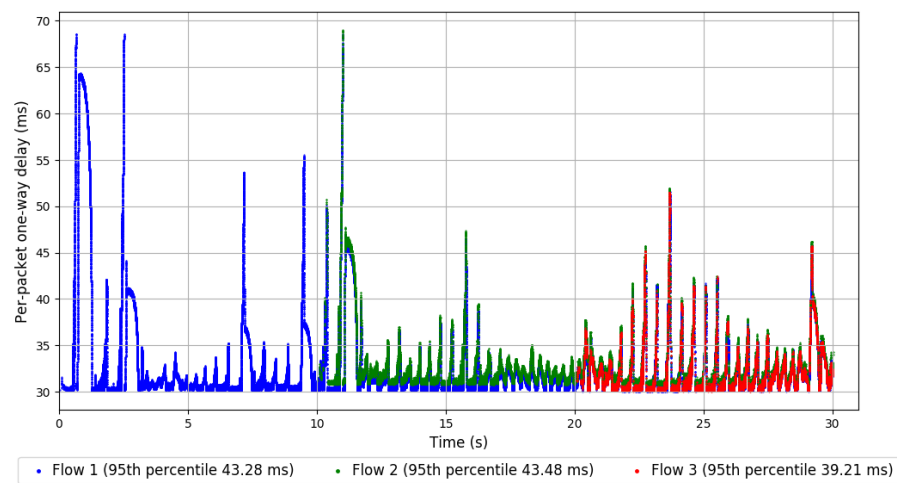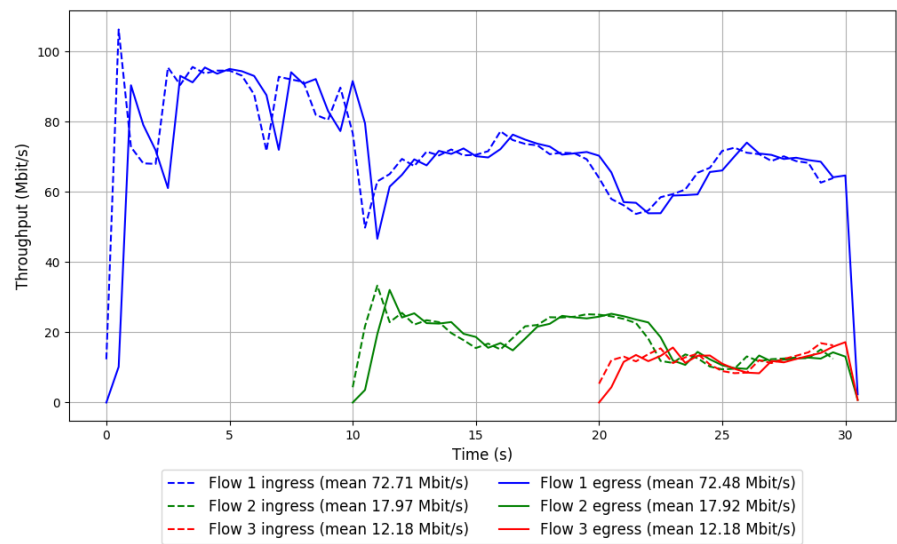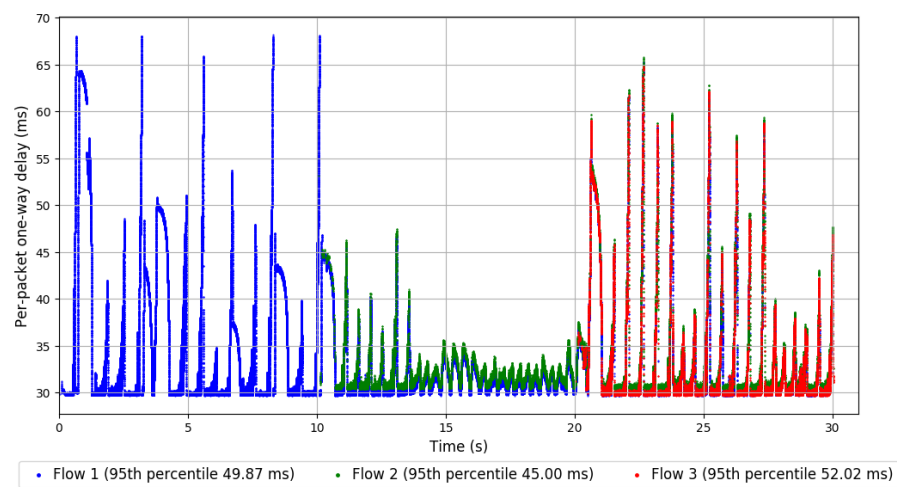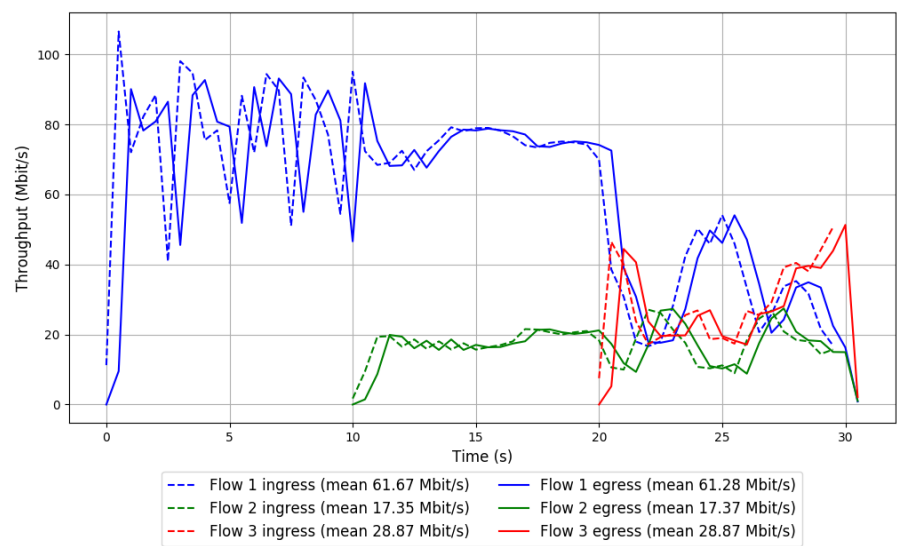
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 75.60 Mbit/s)   Flow 1 egress (mean 75.30 Mbit/s)
Flow 2 ingress (mean 13.14 Mbit/s)   Flow 2 egress (mean 13.13 Mbit/s)
Flow 3 ingress (mean 13.39 Mbit/s)   Flow 3 egress (mean 13.38 Mbit/s)

Flow 1 (95th percentile 41.83 ms)   Flow 2 (95th percentile 37.46 ms)   Flow 3 (95th percentile 39.39 ms)

```
Run 5: Statistics of Copa

Start at: 2018-05-22 04:56:58
End at: 2018-05-22 04:57:28
Local clock offset: 0.8 ms
Remote clock offset: 2.174 ms


# Below is generated by plot.py at 2018-05-22 07:00:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.46 Mbit/s
95th percentile per-packet one-way delay: 42.900 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 72.48 Mbit/s
95th percentile per-packet one-way delay: 43.279 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 17.92 Mbit/s
95th percentile per-packet one-way delay: 43.483 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 12.18 Mbit/s
95th percentile per-packet one-way delay: 39.209 ms
Loss rate: 0.00%
```
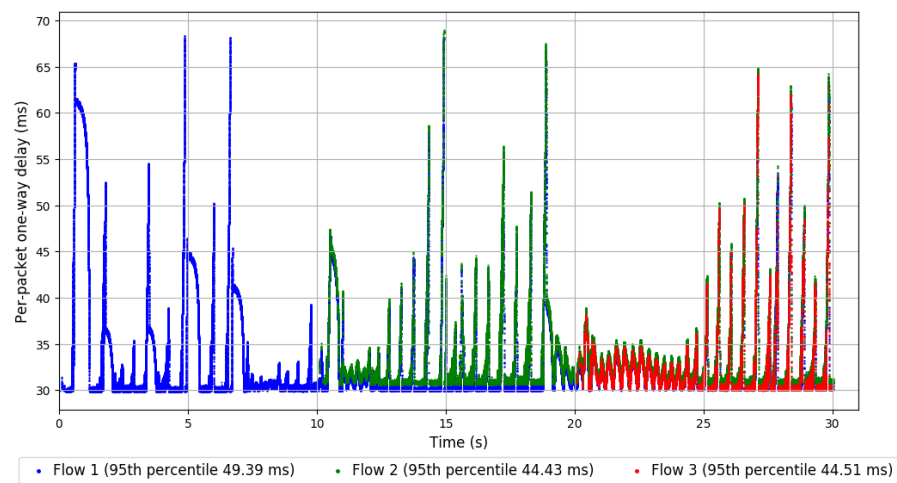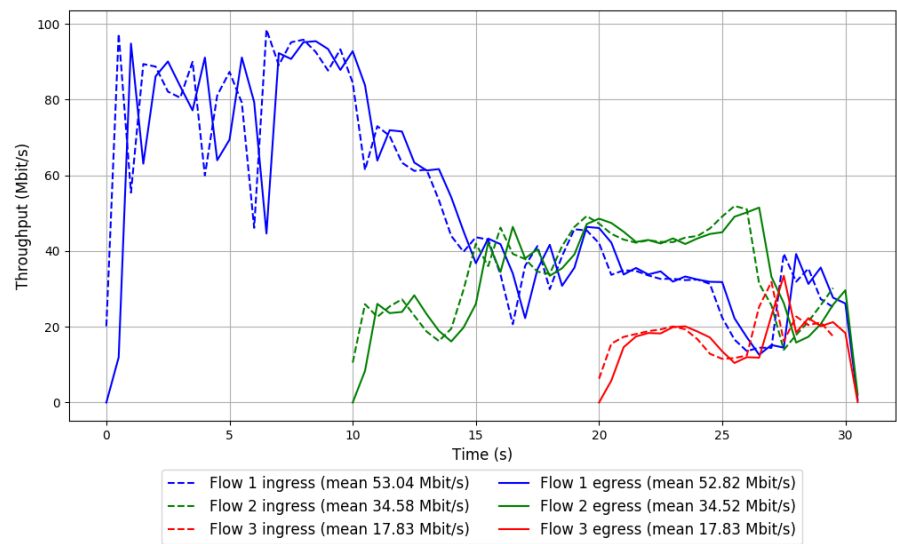
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-05-22 05:18:15
End at: 2018-05-22 05:18:45
Local clock offset: 0.477 ms
Remote clock offset: 3.974 ms


# Below is generated by plot.py at 2018-05-22 07:00:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.43 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 61.28 Mbit/s
95th percentile per-packet one-way delay: 49.873 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 17.37 Mbit/s
95th percentile per-packet one-way delay: 45.002 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 52.016 ms
Loss rate: 0.00%
```
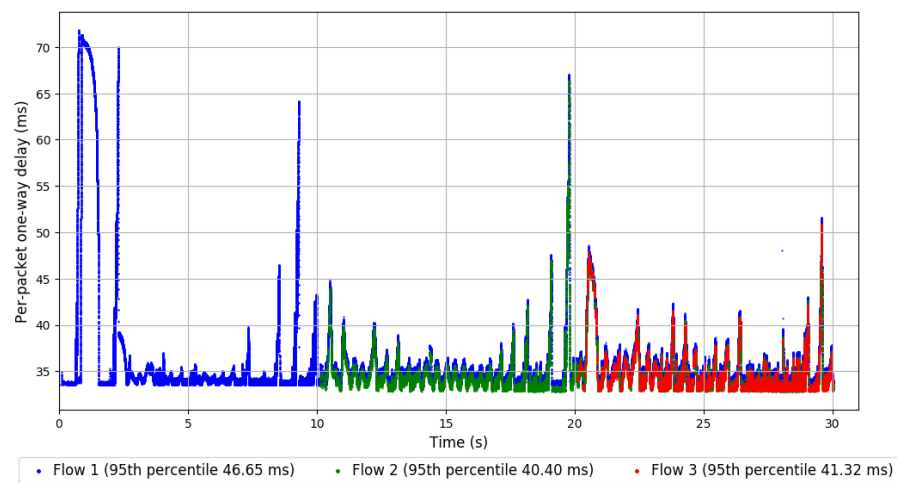
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-05-22 05:39:33
End at: 2018-05-22 05:40:03
Local clock offset: 1.269 ms
Remote clock offset: 0.702 ms


# Below is generated by plot.py at 2018-05-22 07:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.74 Mbit/s
95th percentile per-packet one-way delay: 46.664 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 52.82 Mbit/s
95th percentile per-packet one-way delay: 49.391 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 44.428 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 17.83 Mbit/s
95th percentile per-packet one-way delay: 44.511 ms
Loss rate: 0.00%
```
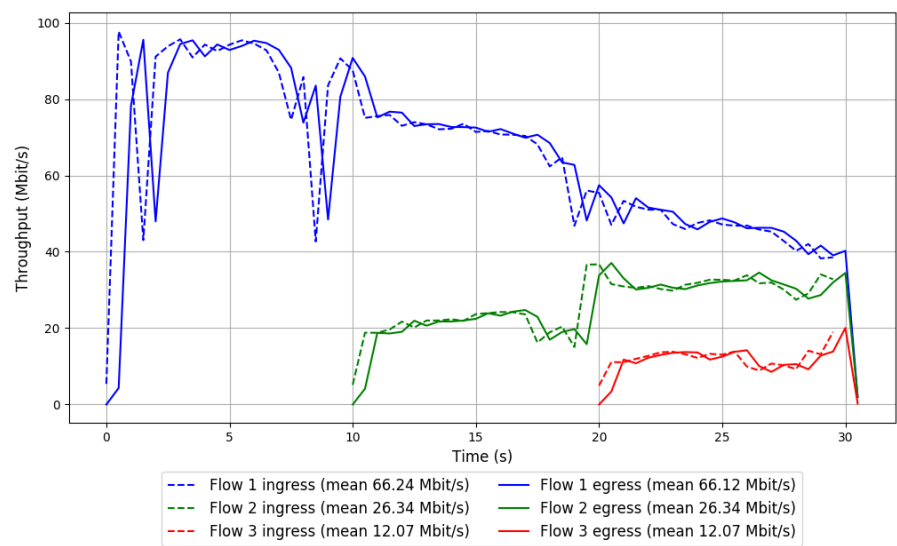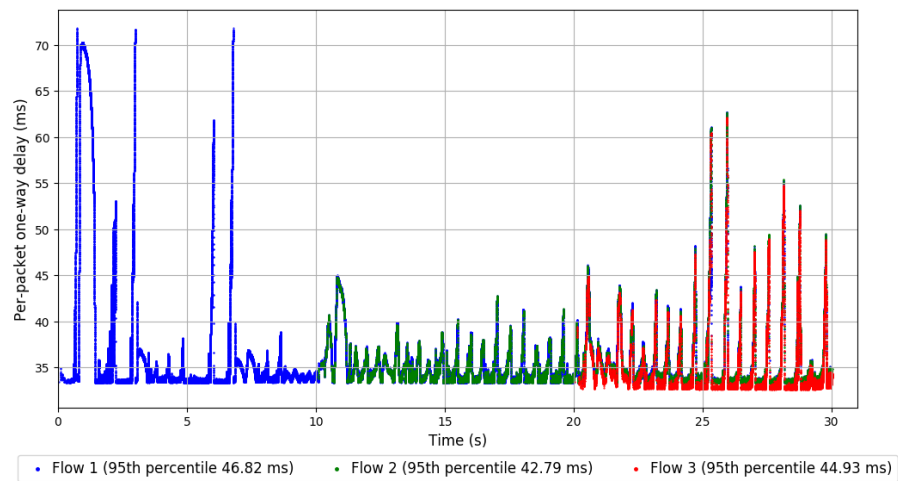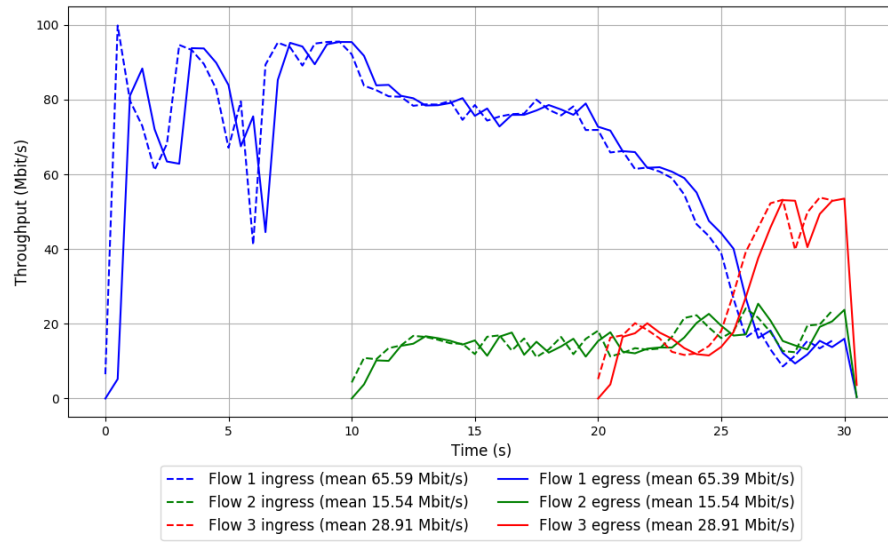
Run 7: Report of Copa — Data Link

Flow 1 ingress (mean 53.04 Mbit/s)   Flow 1 egress (mean 52.82 Mbit/s)
Flow 2 ingress (mean 34.58 Mbit/s)   Flow 2 egress (mean 34.52 Mbit/s)
Flow 3 ingress (mean 17.83 Mbit/s)   Flow 3 egress (mean 17.83 Mbit/s)

Flow 1 (95th percentile 49.39 ms)   Flow 2 (95th percentile 44.43 ms)   Flow 3 (95th percentile 44.51 ms)

37

```
Run 8: Statistics of Copa

Start at: 2018-05-22 06:01:40
End at: 2018-05-22 06:02:10
Local clock offset: 1.158 ms
Remote clock offset: 0.297 ms

# Below is generated by plot.py at 2018-05-22 07:01:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.67 Mbit/s
95th percentile per-packet one-way delay: 44.512 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 66.12 Mbit/s
95th percentile per-packet one-way delay: 46.649 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 26.34 Mbit/s
95th percentile per-packet one-way delay: 40.402 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 41.320 ms
Loss rate: 0.01%
```
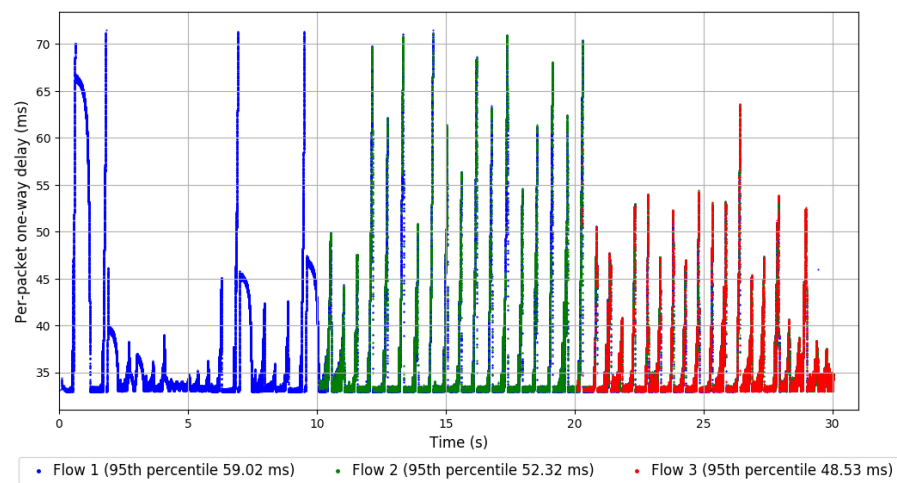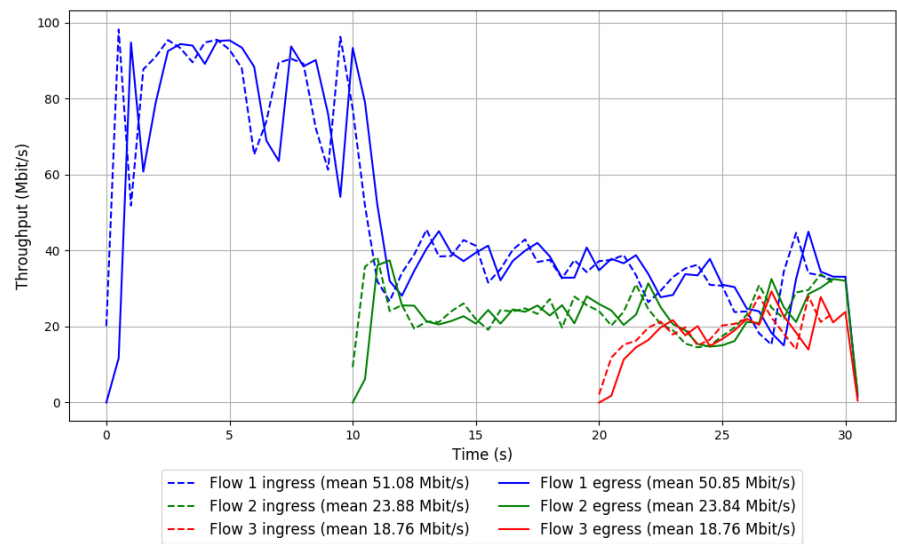
Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 66.24 Mbit/s)   Flow 1 egress (mean 66.12 Mbit/s)
Flow 2 ingress (mean 26.34 Mbit/s)   Flow 2 egress (mean 26.34 Mbit/s)
Flow 3 ingress (mean 12.07 Mbit/s)   Flow 3 egress (mean 12.07 Mbit/s)

Flow 1 (95th percentile 46.65 ms)   Flow 2 (95th percentile 40.40 ms)   Flow 3 (95th percentile 41.32 ms)

```
Run 9: Statistics of Copa

Start at: 2018-05-22 06:23:57
End at: 2018-05-22 06:24:27
Local clock offset: 0.724 ms
Remote clock offset: 6.322 ms


# Below is generated by plot.py at 2018-05-22 07:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.34 Mbit/s
95th percentile per-packet one-way delay: 45.409 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 65.39 Mbit/s
95th percentile per-packet one-way delay: 46.816 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 15.54 Mbit/s
95th percentile per-packet one-way delay: 42.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.91 Mbit/s
95th percentile per-packet one-way delay: 44.933 ms
Loss rate: 0.00%
```
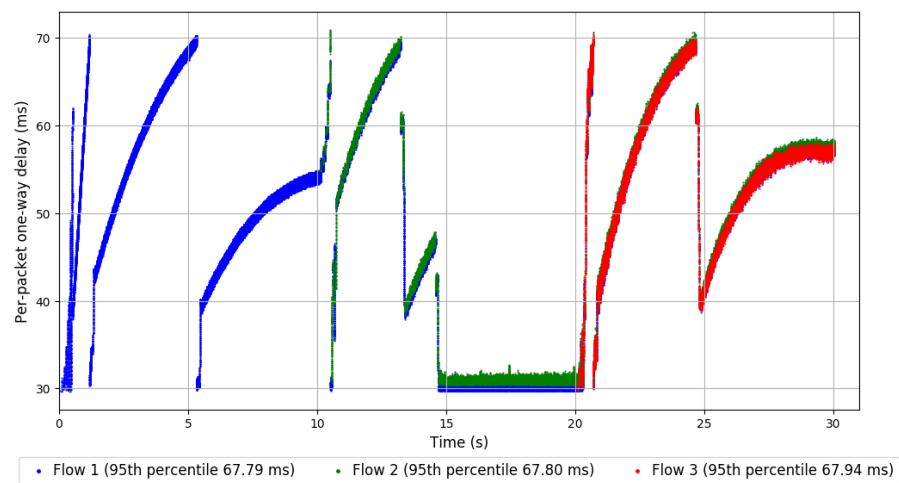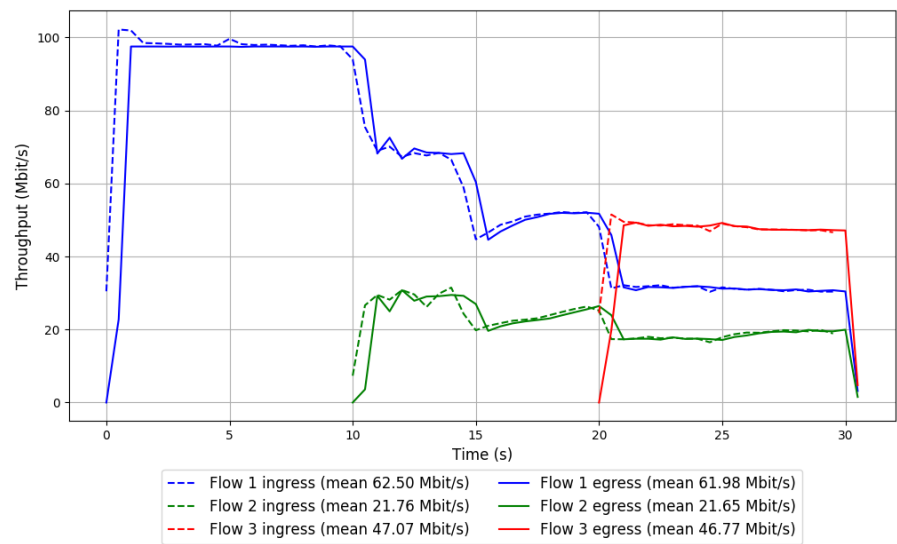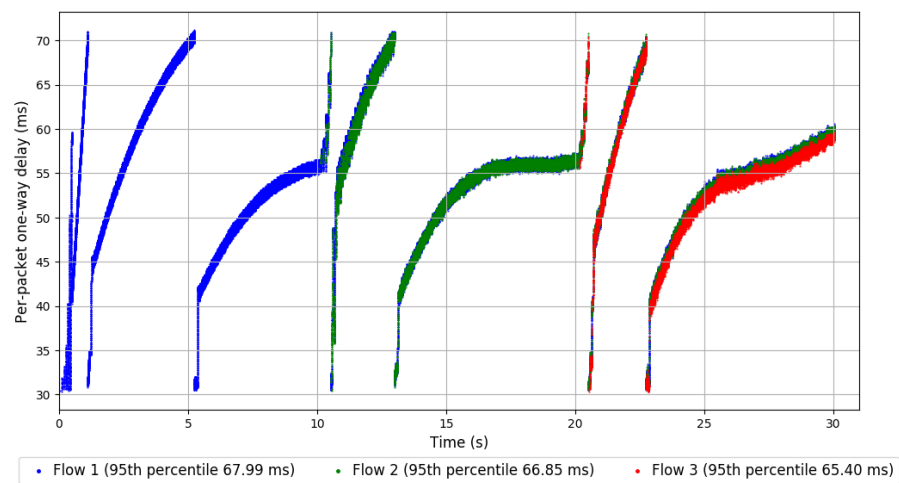
Run 9: Report of Copa — Data Link

Flow 1 ingress (mean 65.59 Mbit/s)   Flow 1 egress (mean 65.39 Mbit/s)
Flow 2 ingress (mean 15.54 Mbit/s)   Flow 2 egress (mean 15.54 Mbit/s)
Flow 3 ingress (mean 28.91 Mbit/s)   Flow 3 egress (mean 28.91 Mbit/s)

Flow 1 (95th percentile 46.82 ms)   Flow 2 (95th percentile 42.79 ms)   Flow 3 (95th percentile 44.93 ms)

41

```
Run 10: Statistics of Copa

Start at: 2018-05-22 06:45:45
End at: 2018-05-22 06:46:15
Local clock offset: 0.496 ms
Remote clock offset: 6.849 ms


# Below is generated by plot.py at 2018-05-22 07:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.96 Mbit/s
95th percentile per-packet one-way delay: 55.820 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 50.85 Mbit/s
95th percentile per-packet one-way delay: 59.018 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 23.84 Mbit/s
95th percentile per-packet one-way delay: 52.319 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 18.76 Mbit/s
95th percentile per-packet one-way delay: 48.534 ms
Loss rate: 0.00%
```
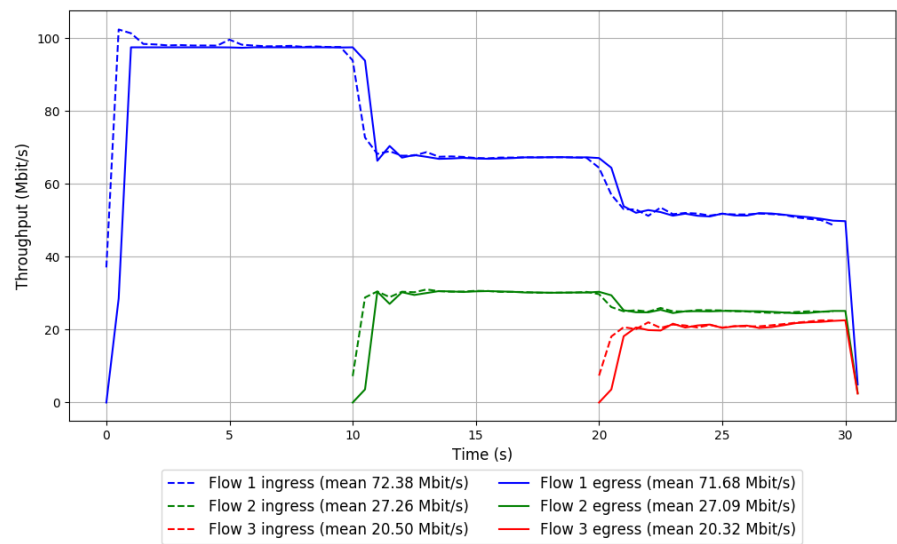
Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 51.08 Mbit/s) — — — Flow 1 egress (mean 50.85 Mbit/s)
Flow 2 ingress (mean 23.88 Mbit/s) — — — Flow 2 egress (mean 23.84 Mbit/s)
Flow 3 ingress (mean 18.76 Mbit/s) — — — Flow 3 egress (mean 18.76 Mbit/s)

Flow 1 (95th percentile 59.02 ms)   Flow 2 (95th percentile 52.32 ms)   Flow 3 (95th percentile 48.53 ms)
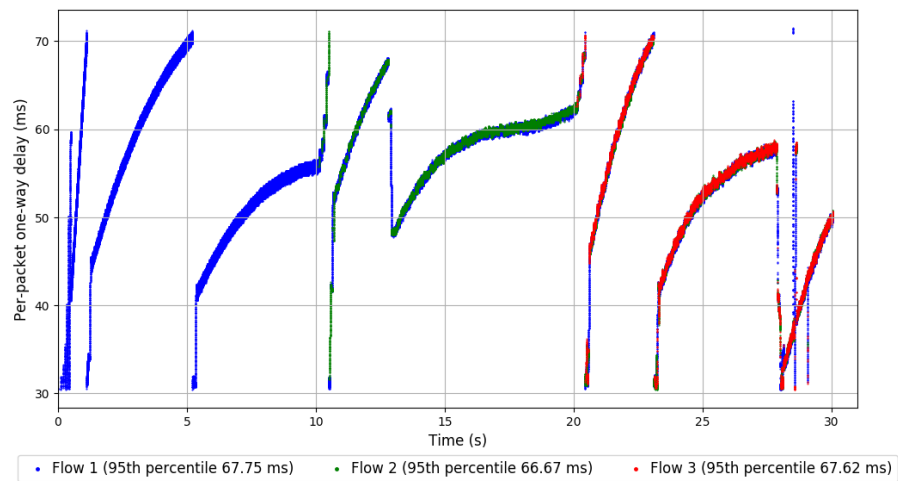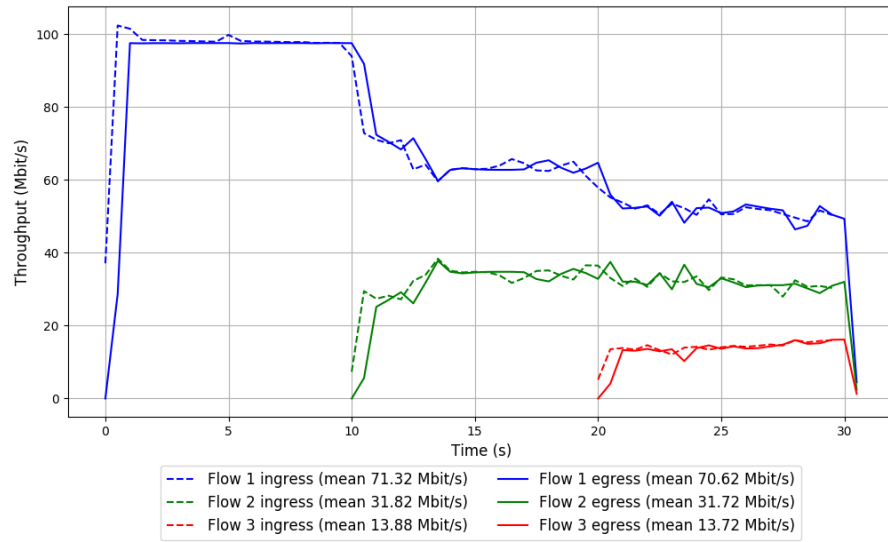
43

```
Run 1: Statistics of TCP Cubic

Start at: 2018-05-22 03:37:30
End at: 2018-05-22 03:38:00
Local clock offset: 1.638 ms
Remote clock offset: -3.522 ms


# Below is generated by plot.py at 2018-05-22 07:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.00 Mbit/s
95th percentile per-packet one-way delay: 67.815 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 61.98 Mbit/s
95th percentile per-packet one-way delay: 67.792 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 21.65 Mbit/s
95th percentile per-packet one-way delay: 67.796 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 46.77 Mbit/s
95th percentile per-packet one-way delay: 67.943 ms
Loss rate: 0.38%
```

Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 62.50 Mbit/s) ---- Flow 1 egress (mean 61.98 Mbit/s) ——
Flow 2 ingress (mean 21.76 Mbit/s) ---- Flow 2 egress (mean 21.65 Mbit/s) ——
Flow 3 ingress (mean 47.07 Mbit/s) ---- Flow 3 egress (mean 46.77 Mbit/s) ——

Flow 1 (95th percentile 67.79 ms)   Flow 2 (95th percentile 67.80 ms)   Flow 3 (95th percentile 67.94 ms)

45

```
Run 2: Statistics of TCP Cubic

Start at: 2018-05-22 03:59:25
End at: 2018-05-22 03:59:55
Local clock offset: 1.336 ms
Remote clock offset: -6.088 ms


# Below is generated by plot.py at 2018-05-22 07:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 67.714 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 71.68 Mbit/s
95th percentile per-packet one-way delay: 67.991 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 27.09 Mbit/s
95th percentile per-packet one-way delay: 66.854 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 20.32 Mbit/s
95th percentile per-packet one-way delay: 65.398 ms
Loss rate: 0.87%
```
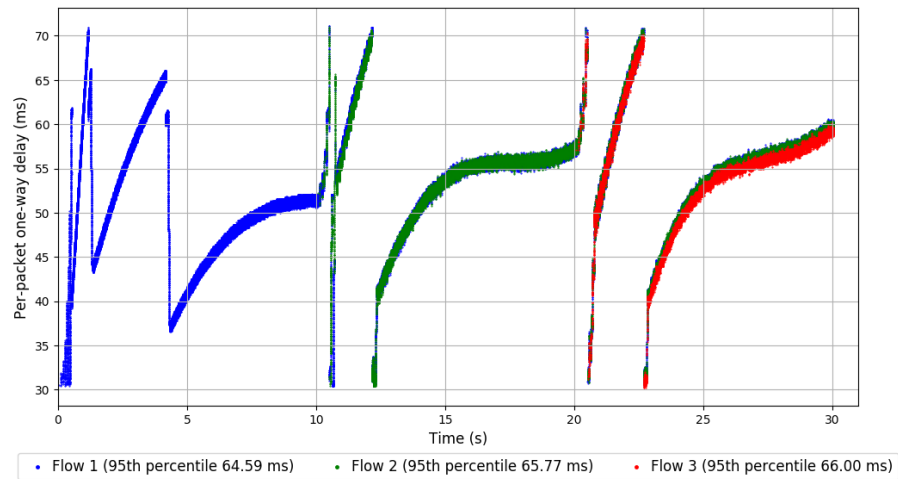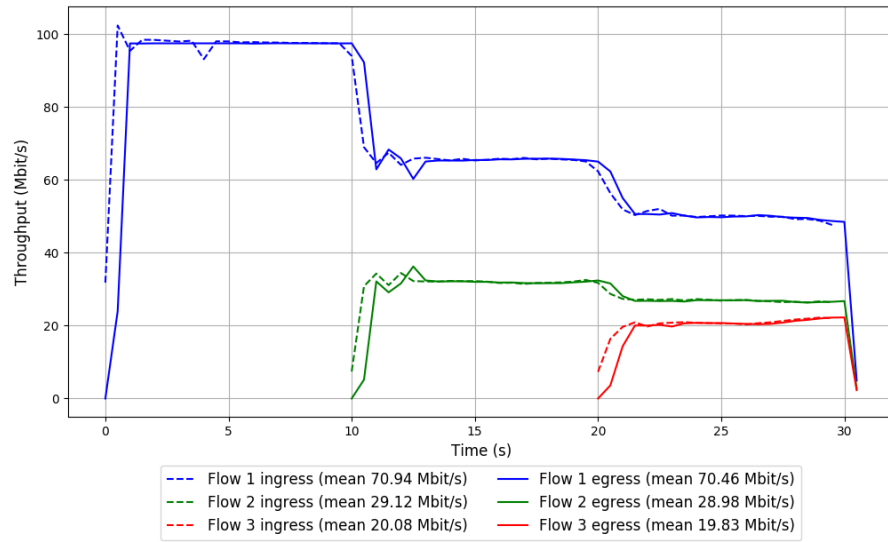
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-05-22 04:21:10
End at: 2018-05-22 04:21:40
Local clock offset: 0.608 ms
Remote clock offset: -8.148 ms


# Below is generated by plot.py at 2018-05-22 07:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 67.478 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 70.62 Mbit/s
95th percentile per-packet one-way delay: 67.747 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 66.671 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 13.72 Mbit/s
95th percentile per-packet one-way delay: 67.617 ms
Loss rate: 1.34%
```
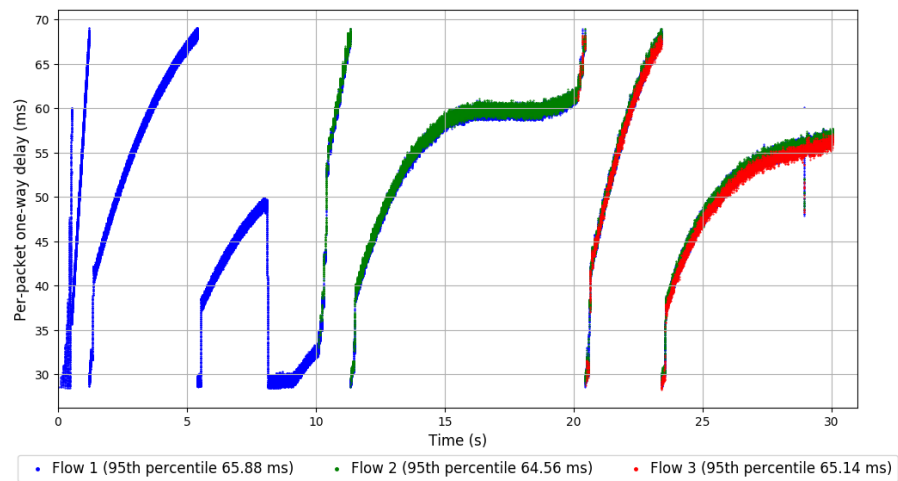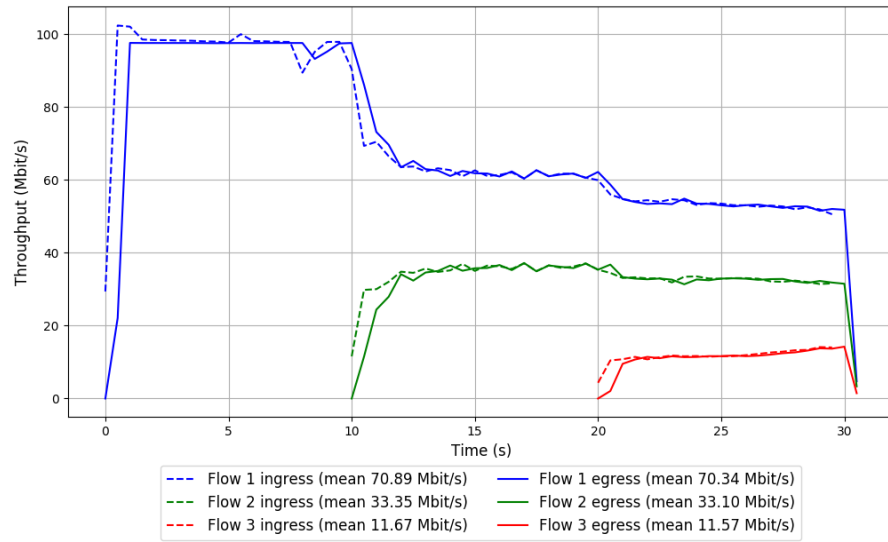
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 71.32 Mbit/s)   Flow 1 egress (mean 70.62 Mbit/s)
Flow 2 ingress (mean 31.82 Mbit/s)   Flow 2 egress (mean 31.72 Mbit/s)
Flow 3 ingress (mean 13.88 Mbit/s)   Flow 3 egress (mean 13.72 Mbit/s)

Flow 1 (95th percentile 67.75 ms)   Flow 2 (95th percentile 66.67 ms)   Flow 3 (95th percentile 67.62 ms)

49

```
Run 4: Statistics of TCP Cubic

Start at: 2018-05-22 04:42:24
End at: 2018-05-22 04:42:54
Local clock offset: 0.753 ms
Remote clock offset: 0.183 ms


# Below is generated by plot.py at 2018-05-22 07:02:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 64.822 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 64.588 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 28.98 Mbit/s
95th percentile per-packet one-way delay: 65.765 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 19.83 Mbit/s
95th percentile per-packet one-way delay: 66.001 ms
Loss rate: 1.25%
```
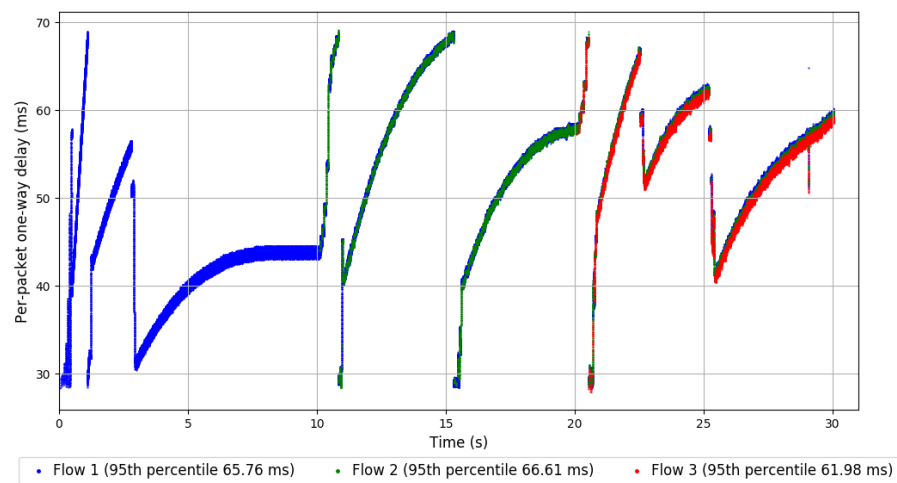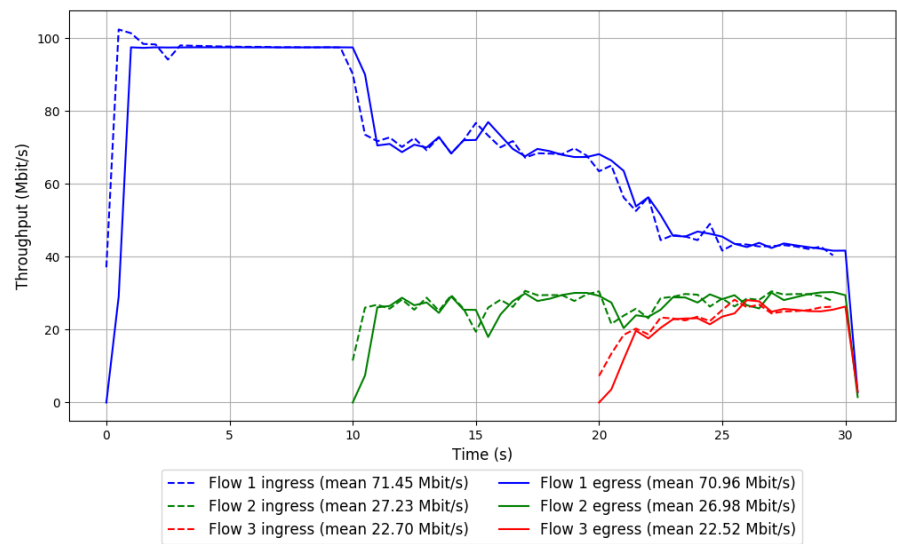
Run 4: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 70.94 Mbit/s)   —— Flow 1 egress (mean 70.46 Mbit/s)
- - - Flow 2 ingress (mean 29.12 Mbit/s)   —— Flow 2 egress (mean 28.98 Mbit/s)
- - - Flow 3 ingress (mean 20.08 Mbit/s)   —— Flow 3 egress (mean 19.83 Mbit/s)

• Flow 1 (95th percentile 64.59 ms)   • Flow 2 (95th percentile 65.77 ms)   • Flow 3 (95th percentile 66.00 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-05-22 05:03:41
End at: 2018-05-22 05:04:11
Local clock offset: 0.586 ms
Remote clock offset: 0.647 ms


# Below is generated by plot.py at 2018-05-22 07:02:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 65.639 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 70.34 Mbit/s
95th percentile per-packet one-way delay: 65.877 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 33.10 Mbit/s
95th percentile per-packet one-way delay: 64.564 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 65.137 ms
Loss rate: 0.93%
```
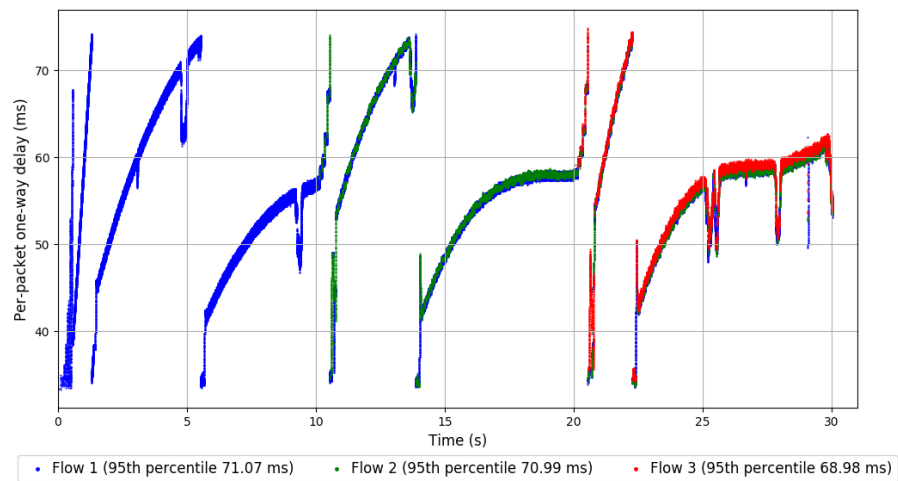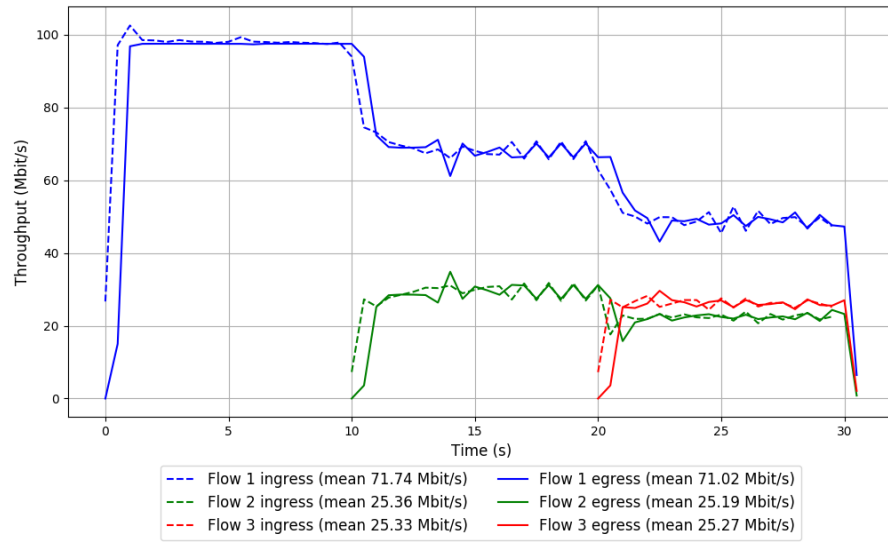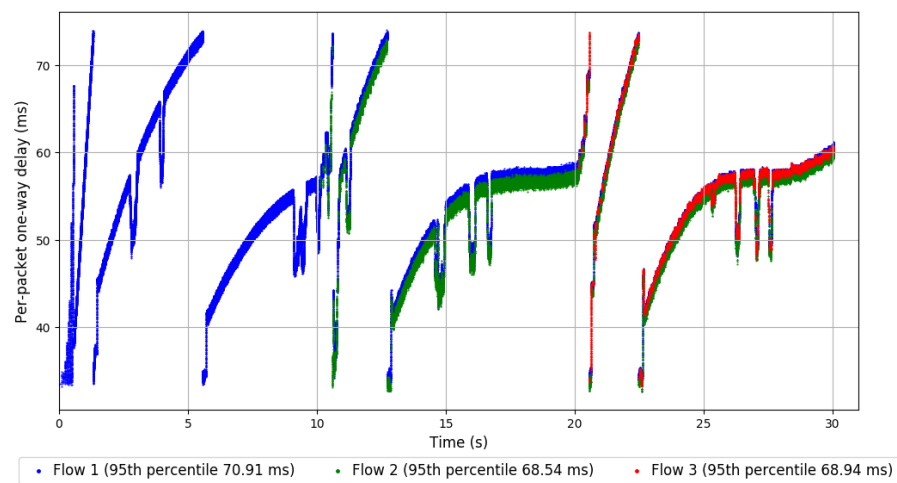
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 70.89 Mbit/s)   Flow 1 egress (mean 70.34 Mbit/s)
Flow 2 ingress (mean 33.35 Mbit/s)   Flow 2 egress (mean 33.10 Mbit/s)
Flow 3 ingress (mean 11.67 Mbit/s)   Flow 3 egress (mean 11.57 Mbit/s)

Flow 1 (95th percentile 65.88 ms)   Flow 2 (95th percentile 64.56 ms)   Flow 3 (95th percentile 65.14 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-05-22 05:24:57
End at: 2018-05-22 05:25:27
Local clock offset: 0.439 ms
Remote clock offset: 2.466 ms


# Below is generated by plot.py at 2018-05-22 07:02:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 65.749 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 70.96 Mbit/s
95th percentile per-packet one-way delay: 65.756 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 26.98 Mbit/s
95th percentile per-packet one-way delay: 66.612 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 22.52 Mbit/s
95th percentile per-packet one-way delay: 61.985 ms
Loss rate: 0.77%
```
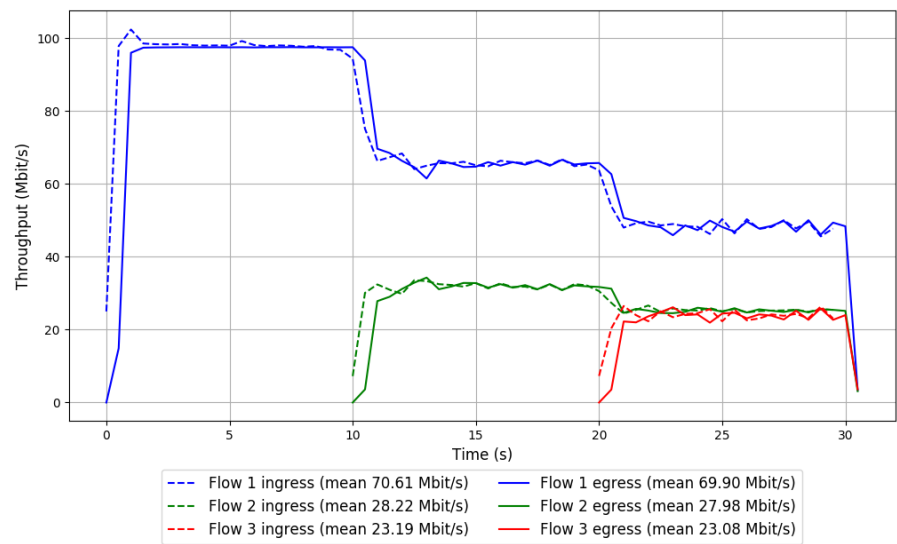
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-05-22 05:46:14
End at: 2018-05-22 05:46:44
Local clock offset: 1.421 ms
Remote clock offset: 2.744 ms


# Below is generated by plot.py at 2018-05-22 07:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.20 Mbit/s
95th percentile per-packet one-way delay: 70.879 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 71.02 Mbit/s
95th percentile per-packet one-way delay: 71.073 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 25.19 Mbit/s
95th percentile per-packet one-way delay: 70.987 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 68.980 ms
Loss rate: 0.27%
```
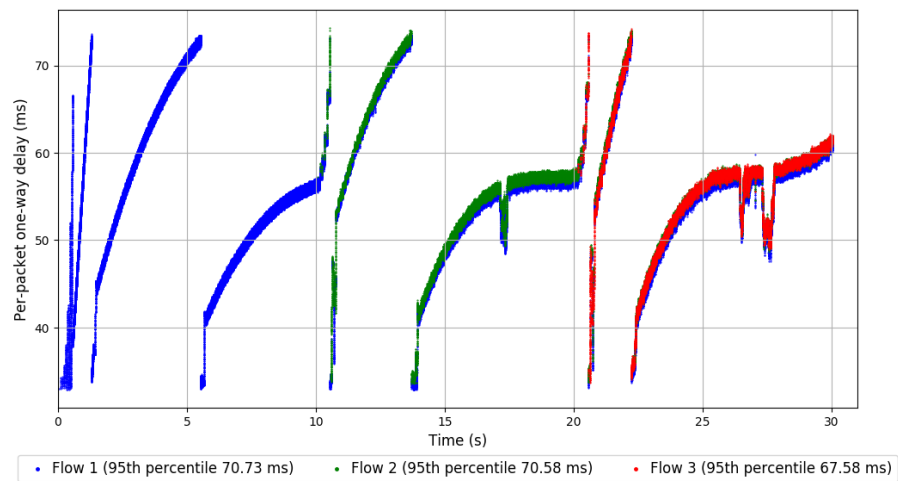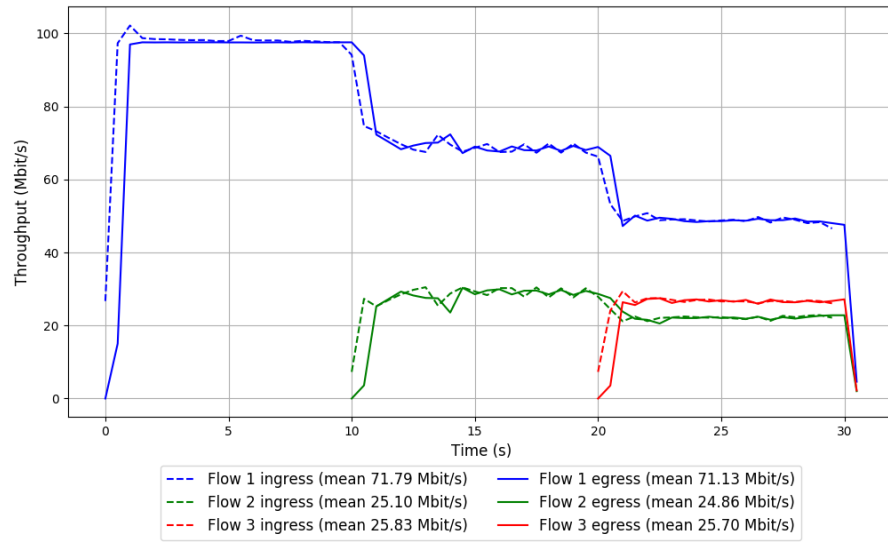
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-05-22 06:08:45
End at: 2018-05-22 06:09:15
Local clock offset: 0.914 ms
Remote clock offset: 2.3 ms


# Below is generated by plot.py at 2018-05-22 07:02:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.19 Mbit/s
95th percentile per-packet one-way delay: 70.469 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 69.90 Mbit/s
95th percentile per-packet one-way delay: 70.913 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 27.98 Mbit/s
95th percentile per-packet one-way delay: 68.539 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 68.936 ms
Loss rate: 0.46%
```
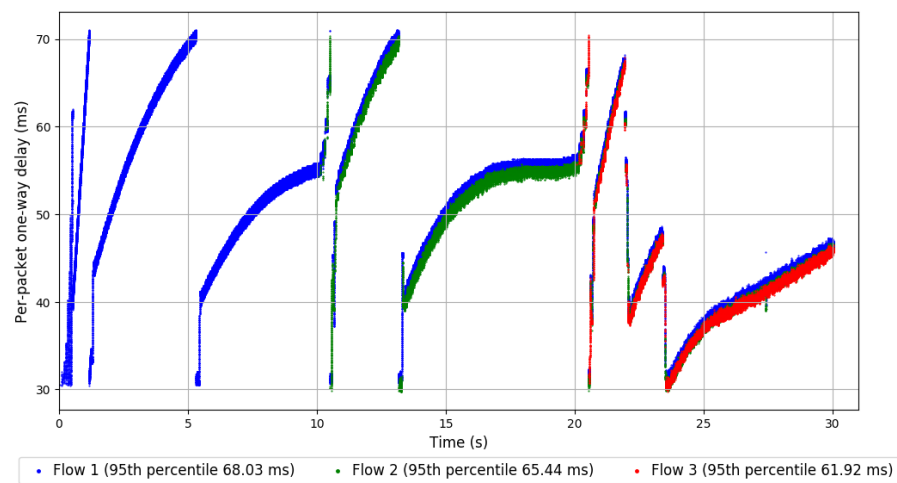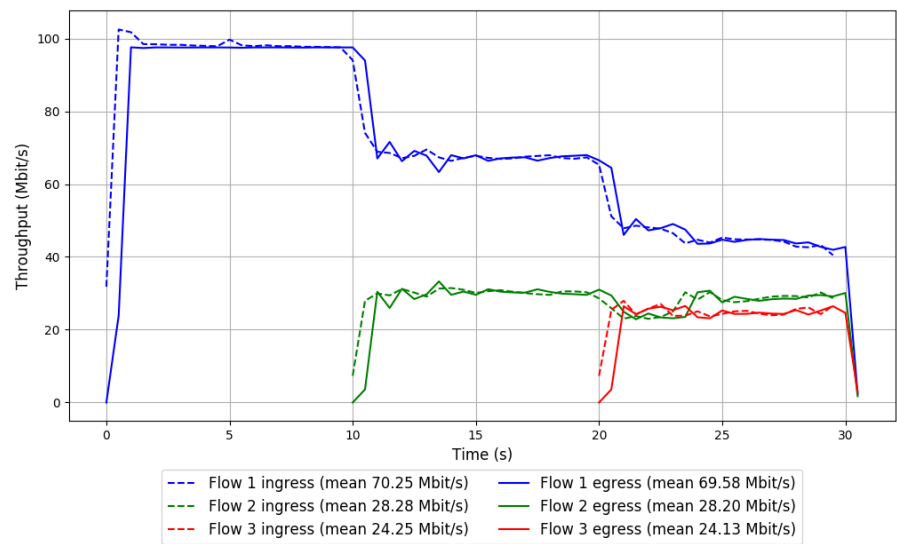
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 70.61 Mbit/s) ---- Flow 1 egress (mean 69.90 Mbit/s) ——
Flow 2 ingress (mean 28.22 Mbit/s) ---- Flow 2 egress (mean 27.98 Mbit/s) ——
Flow 3 ingress (mean 23.19 Mbit/s) ---- Flow 3 egress (mean 23.08 Mbit/s) ——

• Flow 1 (95th percentile 70.91 ms)   • Flow 2 (95th percentile 68.54 ms)   • Flow 3 (95th percentile 68.94 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-05-22 06:30:57
End at: 2018-05-22 06:31:27
Local clock offset: 0.677 ms
Remote clock offset: 7.126 ms


# Below is generated by plot.py at 2018-05-22 07:02:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.22 Mbit/s
95th percentile per-packet one-way delay: 70.637 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 71.13 Mbit/s
95th percentile per-packet one-way delay: 70.734 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 24.86 Mbit/s
95th percentile per-packet one-way delay: 70.577 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 25.70 Mbit/s
95th percentile per-packet one-way delay: 67.580 ms
Loss rate: 0.48%
```
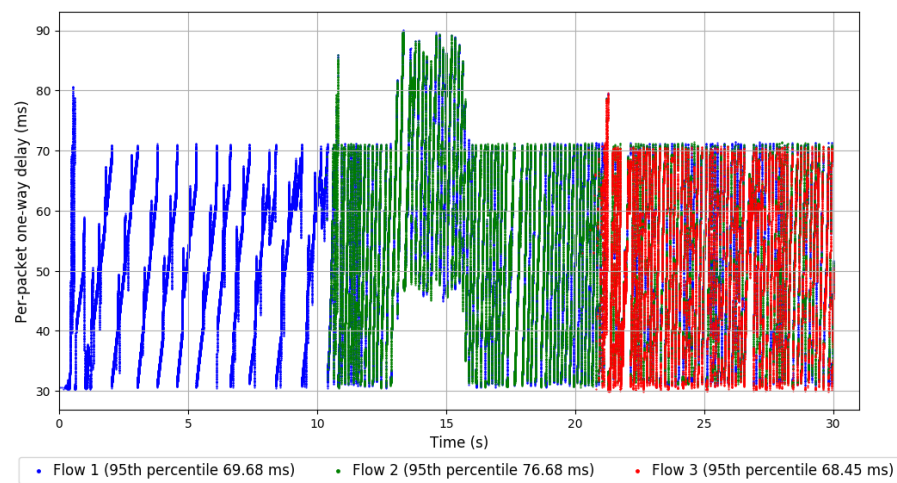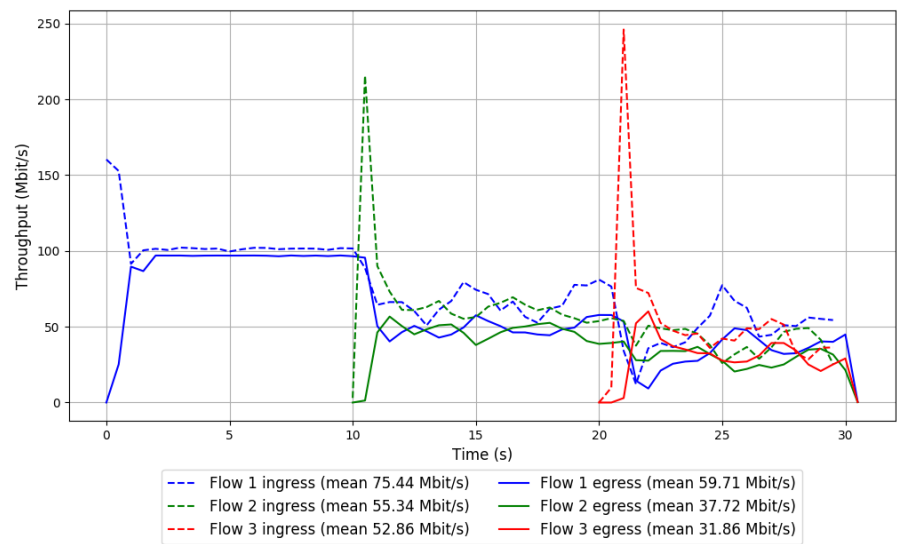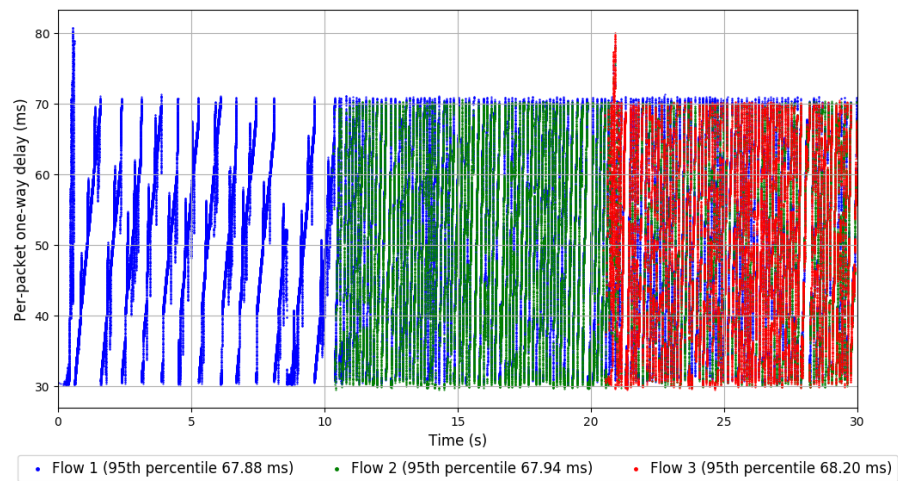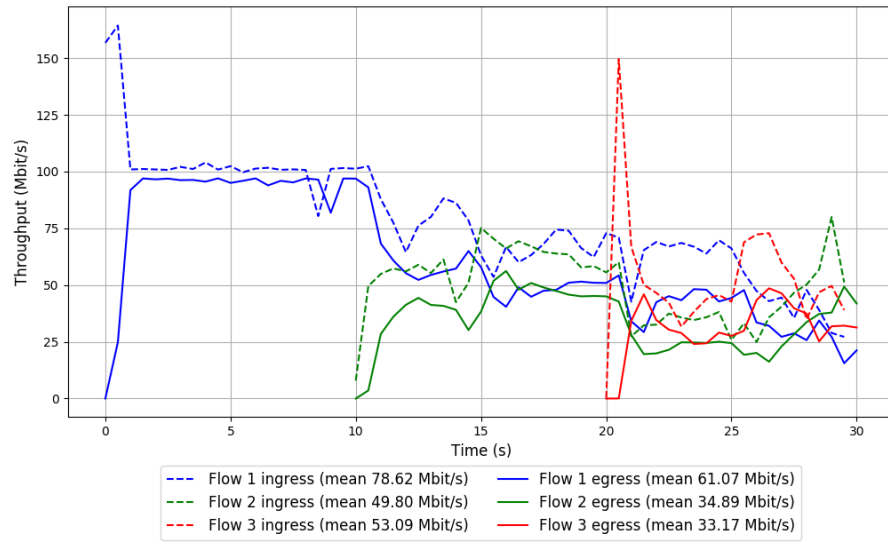
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 71.79 Mbit/s) --- Flow 1 egress (mean 71.13 Mbit/s)
Flow 2 ingress (mean 25.10 Mbit/s) --- Flow 2 egress (mean 24.86 Mbit/s)
Flow 3 ingress (mean 25.83 Mbit/s) --- Flow 3 egress (mean 25.70 Mbit/s)

Flow 1 (95th percentile 70.73 ms) • Flow 2 (95th percentile 70.58 ms) • Flow 3 (95th percentile 67.58 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-05-22 06:52:27
End at: 2018-05-22 06:52:57
Local clock offset: 0.528 ms
Remote clock offset: 3.428 ms


# Below is generated by plot.py at 2018-05-22 07:02:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 67.349 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 69.58 Mbit/s
95th percentile per-packet one-way delay: 68.030 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 28.20 Mbit/s
95th percentile per-packet one-way delay: 65.442 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 24.13 Mbit/s
95th percentile per-packet one-way delay: 61.924 ms
Loss rate: 0.59%
```
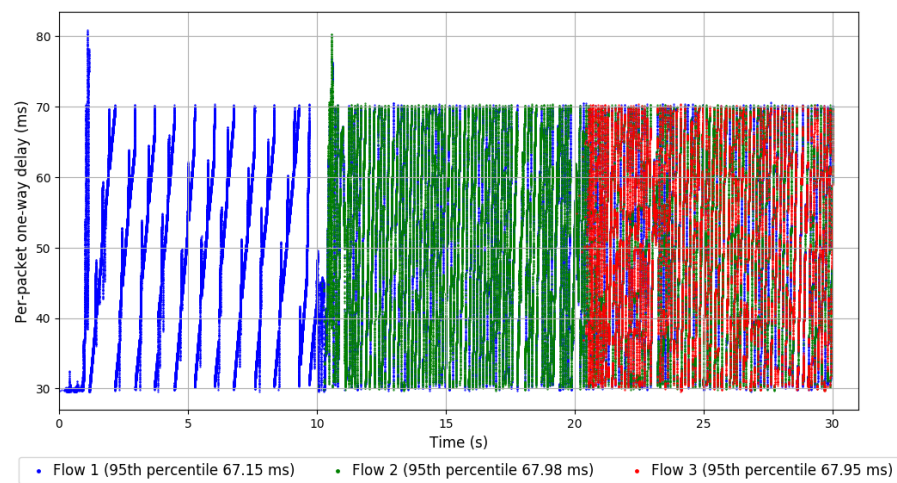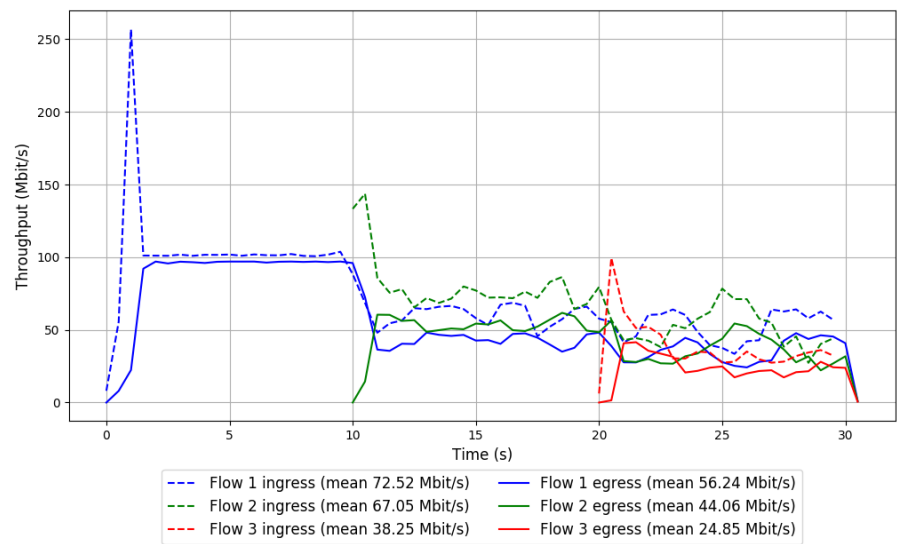
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 70.25 Mbit/s) — Flow 1 egress (mean 69.58 Mbit/s)
Flow 2 ingress (mean 28.28 Mbit/s) — Flow 2 egress (mean 28.20 Mbit/s)
Flow 3 ingress (mean 24.25 Mbit/s) — Flow 3 egress (mean 24.13 Mbit/s)

Flow 1 (95th percentile 68.03 ms) • Flow 2 (95th percentile 65.44 ms) • Flow 3 (95th percentile 61.92 ms)

63

```
Run 1: Statistics of FillP

Start at: 2018-05-22 03:20:20
End at: 2018-05-22 03:20:50
Local clock offset: 1.814 ms
Remote clock offset: 1.979 ms

# Below is generated by plot.py at 2018-05-22 07:03:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.13 Mbit/s
95th percentile per-packet one-way delay: 70.300 ms
Loss rate: 26.67%
-- Flow 1:
Average throughput: 59.71 Mbit/s
95th percentile per-packet one-way delay: 69.676 ms
Loss rate: 20.80%
-- Flow 2:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 76.679 ms
Loss rate: 31.89%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 68.454 ms
Loss rate: 40.97%
```
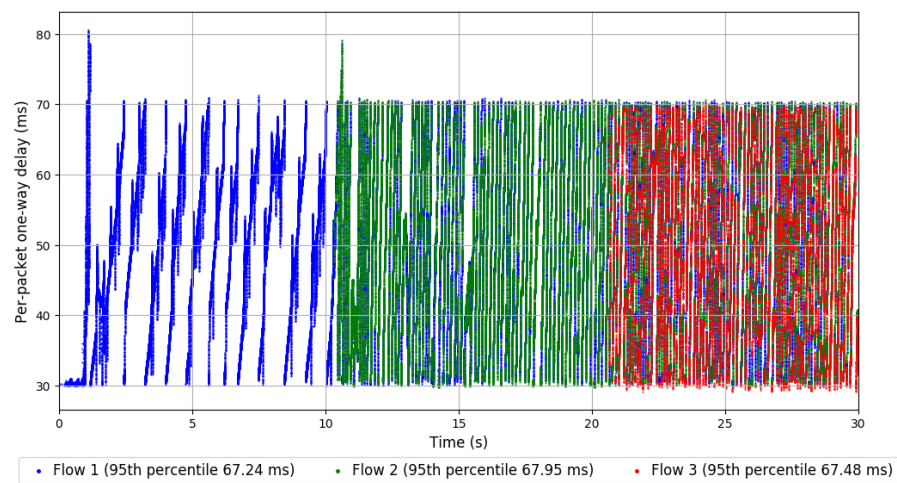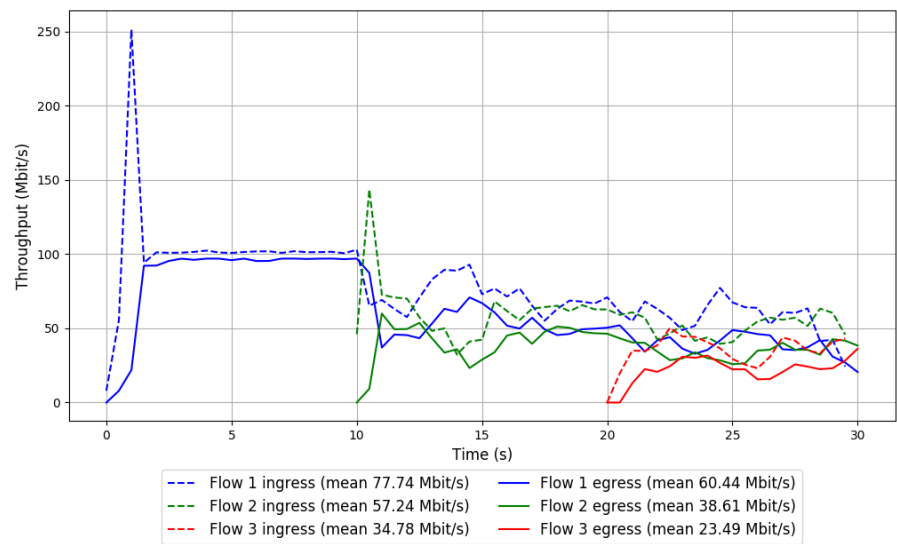
Run 1: Report of FillP — Data Link

- Flow 1 ingress (mean 75.44 Mbit/s)
- Flow 2 ingress (mean 55.34 Mbit/s)
- Flow 3 ingress (mean 52.86 Mbit/s)
- Flow 1 egress (mean 59.71 Mbit/s)
- Flow 2 egress (mean 37.72 Mbit/s)
- Flow 3 egress (mean 31.86 Mbit/s)

- Flow 1 (95th percentile 69.68 ms)
- Flow 2 (95th percentile 76.68 ms)
- Flow 3 (95th percentile 68.45 ms)

65

```
Run 2: Statistics of FillP

Start at: 2018-05-22 03:41:32
End at: 2018-05-22 03:42:02
Local clock offset: 1.591 ms
Remote clock offset: -4.094 ms


# Below is generated by plot.py at 2018-05-22 07:03:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.02 Mbit/s
95th percentile per-packet one-way delay: 67.936 ms
Loss rate: 26.54%
-- Flow 1:
Average throughput: 61.07 Mbit/s
95th percentile per-packet one-way delay: 67.877 ms
Loss rate: 22.32%
-- Flow 2:
Average throughput: 34.89 Mbit/s
95th percentile per-packet one-way delay: 67.938 ms
Loss rate: 30.02%
-- Flow 3:
Average throughput: 33.17 Mbit/s
95th percentile per-packet one-way delay: 68.197 ms
Loss rate: 38.86%
```
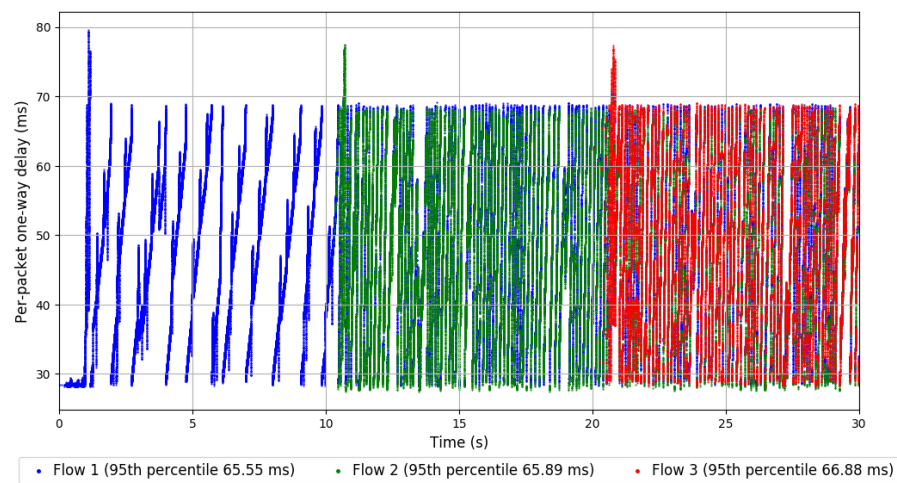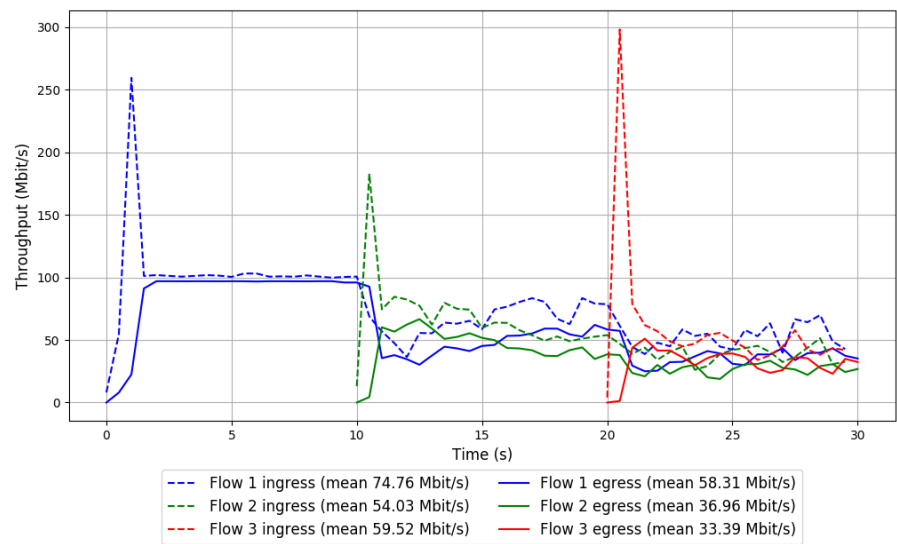
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 78.62 Mbit/s) --- Flow 1 egress (mean 61.07 Mbit/s) ——
Flow 2 ingress (mean 49.80 Mbit/s) --- Flow 2 egress (mean 34.89 Mbit/s) ——
Flow 3 ingress (mean 53.09 Mbit/s) --- Flow 3 egress (mean 33.17 Mbit/s) ——

Flow 1 (95th percentile 67.88 ms)   Flow 2 (95th percentile 67.94 ms)   Flow 3 (95th percentile 68.20 ms)

67

```
Run 3: Statistics of FillP

Start at: 2018-05-22 04:03:29
End at: 2018-05-22 04:03:59
Local clock offset: 1.14 ms
Remote clock offset: -6.344 ms


# Below is generated by plot.py at 2018-05-22 07:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.82 Mbit/s
95th percentile per-packet one-way delay: 67.519 ms
Loss rate: 27.67%
-- Flow 1:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 67.146 ms
Loss rate: 22.38%
-- Flow 2:
Average throughput: 44.06 Mbit/s
95th percentile per-packet one-way delay: 67.981 ms
Loss rate: 34.20%
-- Flow 3:
Average throughput: 24.85 Mbit/s
95th percentile per-packet one-way delay: 67.947 ms
Loss rate: 34.97%
```
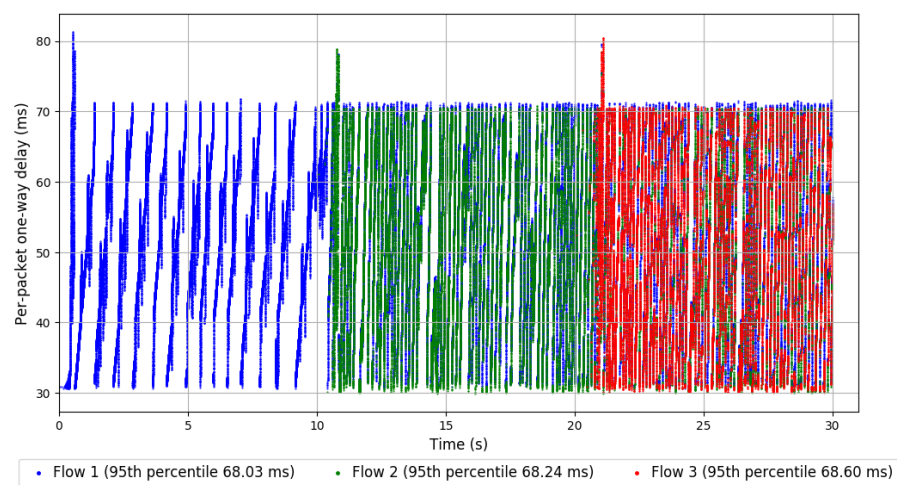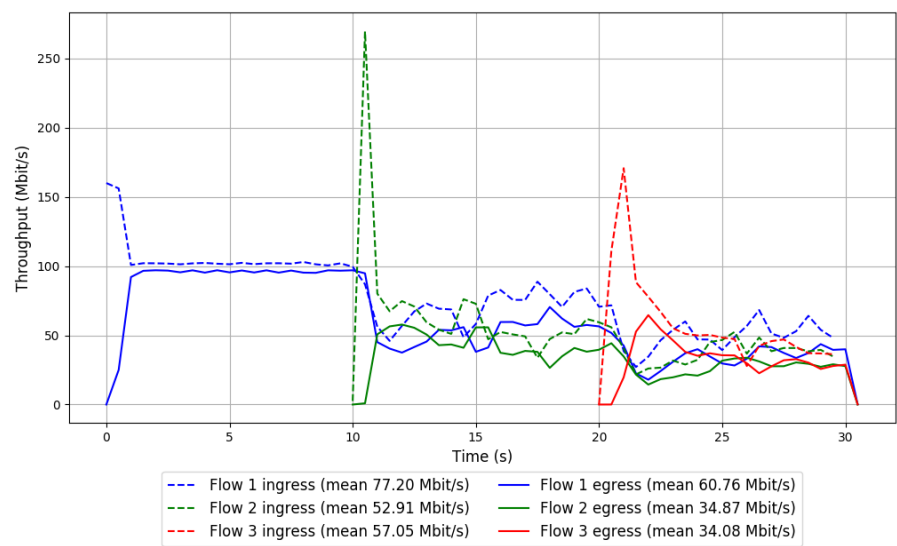
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-05-22 04:25:13
End at: 2018-05-22 04:25:43
Local clock offset: 0.648 ms
Remote clock offset: -6.096 ms

# Below is generated by plot.py at 2018-05-22 07:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.77 Mbit/s
95th percentile per-packet one-way delay: 67.514 ms
Loss rate: 26.37%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 67.240 ms
Loss rate: 22.24%
-- Flow 2:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 67.951 ms
Loss rate: 32.54%
-- Flow 3:
Average throughput: 23.49 Mbit/s
95th percentile per-packet one-way delay: 67.478 ms
Loss rate: 33.85%
```
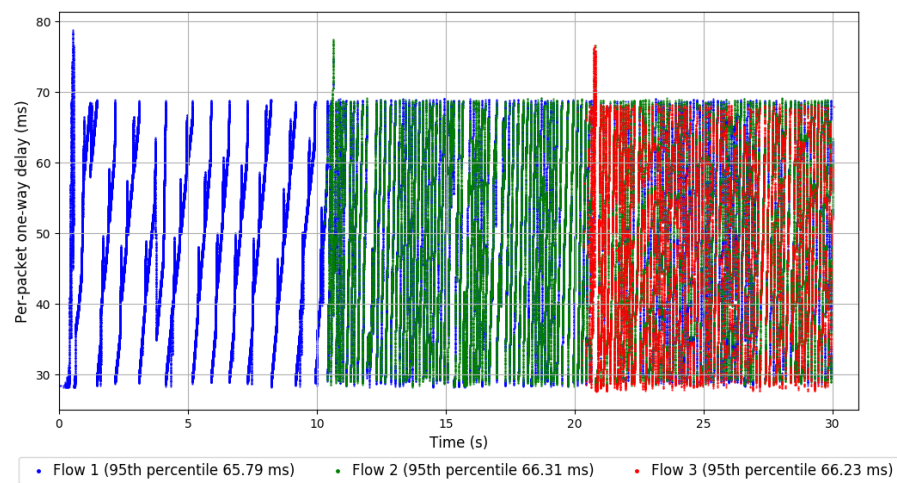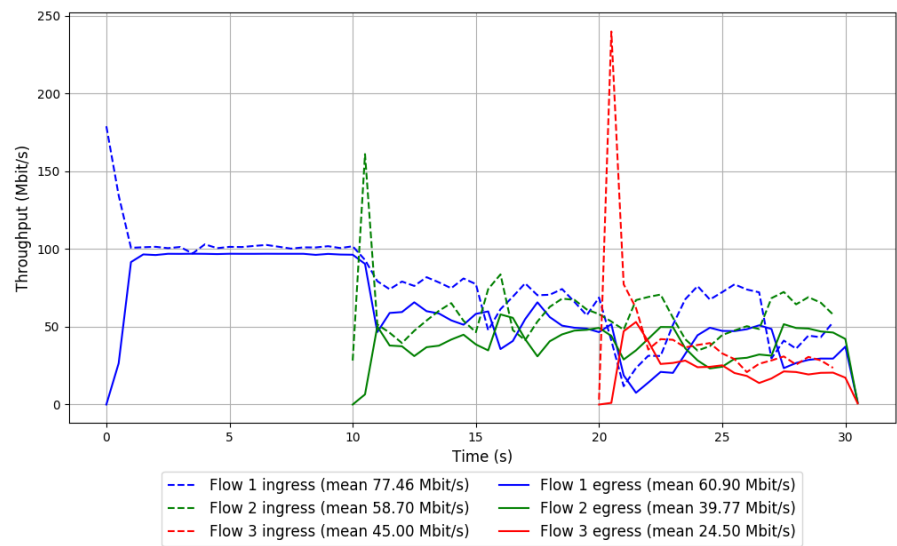
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 77.74 Mbit/s) — Flow 1 egress (mean 60.44 Mbit/s)
Flow 2 ingress (mean 57.24 Mbit/s) — Flow 2 egress (mean 38.61 Mbit/s)
Flow 3 ingress (mean 34.78 Mbit/s) — Flow 3 egress (mean 23.49 Mbit/s)

Flow 1 (95th percentile 67.24 ms)   Flow 2 (95th percentile 67.95 ms)   Flow 3 (95th percentile 67.48 ms)

71

```
Run 5: Statistics of FillP

Start at: 2018-05-22 04:46:27
End at: 2018-05-22 04:46:57
Local clock offset: 0.84 ms
Remote clock offset: -1.235 ms

# Below is generated by plot.py at 2018-05-22 07:04:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 65.832 ms
Loss rate: 27.99%
-- Flow 1:
Average throughput: 58.31 Mbit/s
95th percentile per-packet one-way delay: 65.548 ms
Loss rate: 21.99%
-- Flow 2:
Average throughput: 36.96 Mbit/s
95th percentile per-packet one-way delay: 65.890 ms
Loss rate: 31.62%
-- Flow 3:
Average throughput: 33.39 Mbit/s
95th percentile per-packet one-way delay: 66.878 ms
Loss rate: 44.07%
```
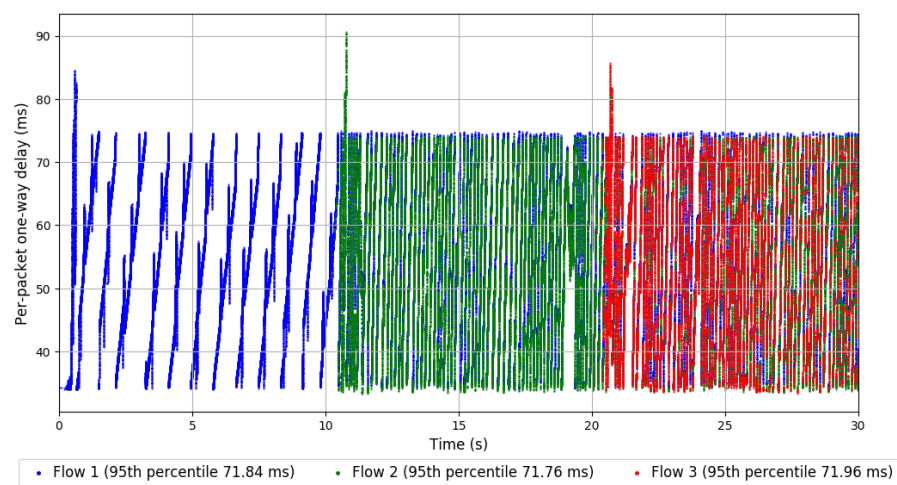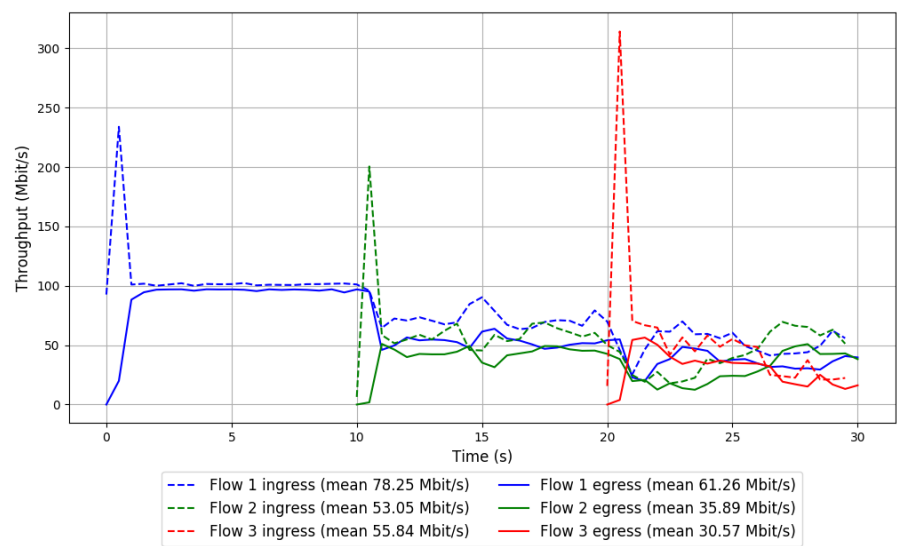
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 74.76 Mbit/s) --- Flow 1 egress (mean 58.31 Mbit/s)
Flow 2 ingress (mean 54.03 Mbit/s) --- Flow 2 egress (mean 36.96 Mbit/s)
Flow 3 ingress (mean 59.52 Mbit/s) --- Flow 3 egress (mean 33.39 Mbit/s)

Flow 1 (95th percentile 65.55 ms)   Flow 2 (95th percentile 65.89 ms)   Flow 3 (95th percentile 66.88 ms)

73

```
Run 6: Statistics of FillP

Start at: 2018-05-22 05:07:44
End at: 2018-05-22 05:08:14
Local clock offset: 0.637 ms
Remote clock offset: 3.577 ms

# Below is generated by plot.py at 2018-05-22 07:04:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.23 Mbit/s
95th percentile per-packet one-way delay: 68.162 ms
Loss rate: 27.42%
-- Flow 1:
Average throughput: 60.76 Mbit/s
95th percentile per-packet one-way delay: 68.026 ms
Loss rate: 21.23%
-- Flow 2:
Average throughput: 34.87 Mbit/s
95th percentile per-packet one-way delay: 68.241 ms
Loss rate: 34.11%
-- Flow 3:
Average throughput: 34.08 Mbit/s
95th percentile per-packet one-way delay: 68.598 ms
Loss rate: 40.24%
```
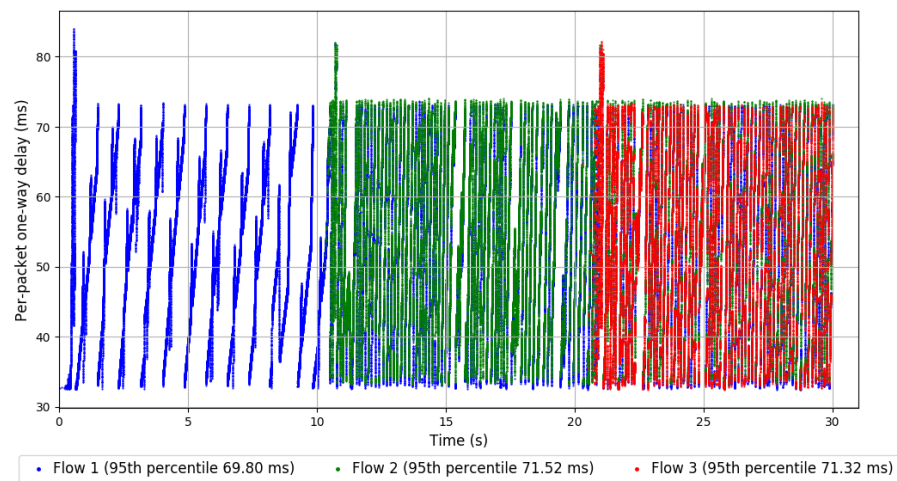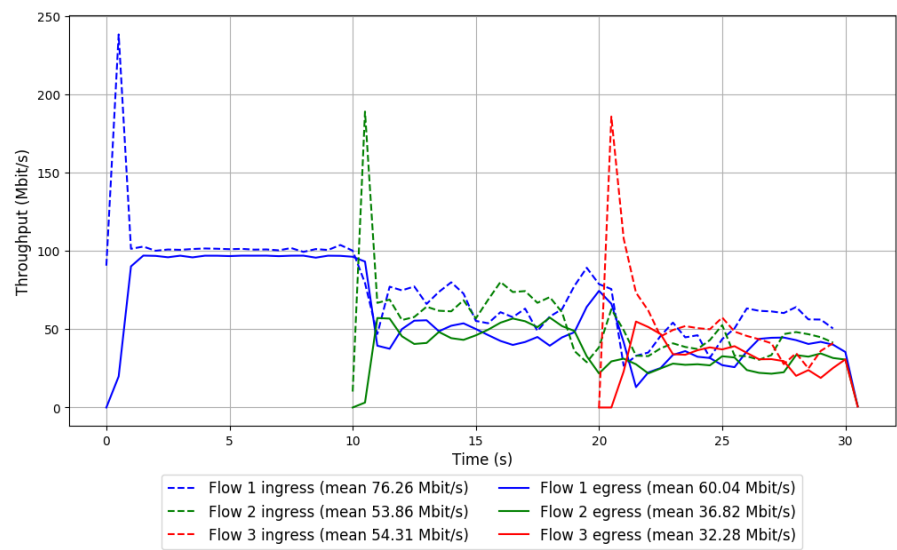
Run 6: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 77.20 Mbit/s) —— Flow 1 egress (mean 60.76 Mbit/s)
- - - - Flow 2 ingress (mean 52.91 Mbit/s) —— Flow 2 egress (mean 34.87 Mbit/s)
- - - - Flow 3 ingress (mean 57.05 Mbit/s) —— Flow 3 egress (mean 34.08 Mbit/s)

- Flow 1 (95th percentile 68.03 ms)   • Flow 2 (95th percentile 68.24 ms)   • Flow 3 (95th percentile 68.60 ms)

```
Run 7: Statistics of FillP

Start at: 2018-05-22 05:29:01
End at: 2018-05-22 05:29:31
Local clock offset: 0.729 ms
Remote clock offset: 2.752 ms

# Below is generated by plot.py at 2018-05-22 07:04:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 65.984 ms
Loss rate: 27.27%
-- Flow 1:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: 65.794 ms
Loss rate: 21.29%
-- Flow 2:
Average throughput: 39.77 Mbit/s
95th percentile per-packet one-way delay: 66.314 ms
Loss rate: 32.16%
-- Flow 3:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 66.226 ms
Loss rate: 45.56%
```
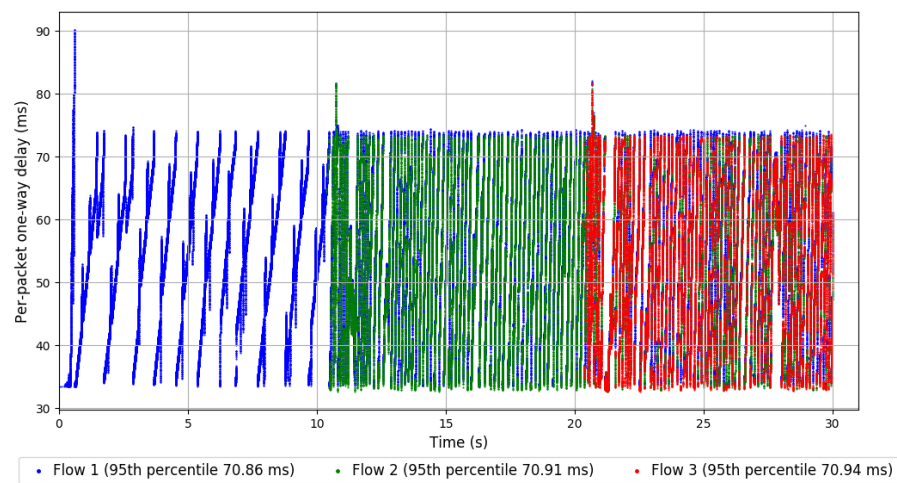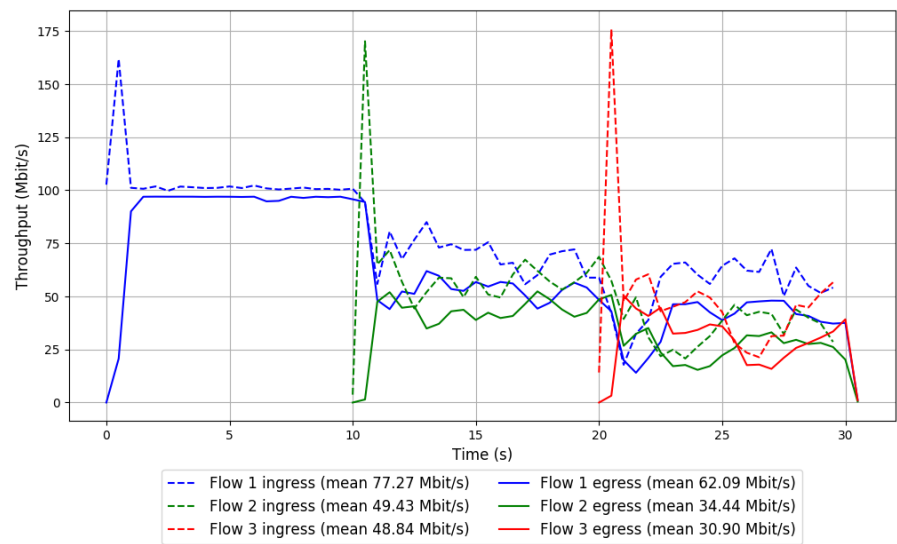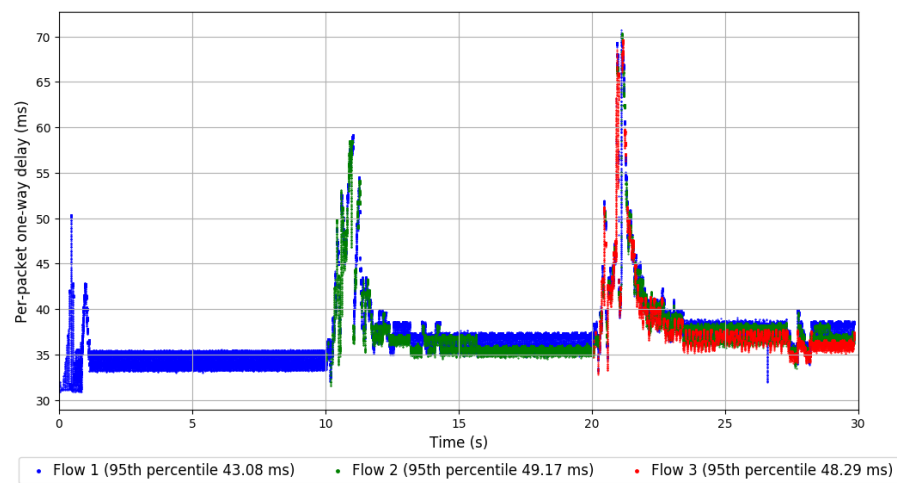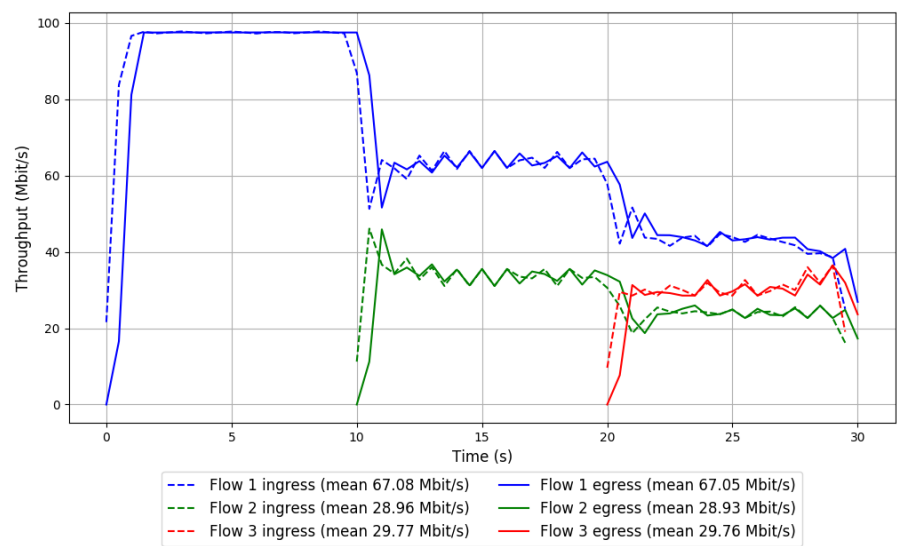
Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 77.46 Mbit/s) — — — Flow 1 egress (mean 60.90 Mbit/s)
Flow 2 ingress (mean 58.70 Mbit/s) — — — Flow 2 egress (mean 39.77 Mbit/s)
Flow 3 ingress (mean 45.00 Mbit/s) — — — Flow 3 egress (mean 24.50 Mbit/s)

Flow 1 (95th percentile 65.79 ms)   Flow 2 (95th percentile 66.31 ms)   Flow 3 (95th percentile 66.23 ms)
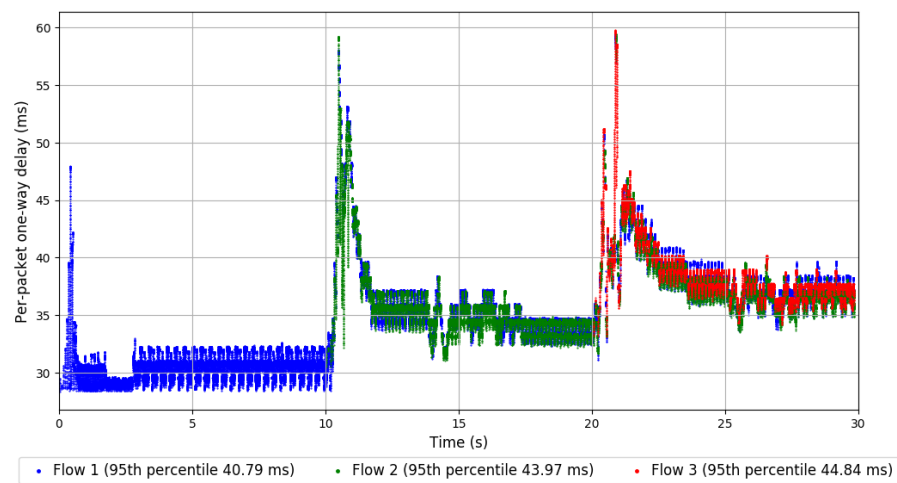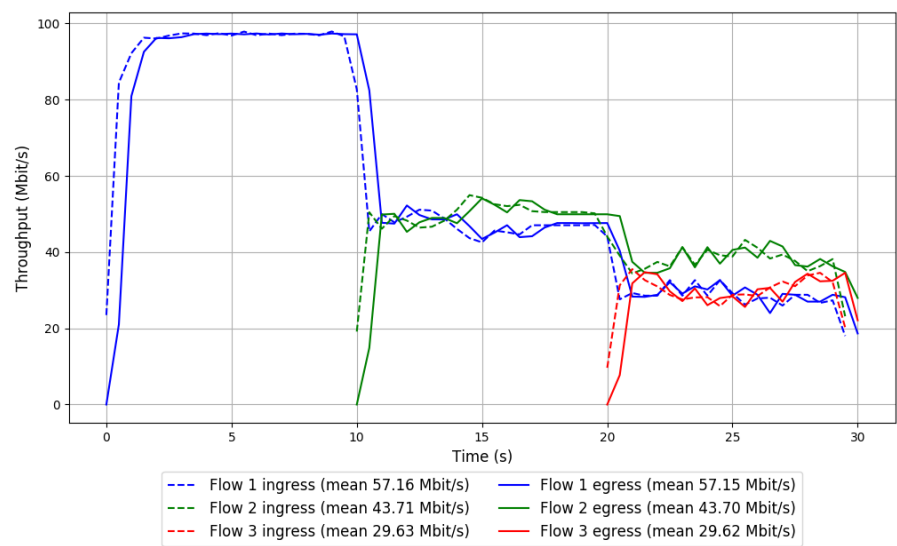
77

```
Run 8: Statistics of FillP

Start at: 2018-05-22 05:50:38
End at: 2018-05-22 05:51:08
Local clock offset: 1.459 ms
Remote clock offset: 2.087 ms


# Below is generated by plot.py at 2018-05-22 07:04:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 71.832 ms
Loss rate: 27.85%
-- Flow 1:
Average throughput: 61.26 Mbit/s
95th percentile per-packet one-way delay: 71.838 ms
Loss rate: 21.69%
-- Flow 2:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 71.759 ms
Loss rate: 32.37%
-- Flow 3:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 71.963 ms
Loss rate: 45.23%
```

Run 8: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 78.25 Mbit/s) ——— Flow 1 egress (mean 61.26 Mbit/s)
- - - - Flow 2 ingress (mean 53.05 Mbit/s) ——— Flow 2 egress (mean 35.89 Mbit/s)
- - - - Flow 3 ingress (mean 55.84 Mbit/s) ——— Flow 3 egress (mean 30.57 Mbit/s)

- Flow 1 (95th percentile 71.84 ms)   - Flow 2 (95th percentile 71.76 ms)   - Flow 3 (95th percentile 71.96 ms)
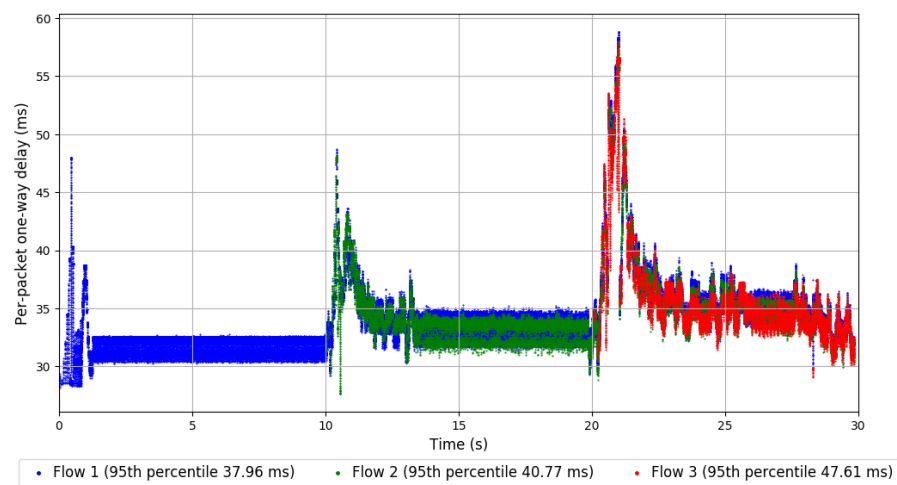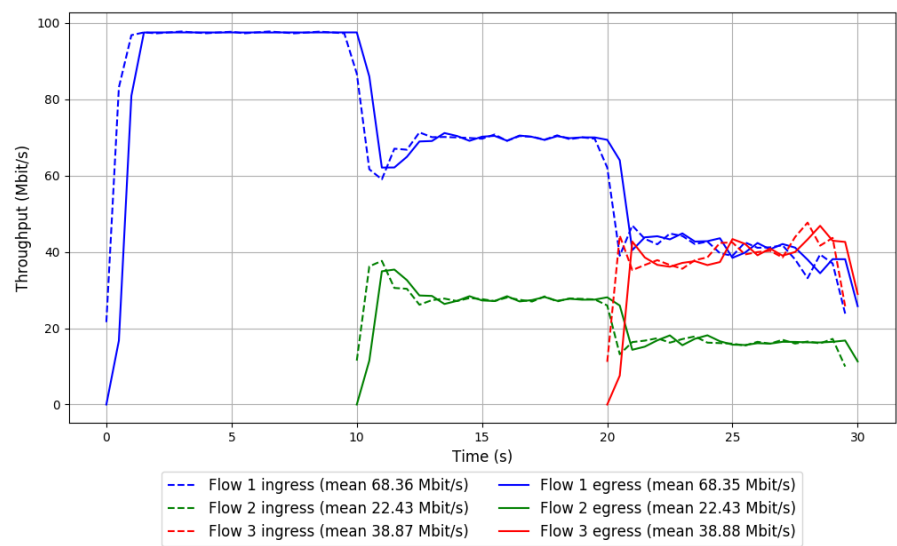
```
Run 9: Statistics of FillP

Start at: 2018-05-22 06:13:08
End at: 2018-05-22 06:13:38
Local clock offset: 0.83 ms
Remote clock offset: 4.162 ms


# Below is generated by plot.py at 2018-05-22 07:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.24 Mbit/s
95th percentile per-packet one-way delay: 70.538 ms
Loss rate: 26.71%
-- Flow 1:
Average throughput: 60.04 Mbit/s
95th percentile per-packet one-way delay: 69.801 ms
Loss rate: 21.17%
-- Flow 2:
Average throughput: 36.82 Mbit/s
95th percentile per-packet one-way delay: 71.521 ms
Loss rate: 31.56%
-- Flow 3:
Average throughput: 32.28 Mbit/s
95th percentile per-packet one-way delay: 71.317 ms
Loss rate: 40.52%
```

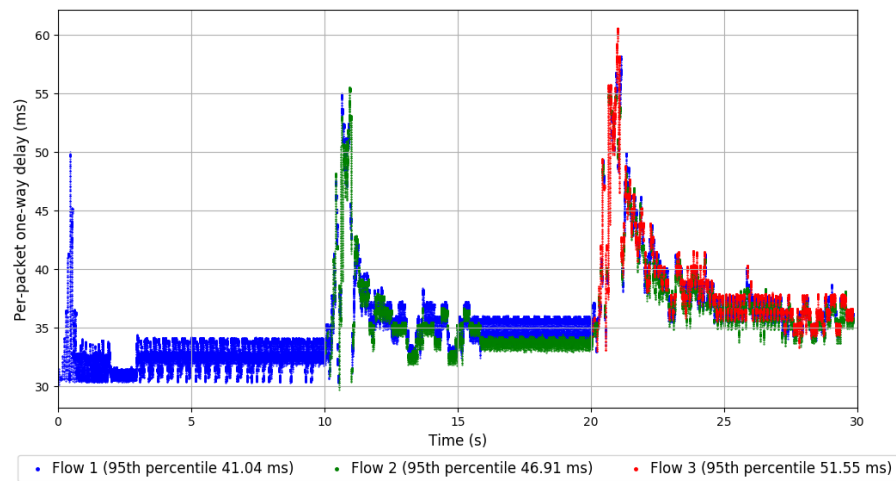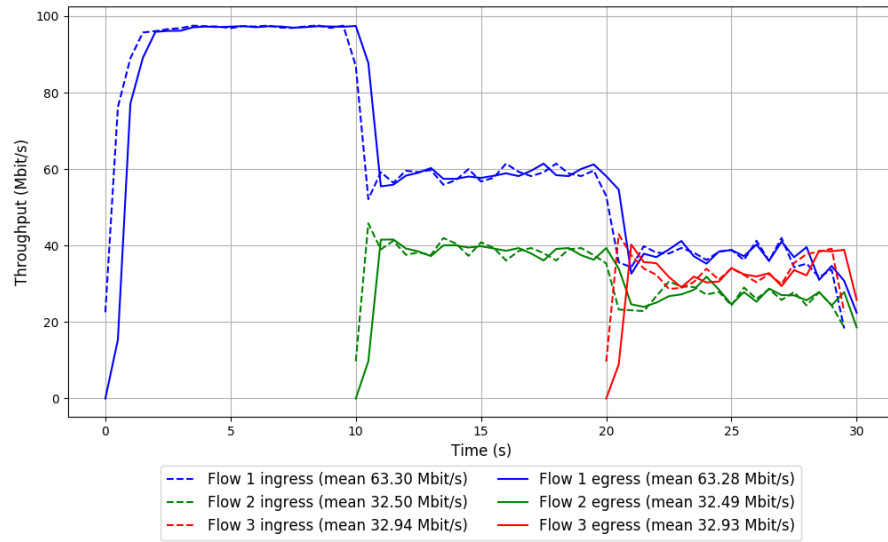## Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-05-22 06:35:06
End at: 2018-05-22 06:35:36
Local clock offset: 0.656 ms
Remote clock offset: 7.434 ms

# Below is generated by plot.py at 2018-05-22 07:05:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 70.883 ms
Loss rate: 24.55%
-- Flow 1:
Average throughput: 62.09 Mbit/s
95th percentile per-packet one-way delay: 70.864 ms
Loss rate: 19.58%
-- Flow 2:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 70.908 ms
Loss rate: 30.31%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 70.938 ms
Loss rate: 36.56%
```

Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 77.27 Mbit/s) --- Flow 1 egress (mean 62.09 Mbit/s)
Flow 2 ingress (mean 49.43 Mbit/s) --- Flow 2 egress (mean 34.44 Mbit/s)
Flow 3 ingress (mean 48.84 Mbit/s) --- Flow 3 egress (mean 30.90 Mbit/s)

Flow 1 (95th percentile 70.86 ms)   Flow 2 (95th percentile 70.91 ms)   Flow 3 (95th percentile 70.94 ms)

83

```
Run 1: Statistics of Indigo

Start at: 2018-05-22 03:28:11
End at: 2018-05-22 03:28:41
Local clock offset: 1.848 ms
Remote clock offset: -0.943 ms


# Below is generated by plot.py at 2018-05-22 07:05:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.00 Mbit/s
95th percentile per-packet one-way delay: 44.936 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 67.05 Mbit/s
95th percentile per-packet one-way delay: 43.079 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 28.93 Mbit/s
95th percentile per-packet one-way delay: 49.166 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 48.291 ms
Loss rate: 0.00%
```
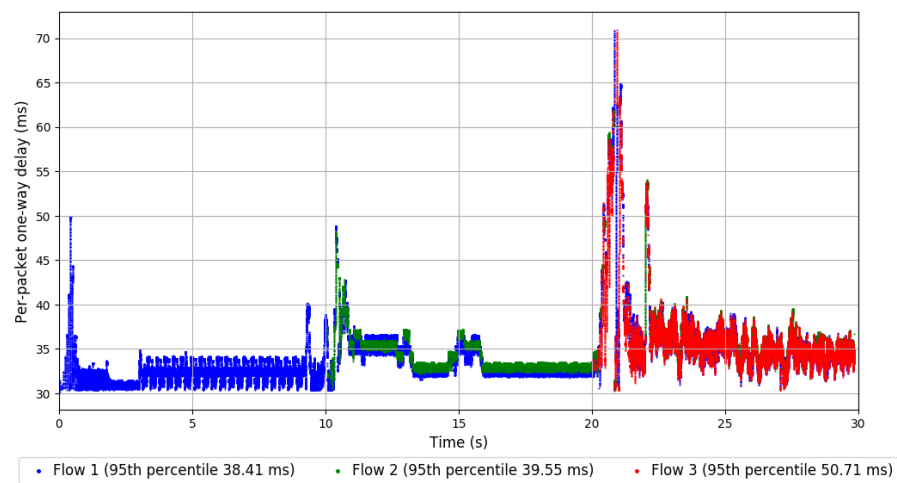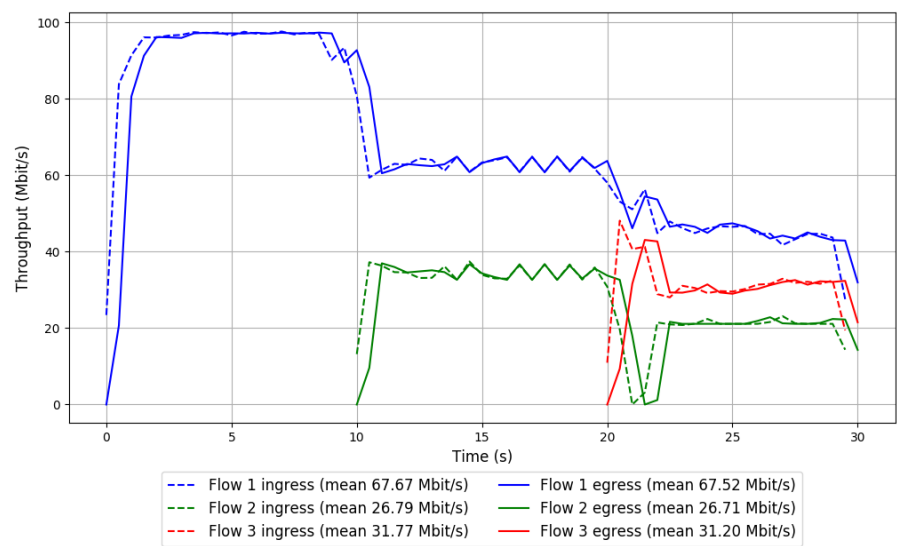
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 67.08 Mbit/s) --- Flow 1 egress (mean 67.05 Mbit/s)
Flow 2 ingress (mean 28.96 Mbit/s) --- Flow 2 egress (mean 28.93 Mbit/s)
Flow 3 ingress (mean 29.77 Mbit/s) --- Flow 3 egress (mean 29.76 Mbit/s)

Flow 1 (95th percentile 43.08 ms) Flow 2 (95th percentile 49.17 ms) Flow 3 (95th percentile 48.29 ms)

85

```
Run 2: Statistics of Indigo

Start at: 2018-05-22 03:49:37
End at: 2018-05-22 03:50:07
Local clock offset: 1.624 ms
Remote clock offset: -7.028 ms


# Below is generated by plot.py at 2018-05-22 07:05:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 42.978 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 40.792 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 43.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.62 Mbit/s
95th percentile per-packet one-way delay: 44.845 ms
Loss rate: 0.00%
```
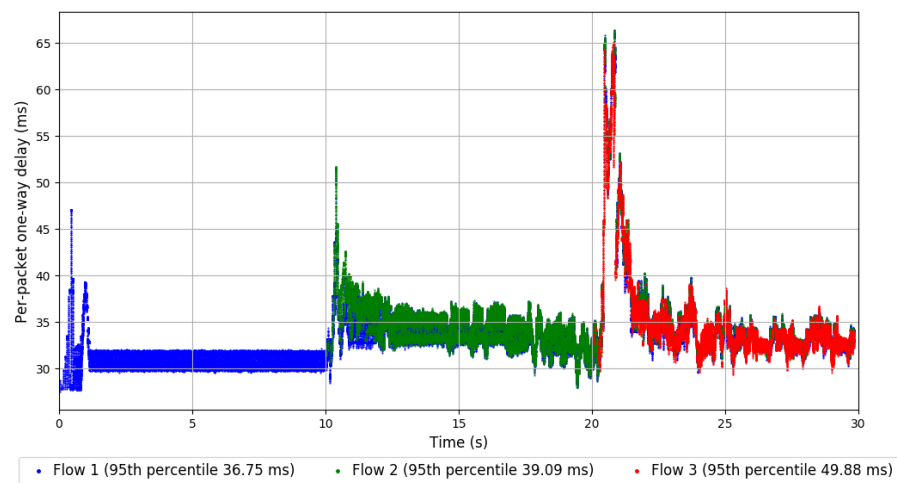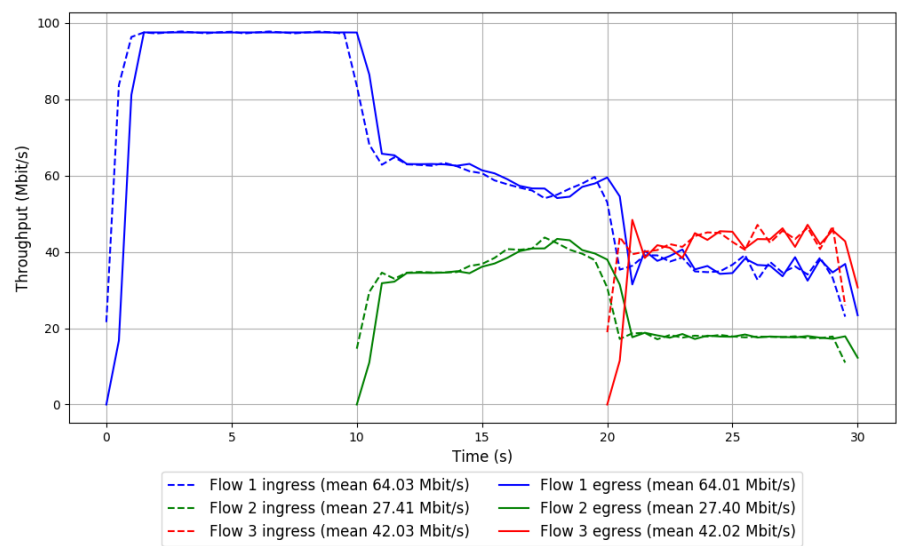
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-05-22 04:11:50
End at: 2018-05-22 04:12:20
Local clock offset: 0.837 ms
Remote clock offset: -9.261 ms


# Below is generated by plot.py at 2018-05-22 07:05:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.98 Mbit/s
95th percentile per-packet one-way delay: 39.177 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.35 Mbit/s
95th percentile per-packet one-way delay: 37.956 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.43 Mbit/s
95th percentile per-packet one-way delay: 40.768 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 47.608 ms
Loss rate: 0.00%
```
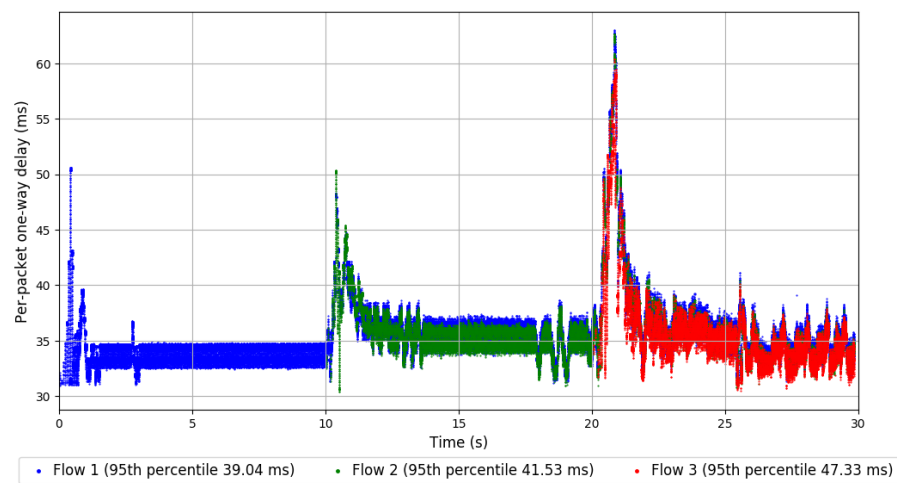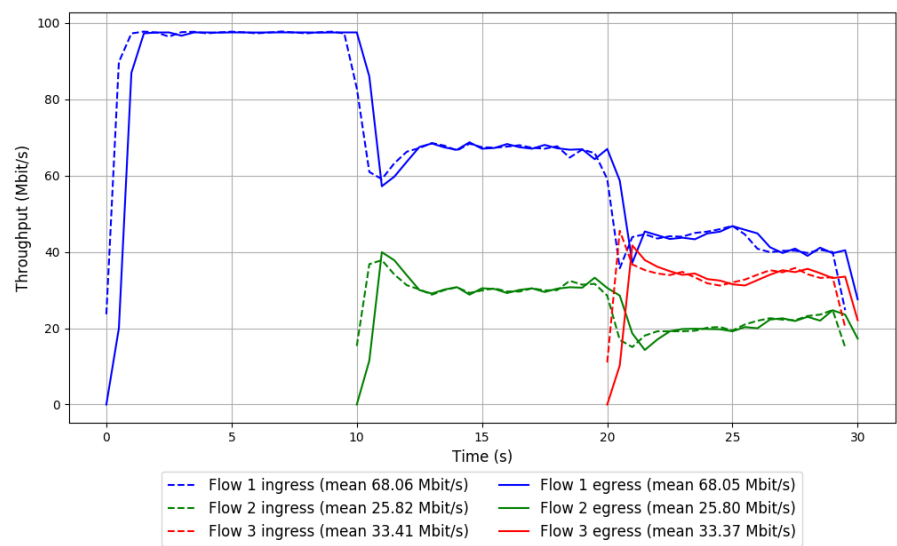
Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 68.36 Mbit/s) — Flow 1 egress (mean 68.35 Mbit/s)
Flow 2 ingress (mean 22.43 Mbit/s) — Flow 2 egress (mean 22.43 Mbit/s)
Flow 3 ingress (mean 38.87 Mbit/s) — Flow 3 egress (mean 38.88 Mbit/s)

Flow 1 (95th percentile 37.96 ms) • Flow 2 (95th percentile 40.77 ms) • Flow 3 (95th percentile 47.61 ms)

89

```
Run 4: Statistics of Indigo

Start at: 2018-05-22 04:33:05
End at: 2018-05-22 04:33:35
Local clock offset: 0.767 ms
Remote clock offset: -1.909 ms

# Below is generated by plot.py at 2018-05-22 07:05:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.62 Mbit/s
95th percentile per-packet one-way delay: 43.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.28 Mbit/s
95th percentile per-packet one-way delay: 41.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 46.906 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.93 Mbit/s
95th percentile per-packet one-way delay: 51.545 ms
Loss rate: 0.00%
```
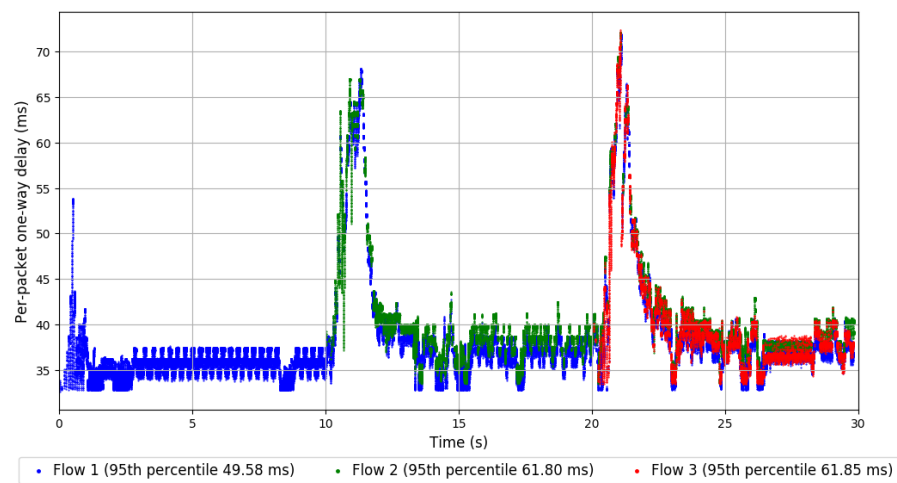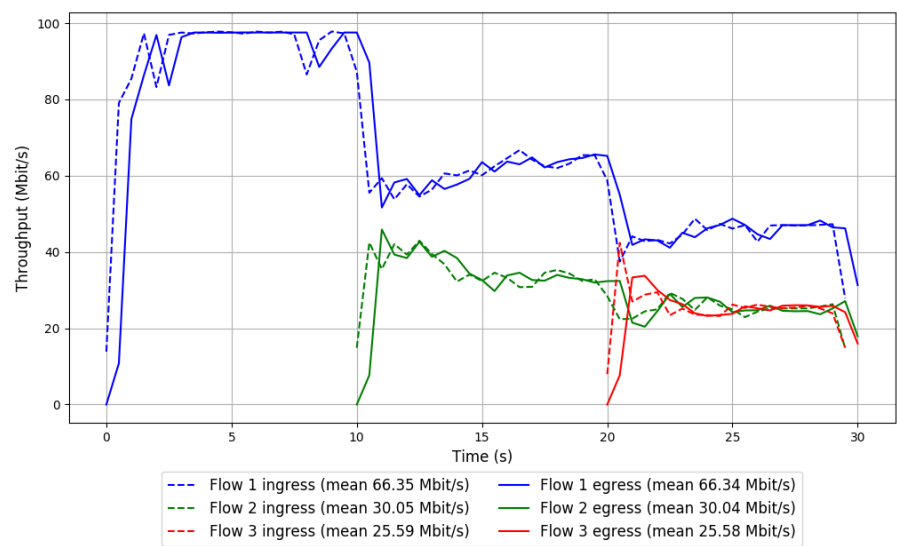
Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 63.30 Mbit/s)   Flow 1 egress (mean 63.28 Mbit/s)
Flow 2 ingress (mean 32.50 Mbit/s)   Flow 2 egress (mean 32.49 Mbit/s)
Flow 3 ingress (mean 32.94 Mbit/s)   Flow 3 egress (mean 32.93 Mbit/s)

Flow 1 (95th percentile 41.04 ms)   Flow 2 (95th percentile 46.91 ms)   Flow 3 (95th percentile 51.55 ms)

91

```
Run 5: Statistics of Indigo

Start at: 2018-05-22 04:54:19
End at: 2018-05-22 04:54:49
Local clock offset: 0.828 ms
Remote clock offset: 1.459 ms


# Below is generated by plot.py at 2018-05-22 07:05:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 39.064 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 67.52 Mbit/s
95th percentile per-packet one-way delay: 38.414 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 26.71 Mbit/s
95th percentile per-packet one-way delay: 39.546 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 50.713 ms
Loss rate: 1.78%
```
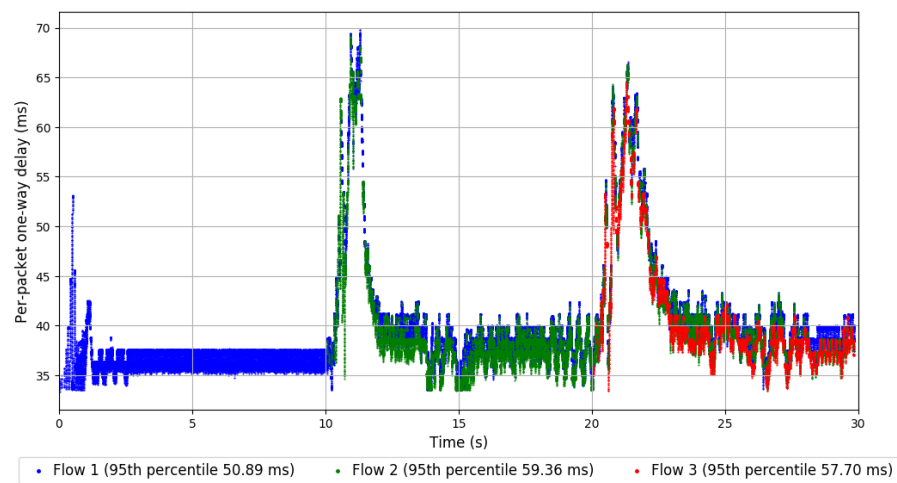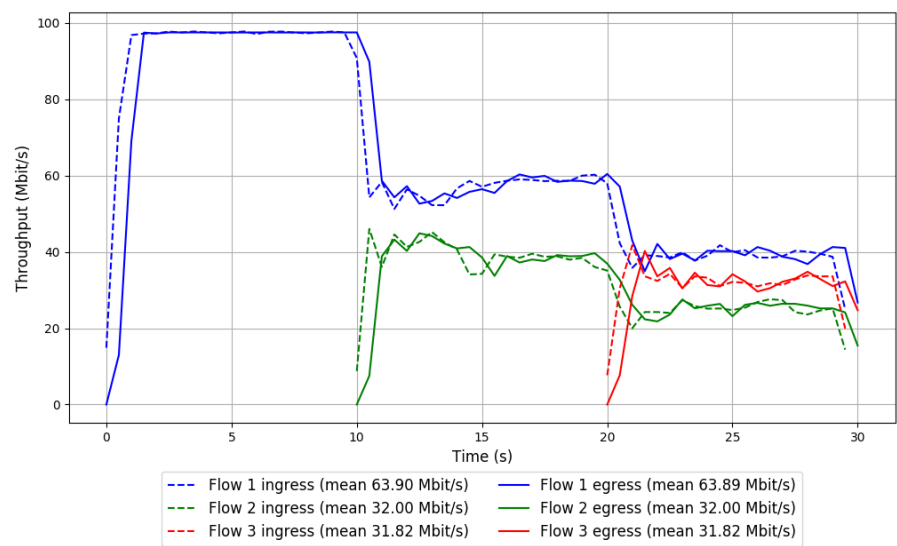
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-05-22 05:15:36
End at: 2018-05-22 05:16:06
Local clock offset: 0.577 ms
Remote clock offset: 1.814 ms


# Below is generated by plot.py at 2018-05-22 07:05:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.99 Mbit/s
95th percentile per-packet one-way delay: 38.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.01 Mbit/s
95th percentile per-packet one-way delay: 36.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.40 Mbit/s
95th percentile per-packet one-way delay: 39.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 49.876 ms
Loss rate: 0.00%
```
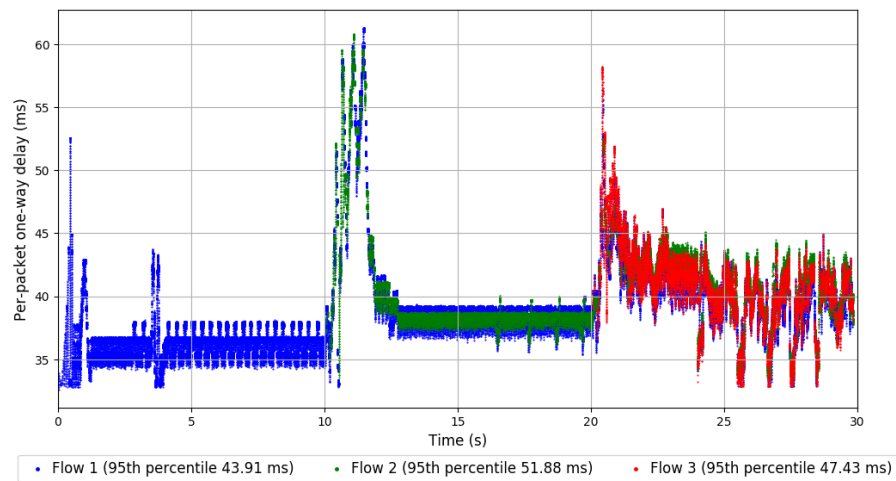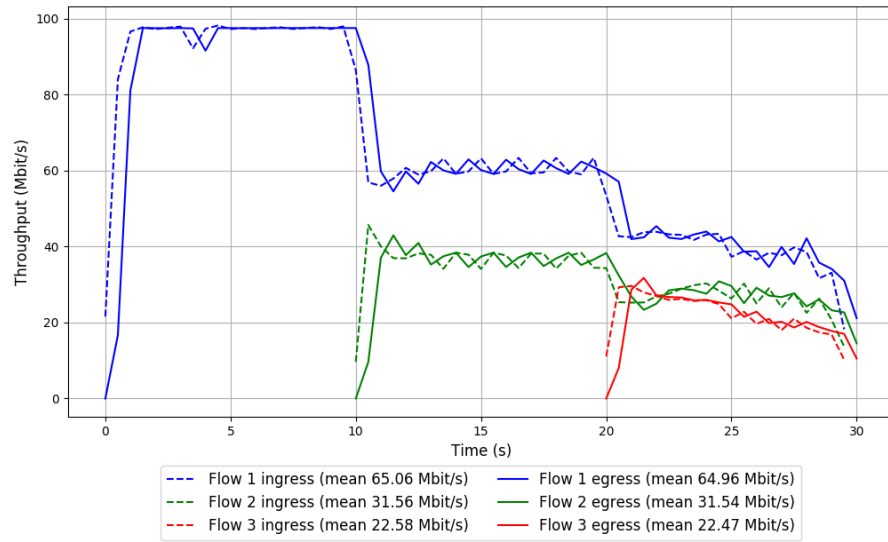
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-05-22 05:36:54
End at: 2018-05-22 05:37:24
Local clock offset: 1.104 ms
Remote clock offset: 2.076 ms


# Below is generated by plot.py at 2018-05-22 07:06:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.12 Mbit/s
95th percentile per-packet one-way delay: 40.009 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 68.05 Mbit/s
95th percentile per-packet one-way delay: 39.038 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 41.534 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 33.37 Mbit/s
95th percentile per-packet one-way delay: 47.334 ms
Loss rate: 0.11%
```
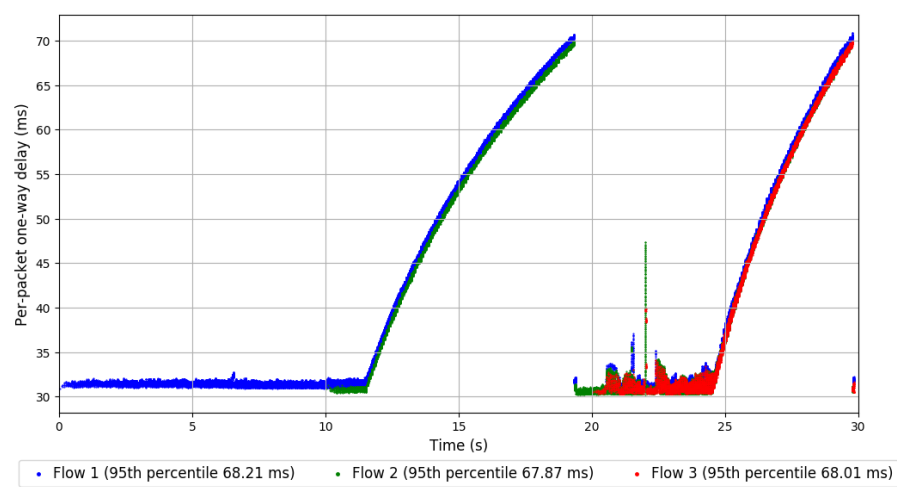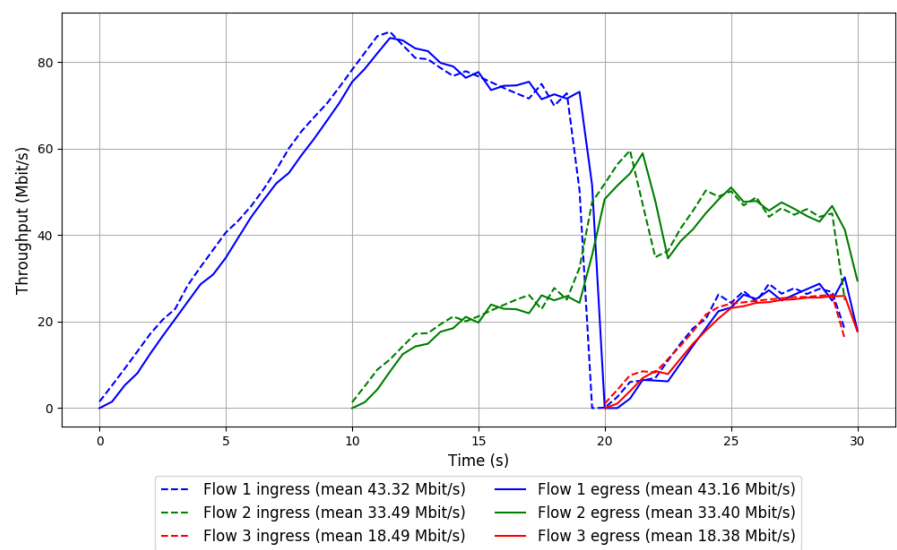
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-05-22 05:58:53
End at: 2018-05-22 05:59:23
Local clock offset: 1.321 ms
Remote clock offset: 0.54 ms


# Below is generated by plot.py at 2018-05-22 07:06:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 55.620 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.34 Mbit/s
95th percentile per-packet one-way delay: 49.584 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.04 Mbit/s
95th percentile per-packet one-way delay: 61.797 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 25.58 Mbit/s
95th percentile per-packet one-way delay: 61.854 ms
Loss rate: 0.04%
```
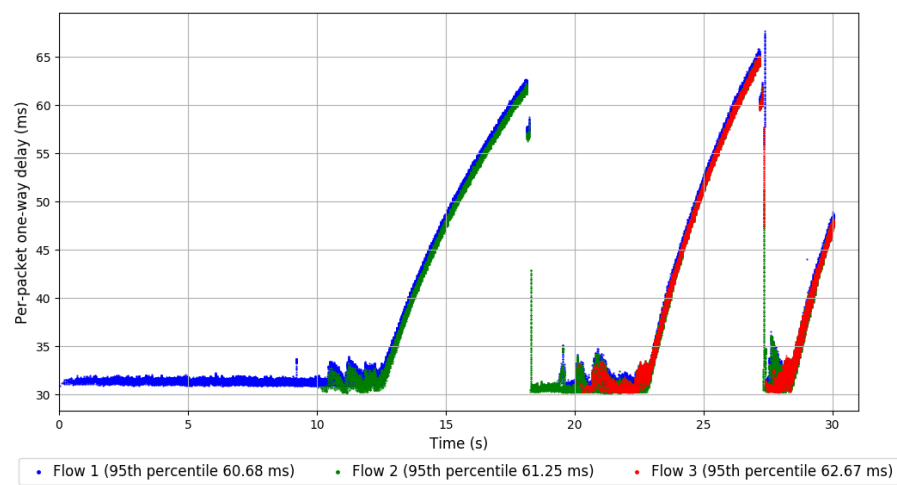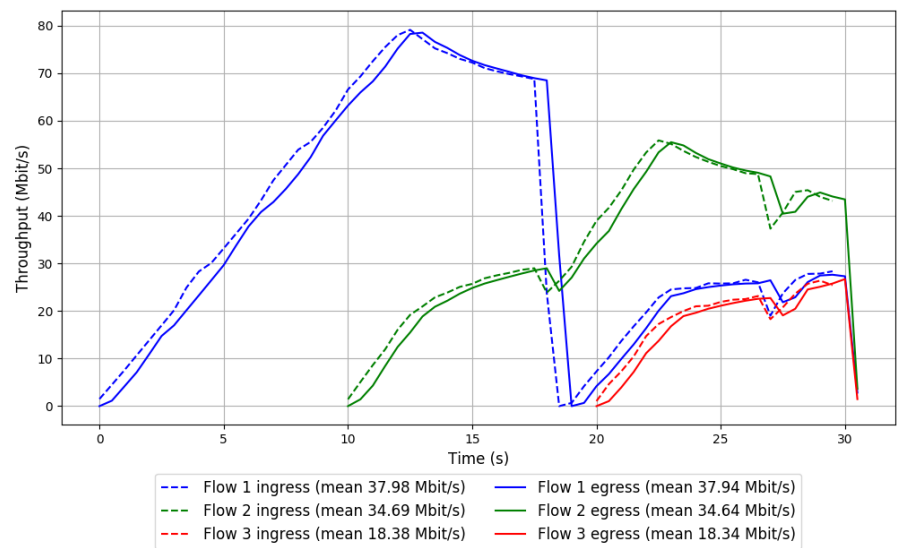
Run 8: Report of Indigo — Data Link

Flow 1 ingress (mean 66.35 Mbit/s) --- Flow 1 egress (mean 66.34 Mbit/s)
Flow 2 ingress (mean 30.05 Mbit/s) --- Flow 2 egress (mean 30.04 Mbit/s)
Flow 3 ingress (mean 25.59 Mbit/s) --- Flow 3 egress (mean 25.58 Mbit/s)

Flow 1 (95th percentile 49.58 ms)   Flow 2 (95th percentile 61.80 ms)   Flow 3 (95th percentile 61.85 ms)

99

```
Run 9: Statistics of Indigo

Start at: 2018-05-22 06:21:13
End at: 2018-05-22 06:21:43
Local clock offset: 0.732 ms
Remote clock offset: 6.103 ms


# Below is generated by plot.py at 2018-05-22 07:06:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.48 Mbit/s
95th percentile per-packet one-way delay: 54.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.89 Mbit/s
95th percentile per-packet one-way delay: 50.892 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.00 Mbit/s
95th percentile per-packet one-way delay: 59.359 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 57.701 ms
Loss rate: 0.00%
```
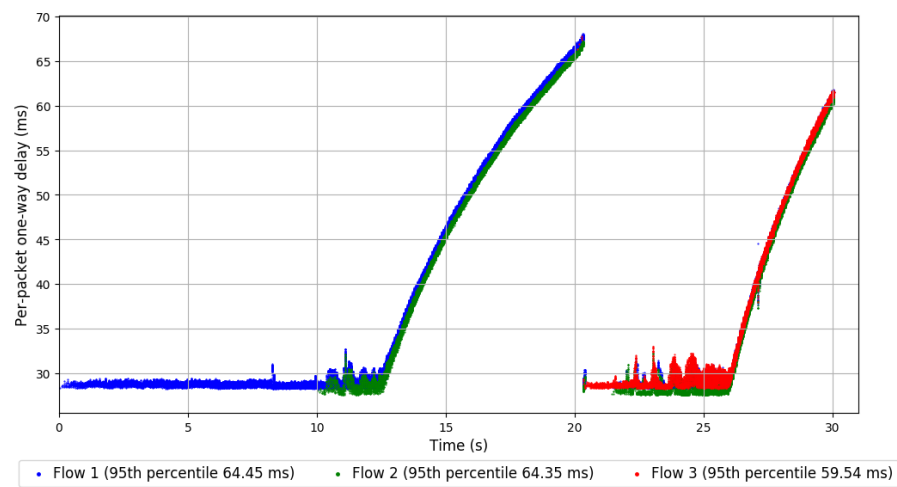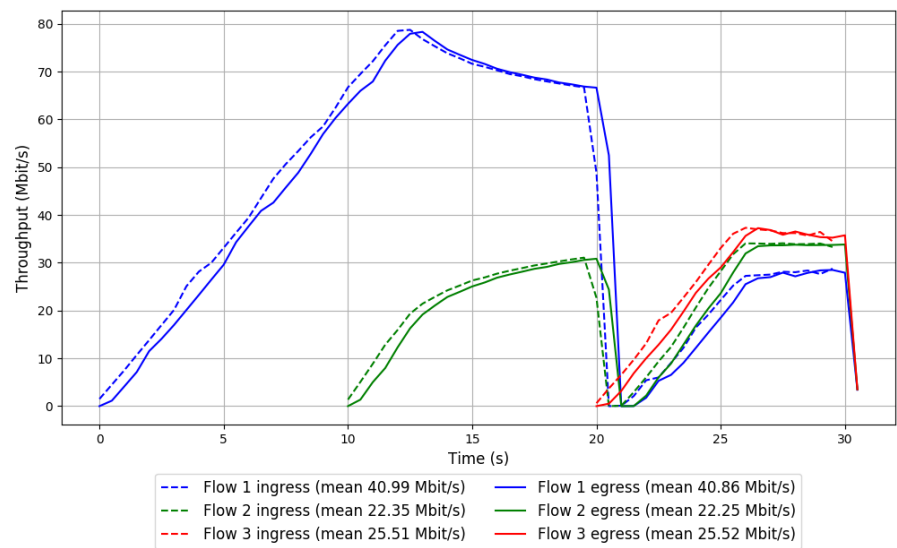
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-05-22 06:43:02
End at: 2018-05-22 06:43:32
Local clock offset: 0.516 ms
Remote clock offset: 6.921 ms


# Below is generated by plot.py at 2018-05-22 07:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.21 Mbit/s
95th percentile per-packet one-way delay: 46.004 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 64.96 Mbit/s
95th percentile per-packet one-way delay: 43.909 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 31.54 Mbit/s
95th percentile per-packet one-way delay: 51.875 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 22.47 Mbit/s
95th percentile per-packet one-way delay: 47.433 ms
Loss rate: 0.46%
```

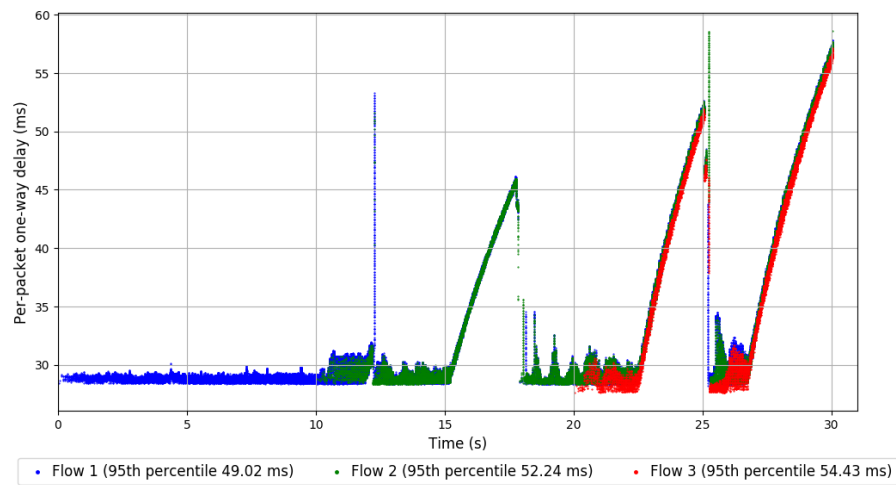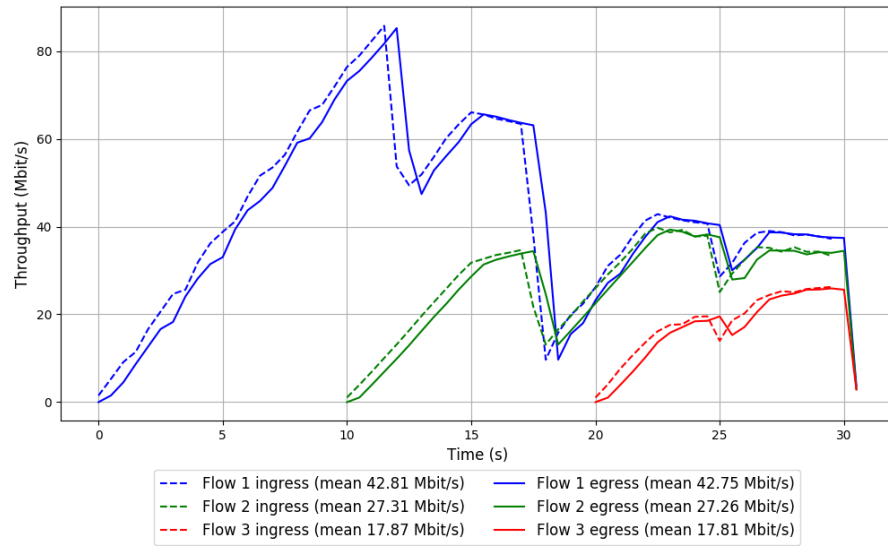Run 10: Report of Indigo — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-05-22 03:33:28
End at: 2018-05-22 03:33:58
Local clock offset: 1.701 ms
Remote clock offset: -2.239 ms

# Below is generated by plot.py at 2018-05-22 07:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.35 Mbit/s
95th percentile per-packet one-way delay: 68.117 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 68.208 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 33.40 Mbit/s
95th percentile per-packet one-way delay: 67.872 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 18.38 Mbit/s
95th percentile per-packet one-way delay: 68.014 ms
Loss rate: 0.56%
```

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 43.32 Mbit/s) --- Flow 1 egress (mean 43.16 Mbit/s)
Flow 2 ingress (mean 33.49 Mbit/s) --- Flow 2 egress (mean 33.40 Mbit/s)
Flow 3 ingress (mean 18.49 Mbit/s) --- Flow 3 egress (mean 18.38 Mbit/s)

Flow 1 (95th percentile 68.21 ms)   Flow 2 (95th percentile 67.87 ms)   Flow 3 (95th percentile 68.01 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-05-22 03:55:10
End at: 2018-05-22 03:55:40
Local clock offset: 1.647 ms
Remote clock offset: -5.123 ms


# Below is generated by plot.py at 2018-05-22 07:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.12 Mbit/s
95th percentile per-packet one-way delay: 61.139 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 37.94 Mbit/s
95th percentile per-packet one-way delay: 60.683 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 34.64 Mbit/s
95th percentile per-packet one-way delay: 61.250 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 62.670 ms
Loss rate: 0.05%
```
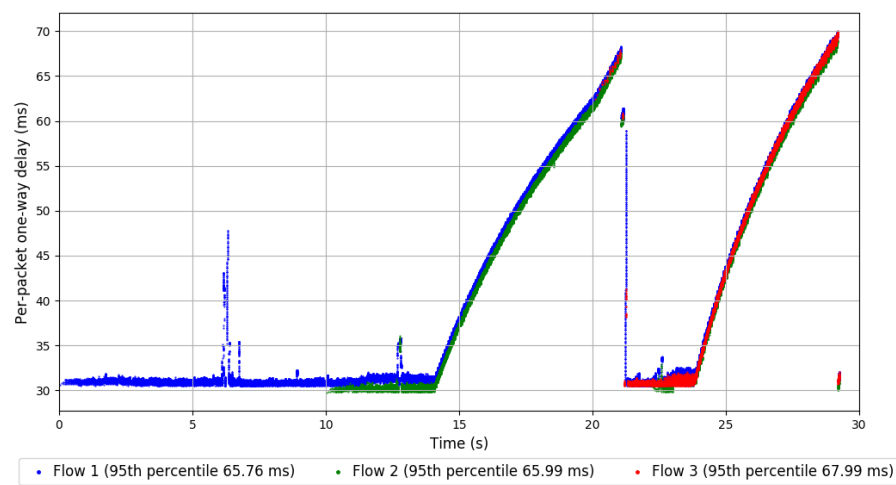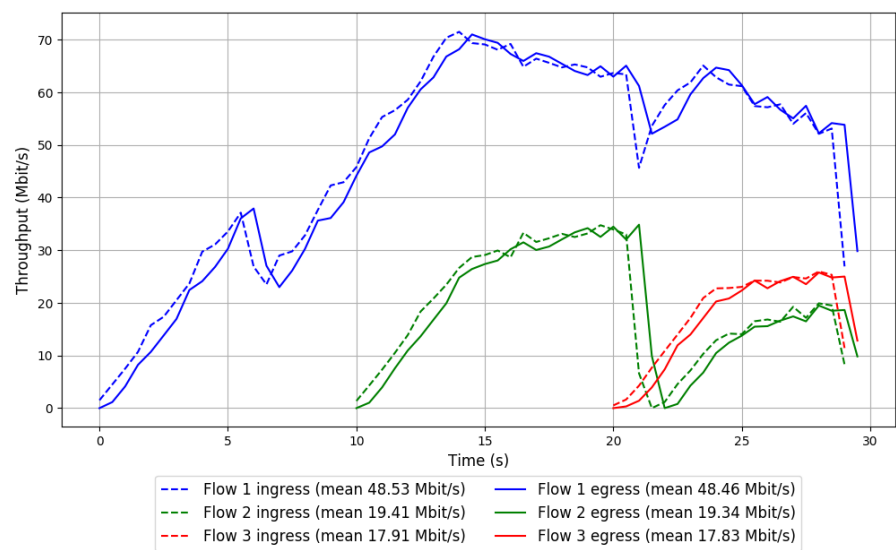
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 37.98 Mbit/s) — — — Flow 1 egress (mean 37.94 Mbit/s)
Flow 2 ingress (mean 34.69 Mbit/s) — — — Flow 2 egress (mean 34.64 Mbit/s)
Flow 3 ingress (mean 18.38 Mbit/s) — — — Flow 3 egress (mean 18.34 Mbit/s)

Flow 1 (95th percentile 60.68 ms)　　Flow 2 (95th percentile 61.25 ms)　　Flow 3 (95th percentile 62.67 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2018-05-22 04:17:08
End at: 2018-05-22 04:17:38
Local clock offset: 0.741 ms
Remote clock offset: -9.797 ms


# Below is generated by plot.py at 2018-05-22 07:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.16 Mbit/s
95th percentile per-packet one-way delay: 64.015 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 40.86 Mbit/s
95th percentile per-packet one-way delay: 64.455 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 22.25 Mbit/s
95th percentile per-packet one-way delay: 64.353 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 25.52 Mbit/s
95th percentile per-packet one-way delay: 59.537 ms
Loss rate: 0.00%
```
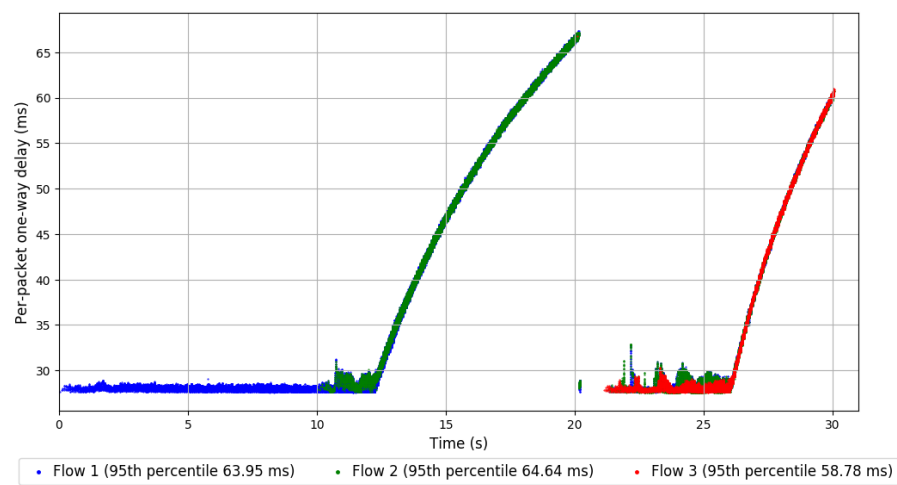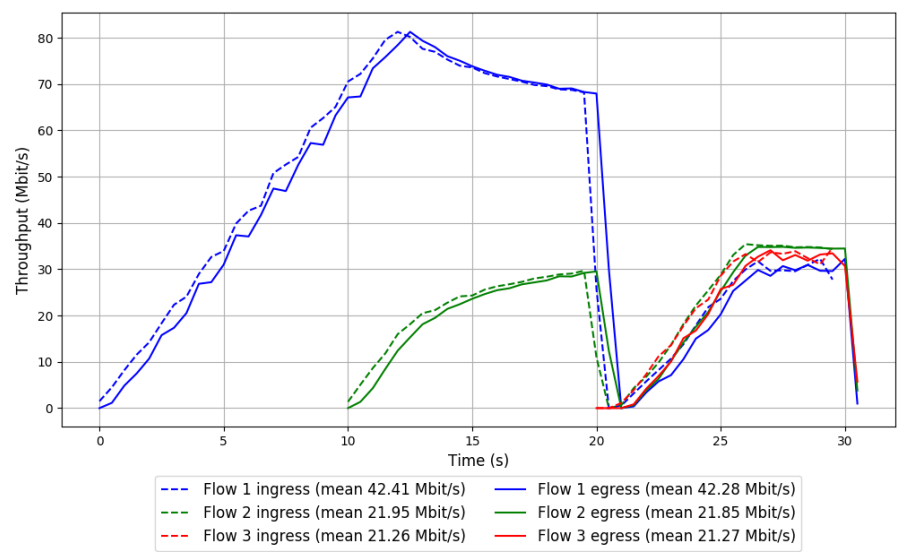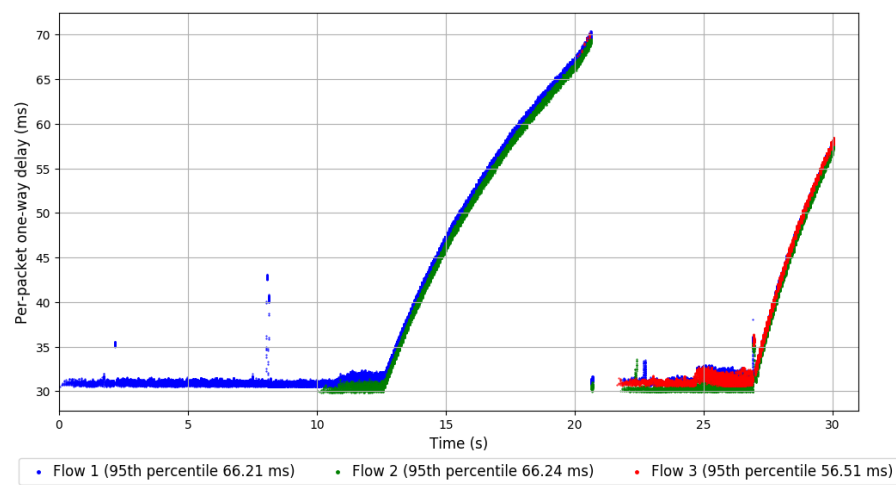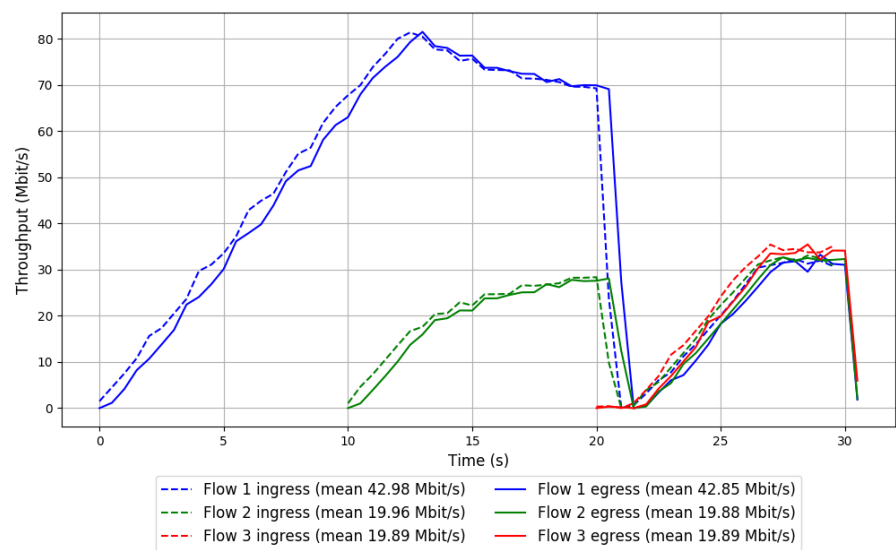
Run 3: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 40.99 Mbit/s) —— Flow 1 egress (mean 40.86 Mbit/s)
- - - Flow 2 ingress (mean 22.35 Mbit/s) —— Flow 2 egress (mean 22.25 Mbit/s)
- - - Flow 3 ingress (mean 25.51 Mbit/s) —— Flow 3 egress (mean 25.52 Mbit/s)

• Flow 1 (95th percentile 64.45 ms)   • Flow 2 (95th percentile 64.35 ms)   • Flow 3 (95th percentile 59.54 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2018-05-22 04:38:23
End at: 2018-05-22 04:38:53
Local clock offset: 0.722 ms
Remote clock offset: -2.537 ms


# Below is generated by plot.py at 2018-05-22 07:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.85 Mbit/s
95th percentile per-packet one-way delay: 51.223 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 42.75 Mbit/s
95th percentile per-packet one-way delay: 49.025 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 52.236 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 17.81 Mbit/s
95th percentile per-packet one-way delay: 54.429 ms
Loss rate: 0.05%
```
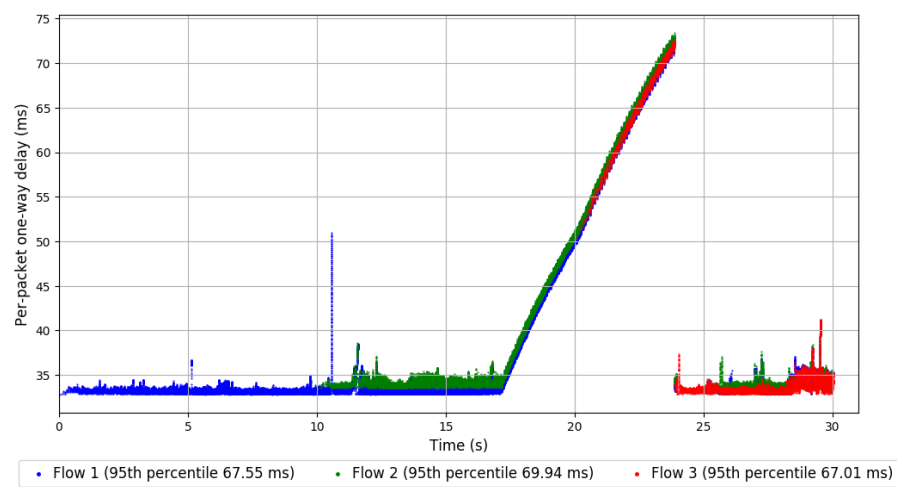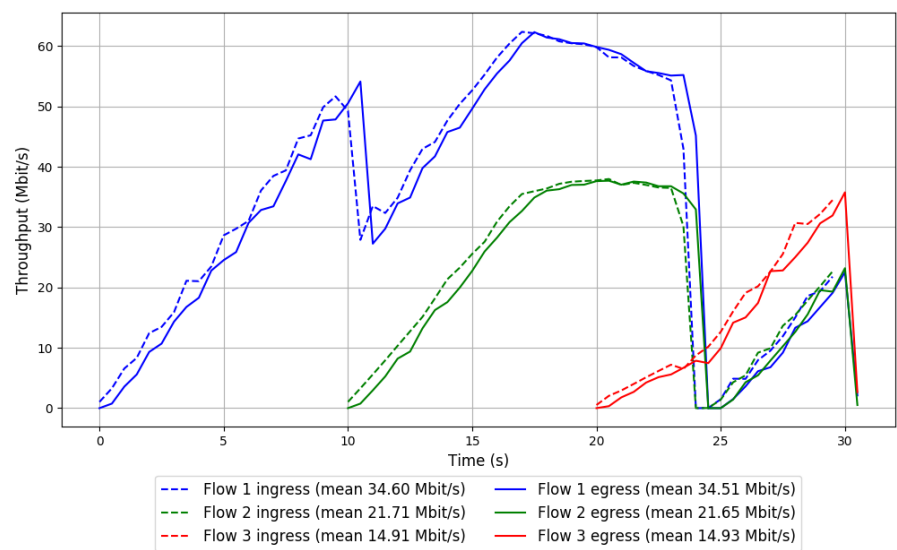
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 42.81 Mbit/s)   Flow 1 egress (mean 42.75 Mbit/s)
Flow 2 ingress (mean 27.31 Mbit/s)   Flow 2 egress (mean 27.26 Mbit/s)
Flow 3 ingress (mean 17.87 Mbit/s)   Flow 3 egress (mean 17.81 Mbit/s)

Flow 1 (95th percentile 49.02 ms)   Flow 2 (95th percentile 52.24 ms)   Flow 3 (95th percentile 54.43 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-05-22 04:59:38
End at: 2018-05-22 05:00:08
Local clock offset: 0.664 ms
Remote clock offset: 2.169 ms


# Below is generated by plot.py at 2018-05-22 07:07:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.77 Mbit/s
95th percentile per-packet one-way delay: 66.065 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 48.46 Mbit/s
95th percentile per-packet one-way delay: 65.760 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 19.34 Mbit/s
95th percentile per-packet one-way delay: 65.991 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 17.83 Mbit/s
95th percentile per-packet one-way delay: 67.986 ms
Loss rate: 0.77%
```
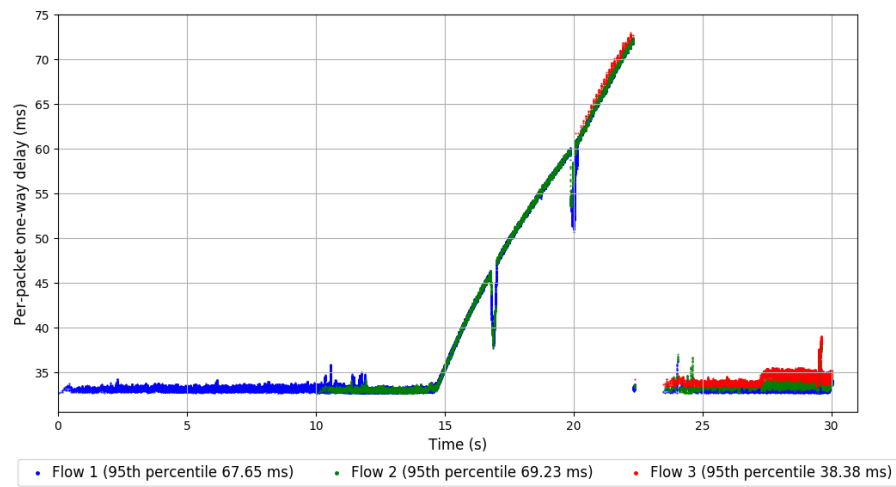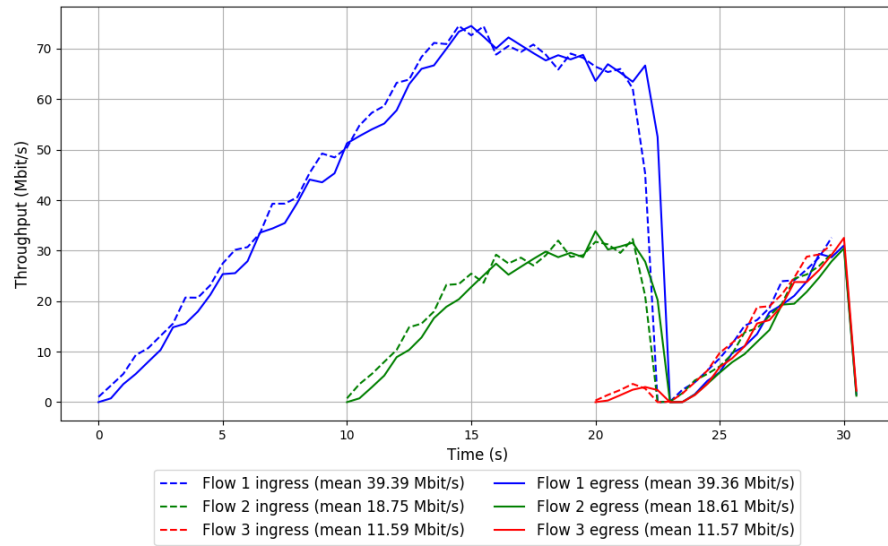
Run 5: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 48.53 Mbit/s) ——— Flow 1 egress (mean 48.46 Mbit/s)
- - - Flow 2 ingress (mean 19.41 Mbit/s) ——— Flow 2 egress (mean 19.34 Mbit/s)
- - - Flow 3 ingress (mean 17.91 Mbit/s) ——— Flow 3 egress (mean 17.83 Mbit/s)

• Flow 1 (95th percentile 65.76 ms)   • Flow 2 (95th percentile 65.99 ms)   • Flow 3 (95th percentile 67.99 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-05-22 05:20:55
End at: 2018-05-22 05:21:25
Local clock offset: 0.539 ms
Remote clock offset: 2.169 ms

# Below is generated by plot.py at 2018-05-22 07:07:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.84 Mbit/s
95th percentile per-packet one-way delay: 63.879 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 42.28 Mbit/s
95th percentile per-packet one-way delay: 63.946 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 21.85 Mbit/s
95th percentile per-packet one-way delay: 64.644 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 21.27 Mbit/s
95th percentile per-packet one-way delay: 58.780 ms
Loss rate: 0.01%
```
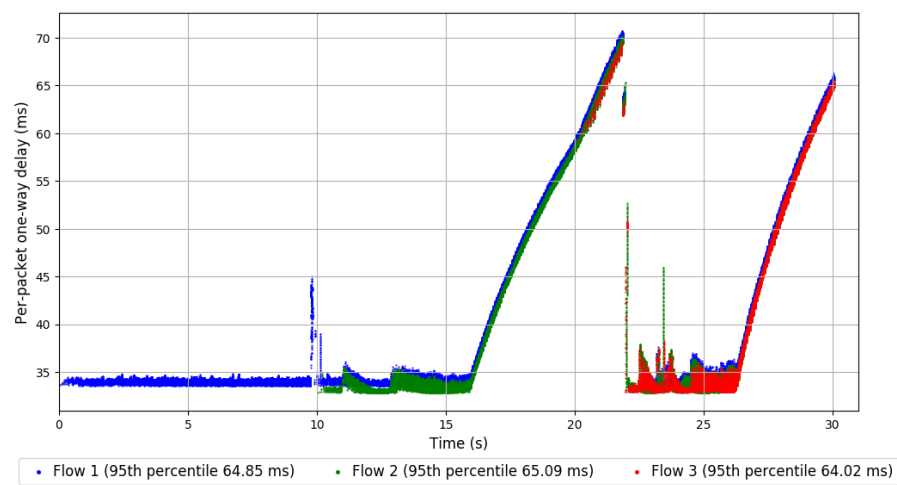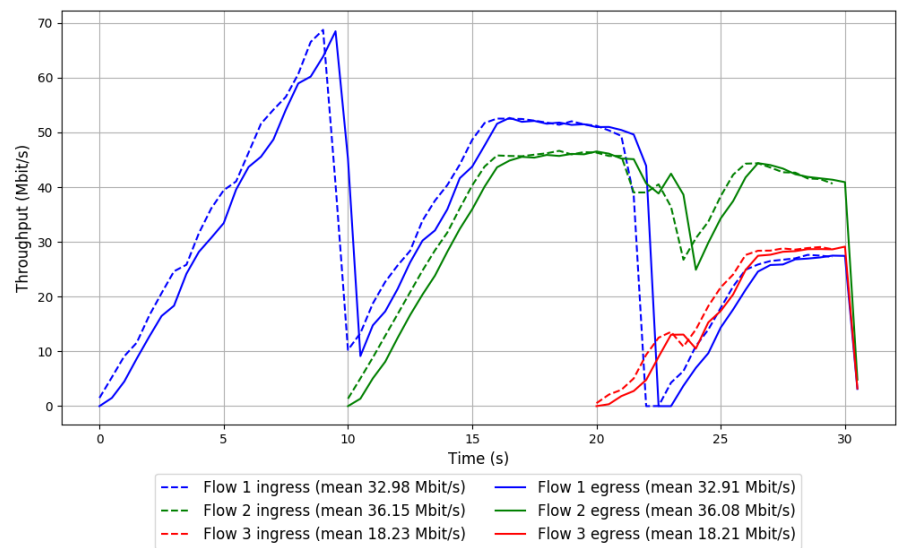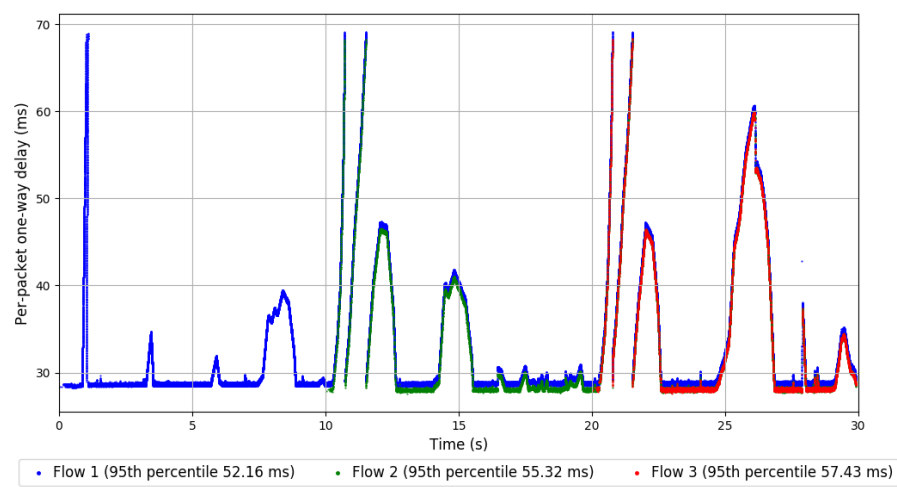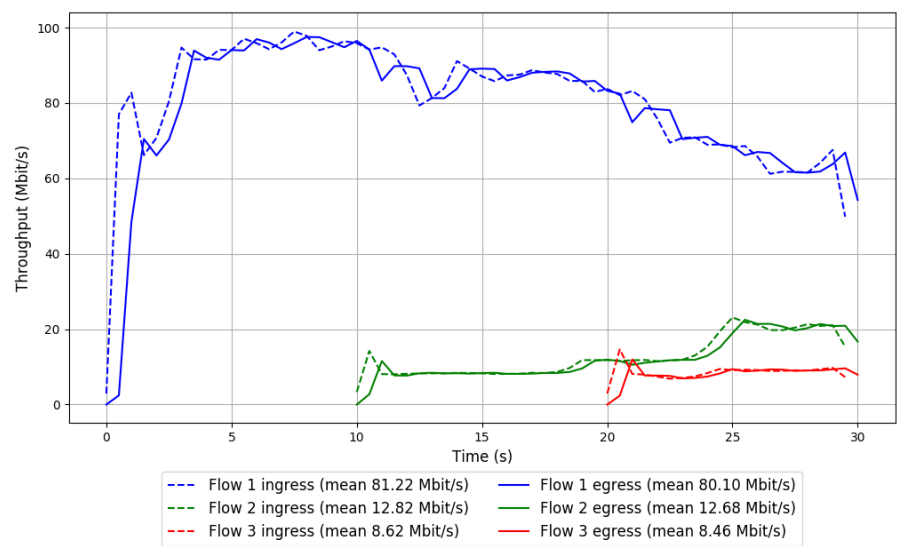
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 42.41 Mbit/s) — — — Flow 1 egress (mean 42.28 Mbit/s)
Flow 2 ingress (mean 21.95 Mbit/s) — — — Flow 2 egress (mean 21.85 Mbit/s)
Flow 3 ingress (mean 21.26 Mbit/s) — — — Flow 3 egress (mean 21.27 Mbit/s)

Flow 1 (95th percentile 63.95 ms)   Flow 2 (95th percentile 64.64 ms)   Flow 3 (95th percentile 58.78 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-05-22 05:42:12
End at: 2018-05-22 05:42:42
Local clock offset: 1.337 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-05-22 07:07:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.70 Mbit/s
95th percentile per-packet one-way delay: 65.945 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 42.85 Mbit/s
95th percentile per-packet one-way delay: 66.213 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 66.239 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 19.89 Mbit/s
95th percentile per-packet one-way delay: 56.505 ms
Loss rate: 0.06%
```
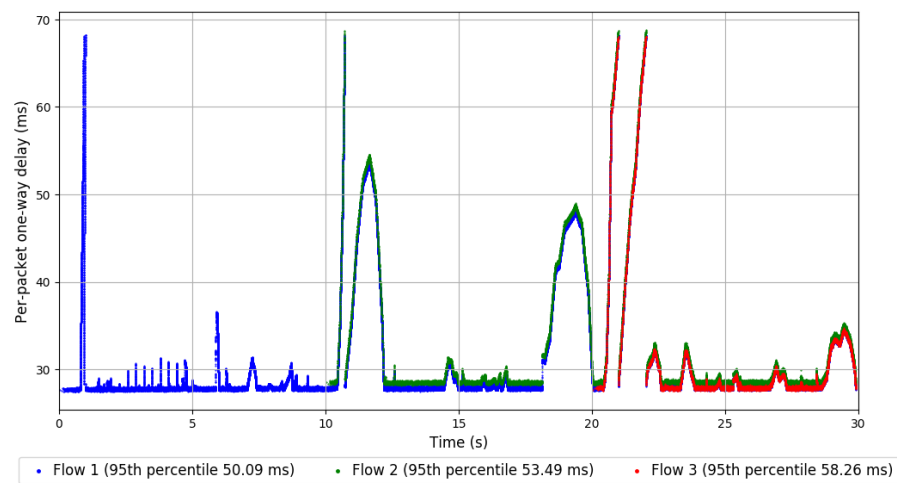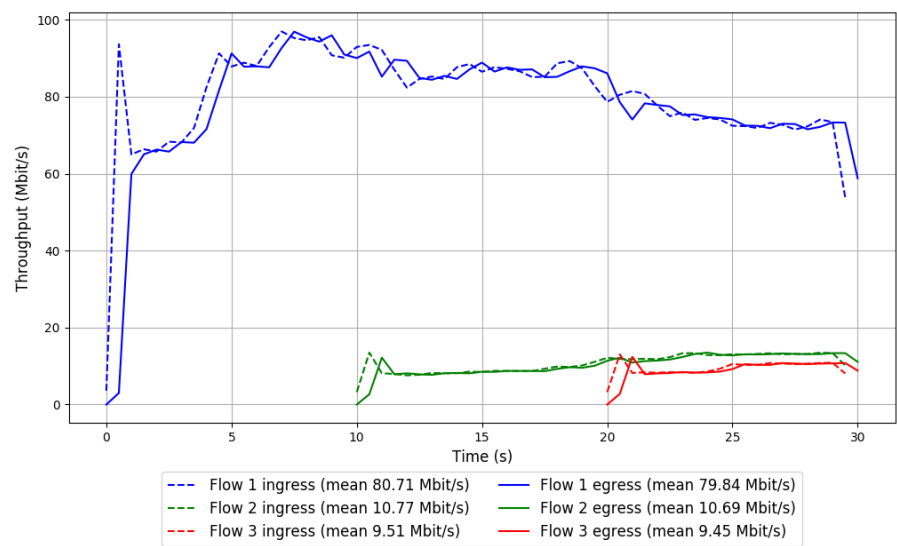
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 42.98 Mbit/s) — Flow 1 egress (mean 42.85 Mbit/s)
Flow 2 ingress (mean 19.96 Mbit/s) — Flow 2 egress (mean 19.88 Mbit/s)
Flow 3 ingress (mean 19.89 Mbit/s) — Flow 3 egress (mean 19.89 Mbit/s)

Flow 1 (95th percentile 66.21 ms)   Flow 2 (95th percentile 66.24 ms)   Flow 3 (95th percentile 56.51 ms)

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```
Run 8: Statistics of LEDBAT

Start at: 2018-05-22 06:04:29
End at: 2018-05-22 06:04:59
Local clock offset: 0.959 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2018-05-22 07:07:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 68.444 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 34.51 Mbit/s
95th percentile per-packet one-way delay: 67.548 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 21.65 Mbit/s
95th percentile per-packet one-way delay: 69.943 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 67.006 ms
Loss rate: 0.06%
```

Run 8: Report of LEDBAT — Data Link

- - - - Flow 1 ingress (mean 34.60 Mbit/s) ——— Flow 1 egress (mean 34.51 Mbit/s)
- - - - Flow 2 ingress (mean 21.71 Mbit/s) ——— Flow 2 egress (mean 21.65 Mbit/s)
- - - - Flow 3 ingress (mean 14.91 Mbit/s) ——— Flow 3 egress (mean 14.93 Mbit/s)

- Flow 1 (95th percentile 67.55 ms)   - Flow 2 (95th percentile 69.94 ms)   - Flow 3 (95th percentile 67.01 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-05-22 06:26:45
End at: 2018-05-22 06:27:15
Local clock offset: 0.697 ms
Remote clock offset: 6.675 ms

# Below is generated by plot.py at 2018-05-22 07:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.59 Mbit/s
95th percentile per-packet one-way delay: 67.951 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 39.36 Mbit/s
95th percentile per-packet one-way delay: 67.653 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 18.61 Mbit/s
95th percentile per-packet one-way delay: 69.233 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 38.383 ms
Loss rate: 0.40%
```
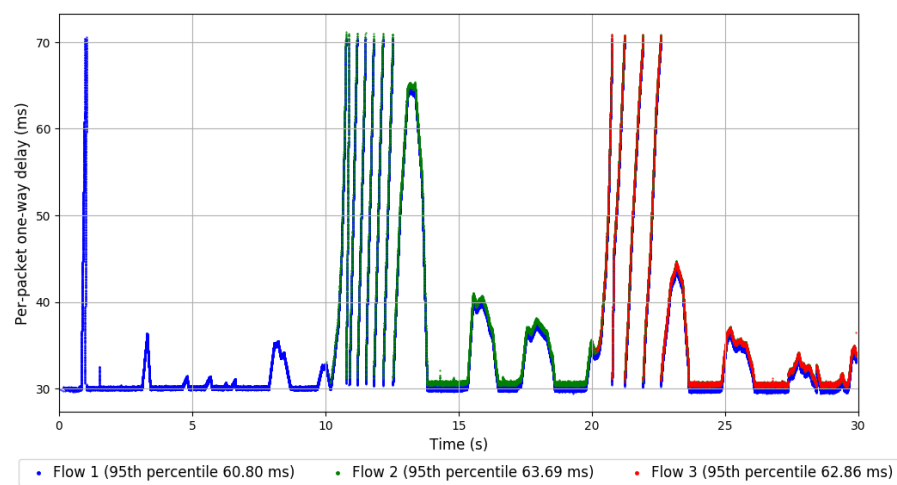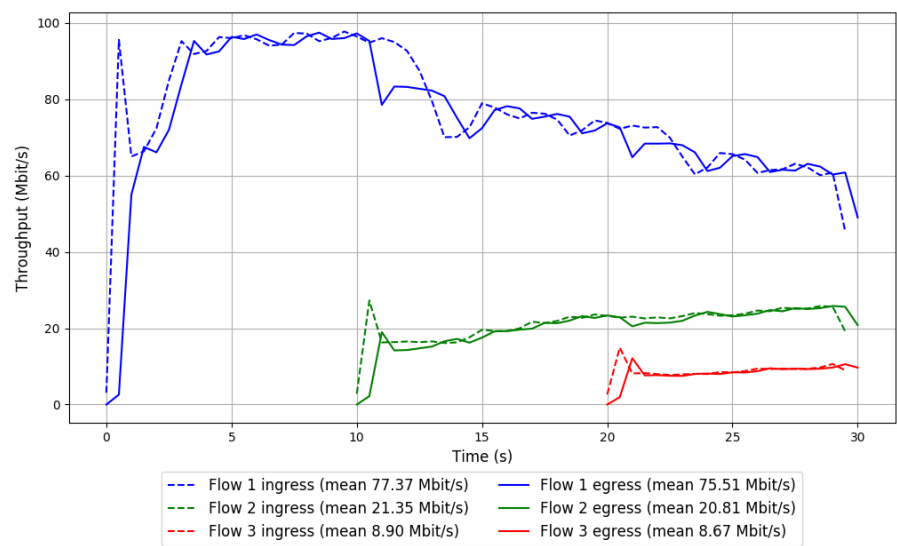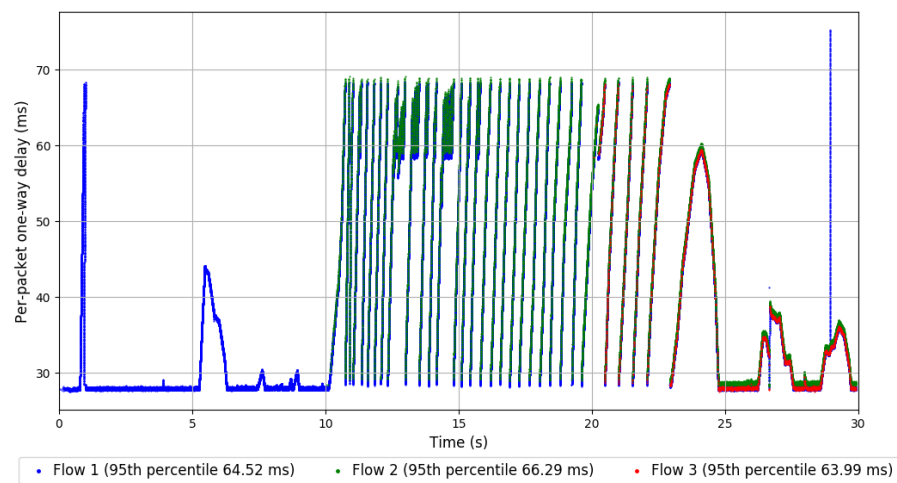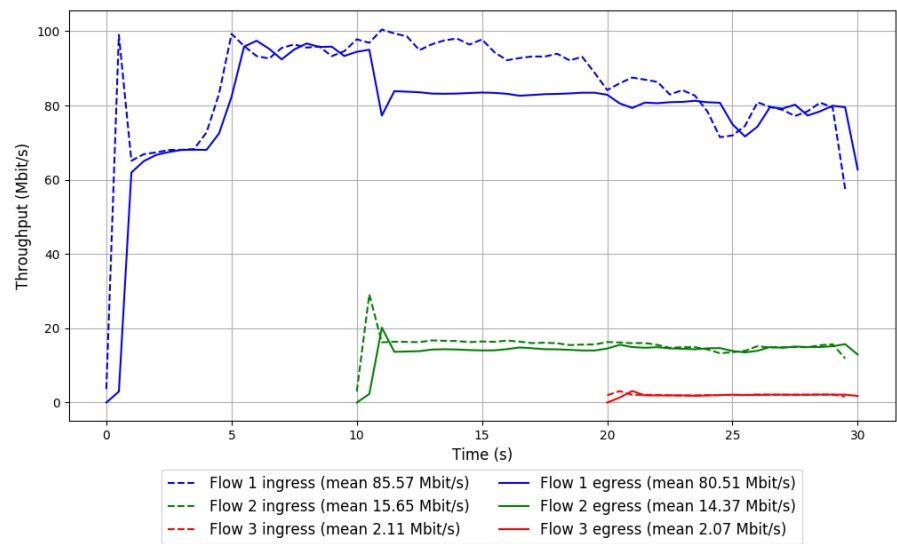
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 39.39 Mbit/s)　　　Flow 1 egress (mean 39.36 Mbit/s)
Flow 2 ingress (mean 18.75 Mbit/s)　　　Flow 2 egress (mean 18.61 Mbit/s)
Flow 3 ingress (mean 11.59 Mbit/s)　　　Flow 3 egress (mean 11.57 Mbit/s)

Flow 1 (95th percentile 67.65 ms)　　　Flow 2 (95th percentile 69.23 ms)　　　Flow 3 (95th percentile 38.38 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-05-22 06:48:24
End at: 2018-05-22 06:48:54
Local clock offset: 0.489 ms
Remote clock offset: 6.632 ms

# Below is generated by plot.py at 2018-05-22 07:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.01 Mbit/s
95th percentile per-packet one-way delay: 64.800 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 32.91 Mbit/s
95th percentile per-packet one-way delay: 64.853 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.08 Mbit/s
95th percentile per-packet one-way delay: 65.093 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 18.21 Mbit/s
95th percentile per-packet one-way delay: 64.023 ms
Loss rate: 0.04%
```
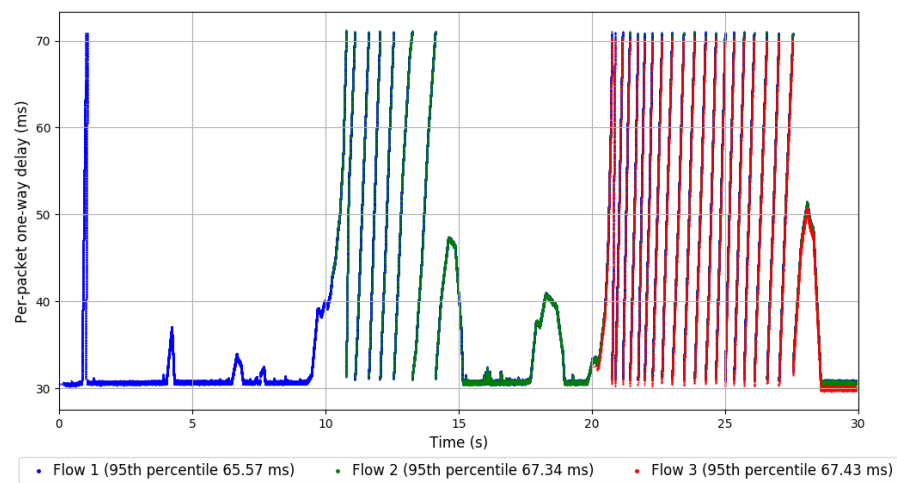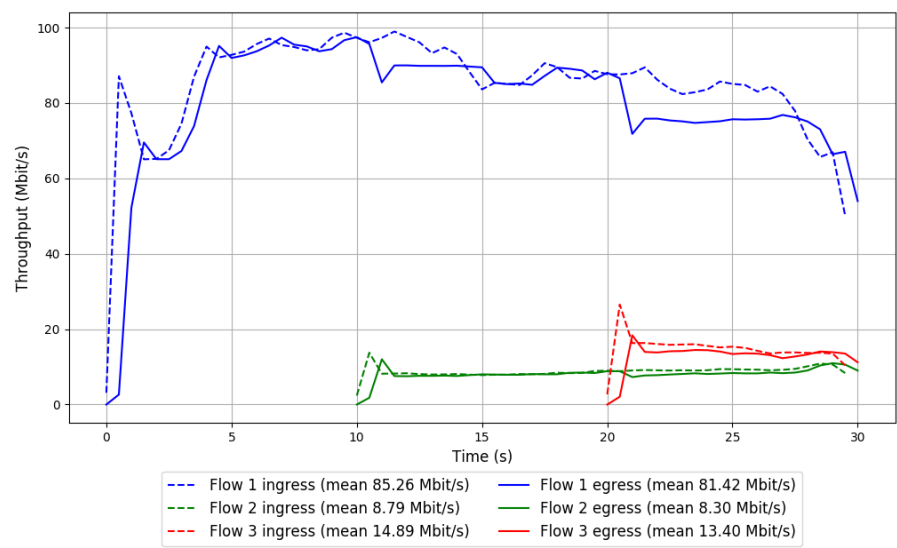
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 32.98 Mbit/s) --- Flow 1 egress (mean 32.91 Mbit/s)
Flow 2 ingress (mean 36.15 Mbit/s) --- Flow 2 egress (mean 36.08 Mbit/s)
Flow 3 ingress (mean 18.23 Mbit/s) --- Flow 3 egress (mean 18.21 Mbit/s)

Flow 1 (95th percentile 64.85 ms) • Flow 2 (95th percentile 65.09 ms) • Flow 3 (95th percentile 64.02 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-05-22 03:38:50
End at: 2018-05-22 03:39:20
Local clock offset: 1.523 ms
Remote clock offset: -5.786 ms


# Below is generated by plot.py at 2018-05-22 07:07:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.32 Mbit/s
95th percentile per-packet one-way delay: 52.995 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 80.10 Mbit/s
95th percentile per-packet one-way delay: 52.164 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 55.319 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 57.432 ms
Loss rate: 1.95%
```
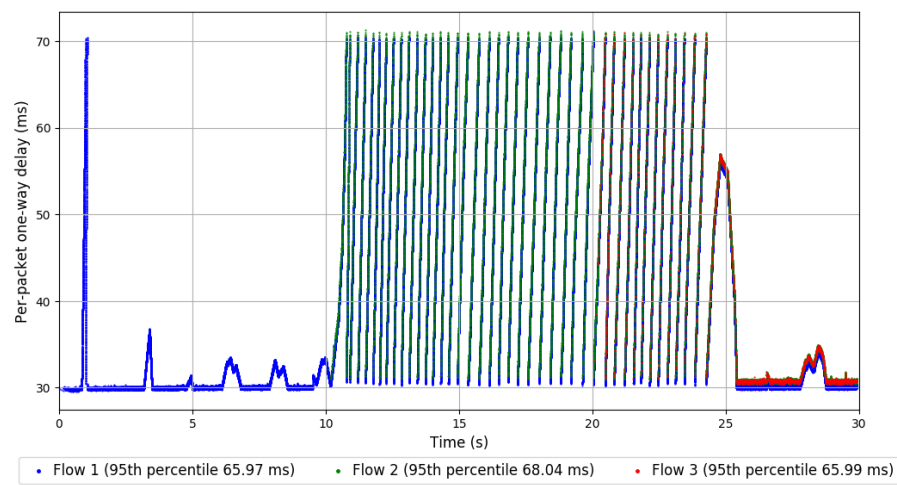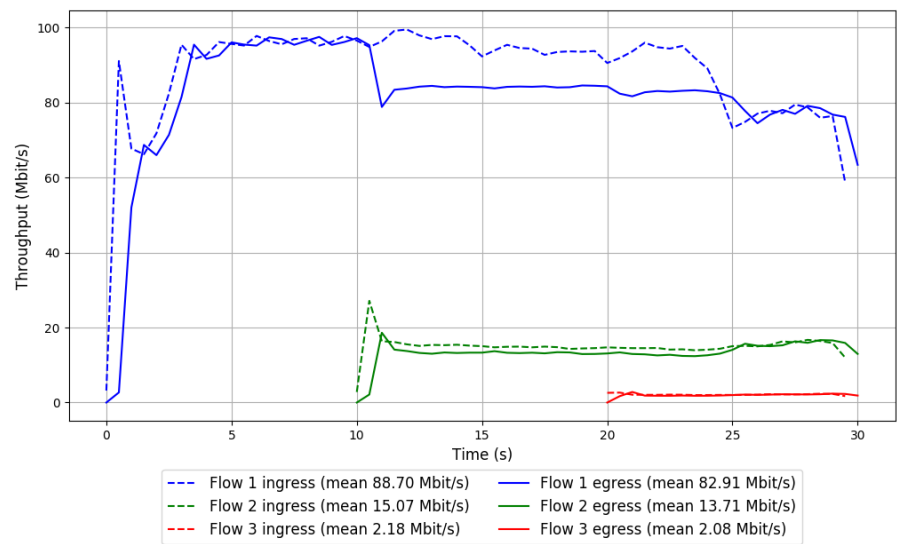
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 81.22 Mbit/s)   Flow 1 egress (mean 80.10 Mbit/s)
Flow 2 ingress (mean 12.82 Mbit/s)   Flow 2 egress (mean 12.68 Mbit/s)
Flow 3 ingress (mean 8.62 Mbit/s)   Flow 3 egress (mean 8.46 Mbit/s)

Flow 1 (95th percentile 52.16 ms)   Flow 2 (95th percentile 55.32 ms)   Flow 3 (95th percentile 57.43 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-05-22 04:00:46
End at: 2018-05-22 04:01:16
Local clock offset: 1.298 ms
Remote clock offset: -8.288 ms


# Below is generated by plot.py at 2018-05-22 07:07:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.06 Mbit/s
95th percentile per-packet one-way delay: 50.683 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 79.84 Mbit/s
95th percentile per-packet one-way delay: 50.089 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 10.69 Mbit/s
95th percentile per-packet one-way delay: 53.495 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 58.255 ms
Loss rate: 0.69%
```
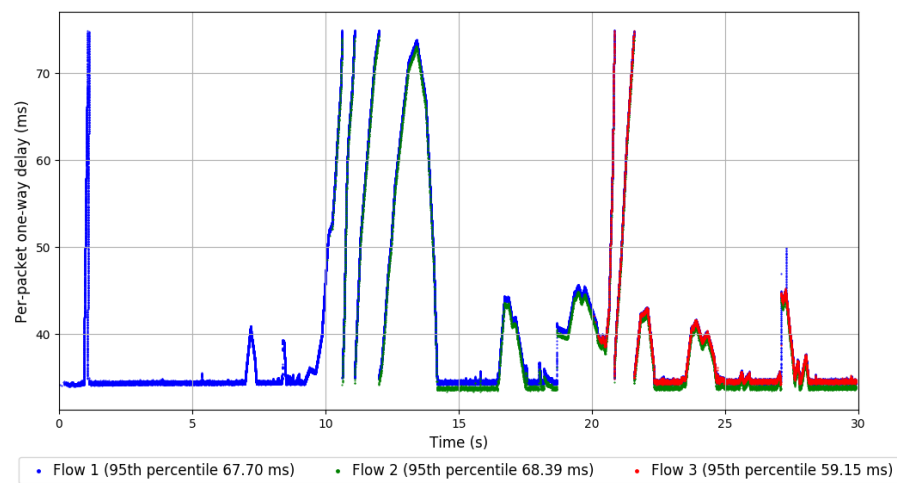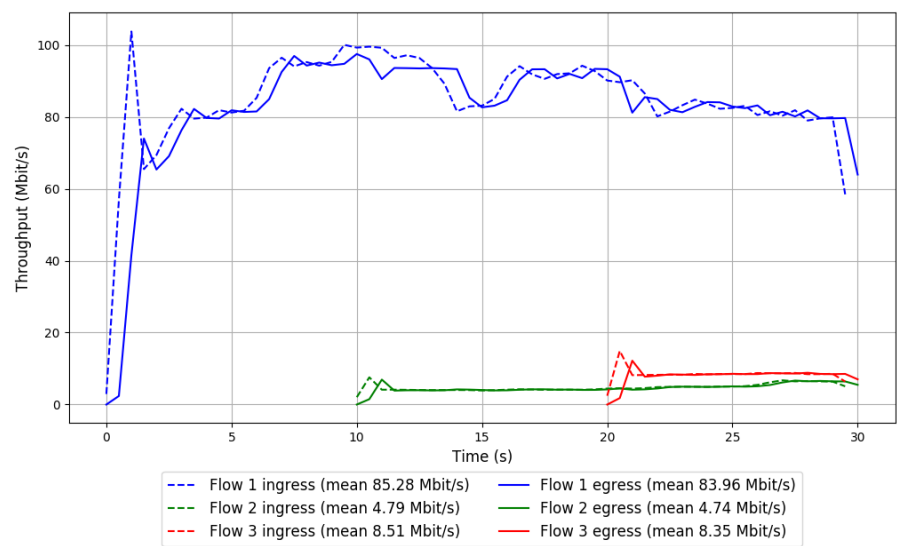
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 80.71 Mbit/s) --- Flow 1 egress (mean 79.84 Mbit/s)
Flow 2 ingress (mean 10.77 Mbit/s) --- Flow 2 egress (mean 10.69 Mbit/s)
Flow 3 ingress (mean 9.51 Mbit/s) --- Flow 3 egress (mean 9.45 Mbit/s)

Flow 1 (95th percentile 50.09 ms) · Flow 2 (95th percentile 53.49 ms) · Flow 3 (95th percentile 58.26 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-05-22 04:22:30
End at: 2018-05-22 04:23:00
Local clock offset: 0.578 ms
Remote clock offset: -8.18 ms


# Below is generated by plot.py at 2018-05-22 07:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 61.436 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 75.51 Mbit/s
95th percentile per-packet one-way delay: 60.804 ms
Loss rate: 2.40%
-- Flow 2:
Average throughput: 20.81 Mbit/s
95th percentile per-packet one-way delay: 63.690 ms
Loss rate: 2.50%
-- Flow 3:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 62.856 ms
Loss rate: 2.58%
```
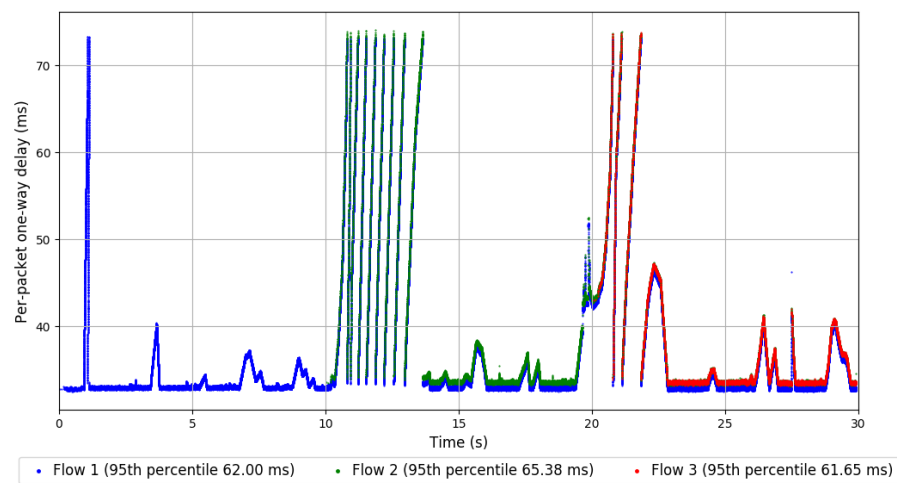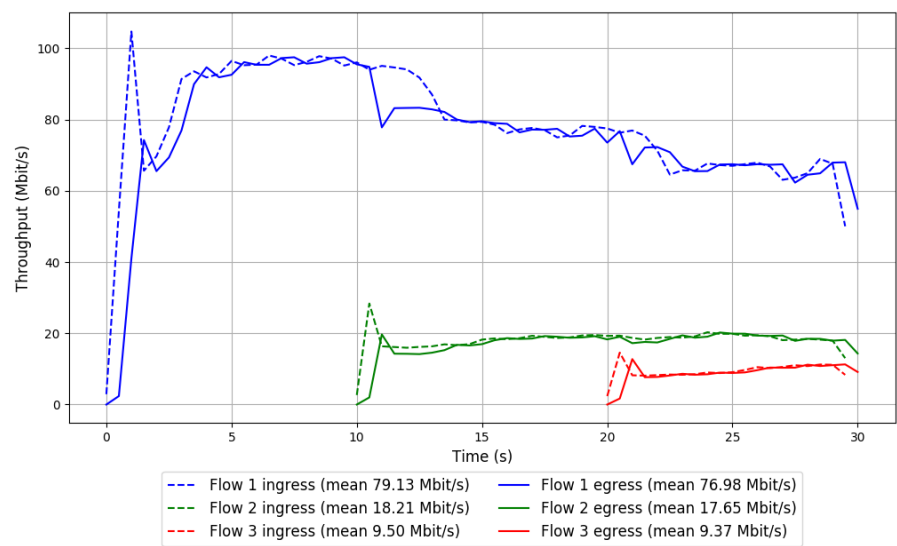
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-05-22 04:43:44
End at: 2018-05-22 04:44:14
Local clock offset: 0.762 ms
Remote clock offset: -1.652 ms

# Below is generated by plot.py at 2018-05-22 07:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.74 Mbit/s
95th percentile per-packet one-way delay: 64.773 ms
Loss rate: 6.13%
-- Flow 1:
Average throughput: 80.51 Mbit/s
95th percentile per-packet one-way delay: 64.519 ms
Loss rate: 5.92%
-- Flow 2:
Average throughput: 14.37 Mbit/s
95th percentile per-packet one-way delay: 66.293 ms
Loss rate: 8.18%
-- Flow 3:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 63.992 ms
Loss rate: 2.27%
```
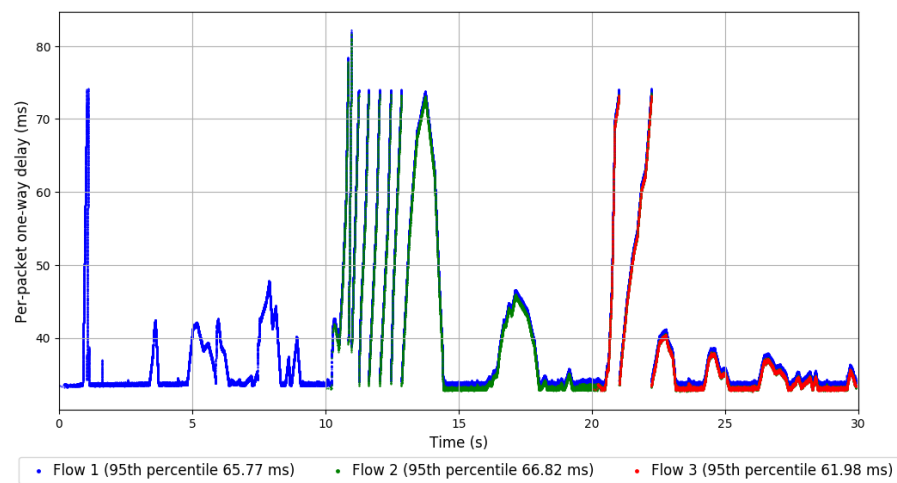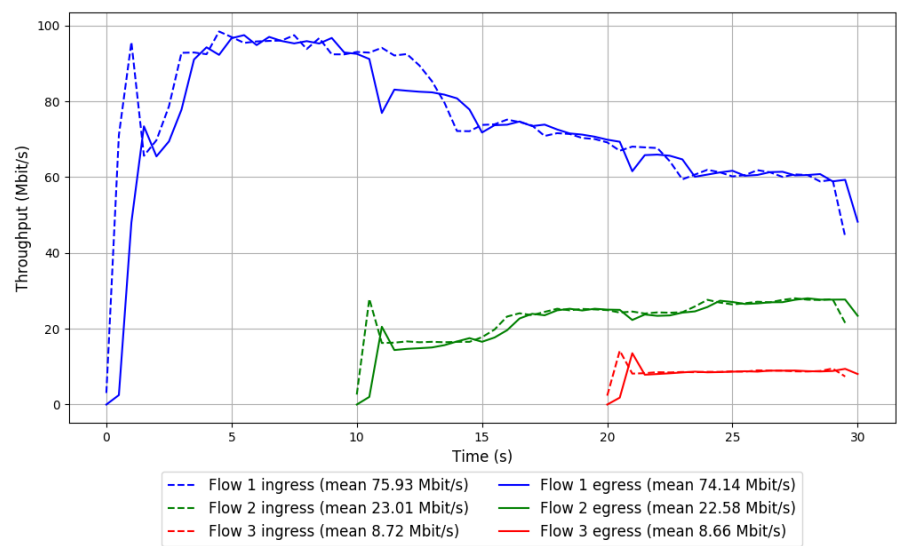
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 85.57 Mbit/s) --- Flow 1 egress (mean 80.51 Mbit/s)
Flow 2 ingress (mean 15.65 Mbit/s) --- Flow 2 egress (mean 14.37 Mbit/s)
Flow 3 ingress (mean 2.11 Mbit/s) --- Flow 3 egress (mean 2.07 Mbit/s)

Flow 1 (95th percentile 64.52 ms)   Flow 2 (95th percentile 66.29 ms)   Flow 3 (95th percentile 63.99 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-05-22 05:05:01
End at: 2018-05-22 05:05:31
Local clock offset: 0.661 ms
Remote clock offset: 2.881 ms

# Below is generated by plot.py at 2018-05-22 07:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.35 Mbit/s
95th percentile per-packet one-way delay: 65.896 ms
Loss rate: 4.85%
-- Flow 1:
Average throughput: 81.42 Mbit/s
95th percentile per-packet one-way delay: 65.568 ms
Loss rate: 4.50%
-- Flow 2:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 67.338 ms
Loss rate: 5.62%
-- Flow 3:
Average throughput: 13.40 Mbit/s
95th percentile per-packet one-way delay: 67.430 ms
Loss rate: 10.05%
```
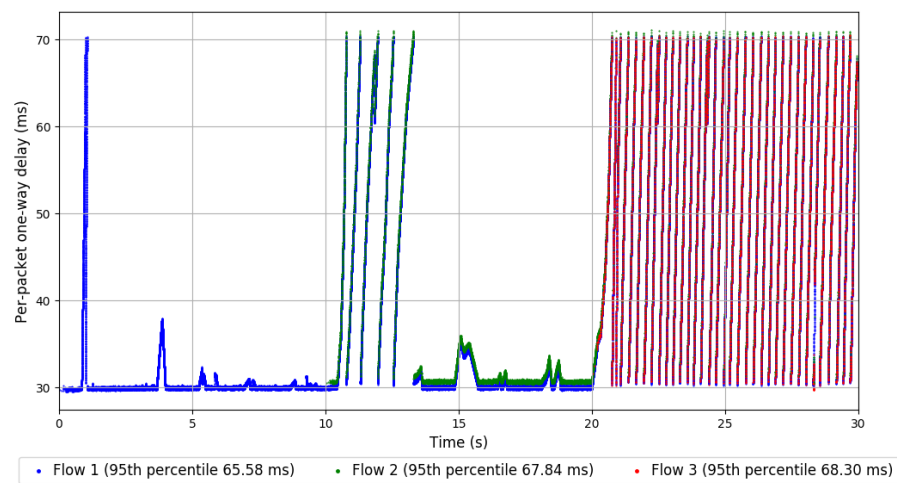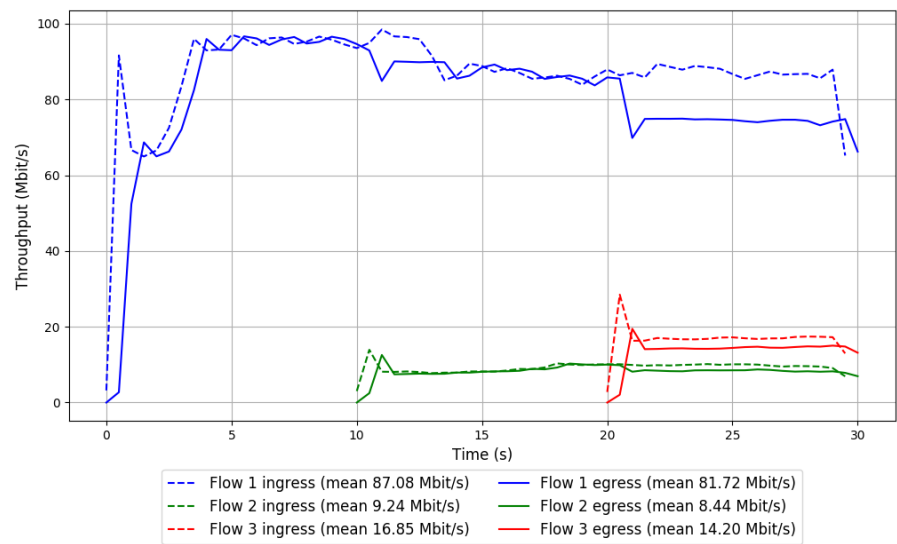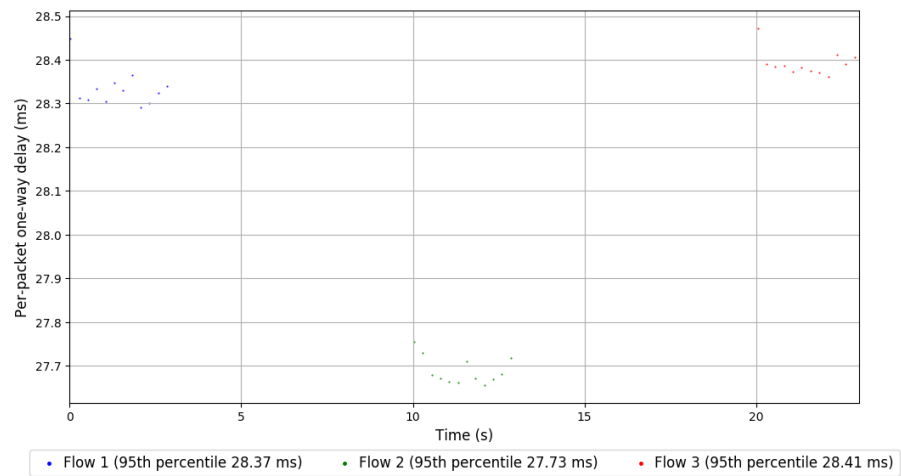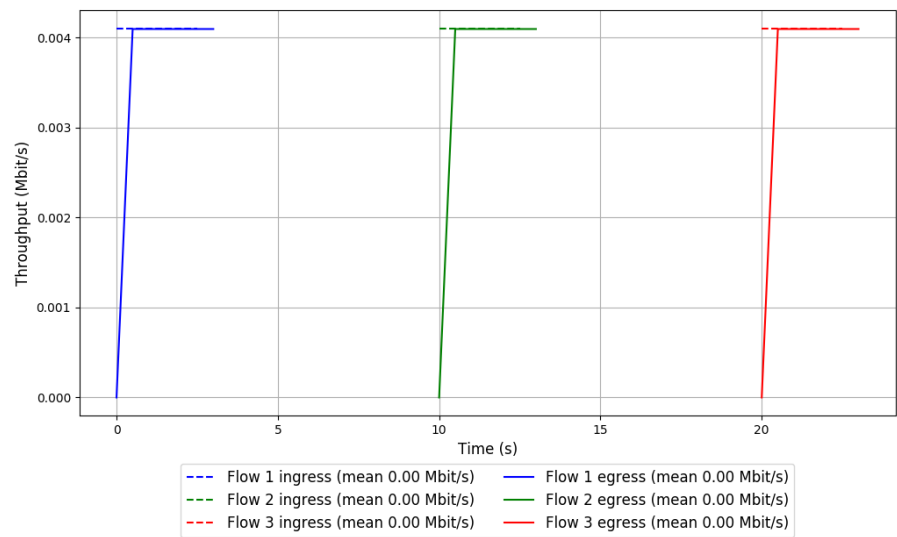
Run 5: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 85.26 Mbit/s) —— Flow 1 egress (mean 81.42 Mbit/s)
- - - Flow 2 ingress (mean 8.79 Mbit/s) —— Flow 2 egress (mean 8.30 Mbit/s)
- - - Flow 3 ingress (mean 14.89 Mbit/s) —— Flow 3 egress (mean 13.40 Mbit/s)

• Flow 1 (95th percentile 65.57 ms)   • Flow 2 (95th percentile 67.34 ms)   • Flow 3 (95th percentile 67.43 ms)

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-05-22 05:26:18
End at: 2018-05-22 05:26:48
Local clock offset: 0.514 ms
Remote clock offset: 4.63 ms


# Below is generated by plot.py at 2018-05-22 07:08:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.71 Mbit/s
95th percentile per-packet one-way delay: 66.265 ms
Loss rate: 6.77%
-- Flow 1:
Average throughput: 82.91 Mbit/s
95th percentile per-packet one-way delay: 65.974 ms
Loss rate: 6.53%
-- Flow 2:
Average throughput: 13.71 Mbit/s
95th percentile per-packet one-way delay: 68.044 ms
Loss rate: 9.04%
-- Flow 3:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 65.987 ms
Loss rate: 4.91%
```

Run 6: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 88.70 Mbit/s) — Flow 1 egress (mean 82.91 Mbit/s)
Flow 2 ingress (mean 15.07 Mbit/s) — Flow 2 egress (mean 13.71 Mbit/s)
Flow 3 ingress (mean 2.18 Mbit/s) — Flow 3 egress (mean 2.08 Mbit/s)

Flow 1 (95th percentile 65.97 ms) • Flow 2 (95th percentile 68.04 ms) • Flow 3 (95th percentile 65.99 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-05-22 05:47:39
End at: 2018-05-22 05:48:09
Local clock offset: 1.355 ms
Remote clock offset: 2.425 ms


# Below is generated by plot.py at 2018-05-22 07:08:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.86 Mbit/s
95th percentile per-packet one-way delay: 67.598 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 83.96 Mbit/s
95th percentile per-packet one-way delay: 67.703 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 68.386 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 59.151 ms
Loss rate: 1.95%
```

Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 85.28 Mbit/s) --- Flow 1 egress (mean 83.96 Mbit/s)
Flow 2 ingress (mean 4.79 Mbit/s) --- Flow 2 egress (mean 4.74 Mbit/s)
Flow 3 ingress (mean 8.51 Mbit/s) --- Flow 3 egress (mean 8.35 Mbit/s)

Flow 1 (95th percentile 67.70 ms) Flow 2 (95th percentile 68.39 ms) Flow 3 (95th percentile 59.15 ms)

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-05-22 06:10:17
End at: 2018-05-22 06:10:47
Local clock offset: 0.798 ms
Remote clock offset: 2.971 ms


# Below is generated by plot.py at 2018-05-22 07:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.80 Mbit/s
95th percentile per-packet one-way delay: 62.533 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 76.98 Mbit/s
95th percentile per-packet one-way delay: 61.996 ms
Loss rate: 2.72%
-- Flow 2:
Average throughput: 17.65 Mbit/s
95th percentile per-packet one-way delay: 65.382 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 61.645 ms
Loss rate: 1.47%
```

Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 79.13 Mbit/s) --- Flow 1 egress (mean 76.98 Mbit/s)
Flow 2 ingress (mean 18.21 Mbit/s) --- Flow 2 egress (mean 17.65 Mbit/s)
Flow 3 ingress (mean 9.50 Mbit/s) --- Flow 3 egress (mean 9.37 Mbit/s)

Flow 1 (95th percentile 62.00 ms)   Flow 2 (95th percentile 65.38 ms)   Flow 3 (95th percentile 61.65 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-05-22 06:32:18
End at: 2018-05-22 06:32:48
Local clock offset: 0.672 ms
Remote clock offset: 7.137 ms


# Below is generated by plot.py at 2018-05-22 07:09:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 65.866 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 74.14 Mbit/s
95th percentile per-packet one-way delay: 65.769 ms
Loss rate: 2.36%
-- Flow 2:
Average throughput: 22.58 Mbit/s
95th percentile per-packet one-way delay: 66.820 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 61.978 ms
Loss rate: 0.78%
```

Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 75.93 Mbit/s) --- Flow 1 egress (mean 74.14 Mbit/s)
Flow 2 ingress (mean 23.01 Mbit/s) --- Flow 2 egress (mean 22.58 Mbit/s)
Flow 3 ingress (mean 8.72 Mbit/s) --- Flow 3 egress (mean 8.66 Mbit/s)

Flow 1 (95th percentile 65.77 ms) Flow 2 (95th percentile 66.82 ms) Flow 3 (95th percentile 61.98 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-05-22 06:53:48
End at: 2018-05-22 06:54:18
Local clock offset: 0.533 ms
Remote clock offset: 3.353 ms


# Below is generated by plot.py at 2018-05-22 07:09:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.03 Mbit/s
95th percentile per-packet one-way delay: 66.092 ms
Loss rate: 6.72%
-- Flow 1:
Average throughput: 81.72 Mbit/s
95th percentile per-packet one-way delay: 65.580 ms
Loss rate: 6.03%
-- Flow 2:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 67.841 ms
Loss rate: 8.44%
-- Flow 3:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 68.304 ms
Loss rate: 15.46%
```

Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 87.08 Mbit/s) — Flow 1 egress (mean 81.72 Mbit/s)
Flow 2 ingress (mean 9.24 Mbit/s) — Flow 2 egress (mean 8.44 Mbit/s)
Flow 3 ingress (mean 16.85 Mbit/s) — Flow 3 egress (mean 14.20 Mbit/s)

Flow 1 (95th percentile 65.58 ms) • Flow 2 (95th percentile 67.84 ms) • Flow 3 (95th percentile 68.30 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-05-22 03:32:12
End at: 2018-05-22 03:32:42
Local clock offset: 1.731 ms
Remote clock offset: -4.594 ms
```

Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-05-22 03:53:39
End at: 2018-05-22 03:54:09
Local clock offset: 1.539 ms
Remote clock offset: -5.46 ms
```
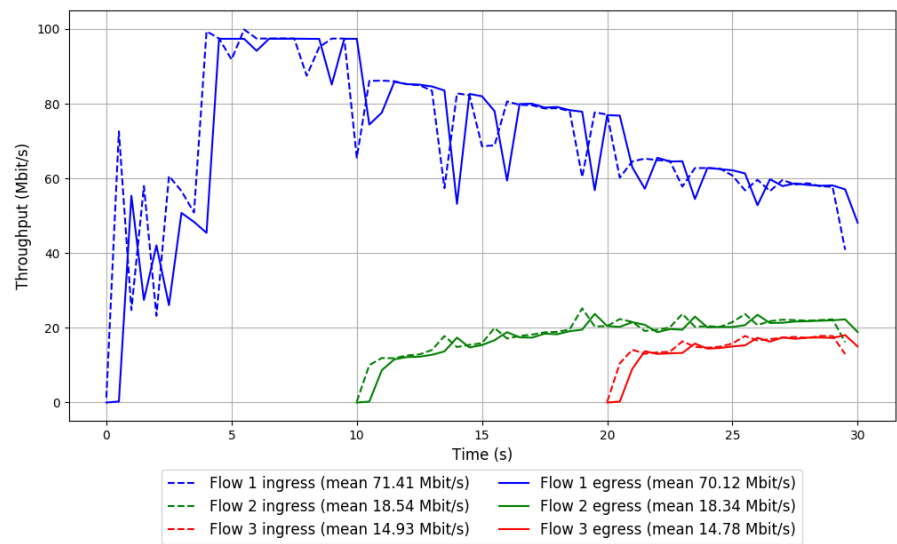
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-05-22 04:15:52
End at: 2018-05-22 04:16:22
Local clock offset: 0.663 ms
Remote clock offset: -7.545 ms
```

Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-05-22 04:37:07
End at: 2018-05-22 04:37:37
Local clock offset: 0.817 ms
Remote clock offset: -2.862 ms
```

Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-05-22 04:58:22
End at: 2018-05-22 04:58:52
Local clock offset: 0.751 ms
Remote clock offset: 1.896 ms
```

Run 5: Report of PCC-Expr — Data Link

```
Run 6: Statistics of PCC-Expr

Start at: 2018-05-22 05:19:38
End at: 2018-05-22 05:20:08
Local clock offset: 0.458 ms
Remote clock offset: 4.124 ms
```
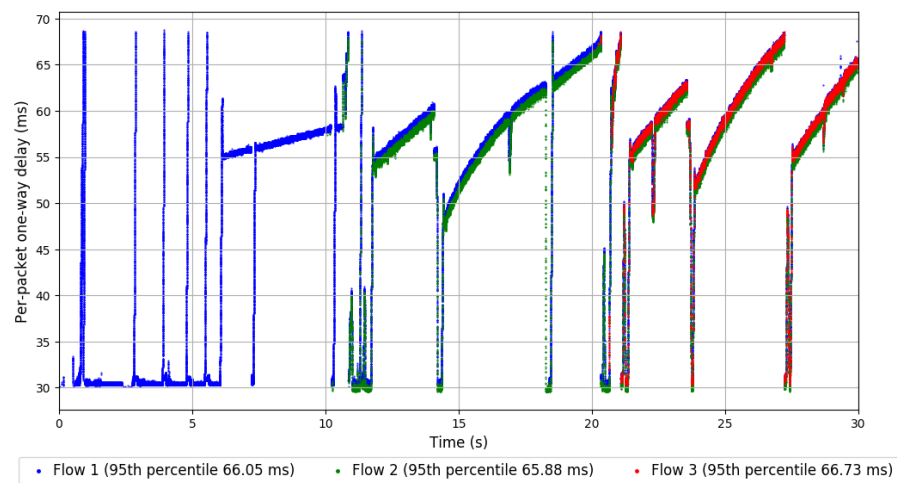
Run 6: Report of PCC-Expr — Data Link

```
Run 7: Statistics of PCC-Expr

Start at: 2018-05-22 05:40:56
End at: 2018-05-22 05:41:26
Local clock offset: 1.313 ms
Remote clock offset: -1.892 ms
```
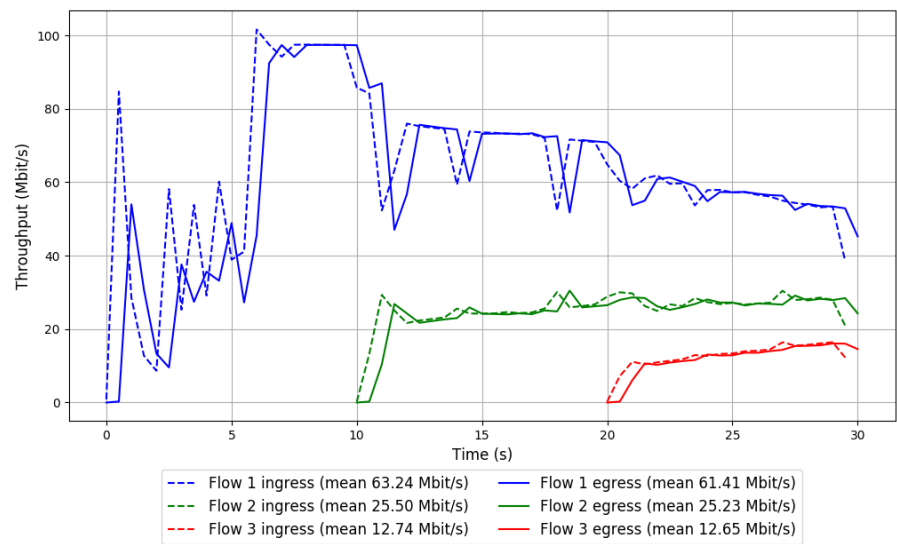
Run 7: Report of PCC-Expr — Data Link

```
Run 8: Statistics of PCC-Expr

Start at: 2018-05-22 06:03:13
End at: 2018-05-22 06:03:43
Local clock offset: 1.086 ms
Remote clock offset: 0.056 ms
```

Run 8: Report of PCC-Expr — Data Link

```
Run 9: Statistics of PCC-Expr

Start at: 2018-05-22 06:25:29
End at: 2018-05-22 06:25:59
Local clock offset: 0.609 ms
Remote clock offset: 6.607 ms
```

Run 9: Report of PCC-Expr — Data Link

Run 10: Statistics of PCC-Expr

Start at: 2018-05-22 06:47:08
End at: 2018-05-22 06:47:39
Local clock offset: 0.491 ms
Remote clock offset: 6.779 ms

Run 10: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-05-22 03:36:09
End at: 2018-05-22 03:36:39
Local clock offset: 1.638 ms
Remote clock offset: -5.355 ms


# Below is generated by plot.py at 2018-05-22 07:09:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.98 Mbit/s
95th percentile per-packet one-way delay: 63.922 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 61.89 Mbit/s
95th percentile per-packet one-way delay: 62.916 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 26.82 Mbit/s
95th percentile per-packet one-way delay: 64.131 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 25.15 Mbit/s
95th percentile per-packet one-way delay: 65.488 ms
Loss rate: 1.98%
```
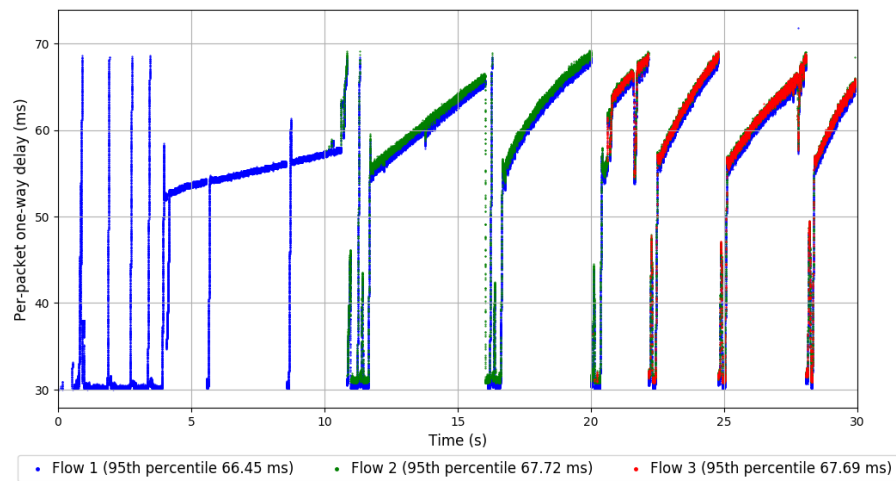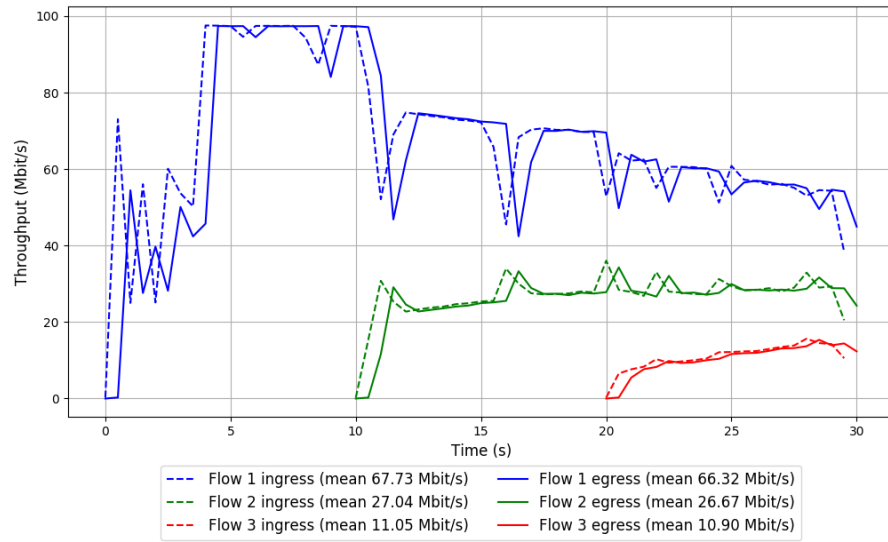
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-05-22 03:57:51
End at: 2018-05-22 03:58:21
Local clock offset: 1.533 ms
Remote clock offset: -5.942 ms


# Below is generated by plot.py at 2018-05-22 07:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 63.659 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 56.74 Mbit/s
95th percentile per-packet one-way delay: 60.750 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 64.847 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 28.55 Mbit/s
95th percentile per-packet one-way delay: 66.088 ms
Loss rate: 1.74%
```
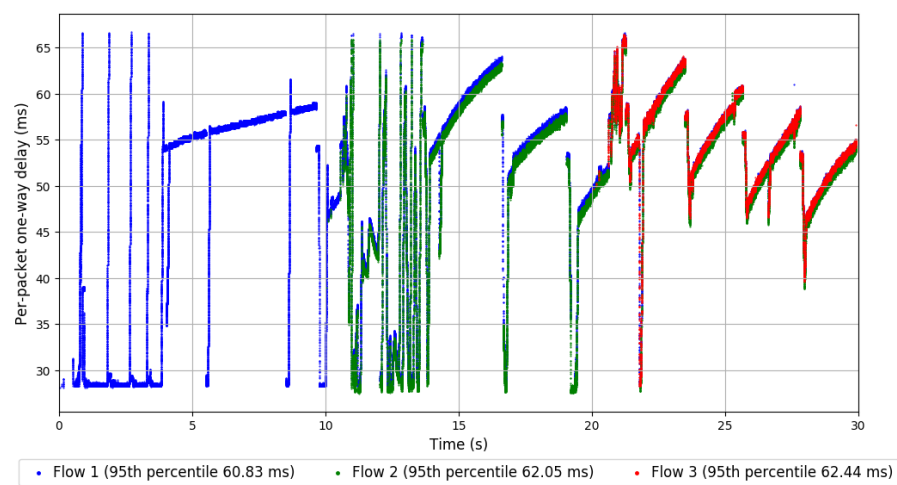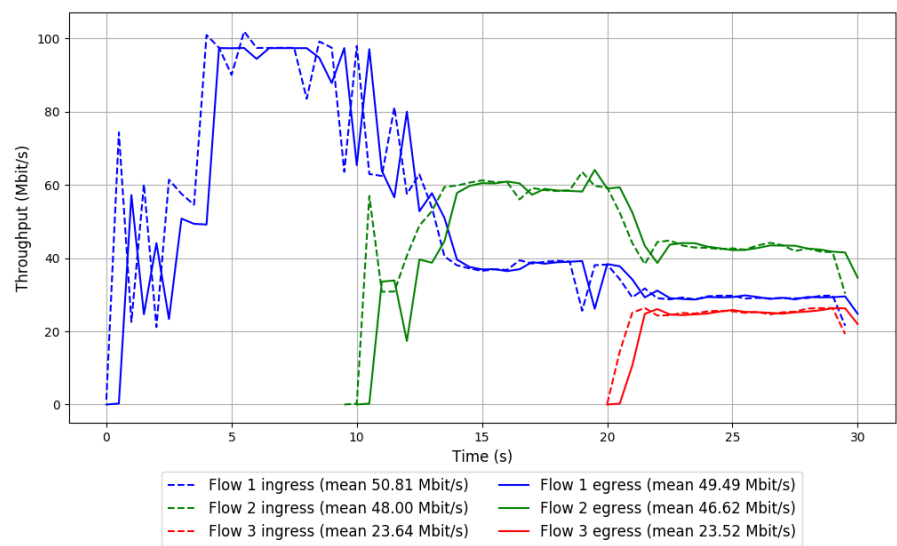
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 57.82 Mbit/s) ----   Flow 1 egress (mean 56.74 Mbit/s) ——
Flow 2 ingress (mean 31.64 Mbit/s) ----   Flow 2 egress (mean 31.39 Mbit/s) ——
Flow 3 ingress (mean 29.08 Mbit/s) ----   Flow 3 egress (mean 28.55 Mbit/s) ——

Flow 1 (95th percentile 60.75 ms)   Flow 2 (95th percentile 64.85 ms)   Flow 3 (95th percentile 66.09 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-05-22 04:19:49
End at: 2018-05-22 04:20:19
Local clock offset: 0.621 ms
Remote clock offset: -7.513 ms


# Below is generated by plot.py at 2018-05-22 07:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 67.269 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 70.12 Mbit/s
95th percentile per-packet one-way delay: 67.109 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 68.134 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 14.78 Mbit/s
95th percentile per-packet one-way delay: 67.213 ms
Loss rate: 1.01%
```
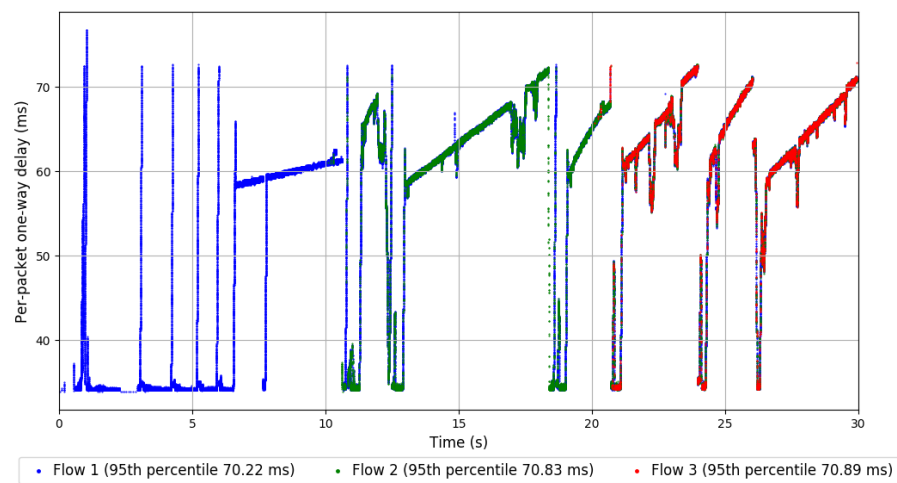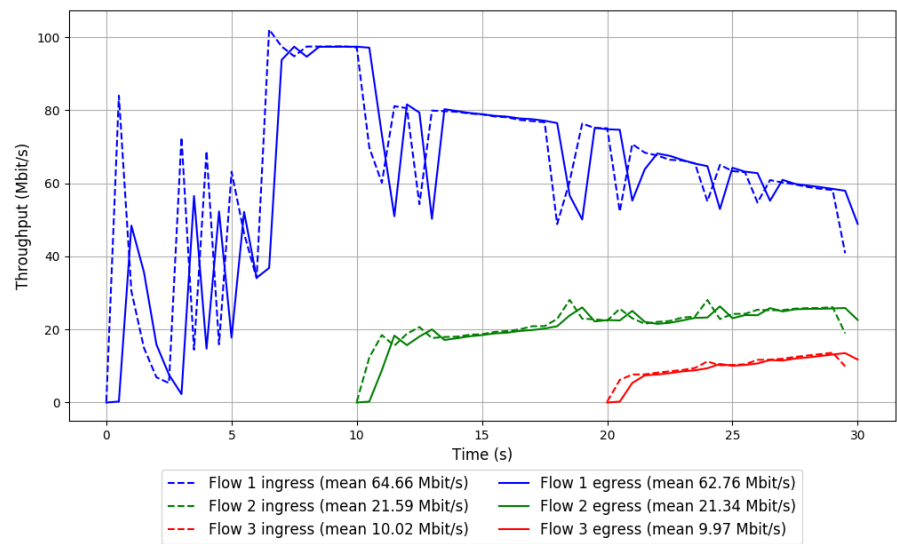
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 71.41 Mbit/s) — Flow 1 egress (mean 70.12 Mbit/s)
Flow 2 ingress (mean 18.54 Mbit/s) — Flow 2 egress (mean 18.34 Mbit/s)
Flow 3 ingress (mean 14.93 Mbit/s) — Flow 3 egress (mean 14.78 Mbit/s)

Flow 1 (95th percentile 67.11 ms)   Flow 2 (95th percentile 68.13 ms)   Flow 3 (95th percentile 67.21 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-05-22 04:41:04
End at: 2018-05-22 04:41:34
Local clock offset: 0.841 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2018-05-22 07:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.31 Mbit/s
95th percentile per-packet one-way delay: 66.048 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 61.41 Mbit/s
95th percentile per-packet one-way delay: 66.049 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 25.23 Mbit/s
95th percentile per-packet one-way delay: 65.881 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 66.735 ms
Loss rate: 0.75%
```
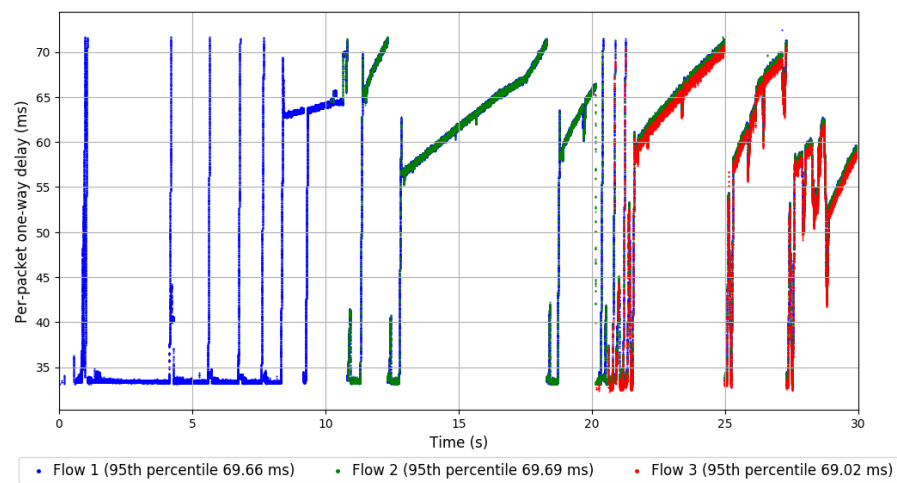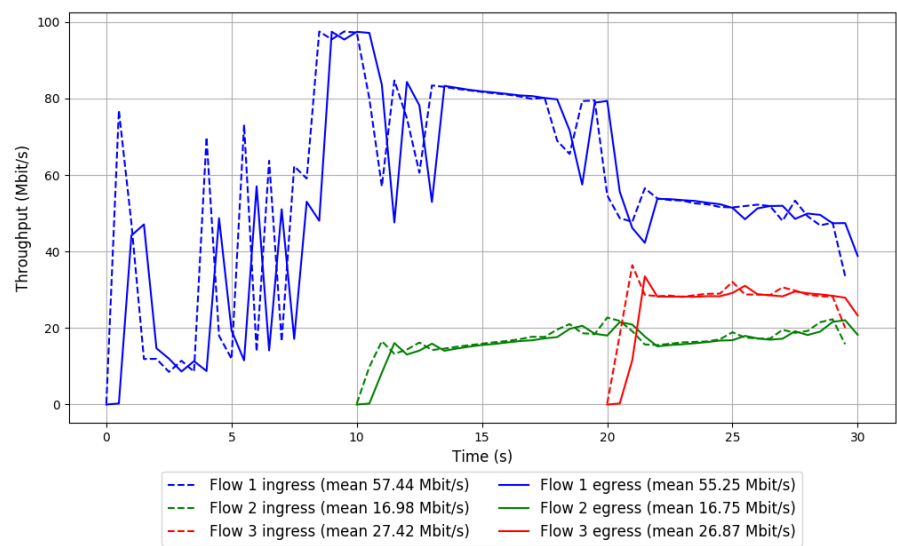
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 63.24 Mbit/s)   Flow 1 egress (mean 61.41 Mbit/s)
Flow 2 ingress (mean 25.50 Mbit/s)   Flow 2 egress (mean 25.23 Mbit/s)
Flow 3 ingress (mean 12.74 Mbit/s)   Flow 3 egress (mean 12.65 Mbit/s)

Flow 1 (95th percentile 66.05 ms)   Flow 2 (95th percentile 65.88 ms)   Flow 3 (95th percentile 66.73 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-05-22 05:02:20
End at: 2018-05-22 05:02:50
Local clock offset: 0.625 ms
Remote clock offset: 2.903 ms


# Below is generated by plot.py at 2018-05-22 07:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.62 Mbit/s
95th percentile per-packet one-way delay: 66.899 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 66.32 Mbit/s
95th percentile per-packet one-way delay: 66.453 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 26.67 Mbit/s
95th percentile per-packet one-way delay: 67.722 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 67.692 ms
Loss rate: 1.07%
```
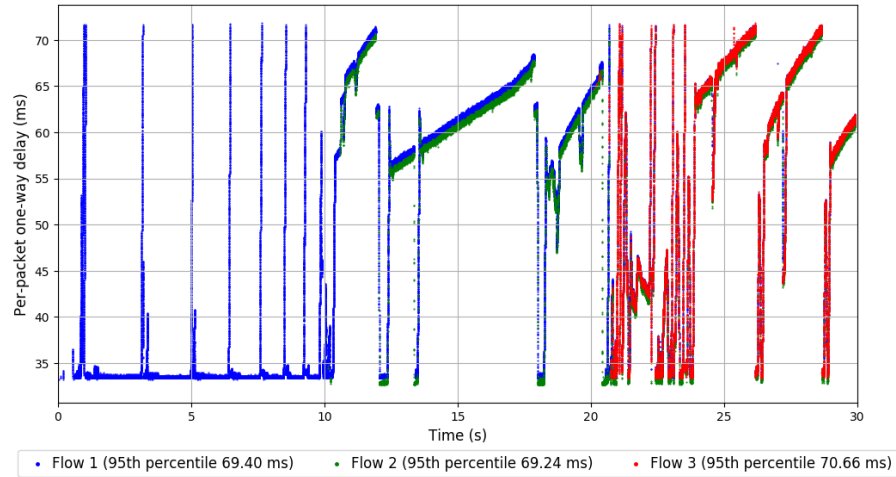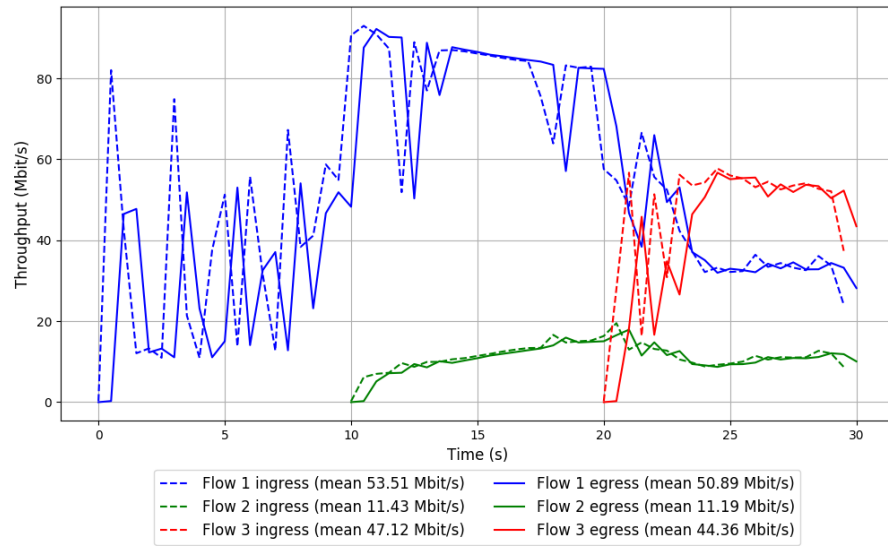
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 67.73 Mbit/s) — Flow 1 egress (mean 66.32 Mbit/s)
Flow 2 ingress (mean 27.04 Mbit/s) — Flow 2 egress (mean 26.67 Mbit/s)
Flow 3 ingress (mean 11.05 Mbit/s) — Flow 3 egress (mean 10.90 Mbit/s)

Flow 1 (95th percentile 66.45 ms) • Flow 2 (95th percentile 67.72 ms) • Flow 3 (95th percentile 67.69 ms)

173

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-05-22 05:23:36
End at: 2018-05-22 05:24:06
Local clock offset: 0.439 ms
Remote clock offset: 2.281 ms

# Below is generated by plot.py at 2018-05-22 07:10:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.24 Mbit/s
95th percentile per-packet one-way delay: 61.695 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 60.825 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 46.62 Mbit/s
95th percentile per-packet one-way delay: 62.052 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 23.52 Mbit/s
95th percentile per-packet one-way delay: 62.444 ms
Loss rate: 0.46%
```
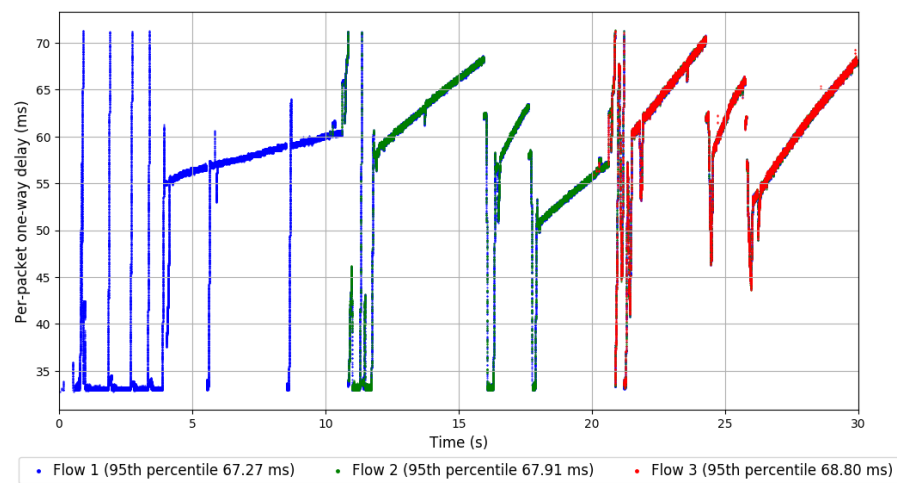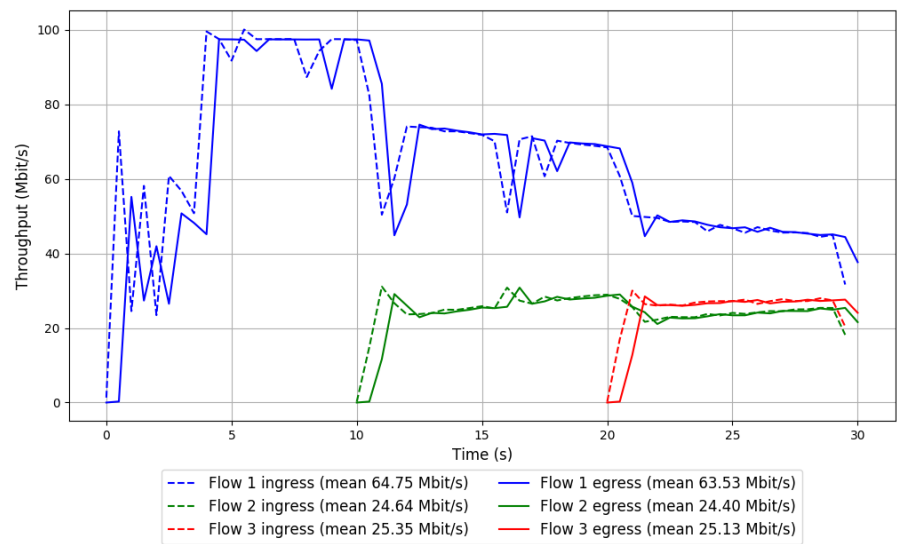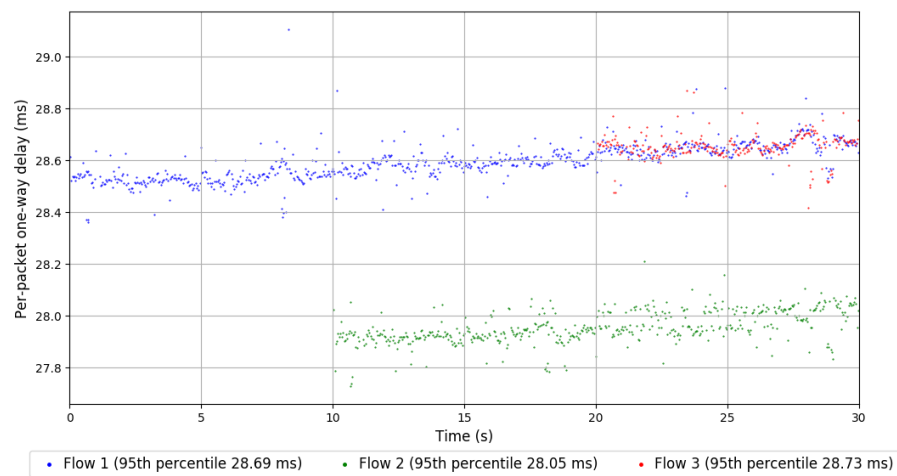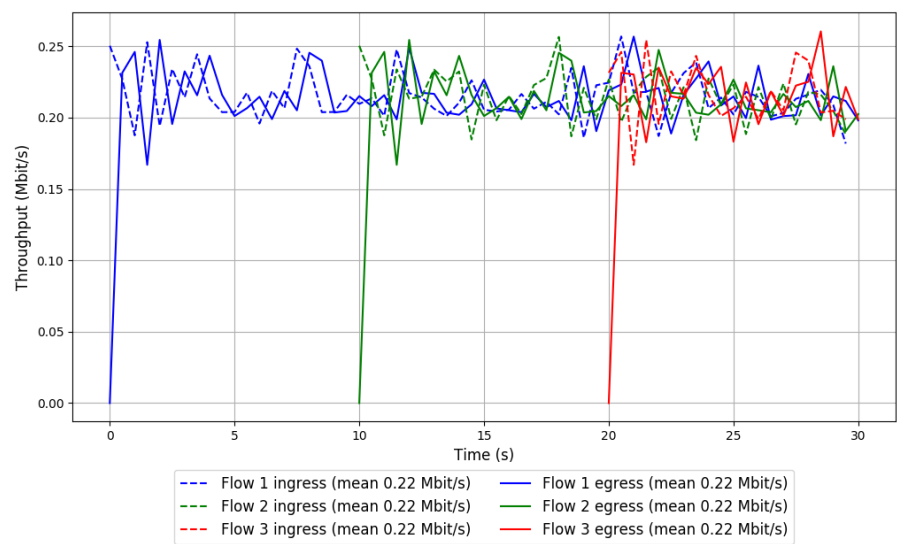
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 50.81 Mbit/s) — Flow 1 egress (mean 49.49 Mbit/s)
Flow 2 ingress (mean 48.00 Mbit/s) — Flow 2 egress (mean 46.62 Mbit/s)
Flow 3 ingress (mean 23.64 Mbit/s) — Flow 3 egress (mean 23.52 Mbit/s)

Flow 1 (95th percentile 60.83 ms)   Flow 2 (95th percentile 62.05 ms)   Flow 3 (95th percentile 62.44 ms)

175

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-05-22 05:44:53
End at: 2018-05-22 05:45:23
Local clock offset: 1.377 ms
Remote clock offset: 2.93 ms


# Below is generated by plot.py at 2018-05-22 07:10:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.20 Mbit/s
95th percentile per-packet one-way delay: 70.438 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 62.76 Mbit/s
95th percentile per-packet one-way delay: 70.221 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 21.34 Mbit/s
95th percentile per-packet one-way delay: 70.826 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 70.888 ms
Loss rate: 0.44%
```
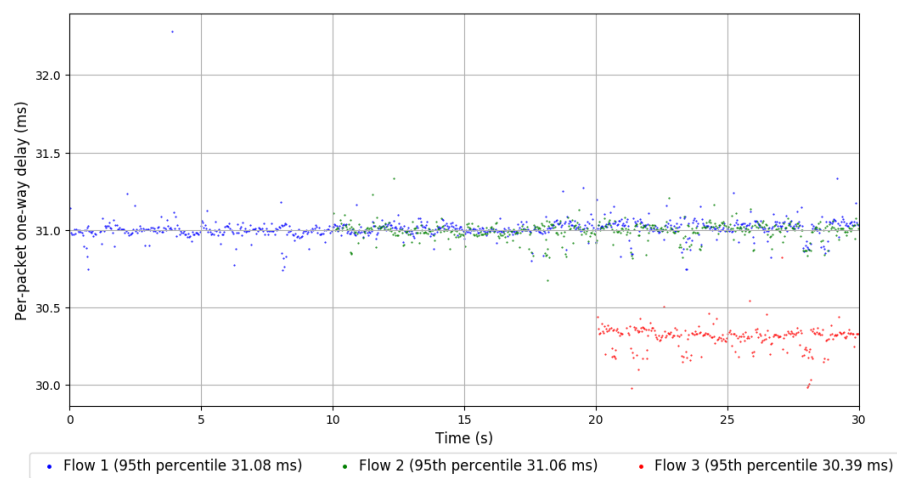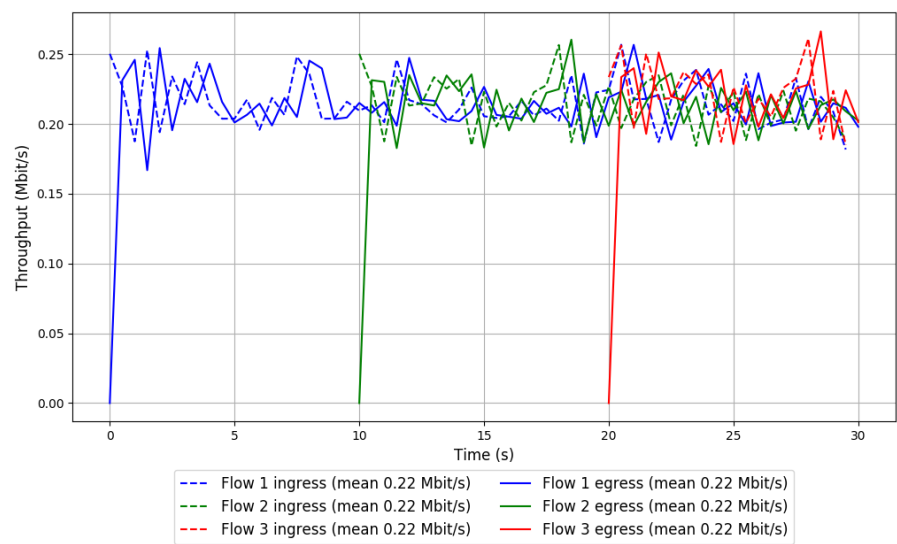
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 64.66 Mbit/s)   Flow 1 egress (mean 62.76 Mbit/s)
Flow 2 ingress (mean 21.59 Mbit/s)   Flow 2 egress (mean 21.34 Mbit/s)
Flow 3 ingress (mean 10.02 Mbit/s)   Flow 3 egress (mean 9.97 Mbit/s)

• Flow 1 (95th percentile 70.22 ms)   • Flow 2 (95th percentile 70.83 ms)   • Flow 3 (95th percentile 70.89 ms)

177

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-05-22 06:07:20
End at: 2018-05-22 06:07:50
Local clock offset: 0.941 ms
Remote clock offset: 1.454 ms


# Below is generated by plot.py at 2018-05-22 07:10:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.20 Mbit/s
95th percentile per-packet one-way delay: 69.598 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 55.25 Mbit/s
95th percentile per-packet one-way delay: 69.663 ms
Loss rate: 3.72%
-- Flow 2:
Average throughput: 16.75 Mbit/s
95th percentile per-packet one-way delay: 69.686 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 26.87 Mbit/s
95th percentile per-packet one-way delay: 69.024 ms
Loss rate: 2.07%
```

Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 57.44 Mbit/s) — Flow 1 egress (mean 55.25 Mbit/s)
Flow 2 ingress (mean 16.98 Mbit/s) — Flow 2 egress (mean 16.75 Mbit/s)
Flow 3 ingress (mean 27.42 Mbit/s) — Flow 3 egress (mean 26.87 Mbit/s)

Flow 1 (95th percentile 69.66 ms)   Flow 2 (95th percentile 69.69 ms)   Flow 3 (95th percentile 69.02 ms)

179

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-05-22 06:29:35
End at: 2018-05-22 06:30:05
Local clock offset: 0.682 ms
Remote clock offset: 6.864 ms


# Below is generated by plot.py at 2018-05-22 07:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.92 Mbit/s
95th percentile per-packet one-way delay: 69.904 ms
Loss rate: 4.74%
-- Flow 1:
Average throughput: 50.89 Mbit/s
95th percentile per-packet one-way delay: 69.400 ms
Loss rate: 4.79%
-- Flow 2:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 69.243 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 44.36 Mbit/s
95th percentile per-packet one-way delay: 70.662 ms
Loss rate: 5.89%
```

Run 9: Report of QUIC Cubic — Data Link

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-05-22 06:51:06
End at: 2018-05-22 06:51:36
Local clock offset: 0.453 ms
Remote clock offset: 6.603 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.02 Mbit/s
95th percentile per-packet one-way delay: 67.616 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 63.53 Mbit/s
95th percentile per-packet one-way delay: 67.272 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 67.913 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 25.13 Mbit/s
95th percentile per-packet one-way delay: 68.803 ms
Loss rate: 0.77%
```
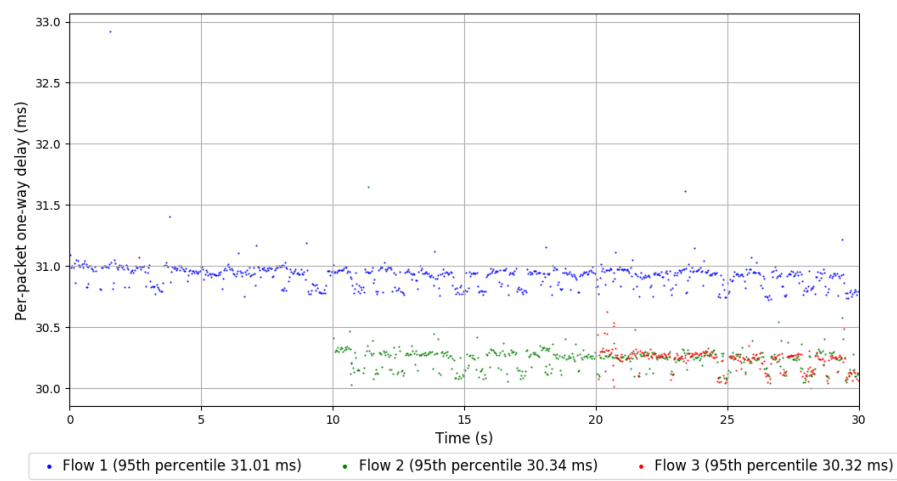
Run 10: Report of QUIC Cubic — Data Link

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```
Run 1: Statistics of SCReAM

Start at: 2018-05-22 03:25:38
End at: 2018-05-22 03:26:08
Local clock offset: 1.866 ms
Remote clock offset: -2.692 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 28.693 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.693 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.729 ms
Loss rate: 0.00%
```
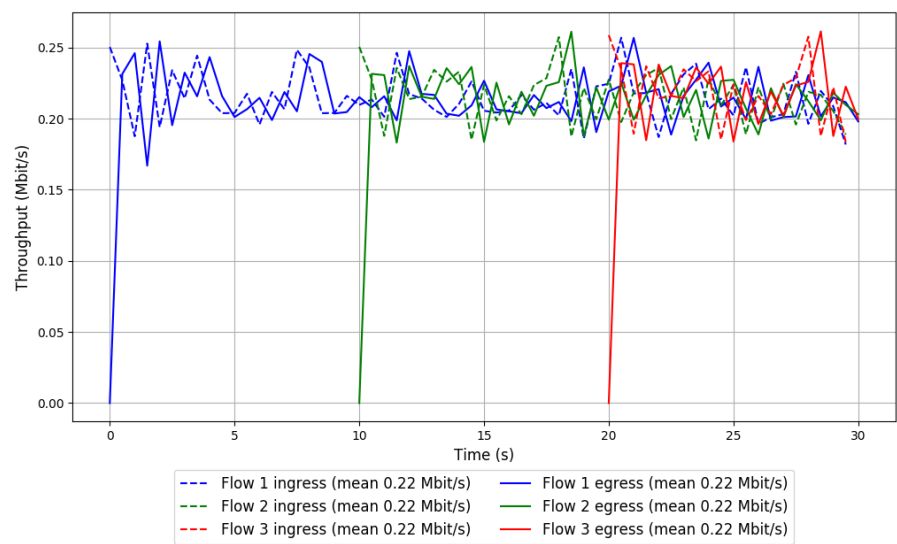
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-05-22 03:47:04
End at: 2018-05-22 03:47:34
Local clock offset: 1.621 ms
Remote clock offset: -4.331 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.076 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.385 ms
Loss rate: 0.00%
```
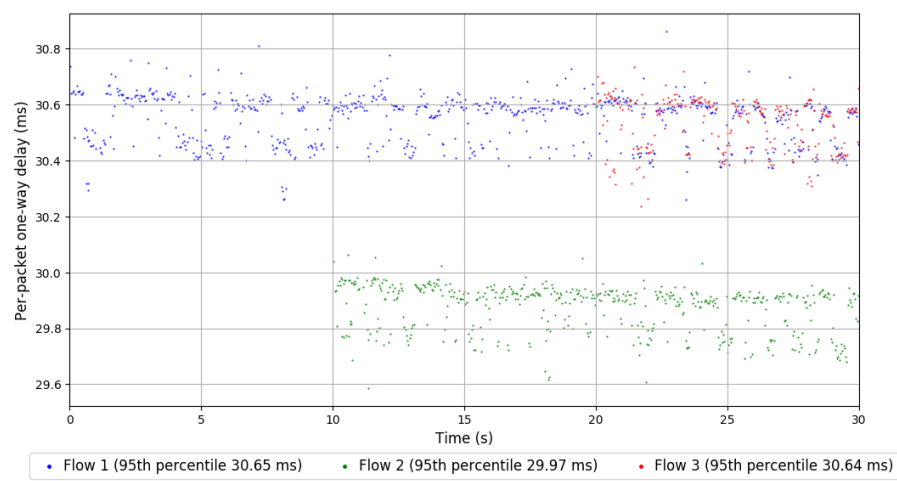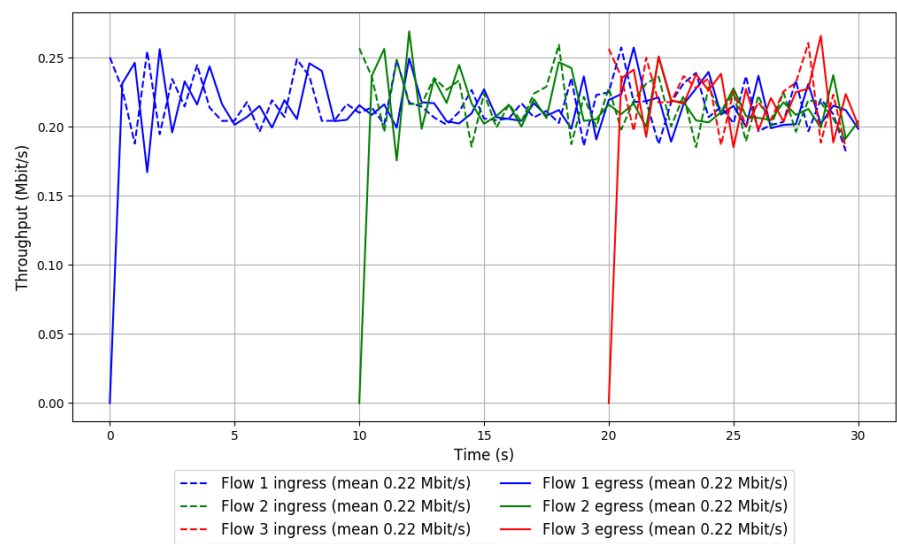
Run 2: Report of SCReAM — Data Link

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```
Run 3: Statistics of SCReAM

Start at: 2018-05-22 04:09:17
End at: 2018-05-22 04:09:47
Local clock offset: 0.907 ms
Remote clock offset: -9.033 ms

# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 28.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.823 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.512 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.514 ms
Loss rate: 0.00%
```
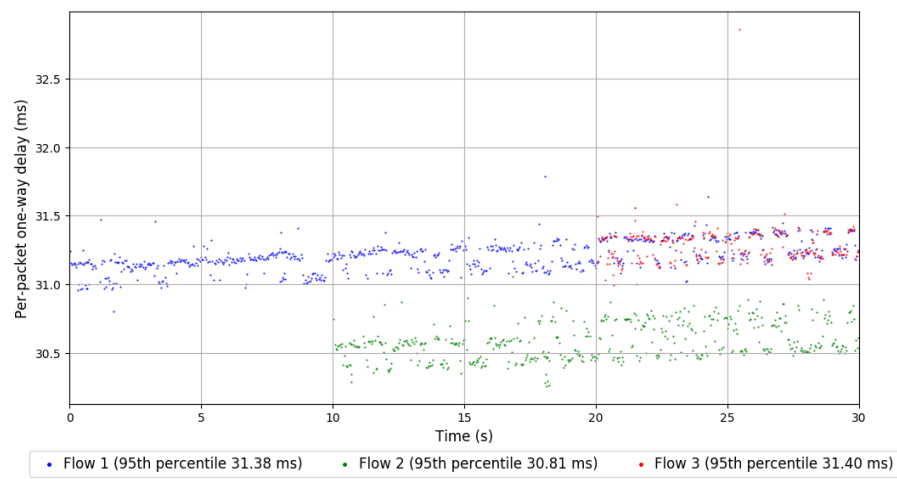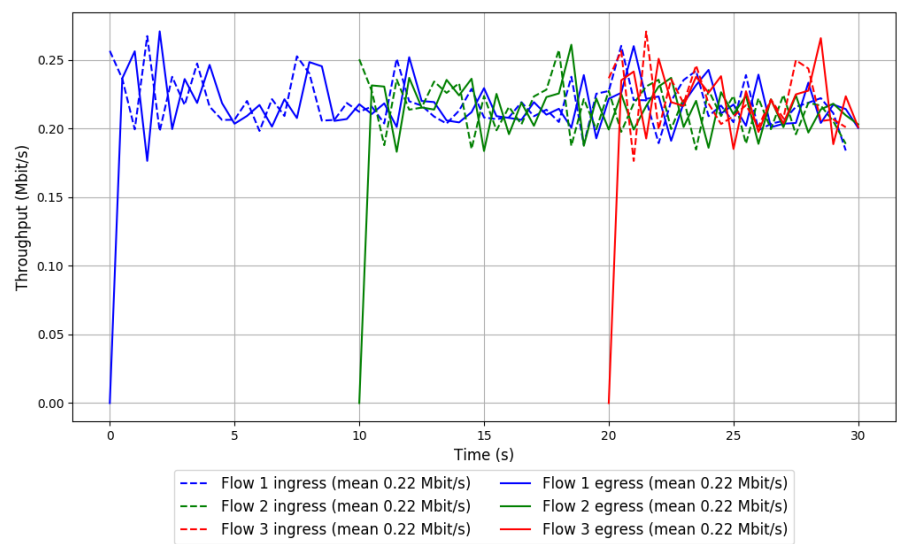
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-05-22 04:30:32
End at: 2018-05-22 04:31:02
Local clock offset: 0.632 ms
Remote clock offset: -5.014 ms

# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 28.379 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.786 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 28.405 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.665 ms
Loss rate: 0.00%
```
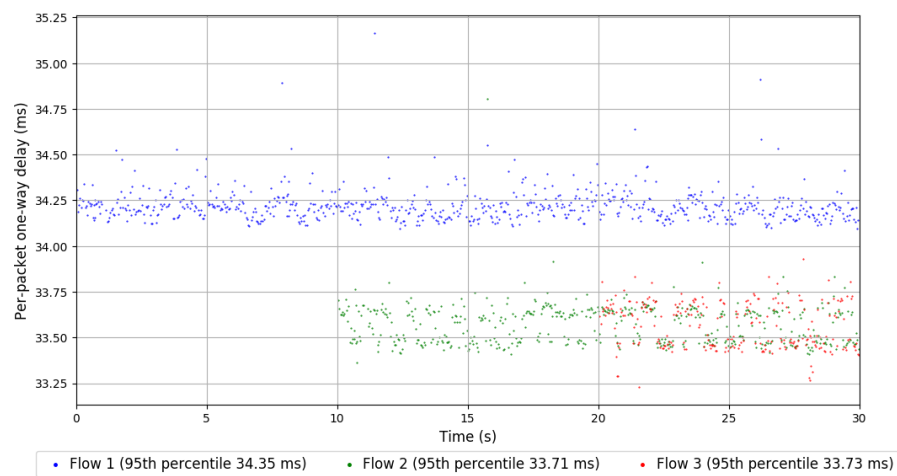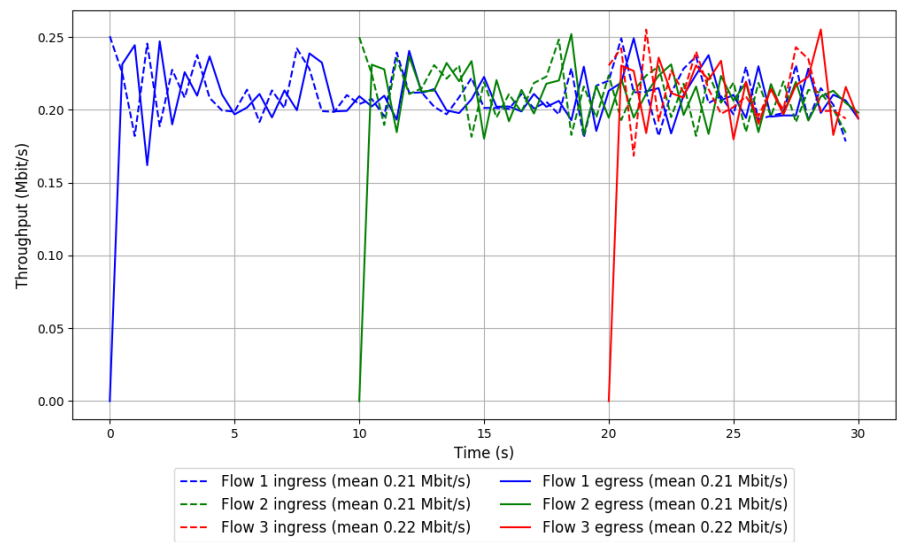
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-05-22 04:51:46
End at: 2018-05-22 04:52:16
Local clock offset: 0.852 ms
Remote clock offset: 1.763 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 30.994 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.007 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.317 ms
Loss rate: 0.00%
```
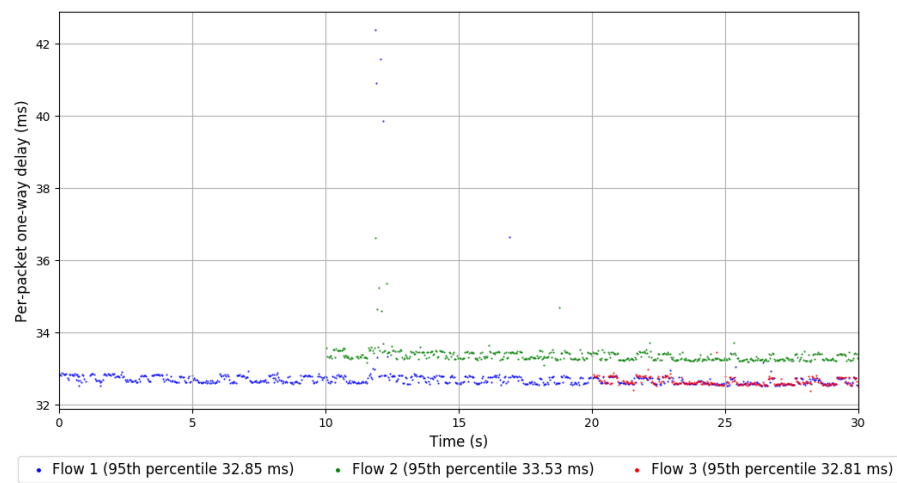
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-05-22 05:13:03
End at: 2018-05-22 05:13:33
Local clock offset: 0.499 ms
Remote clock offset: 3.618 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 30.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.649 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.968 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.637 ms
Loss rate: 0.00%
```
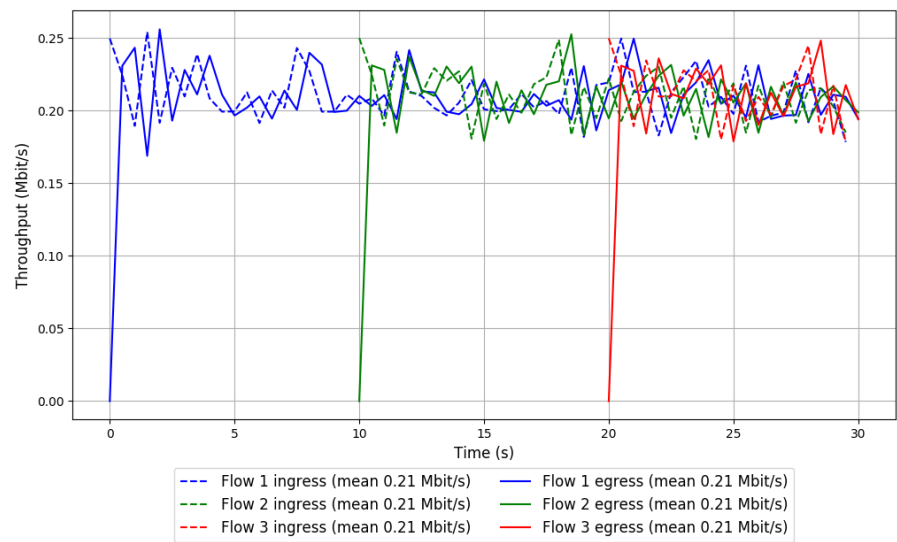
Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2018-05-22 05:34:21
End at: 2018-05-22 05:34:51
Local clock offset: 1.094 ms
Remote clock offset: 3.335 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 31.377 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.381 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.810 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.404 ms
Loss rate: 0.00%
```
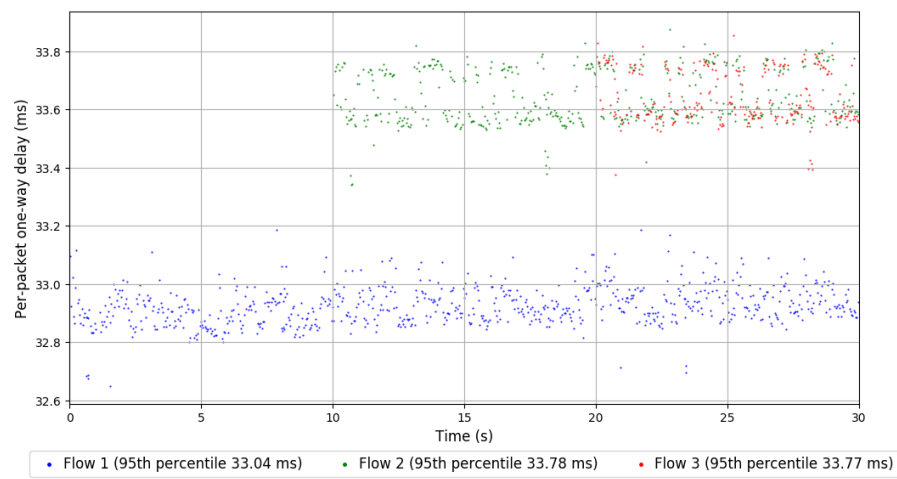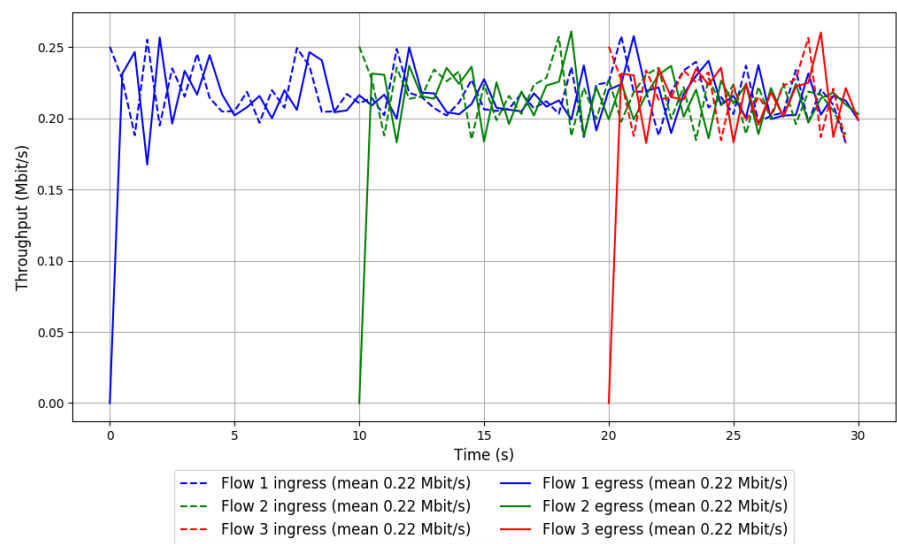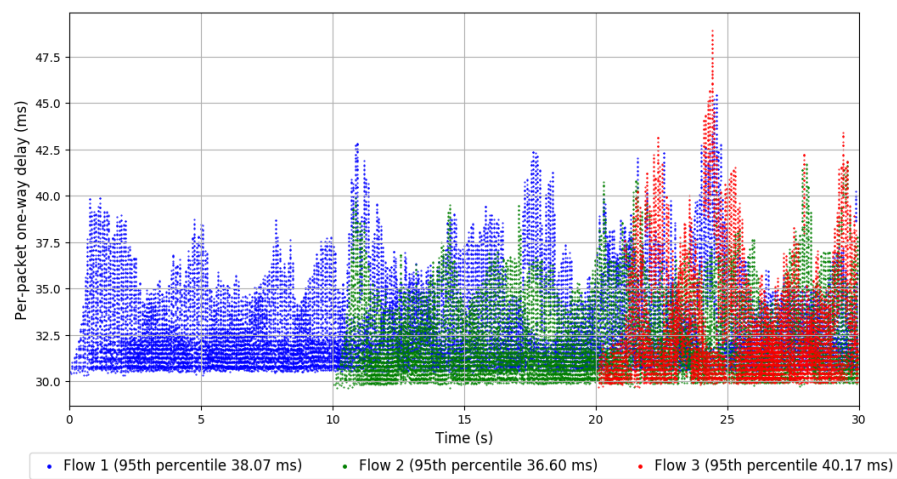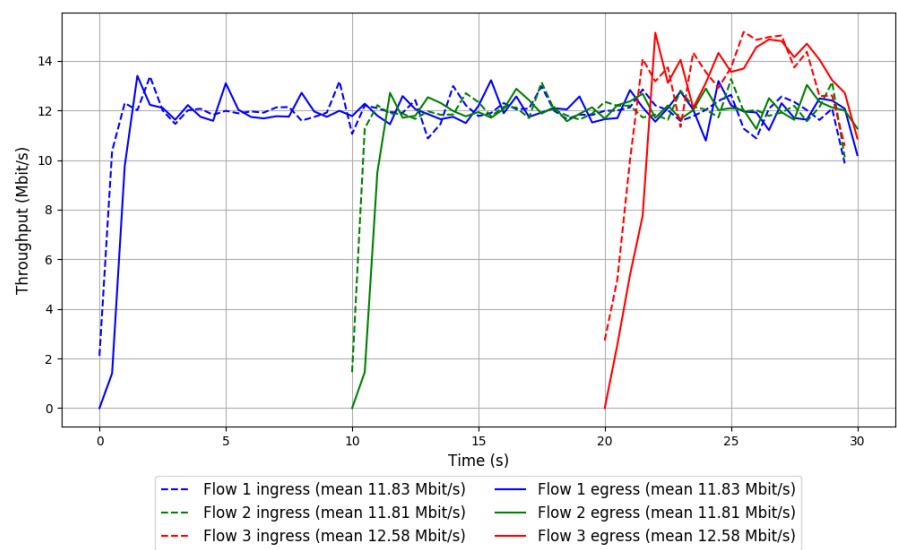
Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-05-22 05:56:19
End at: 2018-05-22 05:56:49
Local clock offset: 1.5 ms
Remote clock offset: 1.423 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 34.306 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.733 ms
Loss rate: 0.00%
```
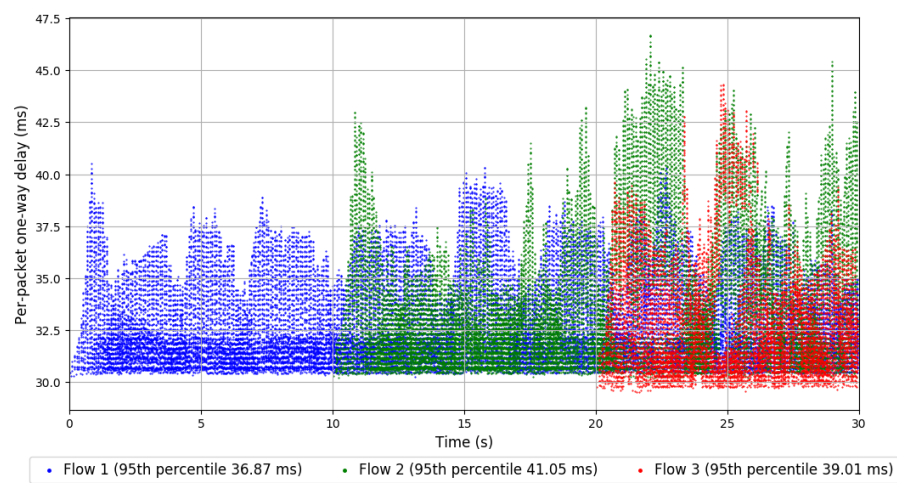
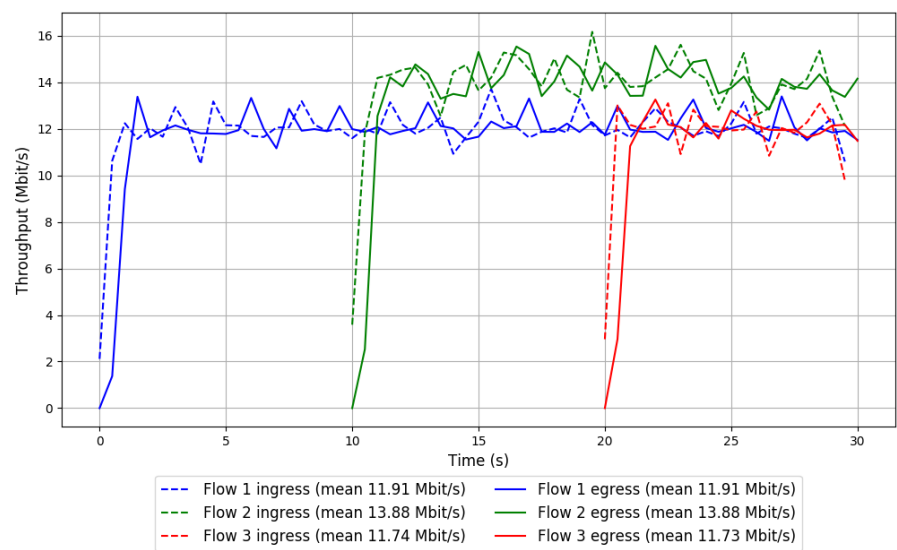# Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2018-05-22 06:18:40
End at: 2018-05-22 06:19:10
Local clock offset: 0.772 ms
Remote clock offset: 5.528 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 33.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 32.850 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.526 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 32.809 ms
Loss rate: 0.00%
```

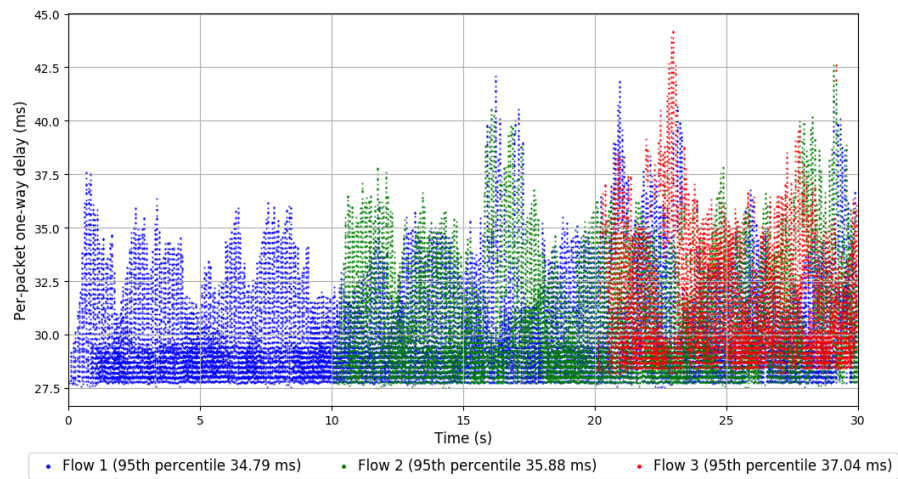## Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-05-22 06:40:30
End at: 2018-05-22 06:41:00
Local clock offset: 0.62 ms
Remote clock offset: 7.381 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 33.763 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.778 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.772 ms
Loss rate: 0.00%
```
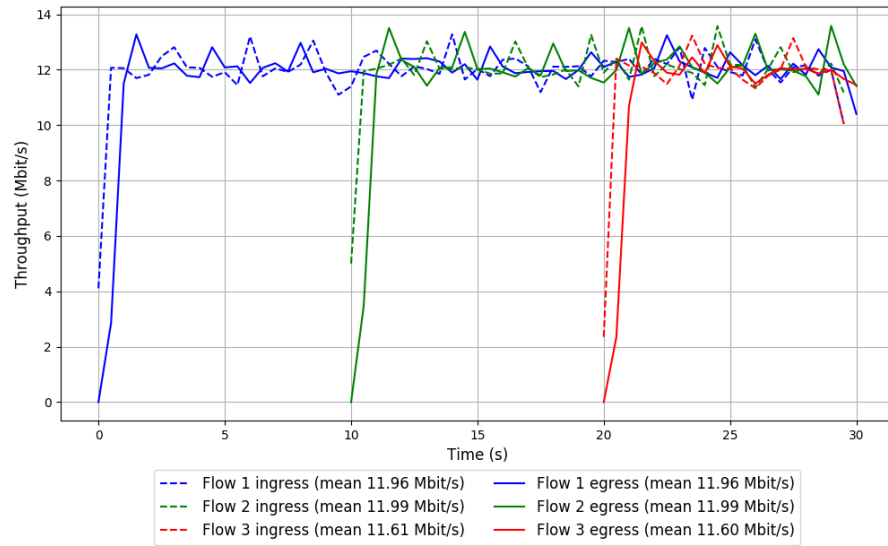
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-05-22 03:29:32
End at: 2018-05-22 03:30:02
Local clock offset: 1.803 ms
Remote clock offset: -1.769 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.84 Mbit/s
95th percentile per-packet one-way delay: 38.093 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 38.066 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 36.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.58 Mbit/s
95th percentile per-packet one-way delay: 40.166 ms
Loss rate: 0.00%
```
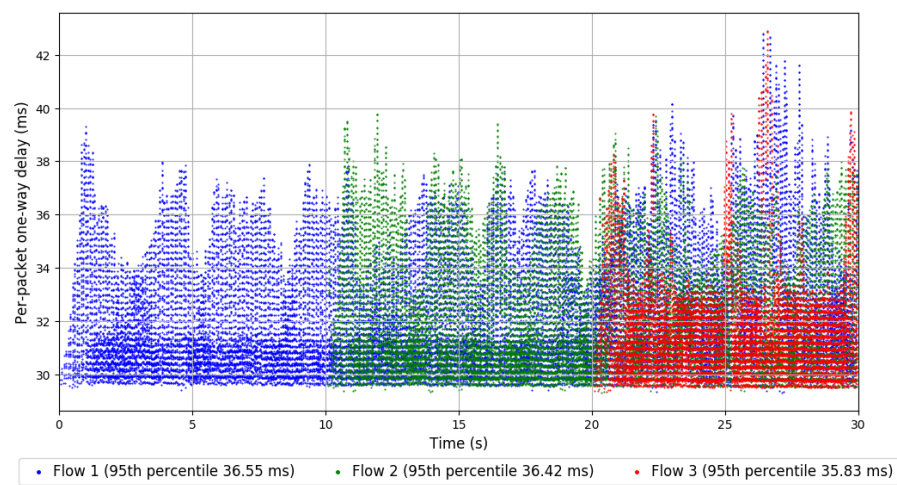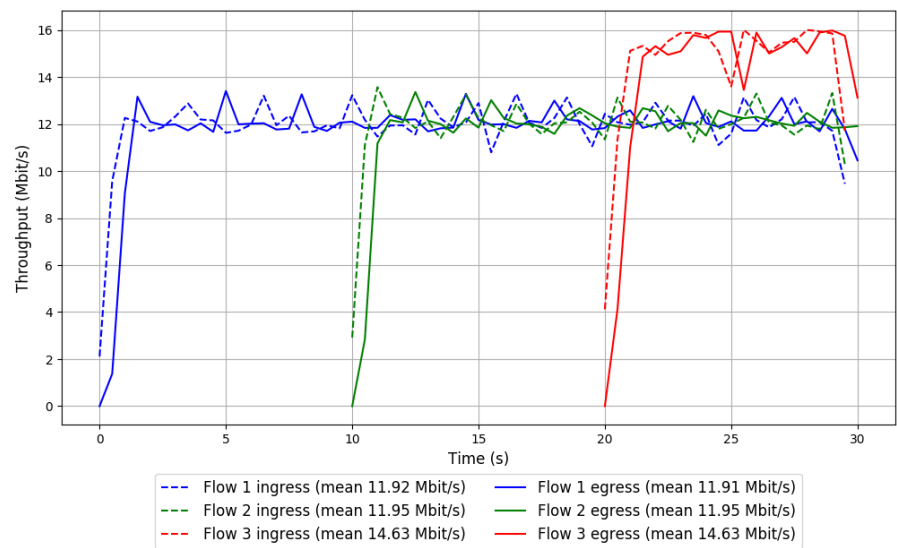
Run 1: Report of Sprout — Data Link

Flow 1 ingress (mean 11.83 Mbit/s)   Flow 1 egress (mean 11.83 Mbit/s)
Flow 2 ingress (mean 11.81 Mbit/s)   Flow 2 egress (mean 11.81 Mbit/s)
Flow 3 ingress (mean 12.58 Mbit/s)   Flow 3 egress (mean 12.58 Mbit/s)

Flow 1 (95th percentile 38.07 ms)   Flow 2 (95th percentile 36.60 ms)   Flow 3 (95th percentile 40.17 ms)

```
Run 2: Statistics of Sprout

Start at: 2018-05-22 03:50:59
End at: 2018-05-22 03:51:29
Local clock offset: 1.621 ms
Remote clock offset: -5.227 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.01 Mbit/s
95th percentile per-packet one-way delay: 39.070 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 36.865 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.88 Mbit/s
95th percentile per-packet one-way delay: 41.052 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 39.008 ms
Loss rate: 0.00%
```
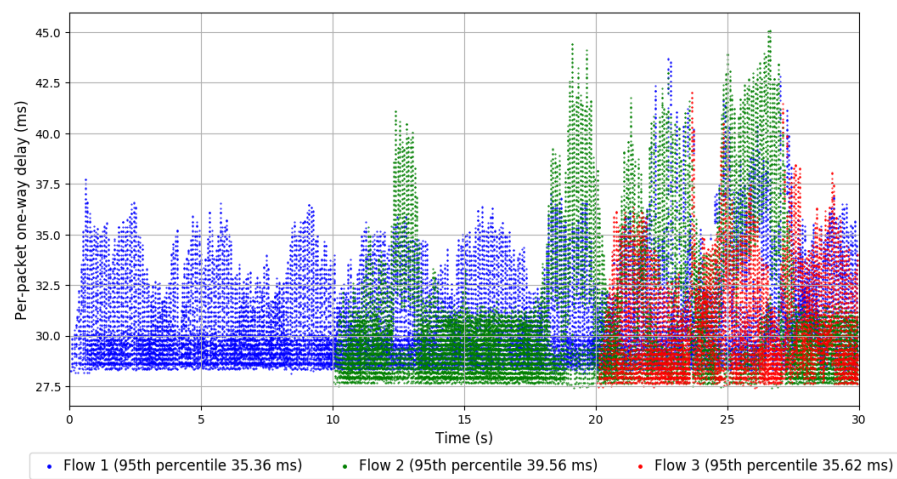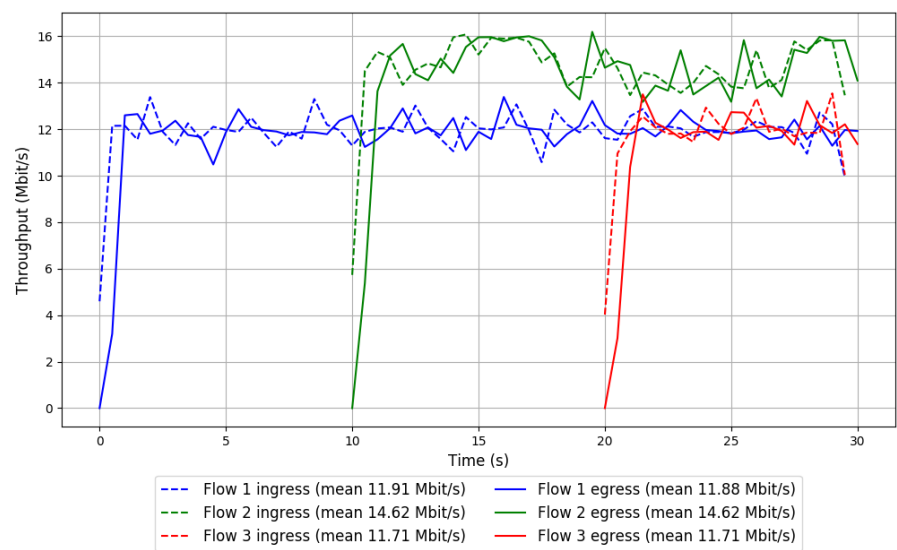
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-05-22 04:13:11
End at: 2018-05-22 04:13:41
Local clock offset: 0.789 ms
Remote clock offset: -9.366 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.78 Mbit/s
95th percentile per-packet one-way delay: 35.738 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 34.794 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.99 Mbit/s
95th percentile per-packet one-way delay: 35.880 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 37.042 ms
Loss rate: 0.12%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-05-22 04:34:26
End at: 2018-05-22 04:34:56
Local clock offset: 0.778 ms
Remote clock offset: -1.504 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 36.440 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 36.553 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 36.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.63 Mbit/s
95th percentile per-packet one-way delay: 35.825 ms
Loss rate: 0.00%
```
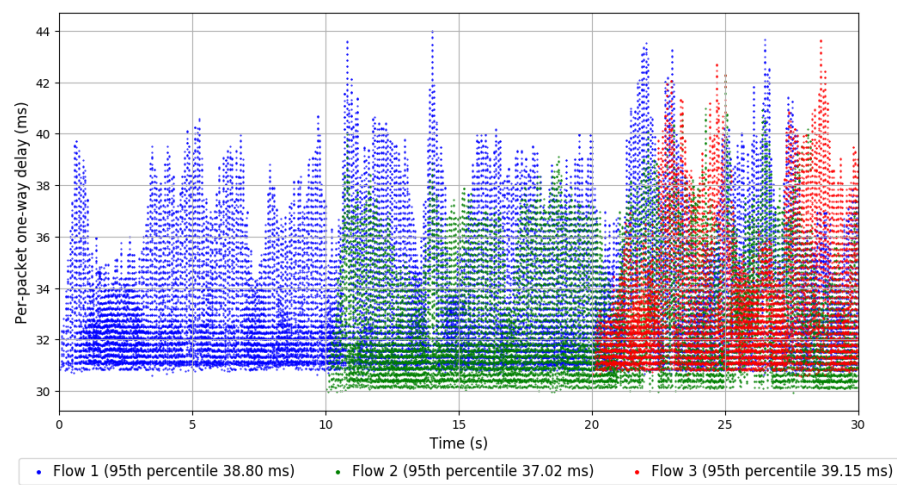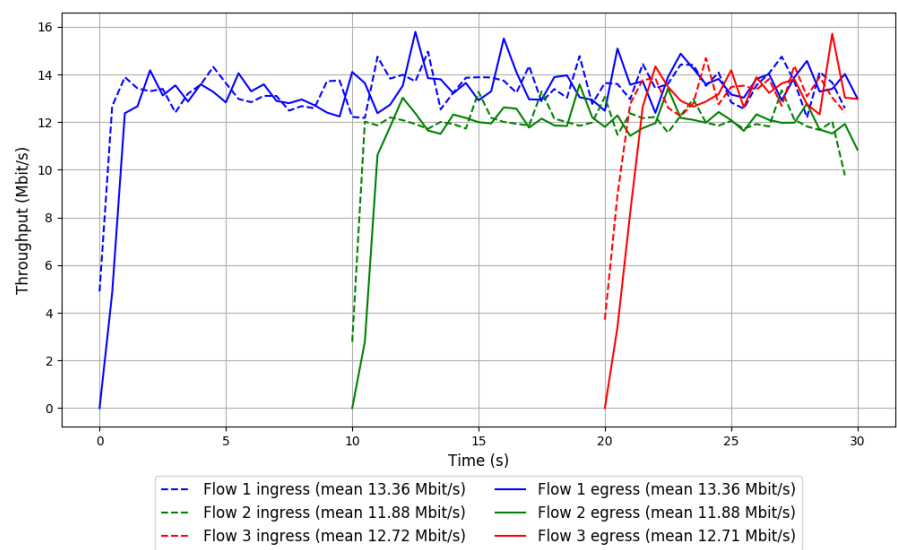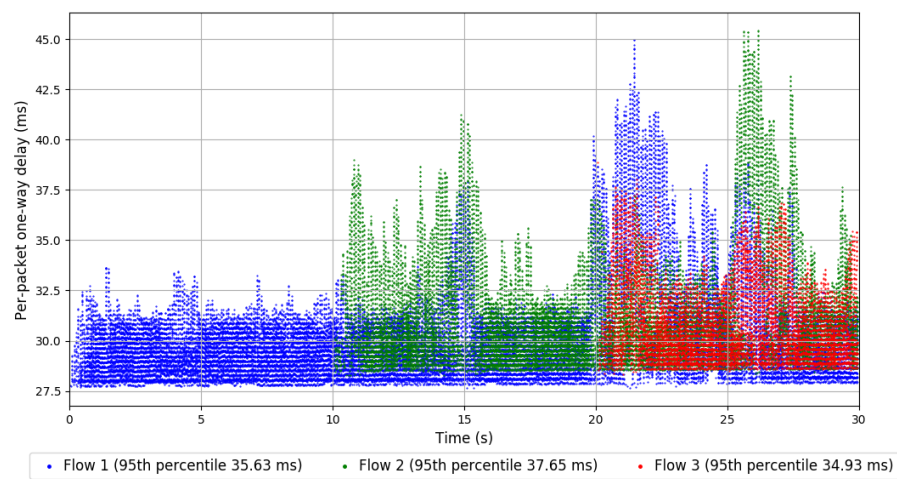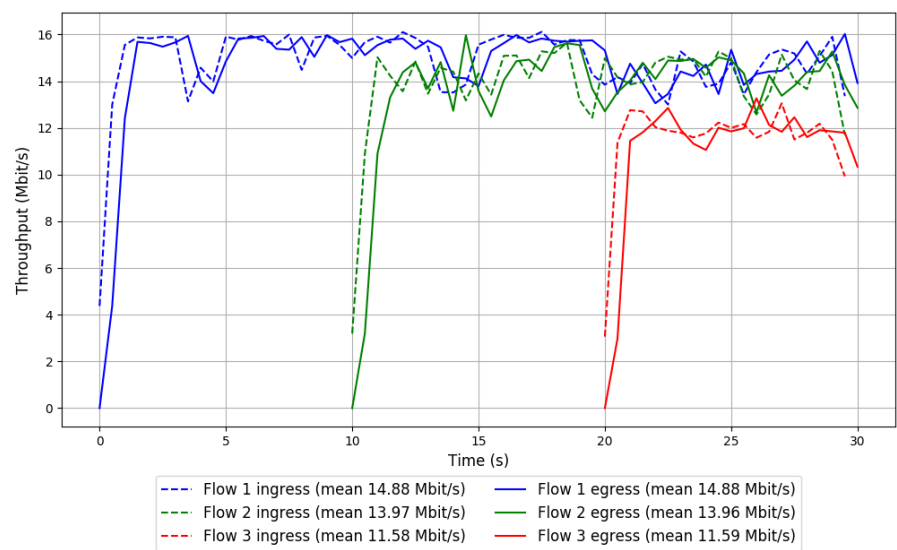
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-05-22 04:55:41
End at: 2018-05-22 04:56:11
Local clock offset: 0.799 ms
Remote clock offset: -0.45 ms

# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.48 Mbit/s
95th percentile per-packet one-way delay: 37.528 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 35.358 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 39.562 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 35.616 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-05-22 05:16:58
End at: 2018-05-22 05:17:28
Local clock offset: 0.565 ms
Remote clock offset: 4.378 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.46 Mbit/s
95th percentile per-packet one-way delay: 38.451 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 38.802 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 37.020 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 39.145 ms
Loss rate: 0.00%
```
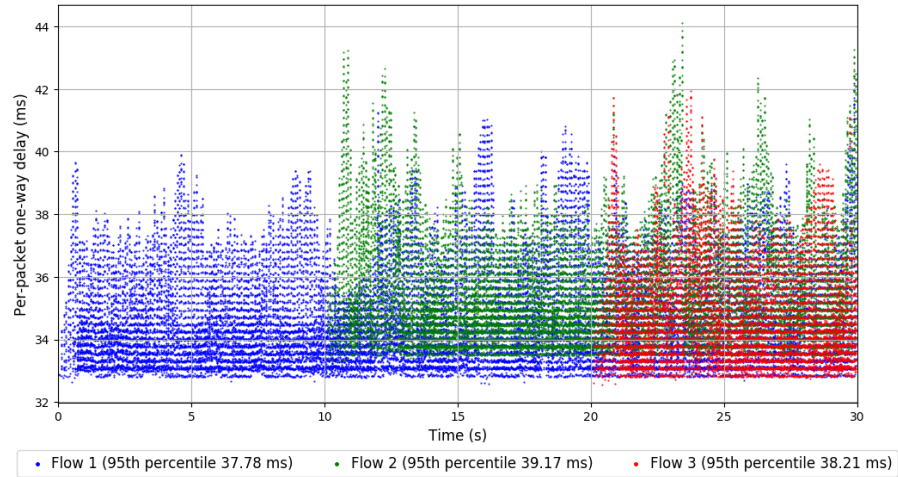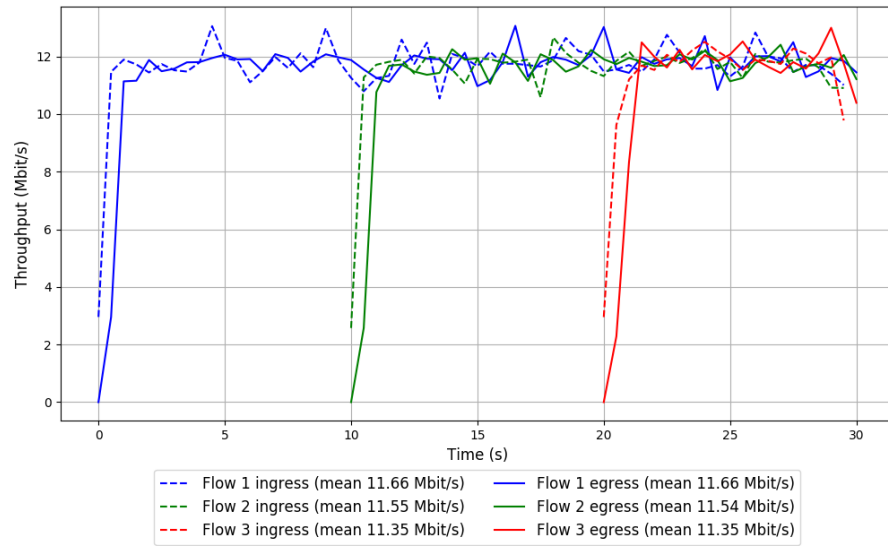
Run 6: Report of Sprout — Data Link

Flow 1 ingress (mean 13.36 Mbit/s) --- Flow 1 egress (mean 13.36 Mbit/s)
Flow 2 ingress (mean 11.88 Mbit/s) --- Flow 2 egress (mean 11.88 Mbit/s)
Flow 3 ingress (mean 12.72 Mbit/s) --- Flow 3 egress (mean 12.71 Mbit/s)

• Flow 1 (95th percentile 38.80 ms)   • Flow 2 (95th percentile 37.02 ms)   • Flow 3 (95th percentile 39.15 ms)

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```
Run 7: Statistics of Sprout

Start at: 2018-05-22 05:38:16
End at: 2018-05-22 05:38:46
Local clock offset: 1.24 ms
Remote clock offset: -0.972 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.99 Mbit/s
95th percentile per-packet one-way delay: 36.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.88 Mbit/s
95th percentile per-packet one-way delay: 35.633 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.96 Mbit/s
95th percentile per-packet one-way delay: 37.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 34.926 ms
Loss rate: 0.00%
```
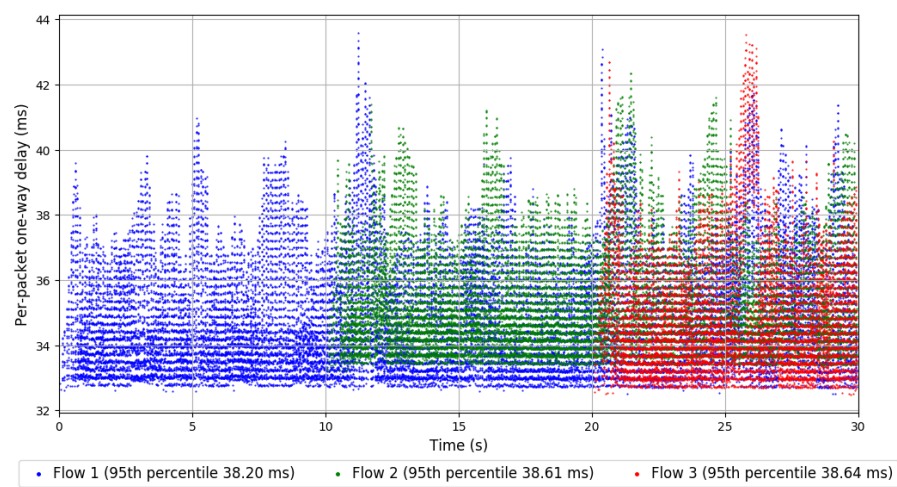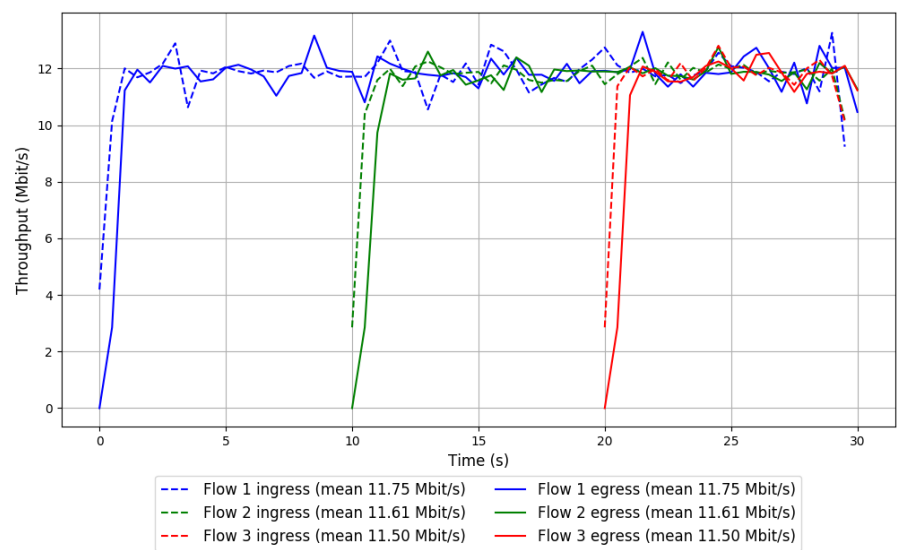
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-05-22 06:00:22
End at: 2018-05-22 06:00:52
Local clock offset: 1.147 ms
Remote clock offset: 0.308 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.09 Mbit/s
95th percentile per-packet one-way delay: 38.411 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.66 Mbit/s
95th percentile per-packet one-way delay: 37.783 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 39.172 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.35 Mbit/s
95th percentile per-packet one-way delay: 38.209 ms
Loss rate: 0.00%
```
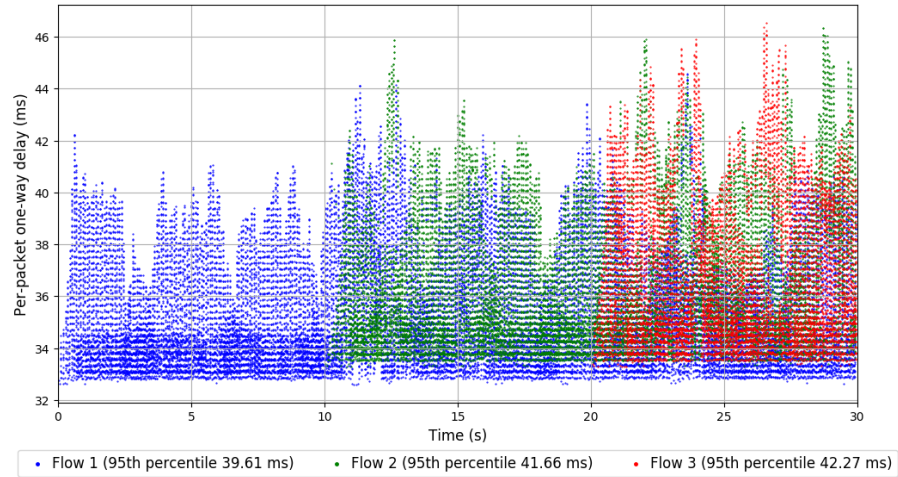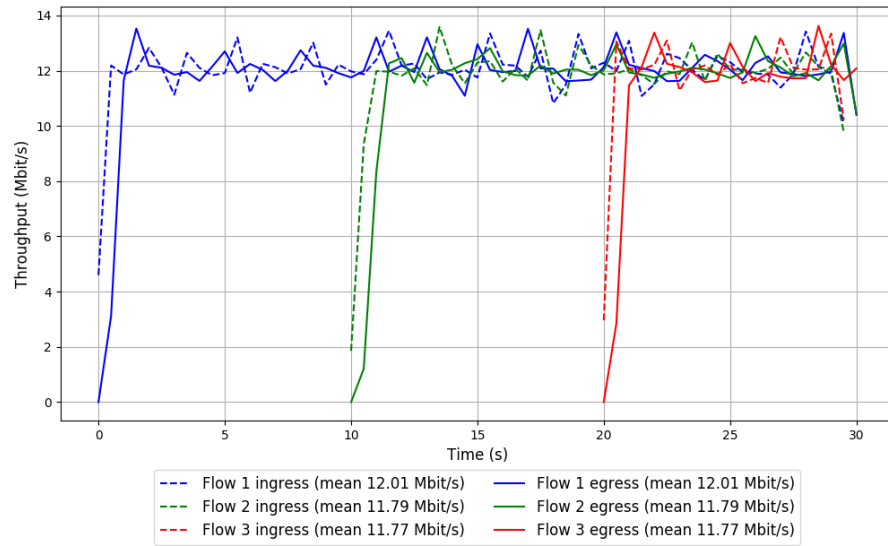
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-05-22 06:22:39
End at: 2018-05-22 06:23:09
Local clock offset: 0.742 ms
Remote clock offset: 6.244 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.27 Mbit/s
95th percentile per-packet one-way delay: 38.416 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 38.196 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 38.609 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 38.641 ms
Loss rate: 0.00%
```
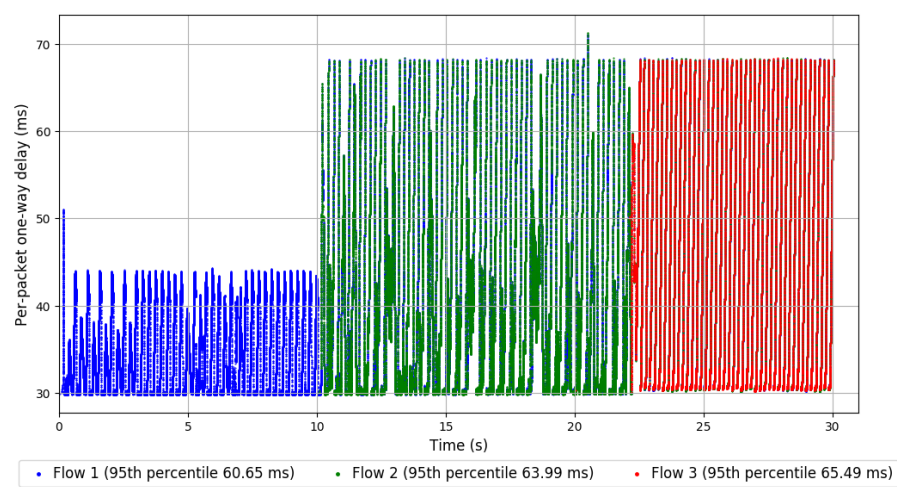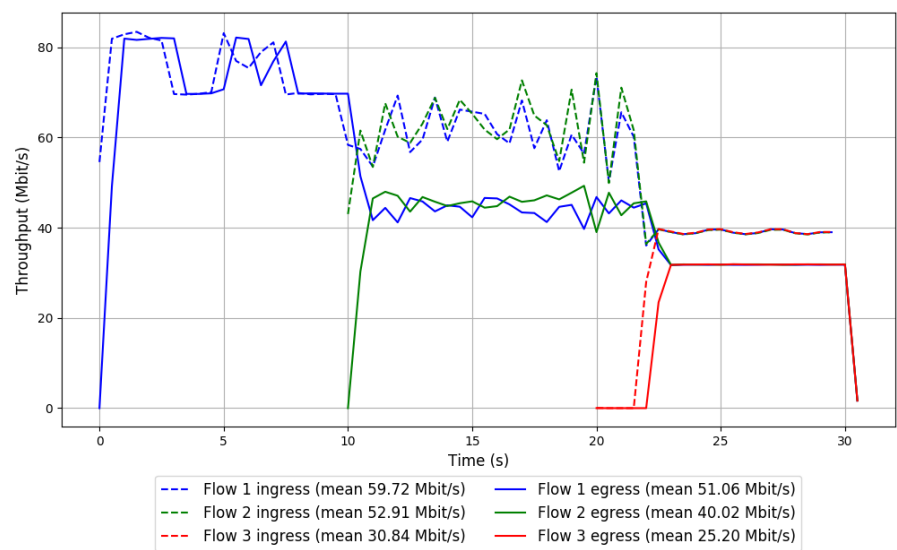
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-05-22 06:44:28
End at: 2018-05-22 06:44:58
Local clock offset: 0.612 ms
Remote clock offset: 6.893 ms


# Below is generated by plot.py at 2018-05-22 07:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.72 Mbit/s
95th percentile per-packet one-way delay: 40.974 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.01 Mbit/s
95th percentile per-packet one-way delay: 39.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 41.658 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 42.273 ms
Loss rate: 0.00%
```

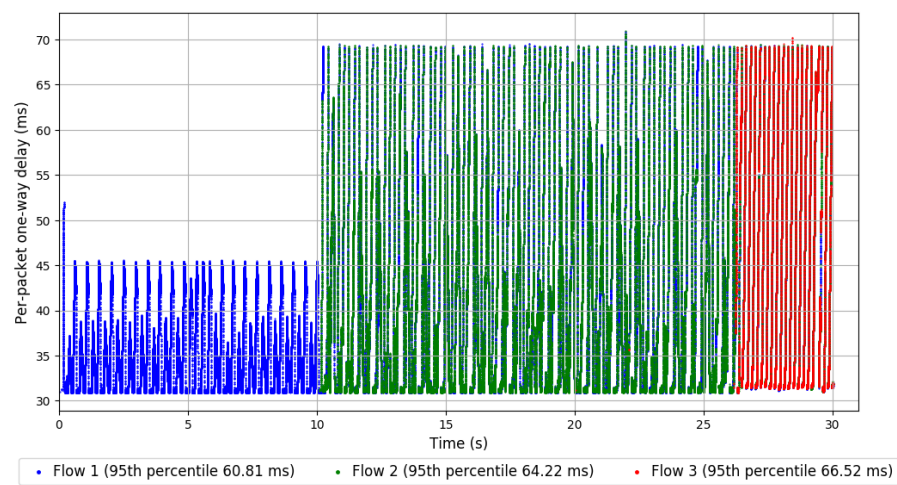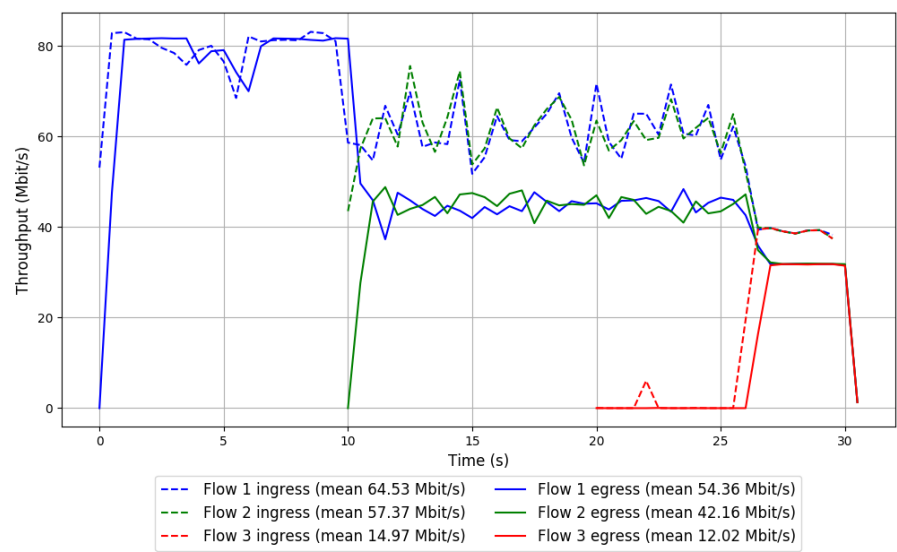## Run 10: Report of Sprout — Data Link

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

Start at: 2018-05-22 03:40:09
End at: 2018-05-22 03:40:39
Local clock offset: 1.514 ms
Remote clock offset: -3.892 ms


# Below is generated by plot.py at 2018-05-22 07:12:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.11 Mbit/s
95th percentile per-packet one-way delay: 63.075 ms
Loss rate: 18.15%
-- Flow 1:
Average throughput: 51.06 Mbit/s
95th percentile per-packet one-way delay: 60.651 ms
Loss rate: 14.48%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 63.994 ms
Loss rate: 24.35%
-- Flow 3:
Average throughput: 25.20 Mbit/s
95th percentile per-packet one-way delay: 65.492 ms
Loss rate: 18.25%
```

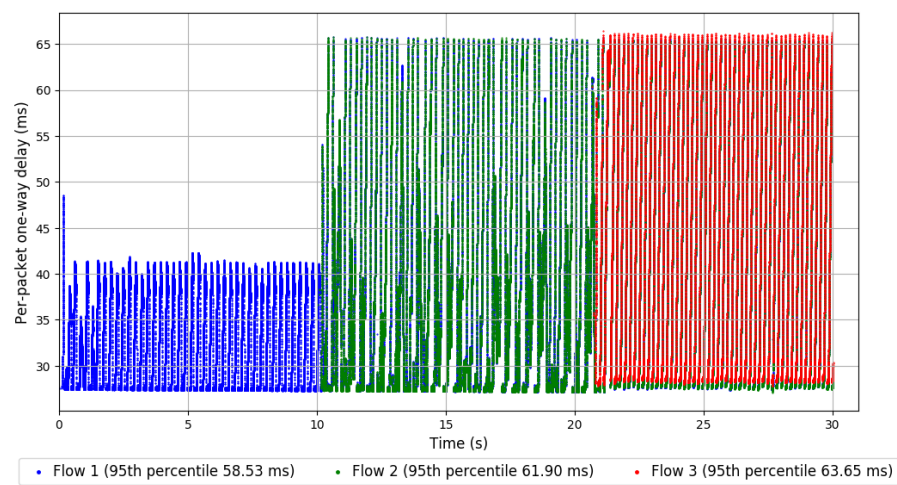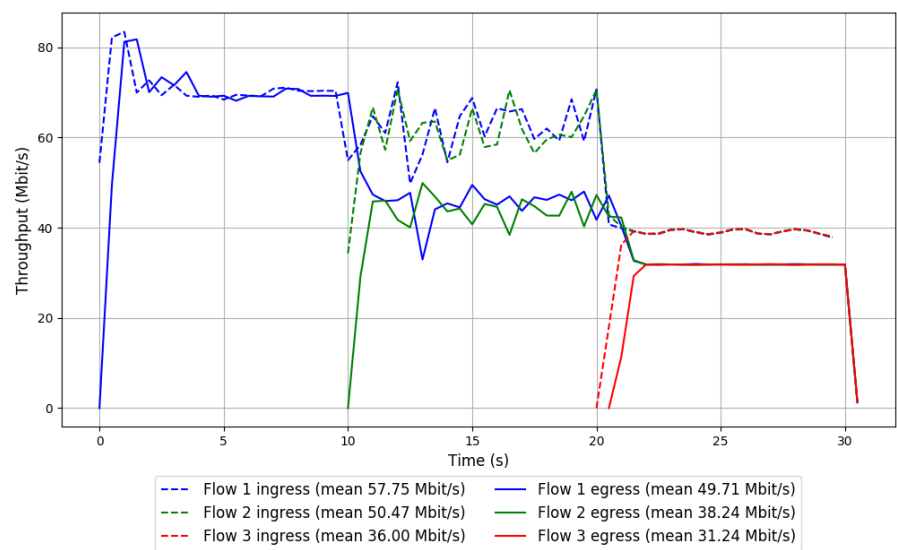Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 59.72 Mbit/s)   Flow 1 egress (mean 51.06 Mbit/s)
Flow 2 ingress (mean 52.91 Mbit/s)   Flow 2 egress (mean 40.02 Mbit/s)
Flow 3 ingress (mean 30.84 Mbit/s)   Flow 3 egress (mean 25.20 Mbit/s)

Flow 1 (95th percentile 60.65 ms)   Flow 2 (95th percentile 63.99 ms)   Flow 3 (95th percentile 65.49 ms)

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

Start at: 2018-05-22 04:02:06
End at: 2018-05-22 04:02:36
Local clock offset: 1.102 ms
Remote clock offset: -5.853 ms


# Below is generated by plot.py at 2018-05-22 07:12:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.43 Mbit/s
95th percentile per-packet one-way delay: 63.044 ms
Loss rate: 19.77%
-- Flow 1:
Average throughput: 54.36 Mbit/s
95th percentile per-packet one-way delay: 60.814 ms
Loss rate: 15.75%
-- Flow 2:
Average throughput: 42.16 Mbit/s
95th percentile per-packet one-way delay: 64.219 ms
Loss rate: 26.55%
-- Flow 3:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 66.519 ms
Loss rate: 19.73%
```
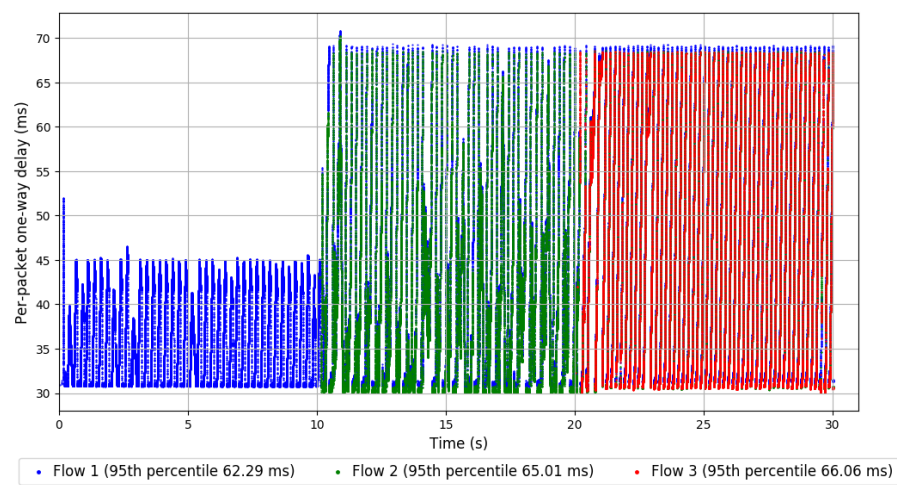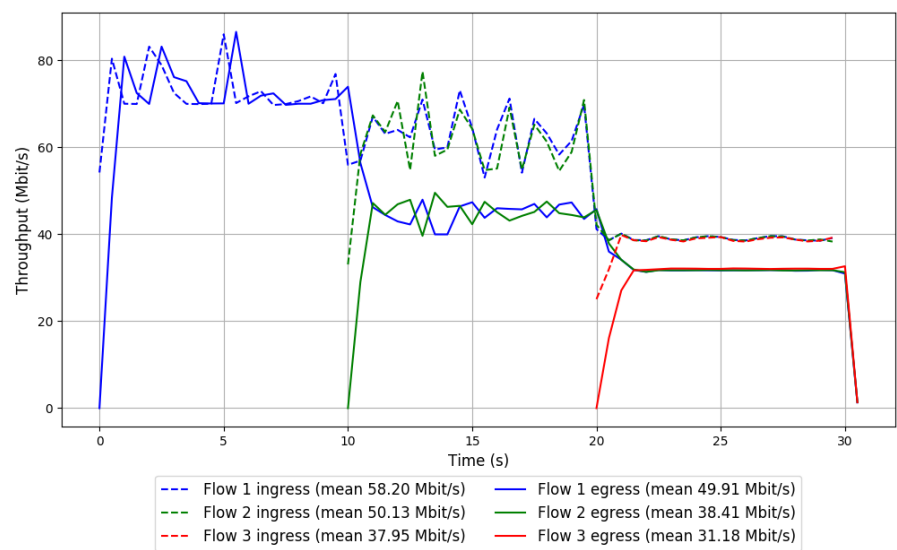
Run 2: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 64.53 Mbit/s)   —— Flow 1 egress (mean 54.36 Mbit/s)
- - - - Flow 2 ingress (mean 57.37 Mbit/s)   —— Flow 2 egress (mean 42.16 Mbit/s)
- - - - Flow 3 ingress (mean 14.97 Mbit/s)   —— Flow 3 egress (mean 12.02 Mbit/s)

- Flow 1 (95th percentile 60.81 ms)   - Flow 2 (95th percentile 64.22 ms)   - Flow 3 (95th percentile 66.52 ms)

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

Start at: 2018-05-22 04:23:50
End at: 2018-05-22 04:24:20
Local clock offset: 0.562 ms
Remote clock offset: -9.446 ms


# Below is generated by plot.py at 2018-05-22 07:12:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.89 Mbit/s
95th percentile per-packet one-way delay: 61.131 ms
Loss rate: 17.85%
-- Flow 1:
Average throughput: 49.71 Mbit/s
95th percentile per-packet one-way delay: 58.528 ms
Loss rate: 13.92%
-- Flow 2:
Average throughput: 38.24 Mbit/s
95th percentile per-packet one-way delay: 61.902 ms
Loss rate: 24.27%
-- Flow 3:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 63.654 ms
Loss rate: 18.74%
```
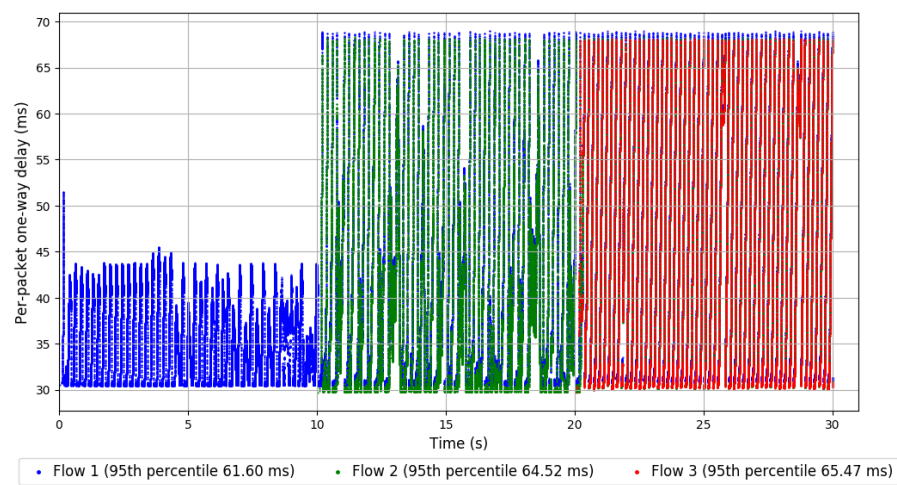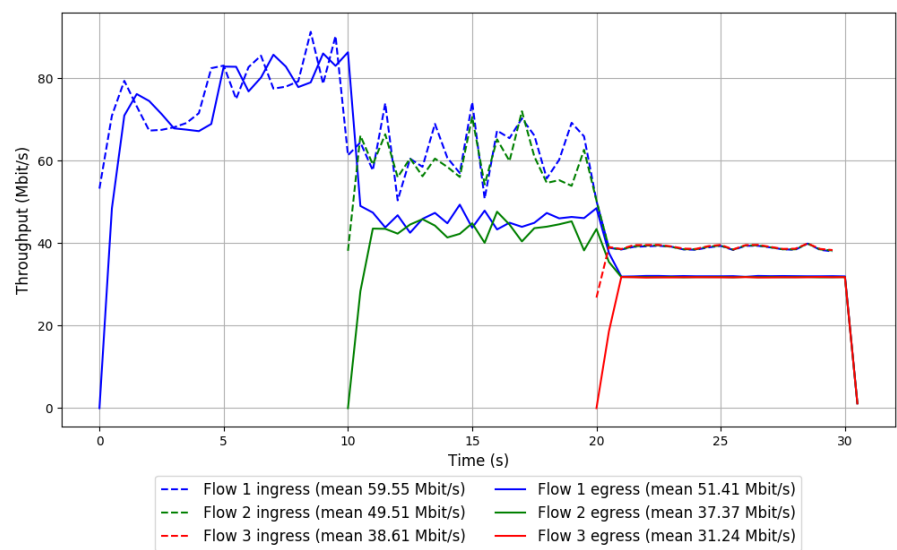
Run 3: Report of TaoVA-100x — Data Link

- Flow 1 ingress (mean 57.75 Mbit/s)
- Flow 2 ingress (mean 50.47 Mbit/s)
- Flow 3 ingress (mean 36.00 Mbit/s)
- Flow 1 egress (mean 49.71 Mbit/s)
- Flow 2 egress (mean 38.24 Mbit/s)
- Flow 3 egress (mean 31.24 Mbit/s)

- Flow 1 (95th percentile 58.53 ms)
- Flow 2 (95th percentile 61.90 ms)
- Flow 3 (95th percentile 63.65 ms)

229

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

Start at: 2018-05-22 04:45:04
End at: 2018-05-22 04:45:34
Local clock offset: 0.876 ms
Remote clock offset: 1.053 ms


# Below is generated by plot.py at 2018-05-22 07:12:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.86 Mbit/s
95th percentile per-packet one-way delay: 64.390 ms
Loss rate: 17.61%
-- Flow 1:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 62.292 ms
Loss rate: 14.25%
-- Flow 2:
Average throughput: 38.41 Mbit/s
95th percentile per-packet one-way delay: 65.013 ms
Loss rate: 23.39%
-- Flow 3:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 66.055 ms
Loss rate: 17.85%
```
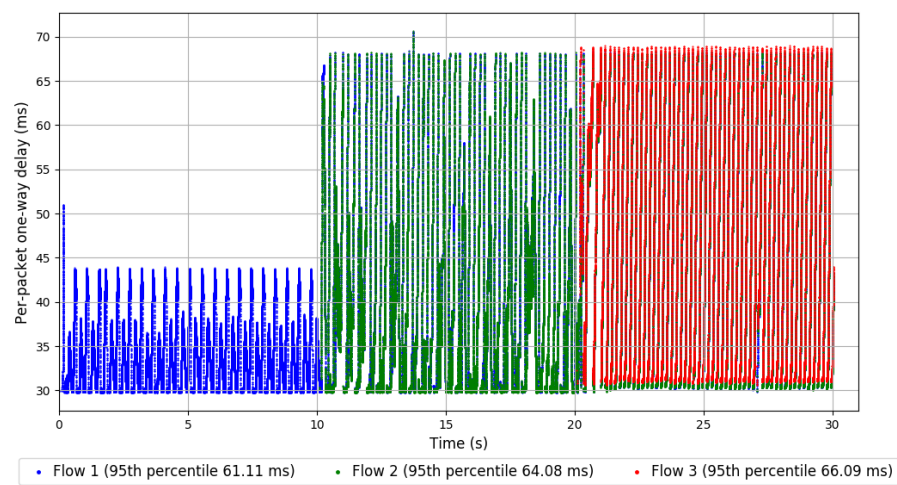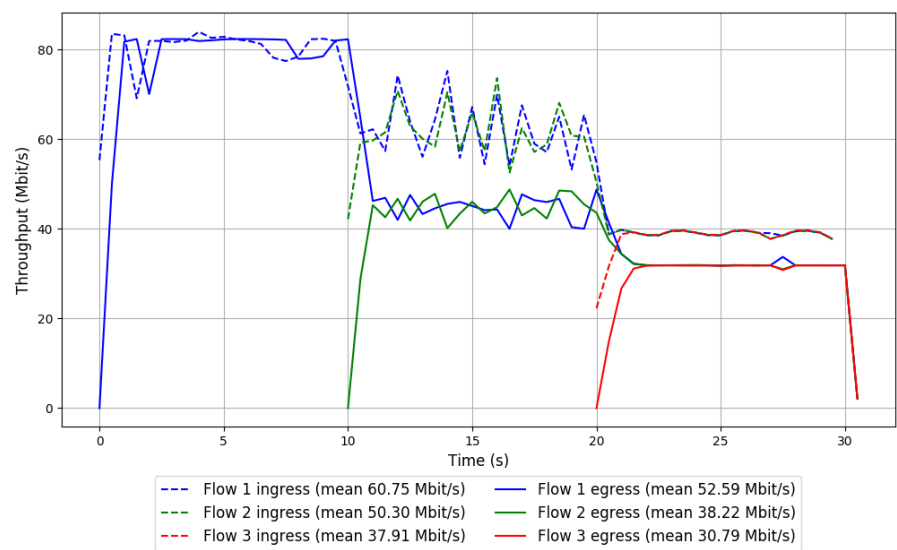
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-05-22 05:06:20
End at: 2018-05-22 05:06:50
Local clock offset: 0.544 ms
Remote clock offset: 2.963 ms


# Below is generated by plot.py at 2018-05-22 07:12:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.69 Mbit/s
95th percentile per-packet one-way delay: 63.622 ms
Loss rate: 17.72%
-- Flow 1:
Average throughput: 51.41 Mbit/s
95th percentile per-packet one-way delay: 61.603 ms
Loss rate: 13.68%
-- Flow 2:
Average throughput: 37.37 Mbit/s
95th percentile per-packet one-way delay: 64.517 ms
Loss rate: 24.51%
-- Flow 3:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 65.472 ms
Loss rate: 19.08%
```
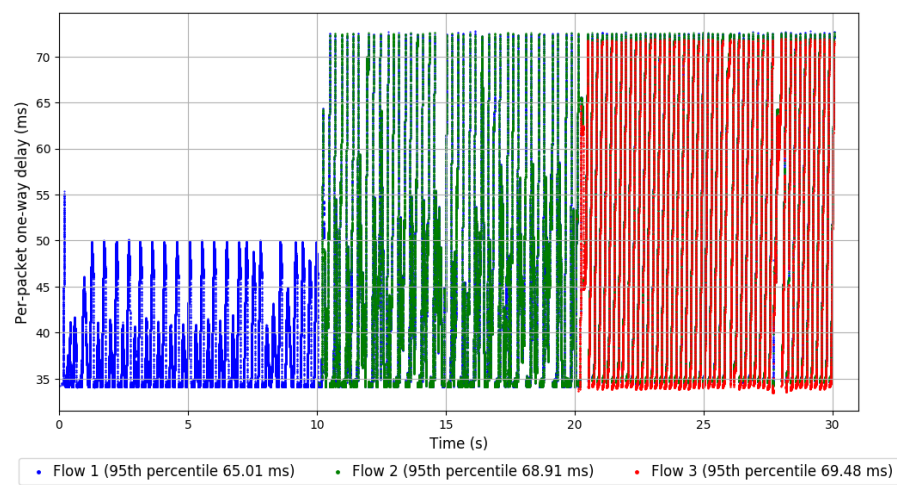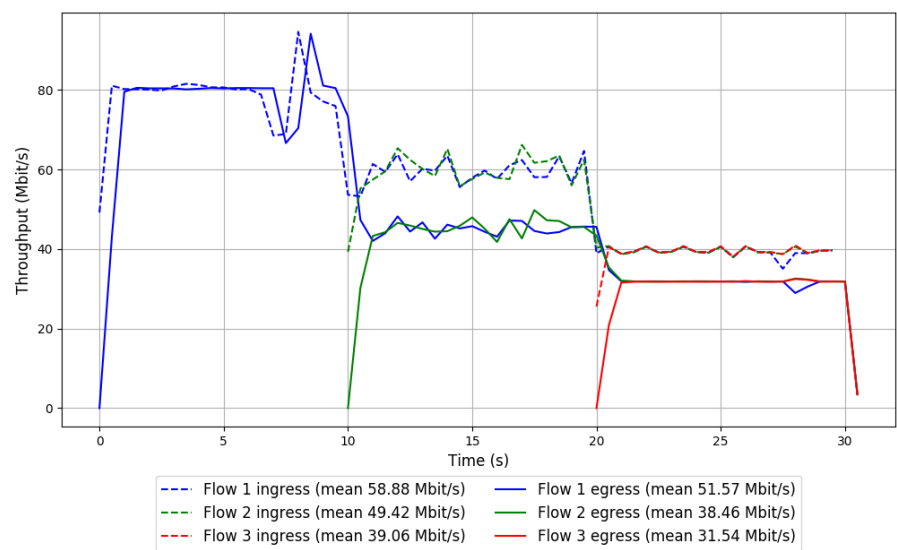
Run 5: Report of TaoVA-100x — Data Link

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

Start at: 2018-05-22 05:27:38
End at: 2018-05-22 05:28:08
Local clock offset: 0.622 ms
Remote clock offset: 4.75 ms


# Below is generated by plot.py at 2018-05-22 07:12:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 63.484 ms
Loss rate: 17.34%
-- Flow 1:
Average throughput: 52.59 Mbit/s
95th percentile per-packet one-way delay: 61.109 ms
Loss rate: 13.40%
-- Flow 2:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 64.082 ms
Loss rate: 23.98%
-- Flow 3:
Average throughput: 30.79 Mbit/s
95th percentile per-packet one-way delay: 66.090 ms
Loss rate: 18.69%
```
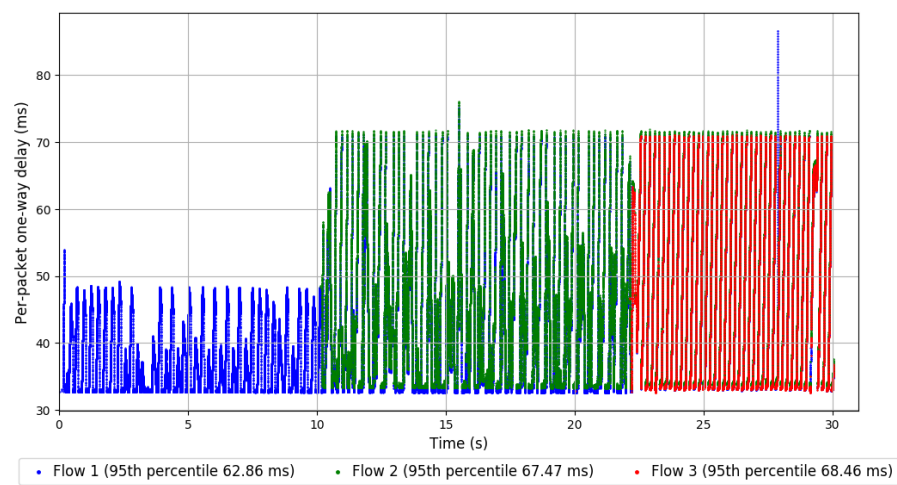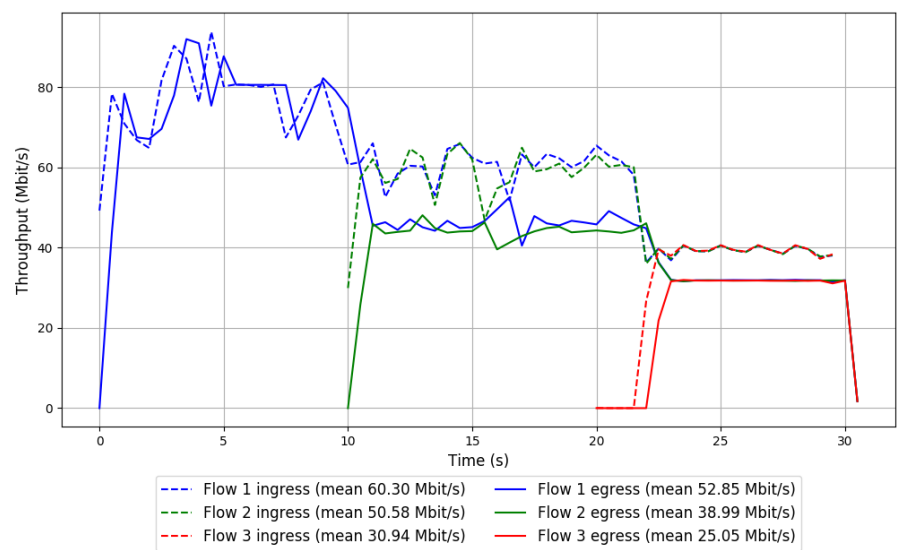
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 60.75 Mbit/s) --- Flow 1 egress (mean 52.59 Mbit/s)
Flow 2 ingress (mean 50.30 Mbit/s) --- Flow 2 egress (mean 38.22 Mbit/s)
Flow 3 ingress (mean 37.91 Mbit/s) --- Flow 3 egress (mean 30.79 Mbit/s)

Flow 1 (95th percentile 61.11 ms) • Flow 2 (95th percentile 64.08 ms) • Flow 3 (95th percentile 66.09 ms)

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

Start at: 2018-05-22 05:49:05
End at: 2018-05-22 05:49:35
Local clock offset: 1.445 ms
Remote clock offset: 2.19 ms


# Below is generated by plot.py at 2018-05-22 07:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.69 Mbit/s
95th percentile per-packet one-way delay: 67.771 ms
Loss rate: 16.23%
-- Flow 1:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 65.008 ms
Loss rate: 12.32%
-- Flow 2:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 68.905 ms
Loss rate: 22.07%
-- Flow 3:
Average throughput: 31.54 Mbit/s
95th percentile per-packet one-way delay: 69.476 ms
Loss rate: 19.15%
```
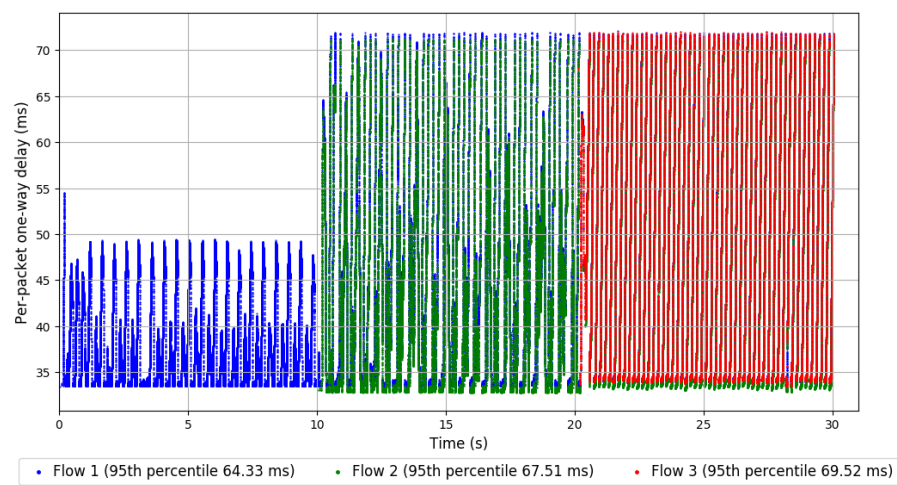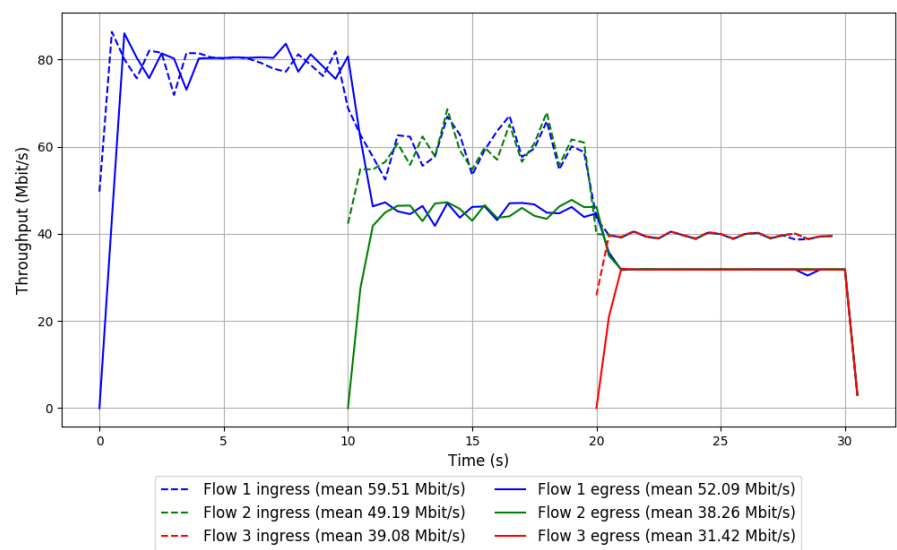
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 58.88 Mbit/s) — — — Flow 1 egress (mean 51.57 Mbit/s)
Flow 2 ingress (mean 49.42 Mbit/s) — — — Flow 2 egress (mean 38.46 Mbit/s)
Flow 3 ingress (mean 39.06 Mbit/s) — — — Flow 3 egress (mean 31.54 Mbit/s)

Flow 1 (95th percentile 65.01 ms)   Flow 2 (95th percentile 68.91 ms)   Flow 3 (95th percentile 69.48 ms)

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

Start at: 2018-05-22 06:11:42
End at: 2018-05-22 06:12:12
Local clock offset: 0.856 ms
Remote clock offset: 3.693 ms


# Below is generated by plot.py at 2018-05-22 07:13:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.15 Mbit/s
95th percentile per-packet one-way delay: 65.820 ms
Loss rate: 16.42%
-- Flow 1:
Average throughput: 52.85 Mbit/s
95th percentile per-packet one-way delay: 62.858 ms
Loss rate: 12.35%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 67.473 ms
Loss rate: 22.91%
-- Flow 3:
Average throughput: 25.05 Mbit/s
95th percentile per-packet one-way delay: 68.458 ms
Loss rate: 19.02%
```
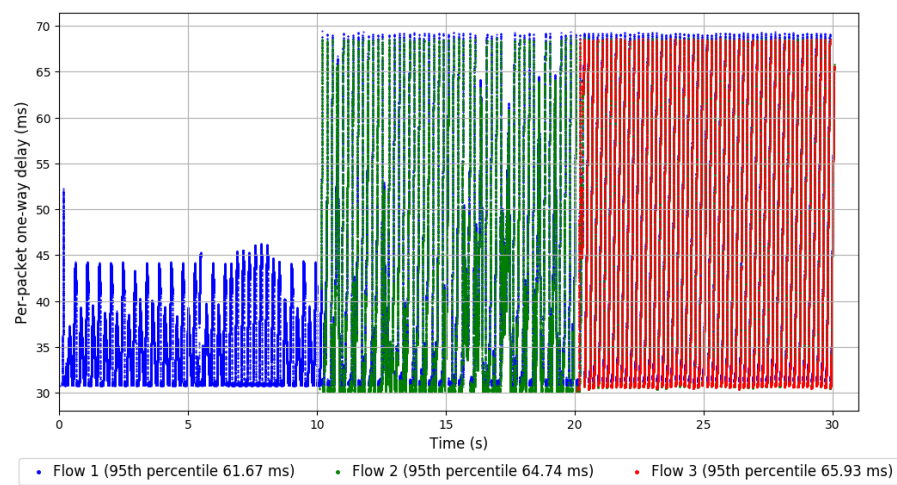
Run 8: Report of TaoVA-100x — Data Link

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

Start at: 2018-05-22 06:33:39
End at: 2018-05-22 06:34:09
Local clock offset: 0.556 ms
Remote clock offset: 7.164 ms


# Below is generated by plot.py at 2018-05-22 07:14:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.07 Mbit/s
95th percentile per-packet one-way delay: 66.714 ms
Loss rate: 16.27%
-- Flow 1:
Average throughput: 52.09 Mbit/s
95th percentile per-packet one-way delay: 64.331 ms
Loss rate: 12.38%
-- Flow 2:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 67.510 ms
Loss rate: 22.10%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 69.522 ms
Loss rate: 19.38%
```
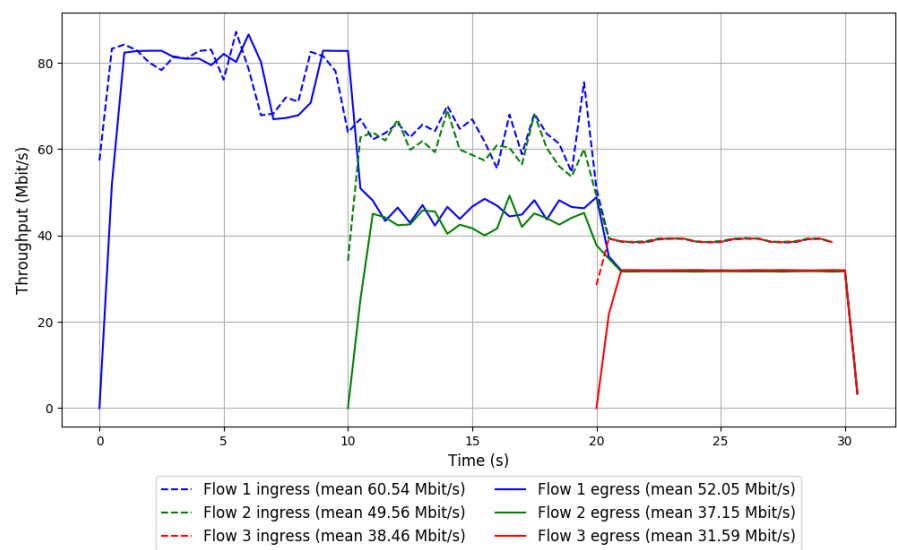
Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-05-22 06:55:07
End at: 2018-05-22 06:55:37
Local clock offset: 0.498 ms
Remote clock offset: 3.763 ms

# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.33 Mbit/s
95th percentile per-packet one-way delay: 63.806 ms
Loss rate: 17.78%
-- Flow 1:
Average throughput: 52.05 Mbit/s
95th percentile per-packet one-way delay: 61.667 ms
Loss rate: 13.93%
-- Flow 2:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 64.740 ms
Loss rate: 24.91%
-- Flow 3:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 65.927 ms
Loss rate: 17.58%
```
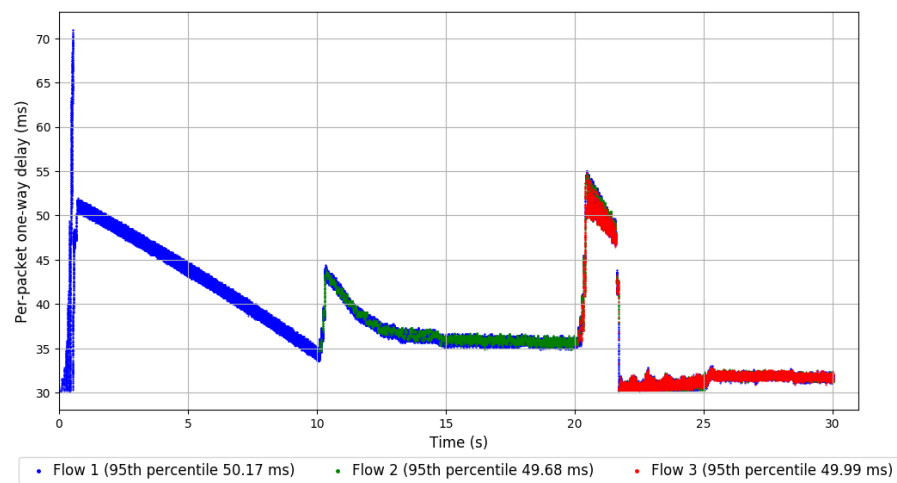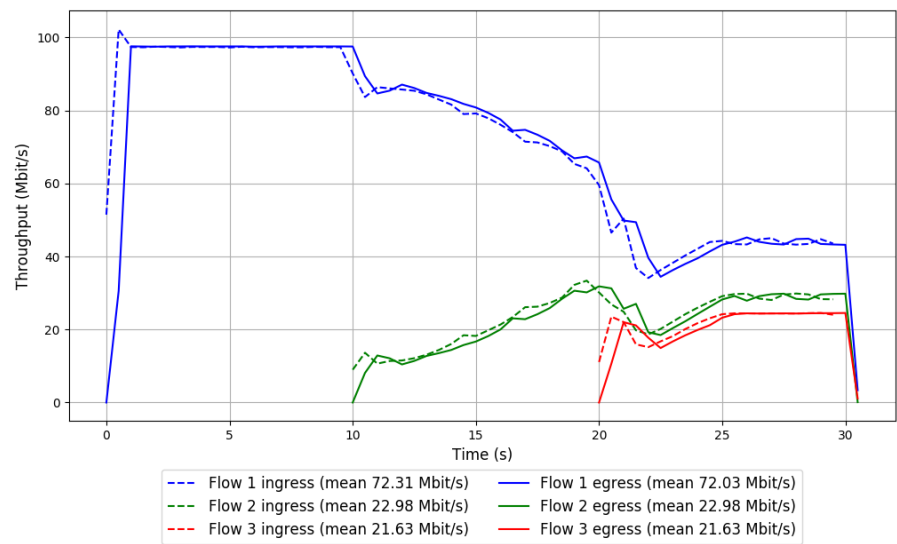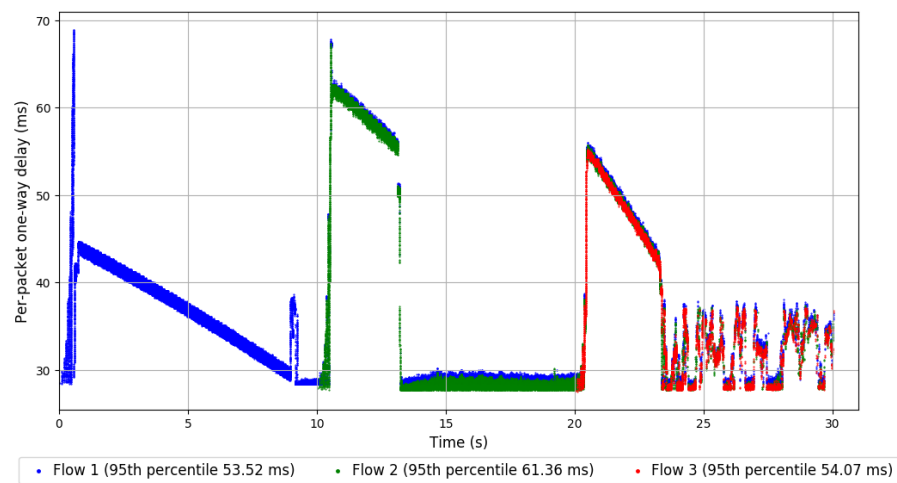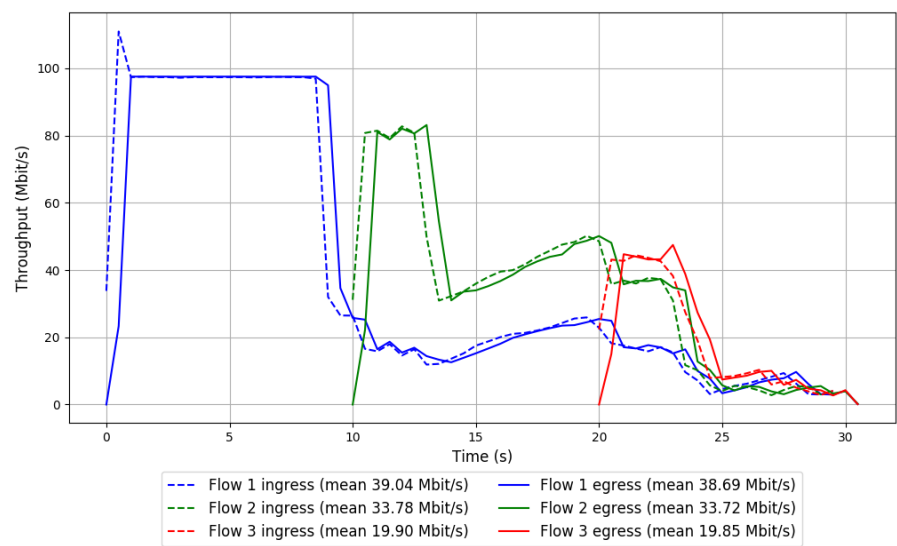
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 60.54 Mbit/s) — — — — Flow 1 egress (mean 52.05 Mbit/s)
Flow 2 ingress (mean 49.56 Mbit/s) — — — — Flow 2 egress (mean 37.15 Mbit/s)
Flow 3 ingress (mean 38.46 Mbit/s) — — — — Flow 3 egress (mean 31.59 Mbit/s)

• Flow 1 (95th percentile 61.67 ms)   • Flow 2 (95th percentile 64.74 ms)   • Flow 3 (95th percentile 65.93 ms)

243

```
Run 1: Statistics of TCP Vegas

Start at: 2018-05-22 03:21:40
End at: 2018-05-22 03:22:10
Local clock offset: 1.726 ms
Remote clock offset: 1.372 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 50.113 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 72.03 Mbit/s
95th percentile per-packet one-way delay: 50.168 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 22.98 Mbit/s
95th percentile per-packet one-way delay: 49.679 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 21.63 Mbit/s
95th percentile per-packet one-way delay: 49.995 ms
Loss rate: 0.04%
```
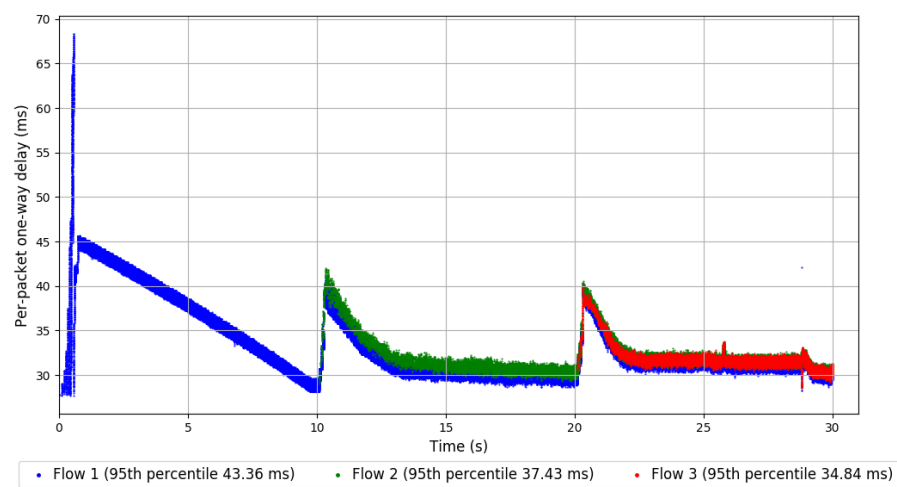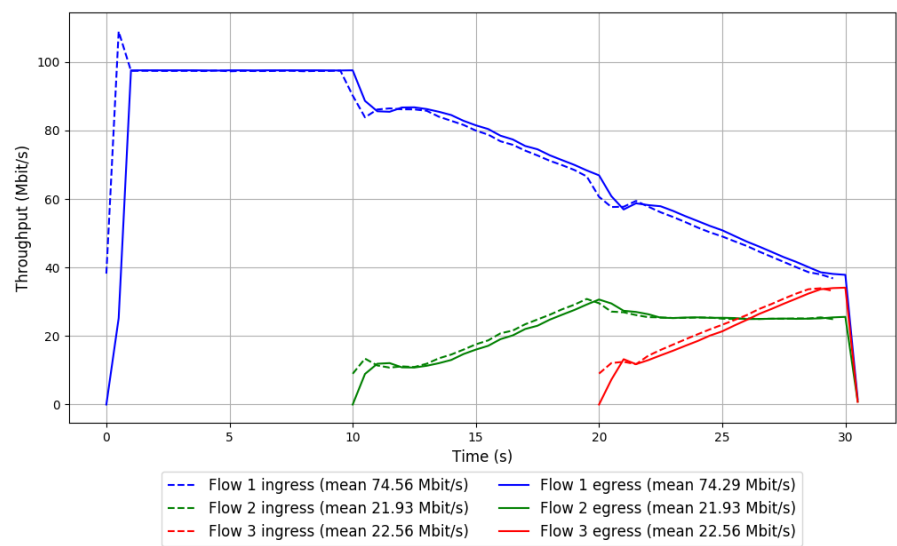
Run 1: Report of TCP Vegas — Data Link

245

```
Run 2: Statistics of TCP Vegas

Start at: 2018-05-22 03:43:07
End at: 2018-05-22 03:43:37
Local clock offset: 1.592 ms
Remote clock offset: -6.329 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 59.920 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: 53.523 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 33.72 Mbit/s
95th percentile per-packet one-way delay: 61.362 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 19.85 Mbit/s
95th percentile per-packet one-way delay: 54.071 ms
Loss rate: 0.12%
```
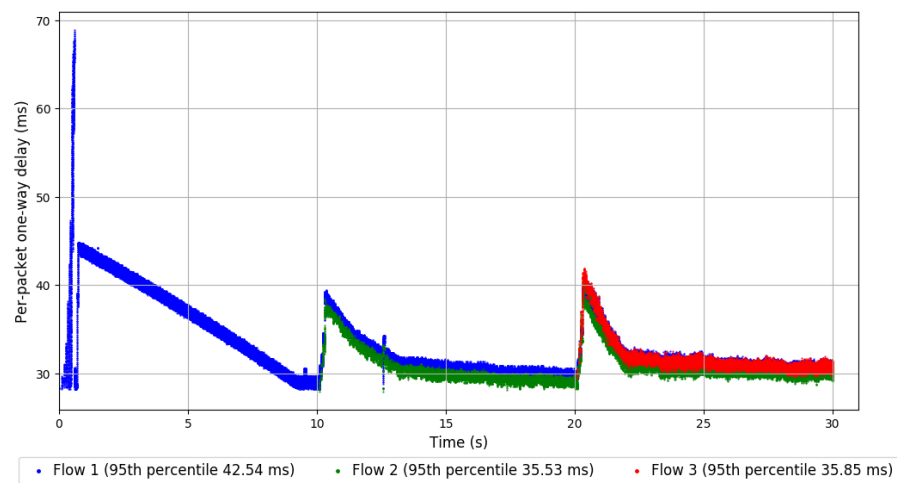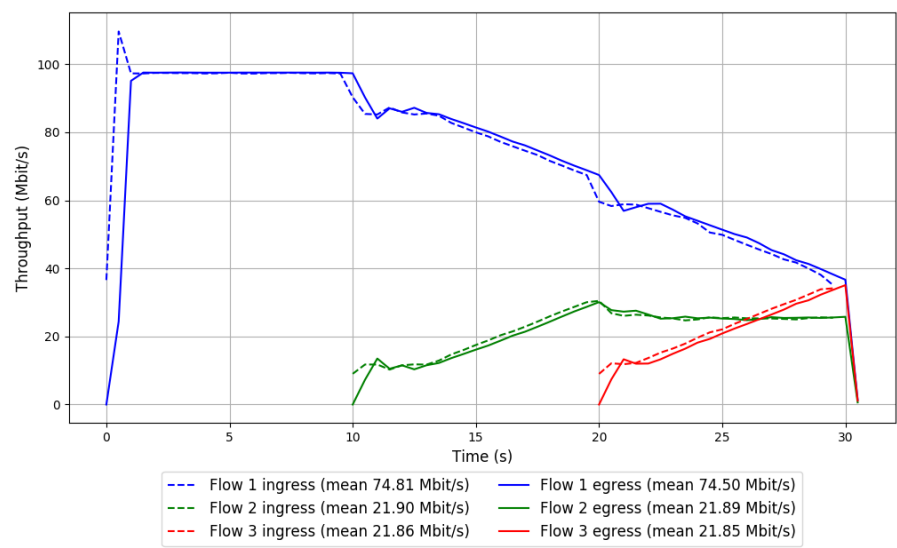
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-05-22 04:04:50
End at: 2018-05-22 04:05:20
Local clock offset: 1.068 ms
Remote clock offset: -8.571 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.40 Mbit/s
95th percentile per-packet one-way delay: 42.835 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 74.29 Mbit/s
95th percentile per-packet one-way delay: 43.360 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 21.93 Mbit/s
95th percentile per-packet one-way delay: 37.432 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.56 Mbit/s
95th percentile per-packet one-way delay: 34.844 ms
Loss rate: 0.00%
```
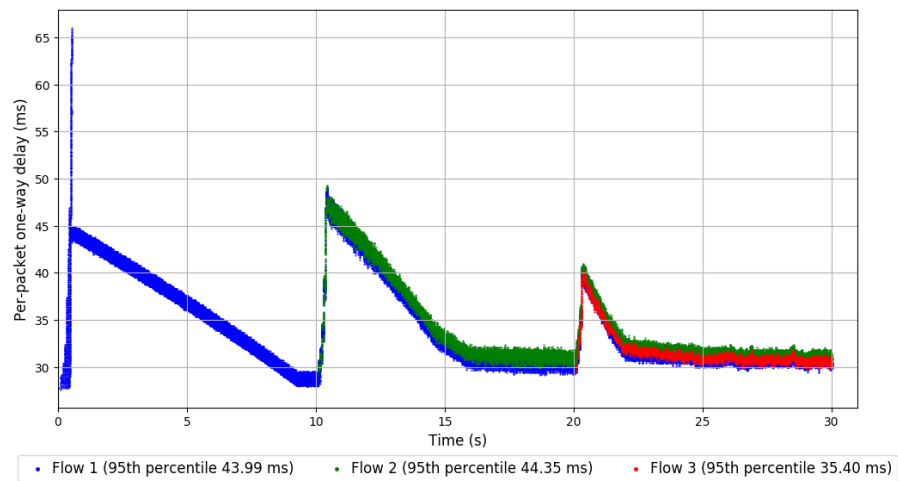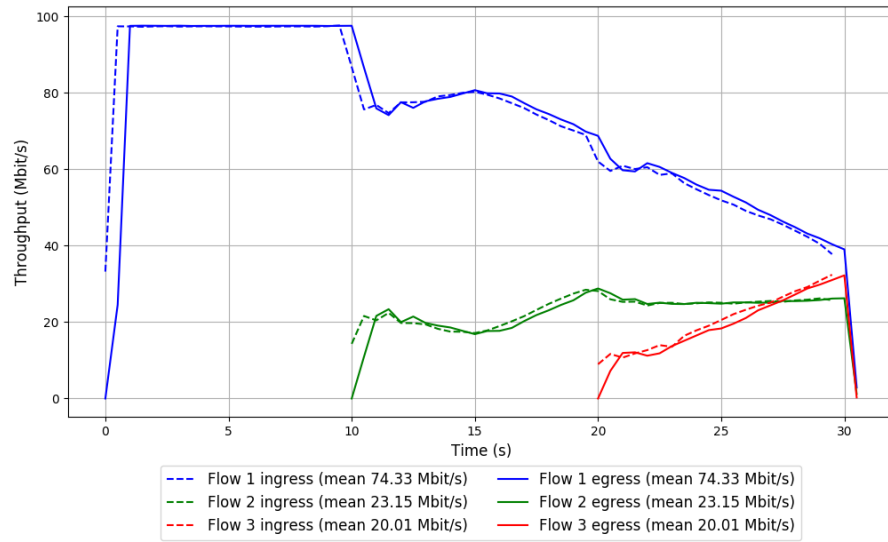
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 74.56 Mbit/s)   Flow 1 egress (mean 74.29 Mbit/s)
Flow 2 ingress (mean 21.93 Mbit/s)   Flow 2 egress (mean 21.93 Mbit/s)
Flow 3 ingress (mean 22.56 Mbit/s)   Flow 3 egress (mean 22.56 Mbit/s)

Flow 1 (95th percentile 43.36 ms)   Flow 2 (95th percentile 37.43 ms)   Flow 3 (95th percentile 34.84 ms)

249

```
Run 4: Statistics of TCP Vegas

Start at: 2018-05-22 04:26:34
End at: 2018-05-22 04:27:04
Local clock offset: 0.532 ms
Remote clock offset: -7.242 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.35 Mbit/s
95th percentile per-packet one-way delay: 42.023 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 74.50 Mbit/s
95th percentile per-packet one-way delay: 42.543 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 21.89 Mbit/s
95th percentile per-packet one-way delay: 35.534 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.85 Mbit/s
95th percentile per-packet one-way delay: 35.846 ms
Loss rate: 0.02%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-05-22 04:47:47
End at: 2018-05-22 04:48:17
Local clock offset: 0.763 ms
Remote clock offset: -1.112 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.40 Mbit/s
95th percentile per-packet one-way delay: 43.956 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.33 Mbit/s
95th percentile per-packet one-way delay: 43.993 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.15 Mbit/s
95th percentile per-packet one-way delay: 44.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 35.395 ms
Loss rate: 0.00%
```
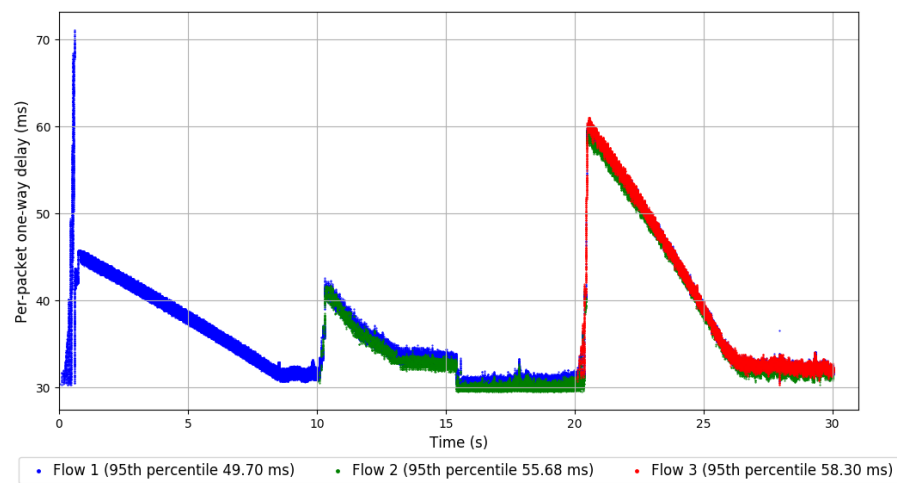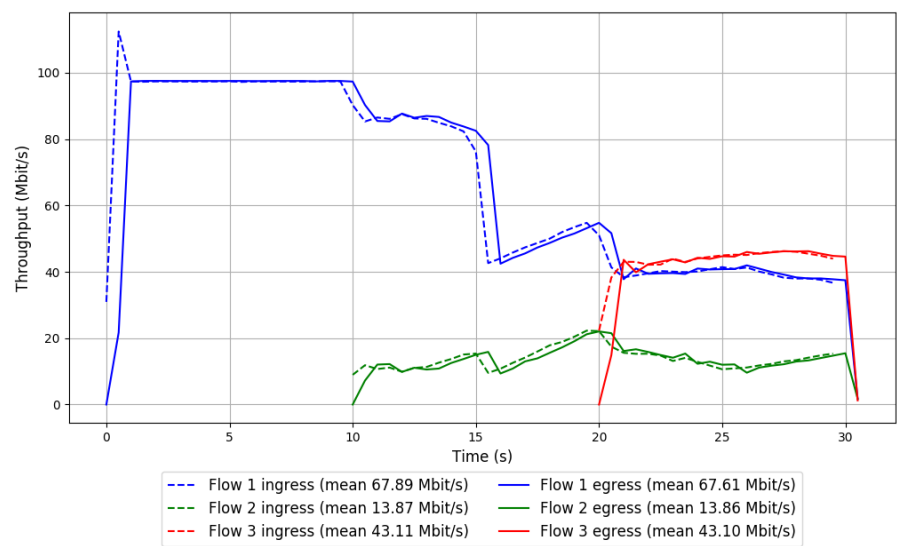
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 74.33 Mbit/s)   Flow 1 egress (mean 74.33 Mbit/s)
Flow 2 ingress (mean 23.15 Mbit/s)   Flow 2 egress (mean 23.15 Mbit/s)
Flow 3 ingress (mean 20.01 Mbit/s)   Flow 3 egress (mean 20.01 Mbit/s)

Flow 1 (95th percentile 43.99 ms)   Flow 2 (95th percentile 44.35 ms)   Flow 3 (95th percentile 35.40 ms)

253

```
Run 6: Statistics of TCP Vegas

Start at: 2018-05-22 05:09:04
End at: 2018-05-22 05:09:34
Local clock offset: 0.636 ms
Remote clock offset: 3.189 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.18 Mbit/s
95th percentile per-packet one-way delay: 54.366 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 67.61 Mbit/s
95th percentile per-packet one-way delay: 49.697 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 13.86 Mbit/s
95th percentile per-packet one-way delay: 55.679 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 43.10 Mbit/s
95th percentile per-packet one-way delay: 58.300 ms
Loss rate: 0.01%
```
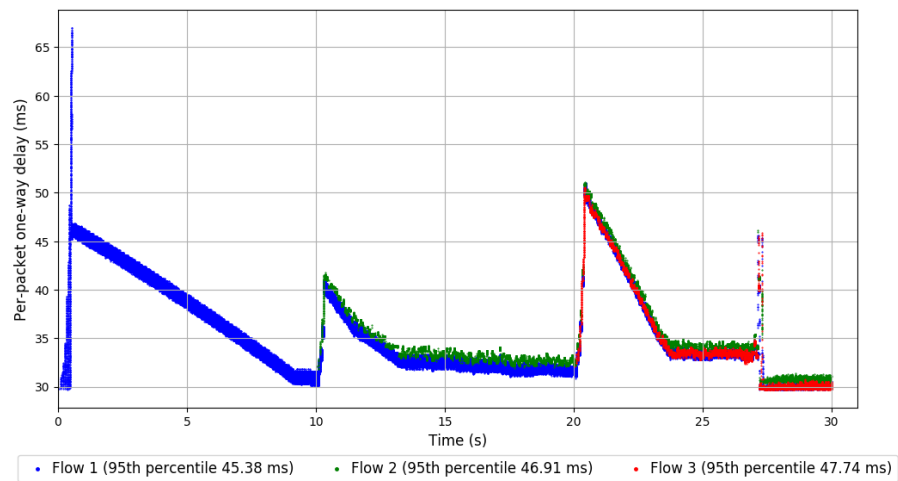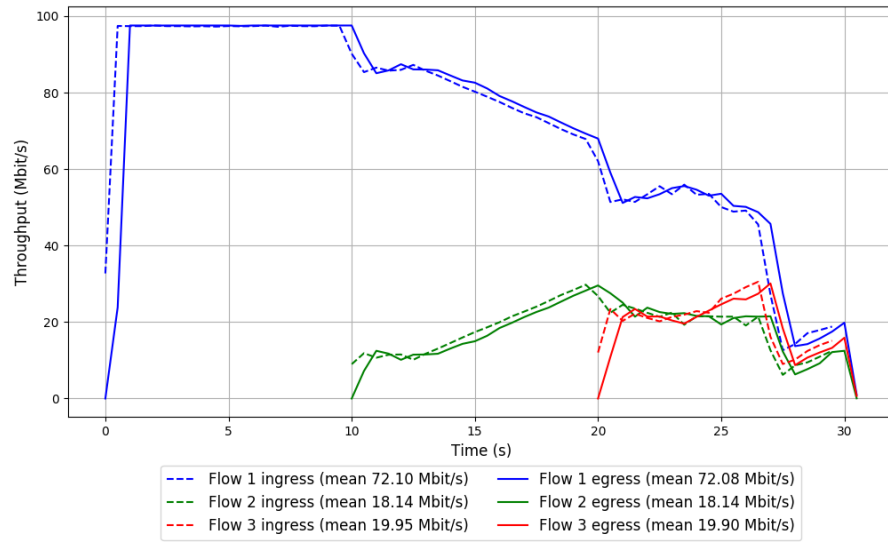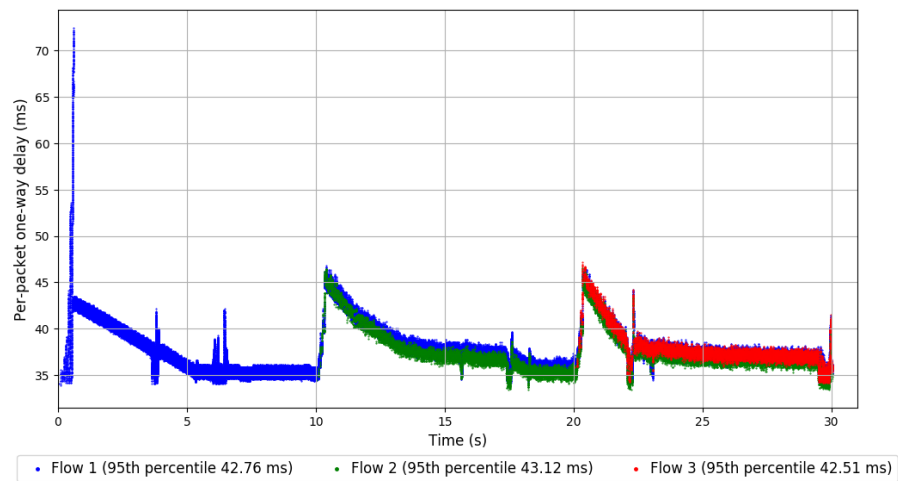
Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 67.89 Mbit/s) ---- Flow 1 egress (mean 67.61 Mbit/s)
Flow 2 ingress (mean 13.87 Mbit/s) ---- Flow 2 egress (mean 13.86 Mbit/s)
Flow 3 ingress (mean 43.11 Mbit/s) ---- Flow 3 egress (mean 43.10 Mbit/s)

Flow 1 (95th percentile 49.70 ms)   Flow 2 (95th percentile 55.68 ms)   Flow 3 (95th percentile 58.30 ms)

255

```
Run 7: Statistics of TCP Vegas

Start at: 2018-05-22 05:30:22
End at: 2018-05-22 05:30:52
Local clock offset: 0.853 ms
Remote clock offset: 4.923 ms


# Below is generated by plot.py at 2018-05-22 07:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.73 Mbit/s
95th percentile per-packet one-way delay: 45.574 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 72.08 Mbit/s
95th percentile per-packet one-way delay: 45.383 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 18.14 Mbit/s
95th percentile per-packet one-way delay: 46.913 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 47.740 ms
Loss rate: 0.28%
```
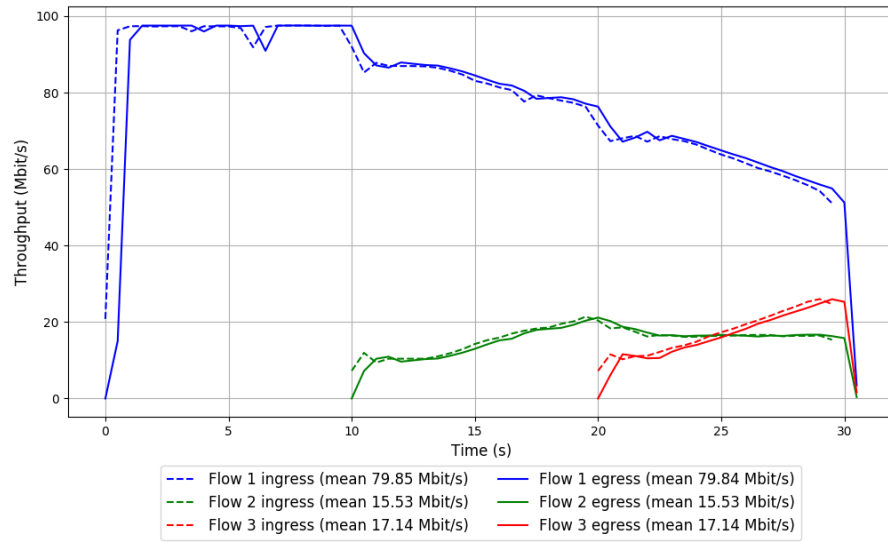
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-05-22 05:52:06
End at: 2018-05-22 05:52:36
Local clock offset: 1.467 ms
Remote clock offset: 1.819 ms


# Below is generated by plot.py at 2018-05-22 07:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.89 Mbit/s
95th percentile per-packet one-way delay: 42.777 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.84 Mbit/s
95th percentile per-packet one-way delay: 42.760 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 43.123 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.14 Mbit/s
95th percentile per-packet one-way delay: 42.509 ms
Loss rate: 0.00%
```
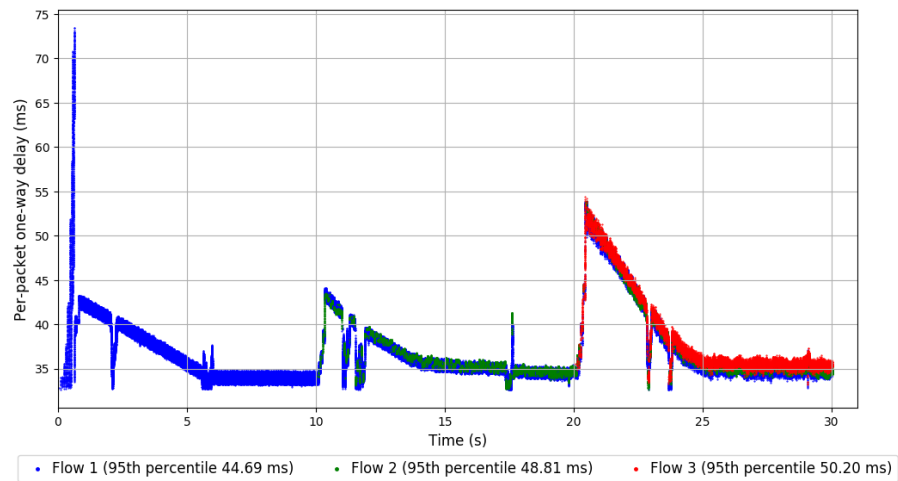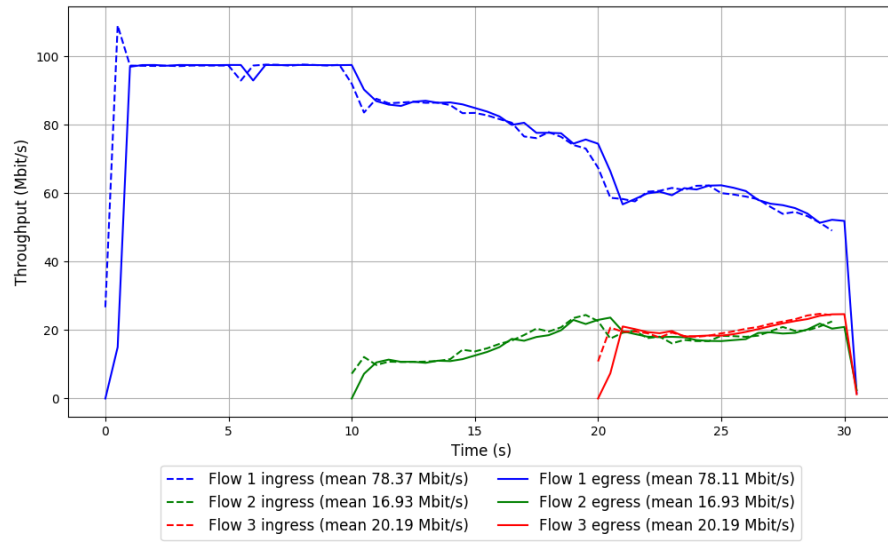
Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-05-22 06:14:32
End at: 2018-05-22 06:15:02
Local clock offset: 0.802 ms
Remote clock offset: 4.604 ms


# Below is generated by plot.py at 2018-05-22 07:15:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 46.601 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 78.11 Mbit/s
95th percentile per-packet one-way delay: 44.694 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 16.93 Mbit/s
95th percentile per-packet one-way delay: 48.812 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.19 Mbit/s
95th percentile per-packet one-way delay: 50.199 ms
Loss rate: 0.01%
```
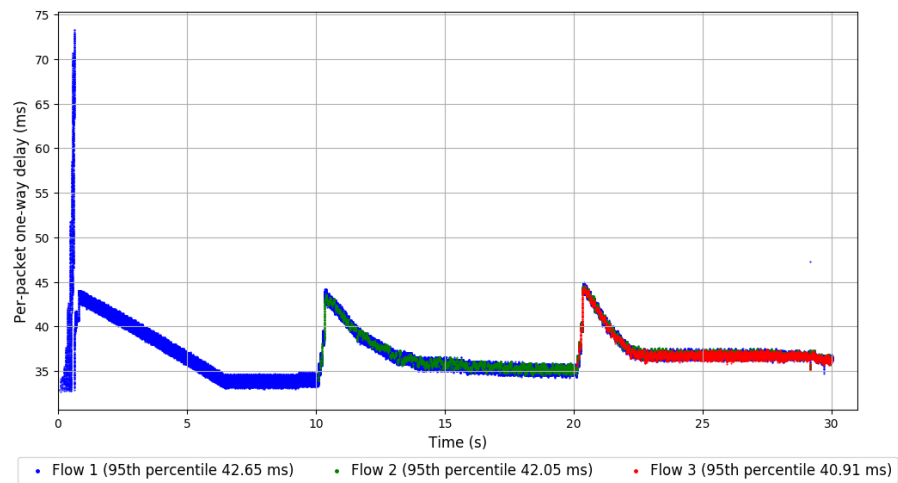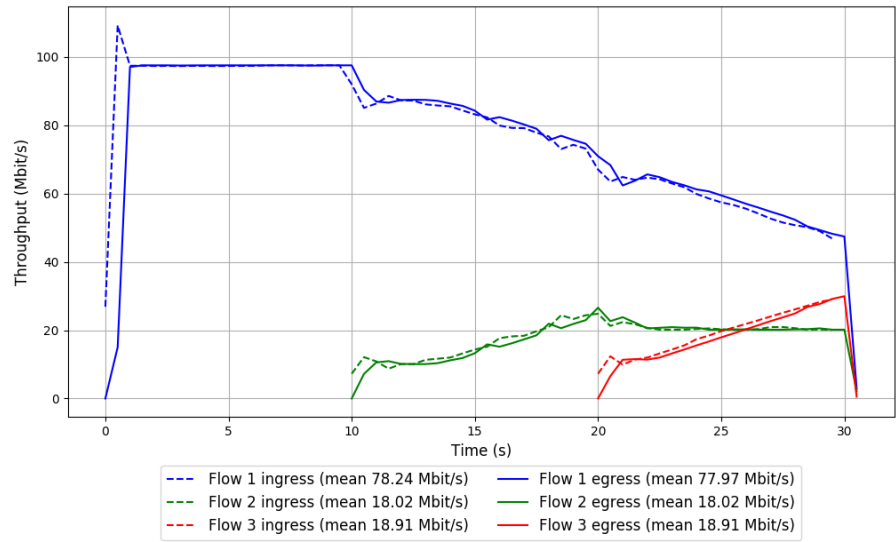
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-05-22 06:36:27
End at: 2018-05-22 06:36:57
Local clock offset: 0.648 ms
Remote clock offset: 7.326 ms


# Below is generated by plot.py at 2018-05-22 07:15:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 42.506 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 77.97 Mbit/s
95th percentile per-packet one-way delay: 42.650 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 18.02 Mbit/s
95th percentile per-packet one-way delay: 42.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.91 Mbit/s
95th percentile per-packet one-way delay: 40.915 ms
Loss rate: 0.00%
```

Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-05-22 03:24:23
End at: 2018-05-22 03:24:53
Local clock offset: 1.863 ms
Remote clock offset: -0.074 ms
```

Run 1: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 2: Statistics of Verus

Start at: 2018-05-22 03:45:48
End at: 2018-05-22 03:46:18
Local clock offset: 1.518 ms
Remote clock offset: -4.634 ms
```

Run 2: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 3: Statistics of Verus

Start at: 2018-05-22 04:07:47
End at: 2018-05-22 04:08:17
Local clock offset: 0.876 ms
Remote clock offset: -6.804 ms
```

Run 3: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 4: Statistics of Verus

Start at: 2018-05-22 04:29:16
End at: 2018-05-22 04:29:46
Local clock offset: 0.698 ms
Remote clock offset: -5.585 ms
```

Run 4: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 5: Statistics of Verus

Start at: 2018-05-22 04:50:29
End at: 2018-05-22 04:50:59
Local clock offset: 0.757 ms
Remote clock offset: 1.224 ms
```

Run 5: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 6: Statistics of Verus

Start at: 2018-05-22 05:11:47
End at: 2018-05-22 05:12:17
Local clock offset: 0.606 ms
Remote clock offset: 3.549 ms
```

Run 6: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 7: Statistics of Verus

Start at: 2018-05-22 05:33:04
End at: 2018-05-22 05:33:34
Local clock offset: 1.004 ms
Remote clock offset: 1.514 ms
```

Run 7: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 8: Statistics of Verus

Start at: 2018-05-22 05:55:02
End at: 2018-05-22 05:55:32
Local clock offset: 1.492 ms
Remote clock offset: 1.536 ms
```

Run 8: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 9: Statistics of Verus

Start at: 2018-05-22 06:17:23
End at: 2018-05-22 06:17:53
Local clock offset: 0.796 ms
Remote clock offset: 5.379 ms
```

Run 9: Report of Verus — Data Link

Figure is missing

Figure is missing

Run 10: Statistics of Verus

Start at: 2018-05-22 06:39:13
End at: 2018-05-22 06:39:43
Local clock offset: 0.638 ms
Remote clock offset: 7.557 ms

Run 10: Report of Verus — Data Link

Figure is missing

Figure is missing

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-05-22 03:23:01
End at: 2018-05-22 03:23:31
Local clock offset: 1.834 ms
Remote clock offset: 1.022 ms


# Below is generated by plot.py at 2018-05-22 07:15:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.49 Mbit/s
95th percentile per-packet one-way delay: 39.641 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 40.242 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 24.79 Mbit/s
95th percentile per-packet one-way delay: 38.605 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 13.57 Mbit/s
95th percentile per-packet one-way delay: 39.348 ms
Loss rate: 0.08%
```
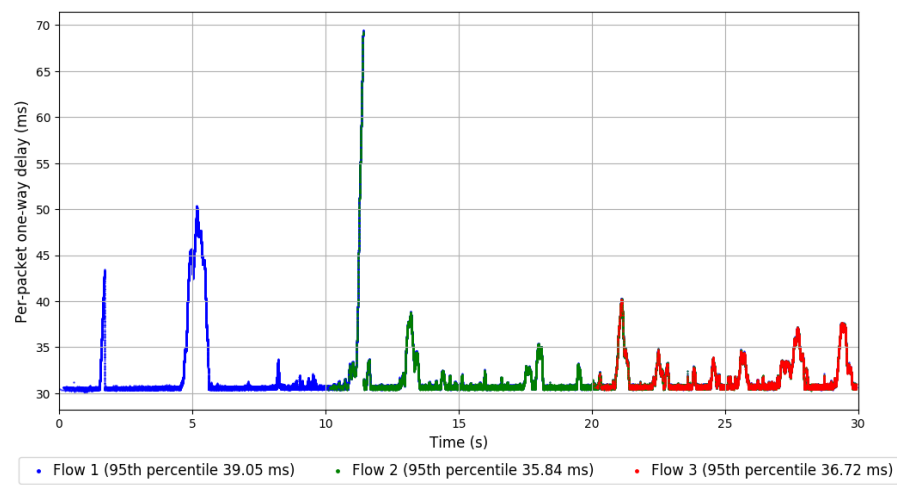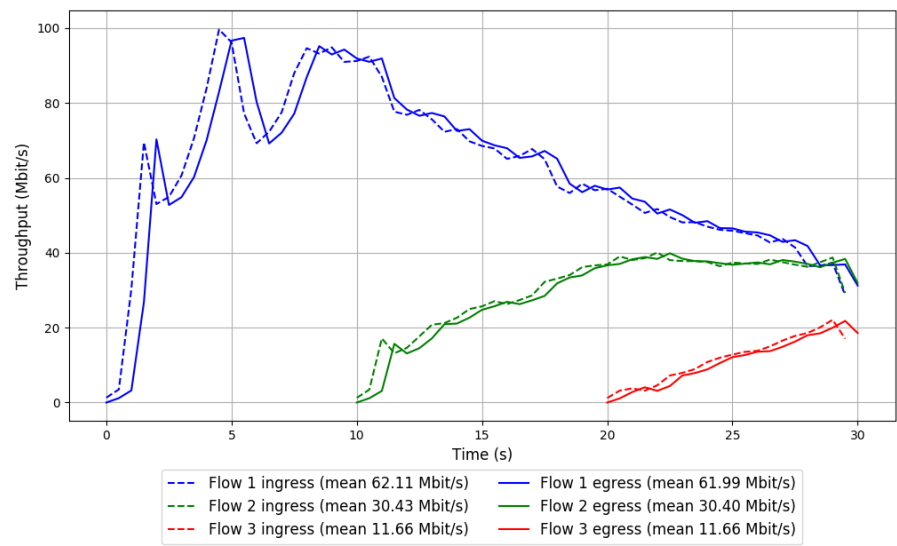
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-05-22 03:44:26
End at: 2018-05-22 03:44:56
Local clock offset: 1.616 ms
Remote clock offset: -4.45 ms


# Below is generated by plot.py at 2018-05-22 07:15:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.06 Mbit/s
95th percentile per-packet one-way delay: 37.399 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 39.046 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 35.837 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 11.66 Mbit/s
95th percentile per-packet one-way delay: 36.718 ms
Loss rate: 0.00%
```
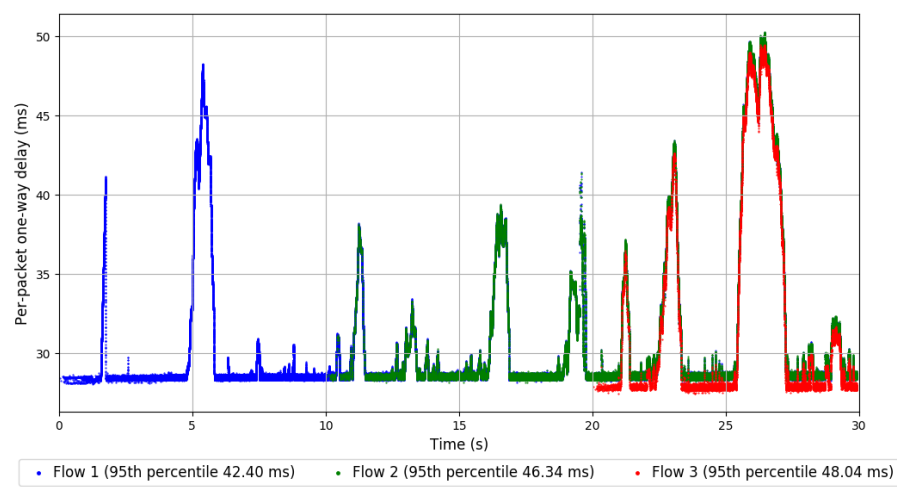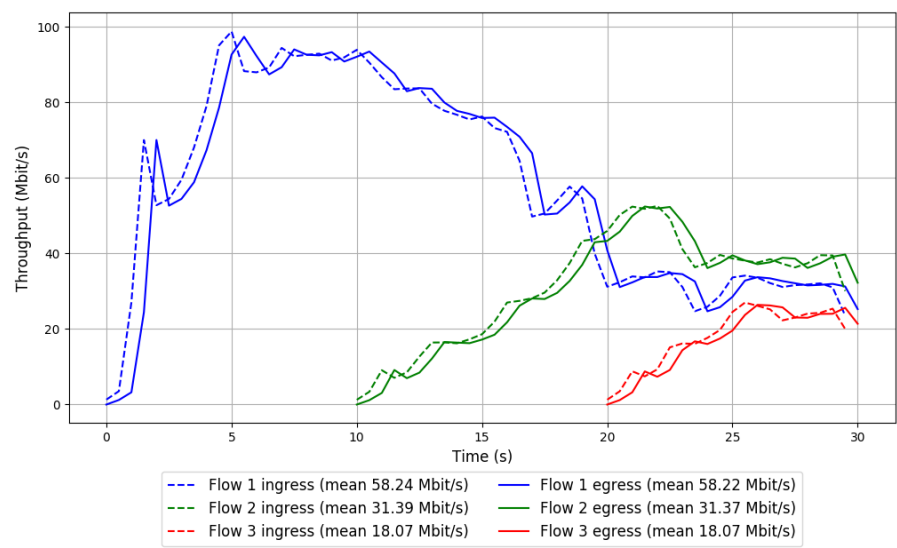
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-05-22 04:06:11
End at: 2018-05-22 04:06:41
Local clock offset: 0.999 ms
Remote clock offset: -8.78 ms


# Below is generated by plot.py at 2018-05-22 07:15:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.06 Mbit/s
95th percentile per-packet one-way delay: 44.722 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 58.22 Mbit/s
95th percentile per-packet one-way delay: 42.402 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 46.340 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 18.07 Mbit/s
95th percentile per-packet one-way delay: 48.043 ms
Loss rate: 0.00%
```

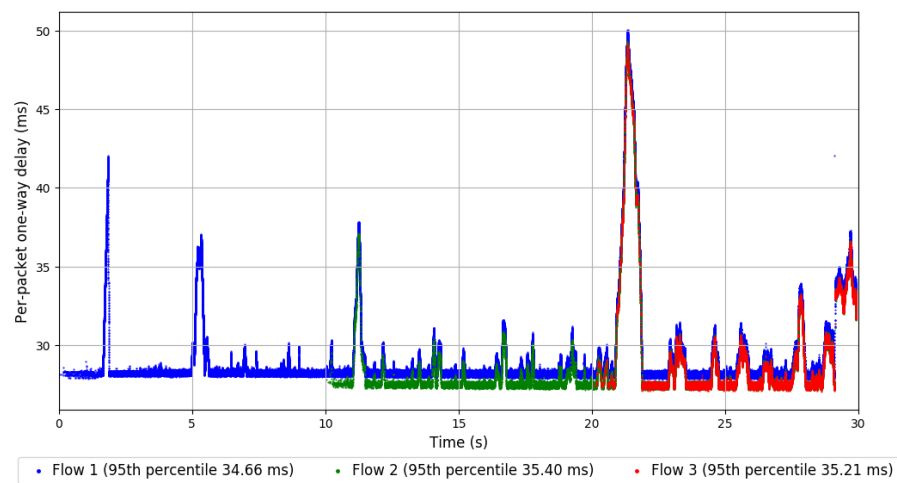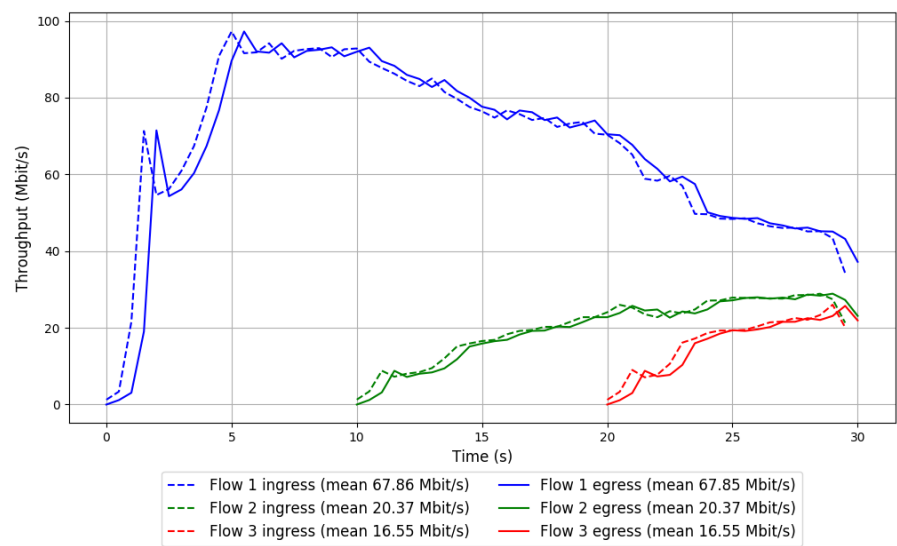# Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-05-22 04:27:54
End at: 2018-05-22 04:28:24
Local clock offset: 0.658 ms
Remote clock offset: -6.455 ms


# Below is generated by plot.py at 2018-05-22 07:16:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.86 Mbit/s
95th percentile per-packet one-way delay: 34.792 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.85 Mbit/s
95th percentile per-packet one-way delay: 34.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.37 Mbit/s
95th percentile per-packet one-way delay: 35.401 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.55 Mbit/s
95th percentile per-packet one-way delay: 35.210 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-05-22 04:49:08
End at: 2018-05-22 04:49:38
Local clock offset: 0.837 ms
Remote clock offset: 1.536 ms


# Below is generated by plot.py at 2018-05-22 07:16:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 45.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.76 Mbit/s
95th percentile per-packet one-way delay: 46.017 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.53 Mbit/s
95th percentile per-packet one-way delay: 46.031 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.06 Mbit/s
95th percentile per-packet one-way delay: 38.273 ms
Loss rate: 0.00%
```
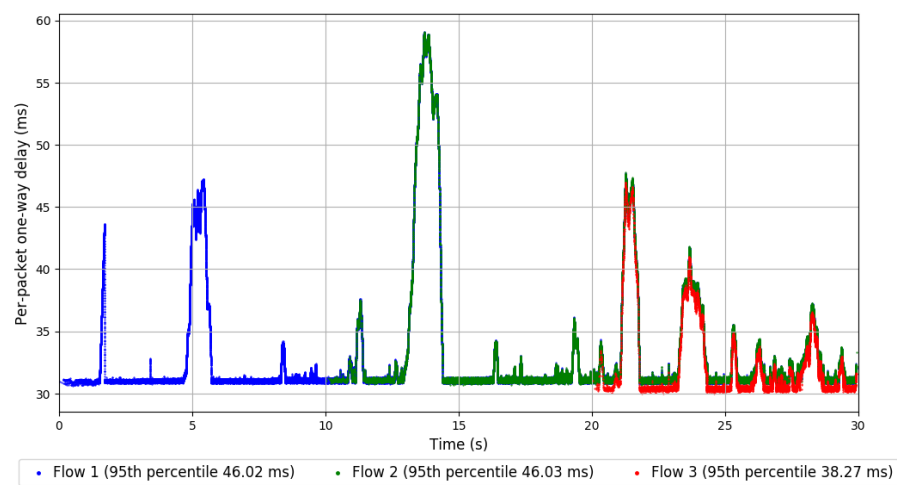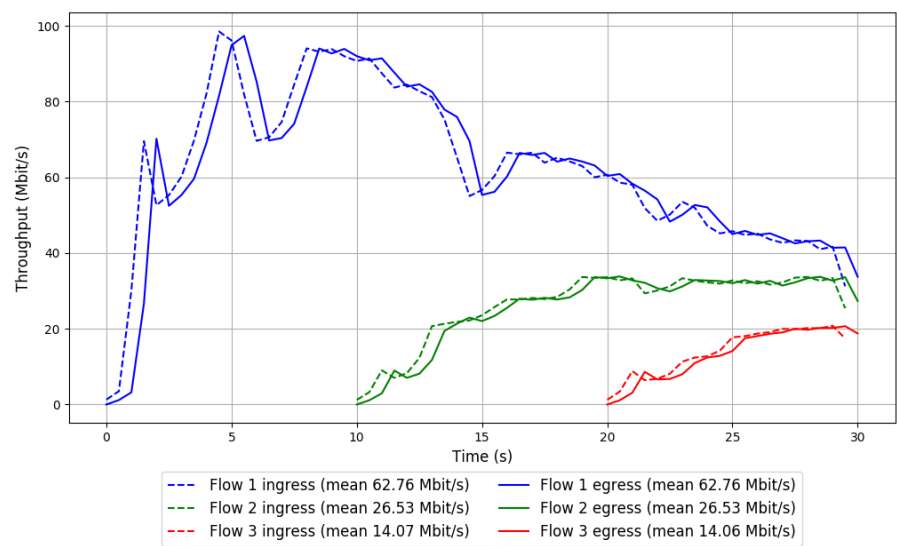
Run 5: Report of PCC-Vivace — Data Link

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-05-22 05:10:25
End at: 2018-05-22 05:10:55
Local clock offset: 0.61 ms
Remote clock offset: 3.328 ms


# Below is generated by plot.py at 2018-05-22 07:16:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 39.515 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 62.84 Mbit/s
95th percentile per-packet one-way delay: 39.619 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 27.35 Mbit/s
95th percentile per-packet one-way delay: 41.201 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 38.190 ms
Loss rate: 0.00%
```
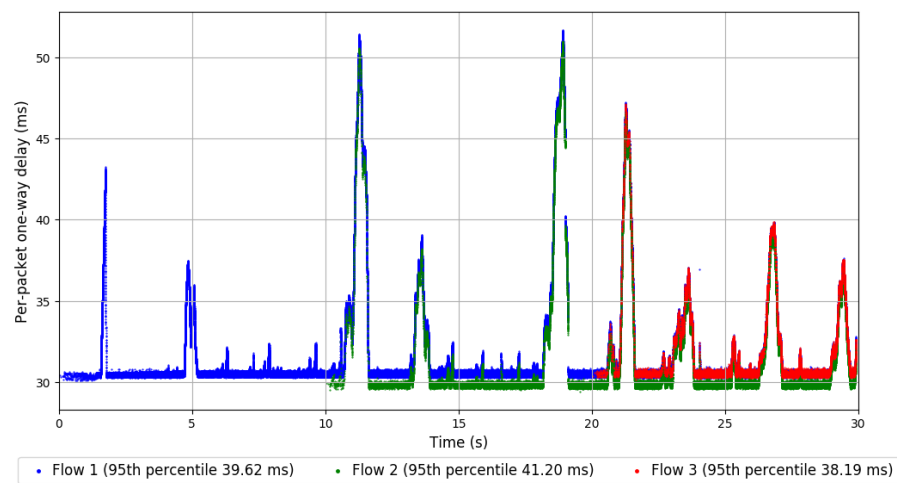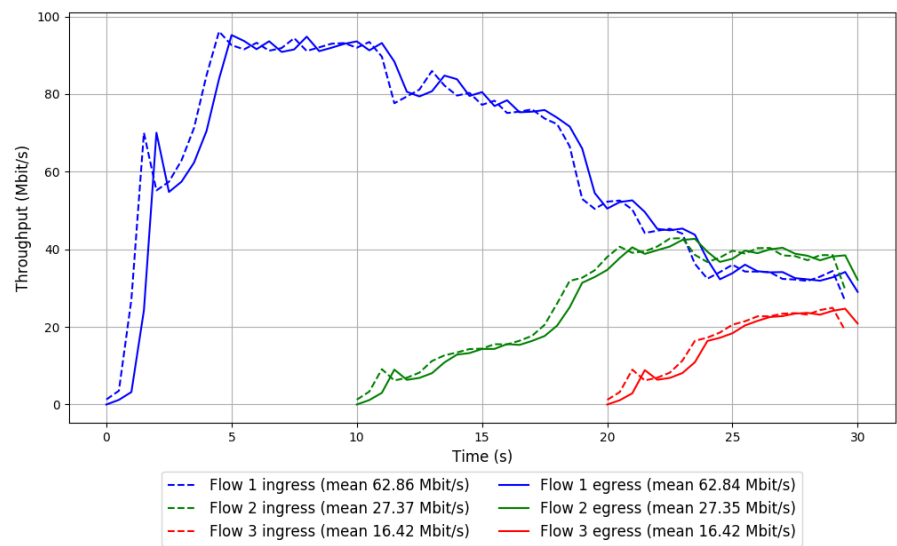
Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 62.86 Mbit/s) --- Flow 1 egress (mean 62.84 Mbit/s)
Flow 2 ingress (mean 27.37 Mbit/s) --- Flow 2 egress (mean 27.35 Mbit/s)
Flow 3 ingress (mean 16.42 Mbit/s) --- Flow 3 egress (mean 16.42 Mbit/s)

Flow 1 (95th percentile 39.62 ms)   Flow 2 (95th percentile 41.20 ms)   Flow 3 (95th percentile 38.19 ms)

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-05-22 05:31:42
End at: 2018-05-22 05:32:12
Local clock offset: 0.933 ms
Remote clock offset: 2.533 ms


# Below is generated by plot.py at 2018-05-22 07:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 52.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.23 Mbit/s
95th percentile per-packet one-way delay: 36.939 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.03 Mbit/s
95th percentile per-packet one-way delay: 55.750 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 13.98 Mbit/s
95th percentile per-packet one-way delay: 60.212 ms
Loss rate: 0.01%
```
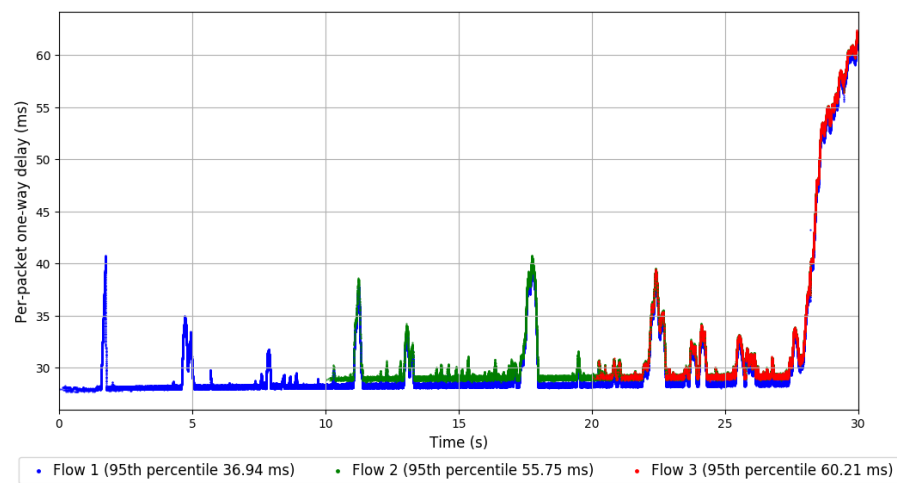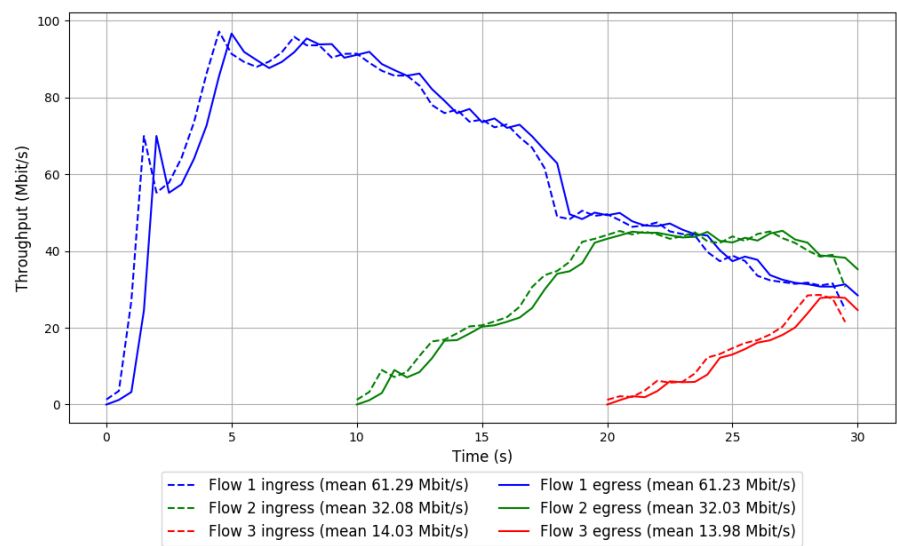
Run 7: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 61.29 Mbit/s) --- Flow 1 egress (mean 61.23 Mbit/s)
Flow 2 ingress (mean 32.08 Mbit/s) --- Flow 2 egress (mean 32.03 Mbit/s)
Flow 3 ingress (mean 14.03 Mbit/s) --- Flow 3 egress (mean 13.98 Mbit/s)

Flow 1 (95th percentile 36.94 ms) · Flow 2 (95th percentile 55.75 ms) · Flow 3 (95th percentile 60.21 ms)

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-05-22 05:53:35
End at: 2018-05-22 05:54:05
Local clock offset: 1.394 ms
Remote clock offset: 1.636 ms


# Below is generated by plot.py at 2018-05-22 07:16:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.66 Mbit/s
95th percentile per-packet one-way delay: 41.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.67 Mbit/s
95th percentile per-packet one-way delay: 40.720 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.66 Mbit/s
95th percentile per-packet one-way delay: 41.087 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 43.117 ms
Loss rate: 0.00%
```
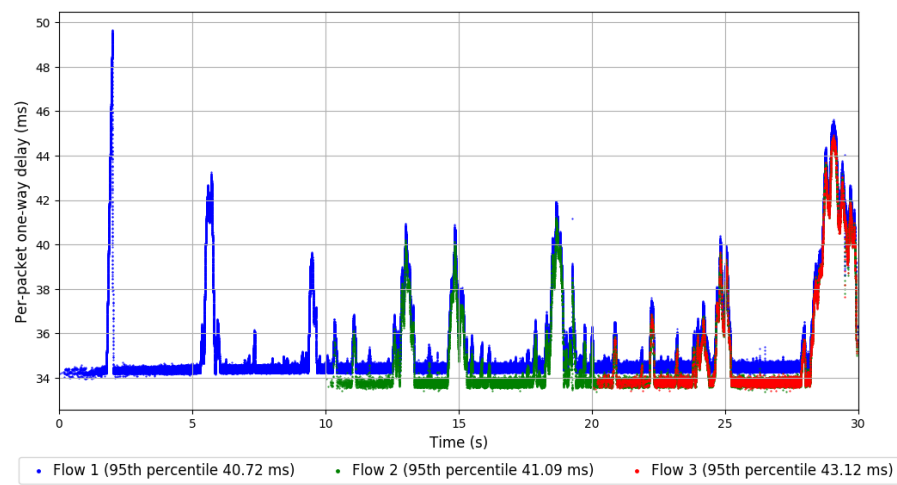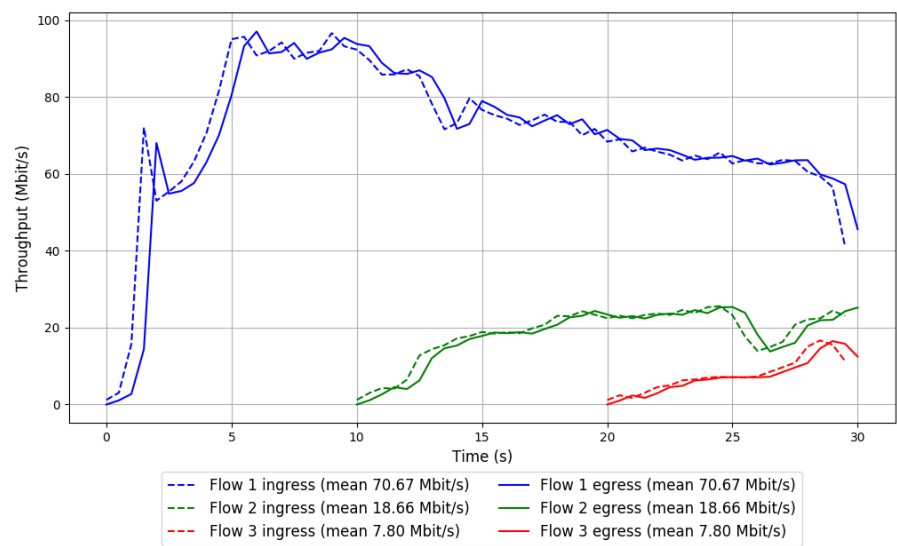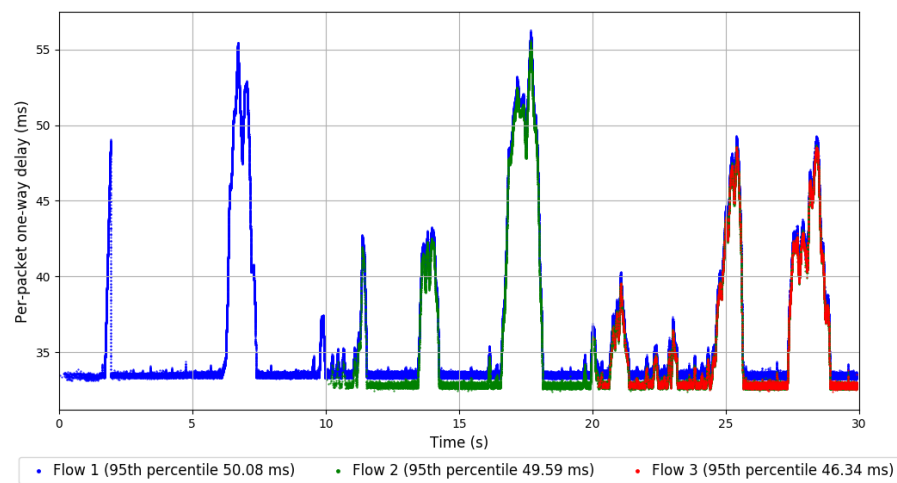
Run 8: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 70.67 Mbit/s) — — — Flow 1 egress (mean 70.67 Mbit/s) ———
Flow 2 ingress (mean 18.66 Mbit/s) — — — Flow 2 egress (mean 18.66 Mbit/s) ———
Flow 3 ingress (mean 7.80 Mbit/s) — — — Flow 3 egress (mean 7.80 Mbit/s) ———

• Flow 1 (95th percentile 40.72 ms)   • Flow 2 (95th percentile 41.09 ms)   • Flow 3 (95th percentile 43.12 ms)

299

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-05-22 06:15:56
End at: 2018-05-22 06:16:26
Local clock offset: 0.796 ms
Remote clock offset: 4.952 ms


# Below is generated by plot.py at 2018-05-22 07:16:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.67 Mbit/s
95th percentile per-packet one-way delay: 49.710 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.31 Mbit/s
95th percentile per-packet one-way delay: 50.084 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 49.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 46.340 ms
Loss rate: 0.00%
```
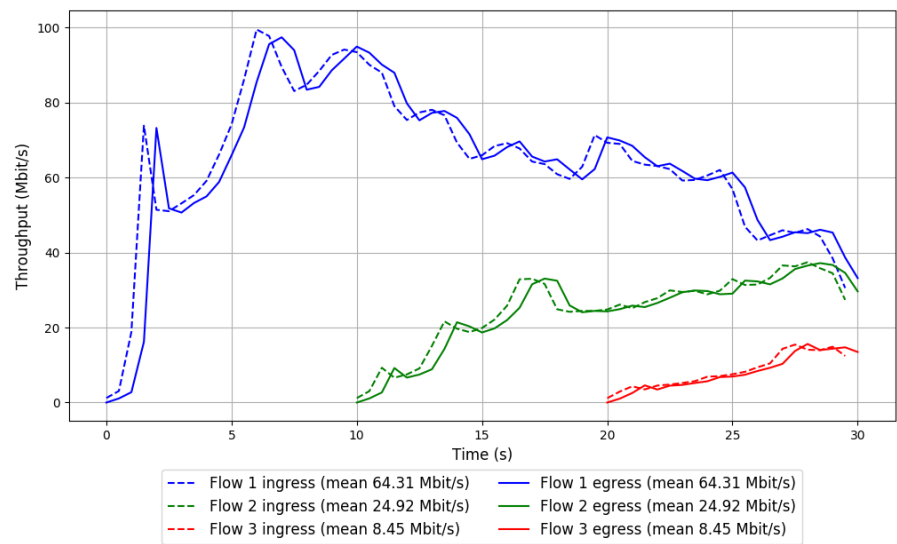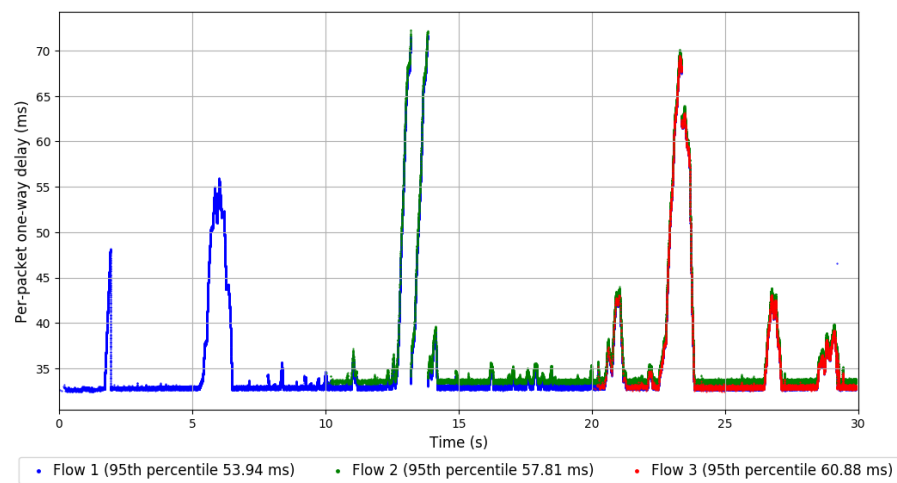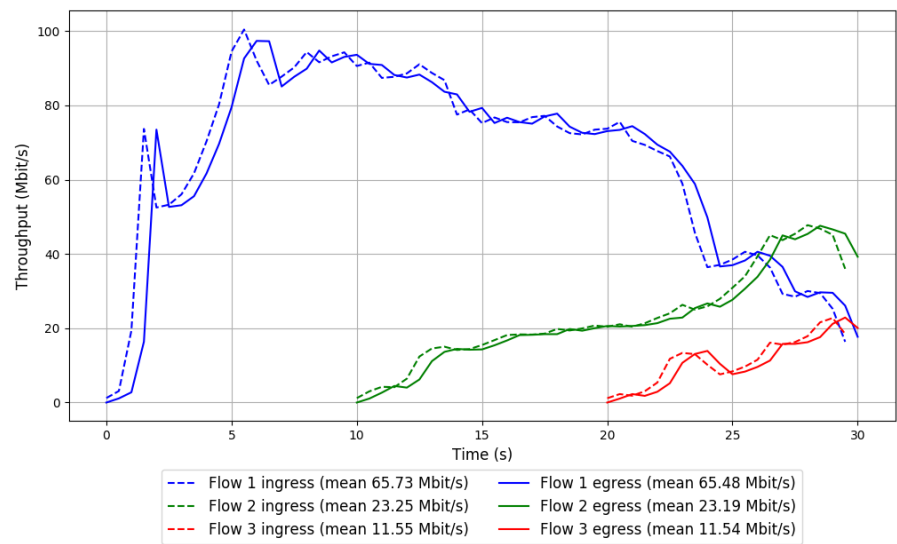
Run 9: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 64.31 Mbit/s) — — — Flow 1 egress (mean 64.31 Mbit/s)
Flow 2 ingress (mean 24.92 Mbit/s) — — — Flow 2 egress (mean 24.92 Mbit/s)
Flow 3 ingress (mean 8.45 Mbit/s) — — — Flow 3 egress (mean 8.45 Mbit/s)

Flow 1 (95th percentile 50.08 ms)   Flow 2 (95th percentile 49.59 ms)   Flow 3 (95th percentile 46.34 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-05-22 06:37:49
End at: 2018-05-22 06:38:19
Local clock offset: 0.631 ms
Remote clock offset: 7.335 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.72 Mbit/s
95th percentile per-packet one-way delay: 54.490 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 65.48 Mbit/s
95th percentile per-packet one-way delay: 53.943 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 57.809 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 60.875 ms
Loss rate: 0.07%
```
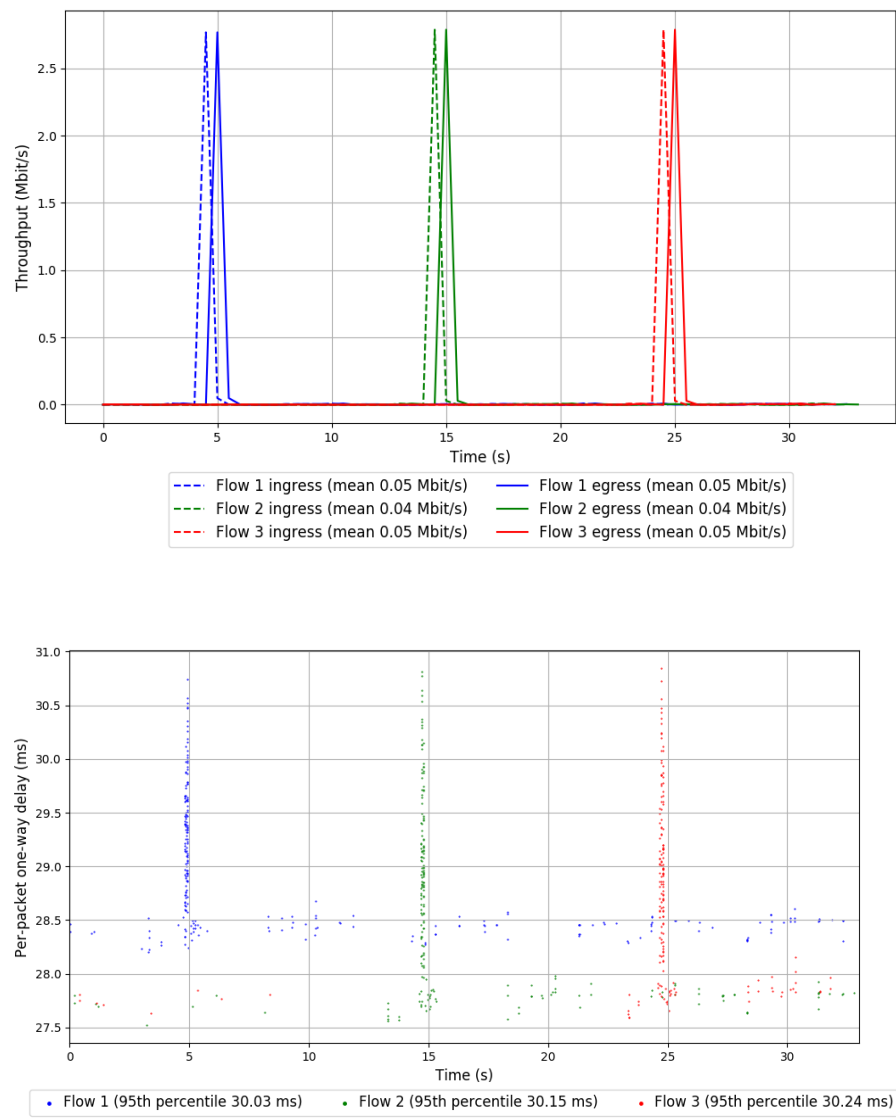
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 65.73 Mbit/s) --- Flow 1 egress (mean 65.48 Mbit/s)
Flow 2 ingress (mean 23.25 Mbit/s) --- Flow 2 egress (mean 23.19 Mbit/s)
Flow 3 ingress (mean 11.55 Mbit/s) --- Flow 3 egress (mean 11.54 Mbit/s)

Flow 1 (95th percentile 53.94 ms)   Flow 2 (95th percentile 57.81 ms)   Flow 3 (95th percentile 60.88 ms)
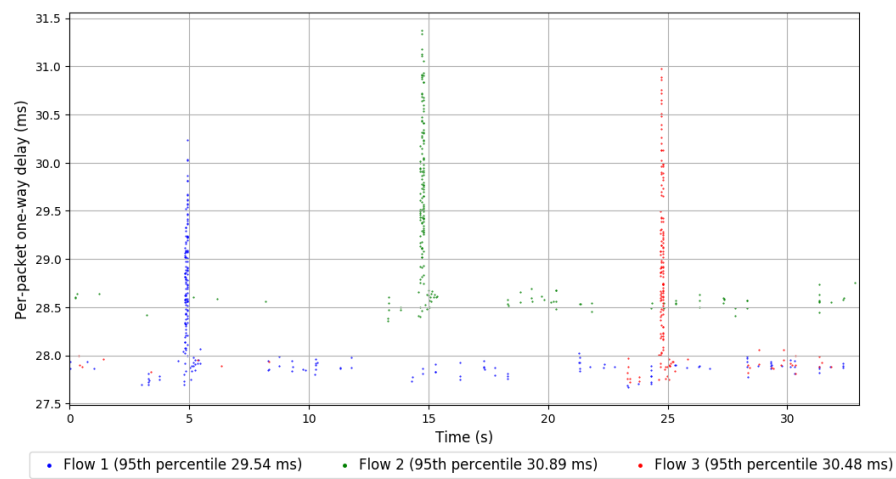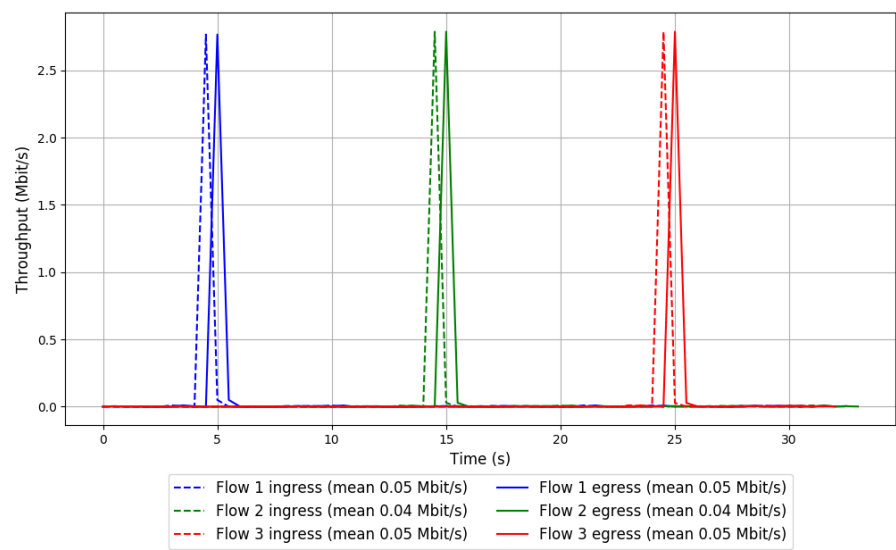
303

```
Run 1: Statistics of WebRTC media

Start at: 2018-05-22 03:26:55
End at: 2018-05-22 03:27:25
Local clock offset: 1.893 ms
Remote clock offset: -3.046 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 30.146 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.034 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 30.146 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.236 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-05-22 03:48:20
End at: 2018-05-22 03:48:50
Local clock offset: 1.528 ms
Remote clock offset: -6.862 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 30.512 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 29.542 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 30.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.481 ms
Loss rate: 0.00%
```

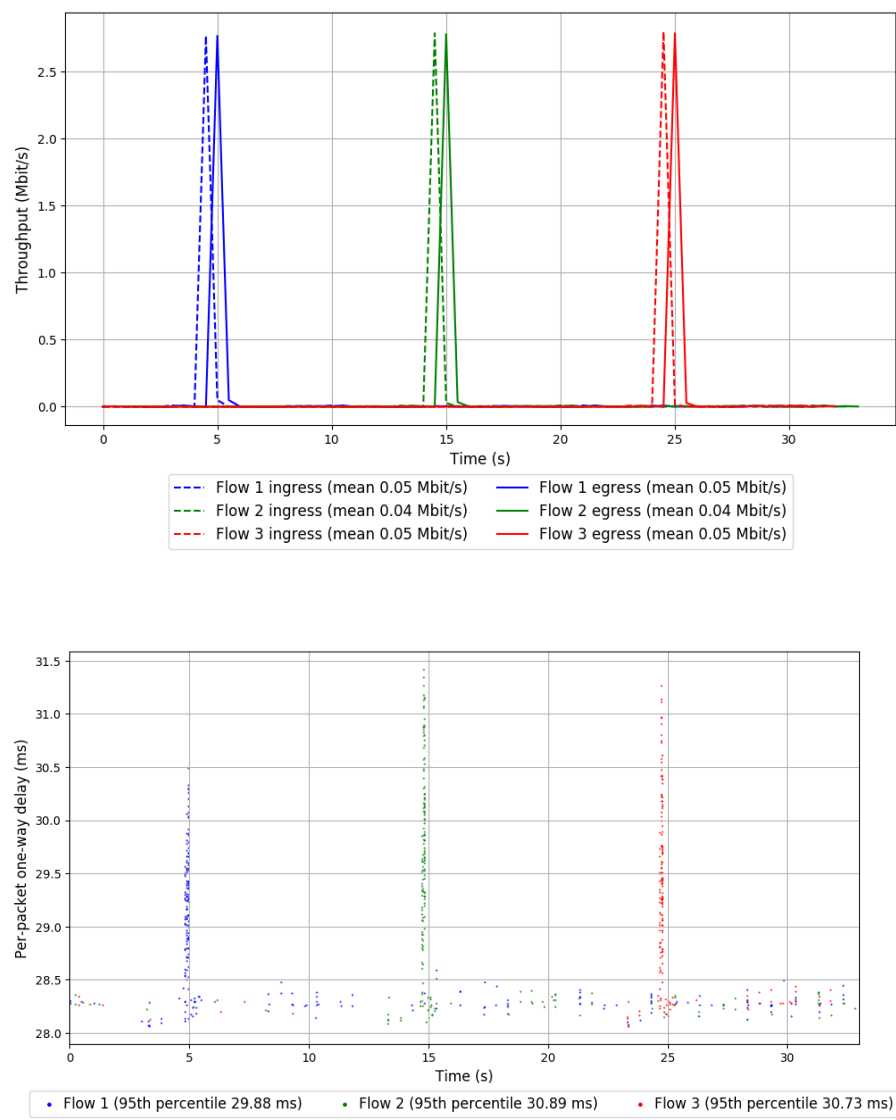Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-05-22 04:10:33
End at: 2018-05-22 04:11:03
Local clock offset: 0.853 ms
Remote clock offset: -9.201 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 30.612 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 29.876 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 30.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.734 ms
Loss rate: 0.00%
```
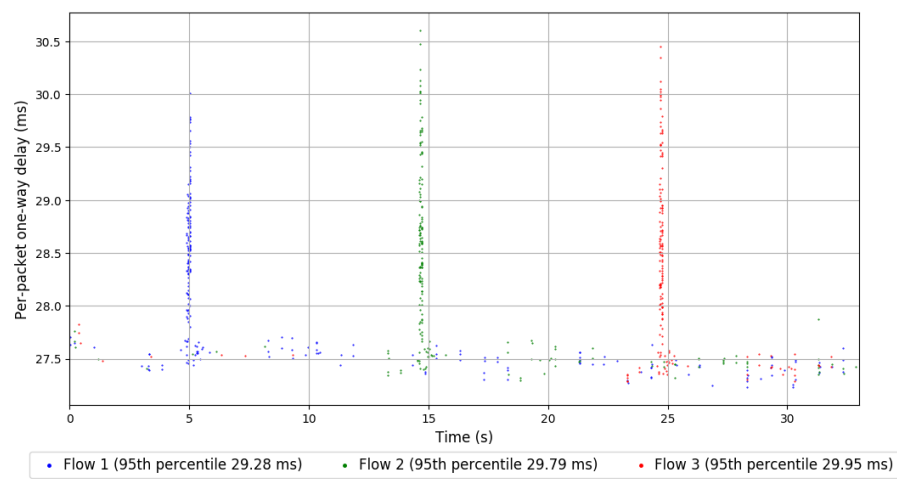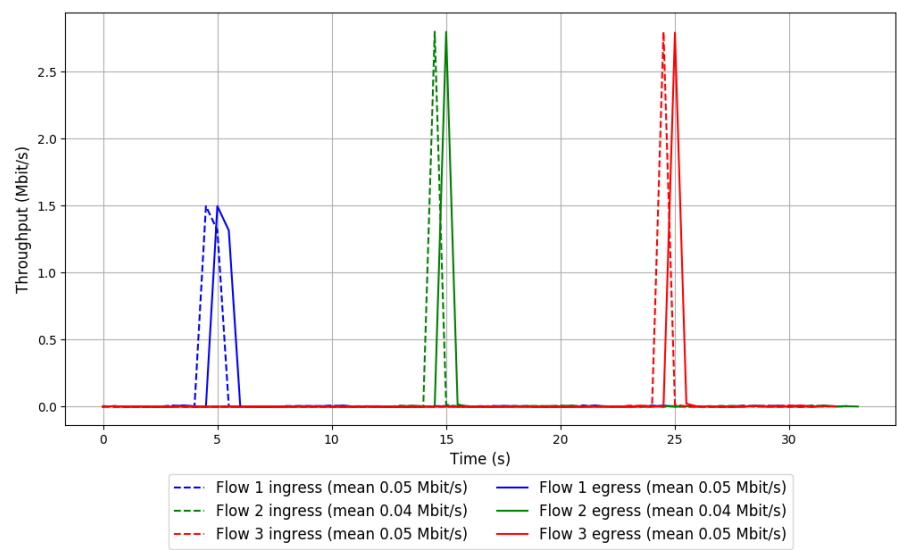
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-05-22 04:31:48
End at: 2018-05-22 04:32:18
Local clock offset: 0.648 ms
Remote clock offset: -4.52 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 29.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 29.276 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 29.789 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 29.947 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-05-22 04:53:02
End at: 2018-05-22 04:53:32
Local clock offset: 0.83 ms
Remote clock offset: 1.371 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 32.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 32.896 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.651 ms
Loss rate: 0.00%
```
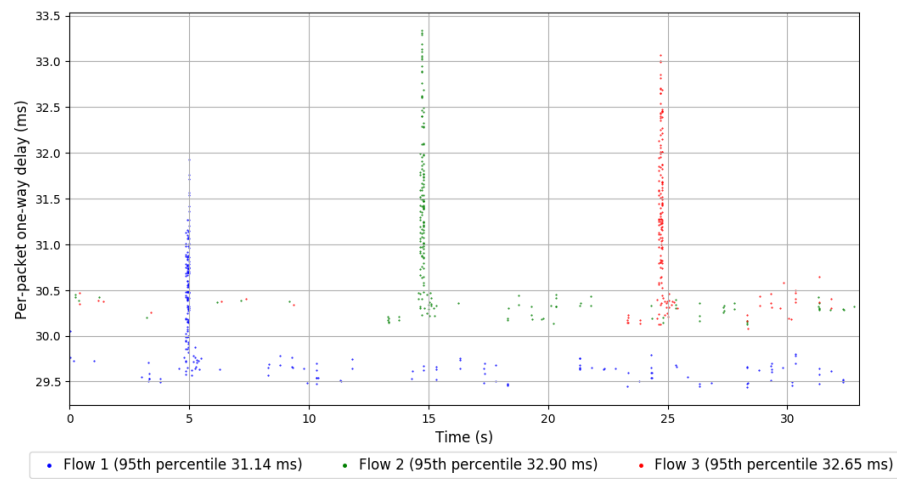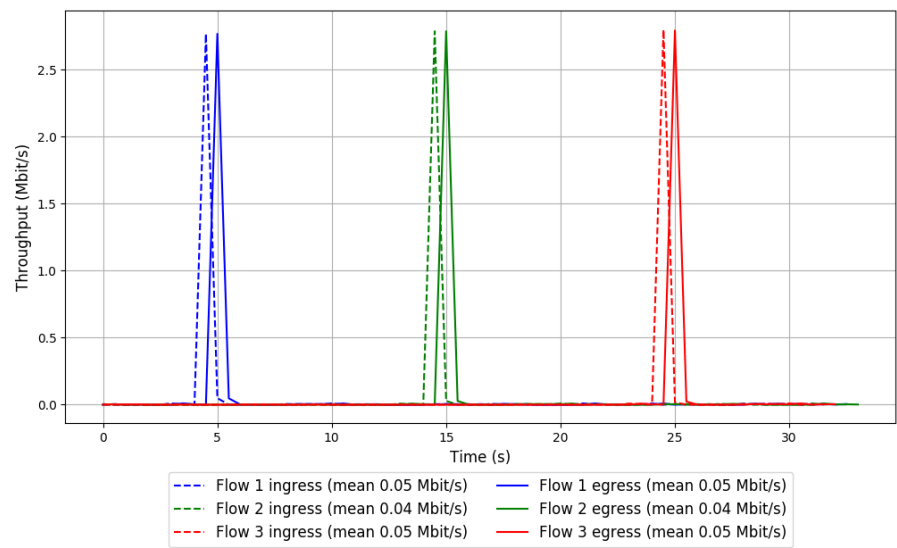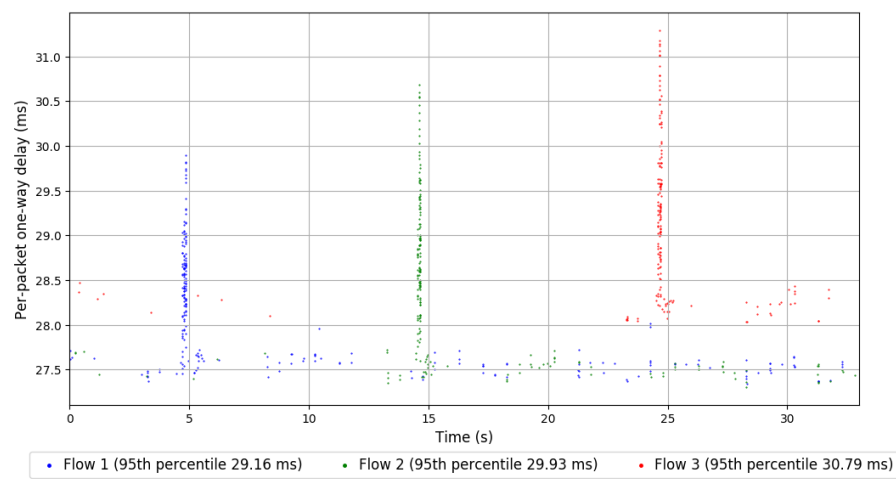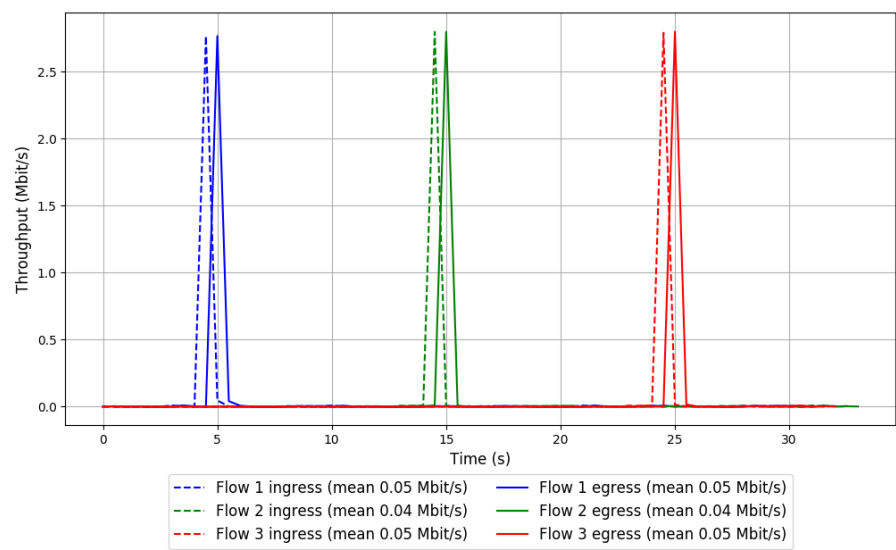
Run 5: Report of WebRTC media — Data Link

- - - Flow 1 ingress (mean 0.05 Mbit/s) ——— Flow 1 egress (mean 0.05 Mbit/s)
- - - Flow 2 ingress (mean 0.04 Mbit/s) ——— Flow 2 egress (mean 0.04 Mbit/s)
- - - Flow 3 ingress (mean 0.05 Mbit/s) ——— Flow 3 egress (mean 0.05 Mbit/s)

• Flow 1 (95th percentile 31.14 ms)   • Flow 2 (95th percentile 32.90 ms)   • Flow 3 (95th percentile 32.65 ms)

```
Run 6: Statistics of WebRTC media

Start at: 2018-05-22 05:14:20
End at: 2018-05-22 05:14:50
Local clock offset: 0.568 ms
Remote clock offset: 1.602 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 30.246 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 29.159 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 29.935 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.789 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-05-22 05:35:37
End at: 2018-05-22 05:36:07
Local clock offset: 1.046 ms
Remote clock offset: 2.715 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 33.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.903 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 33.442 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 33.621 ms
Loss rate: 0.00%
```
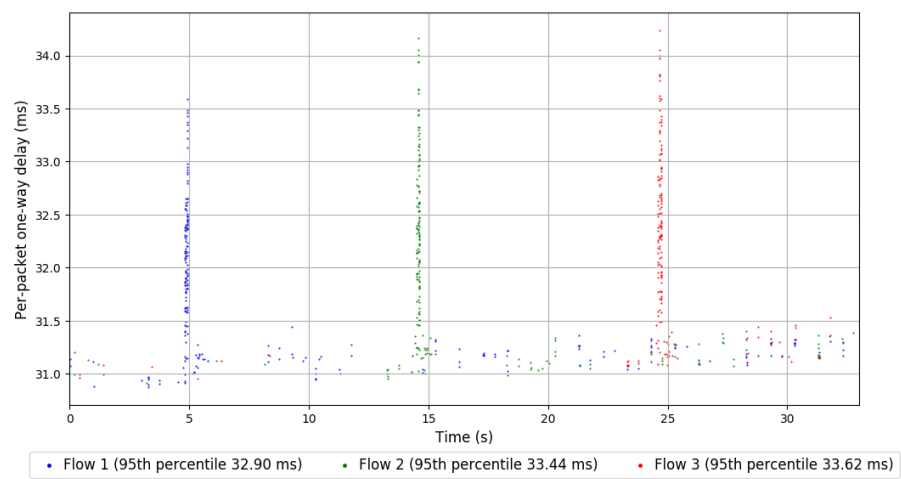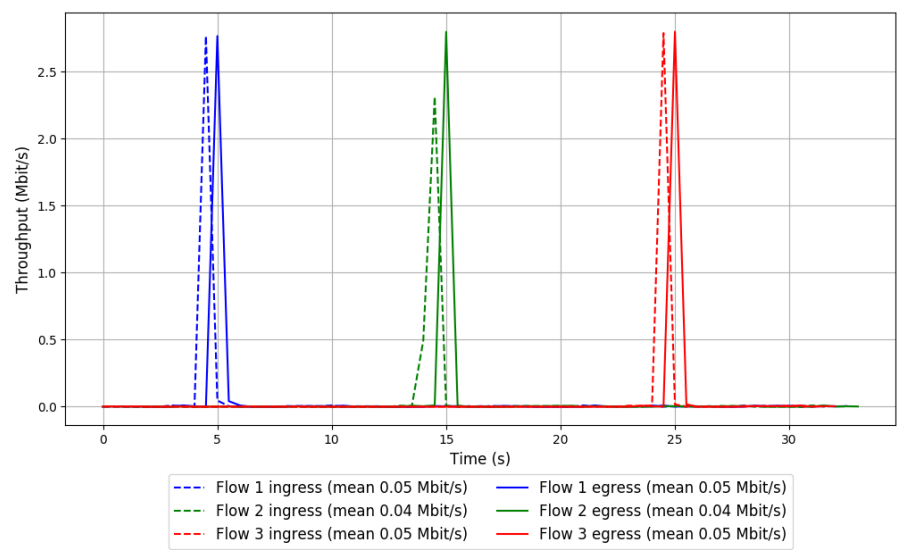
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-05-22 05:57:36
End at: 2018-05-22 05:58:06
Local clock offset: 1.351 ms
Remote clock offset: 1.267 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 36.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.822 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 36.464 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.923 ms
Loss rate: 0.00%
```
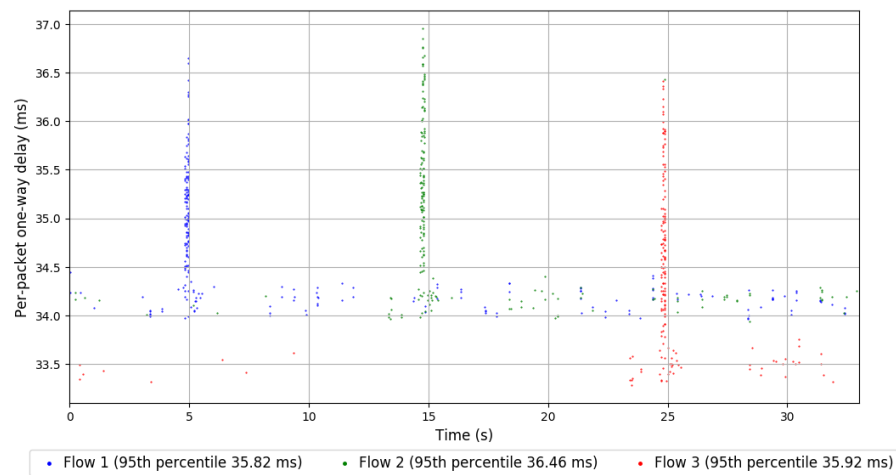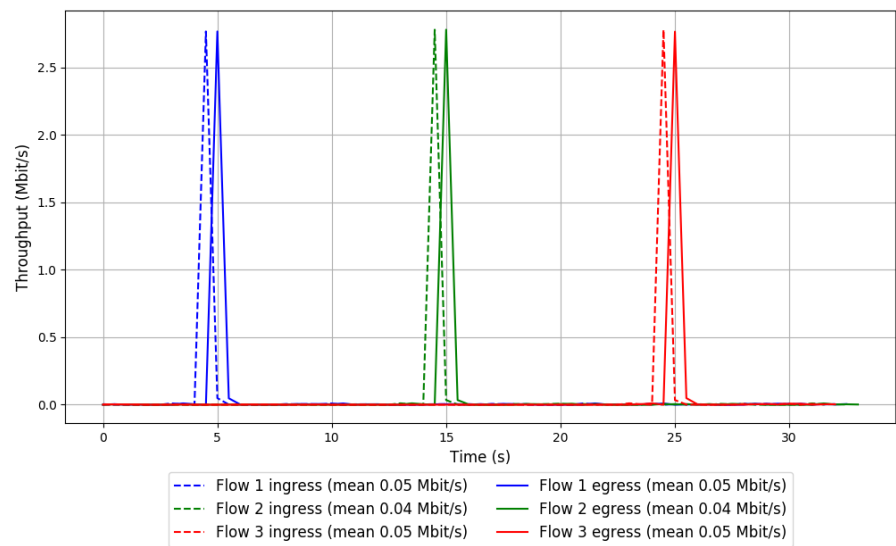
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-05-22 06:19:57
End at: 2018-05-22 06:20:27
Local clock offset: 0.669 ms
Remote clock offset: 5.751 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 35.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.032 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 35.778 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.238 ms
Loss rate: 0.00%
```
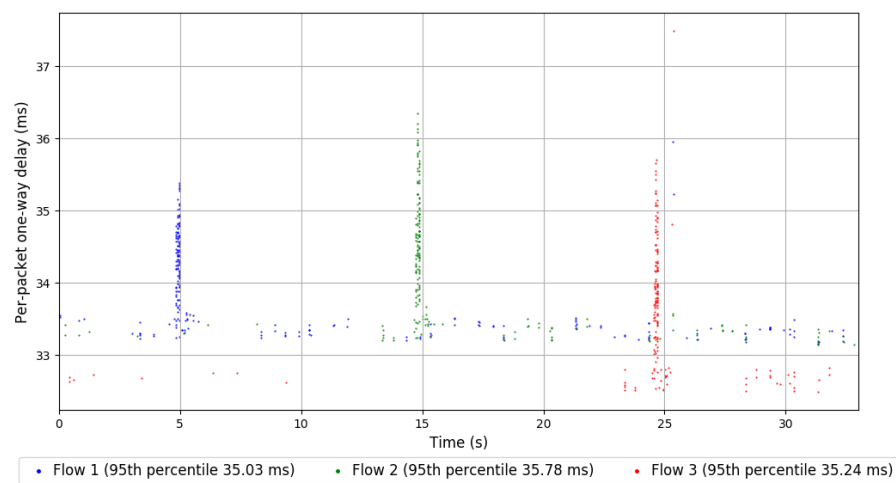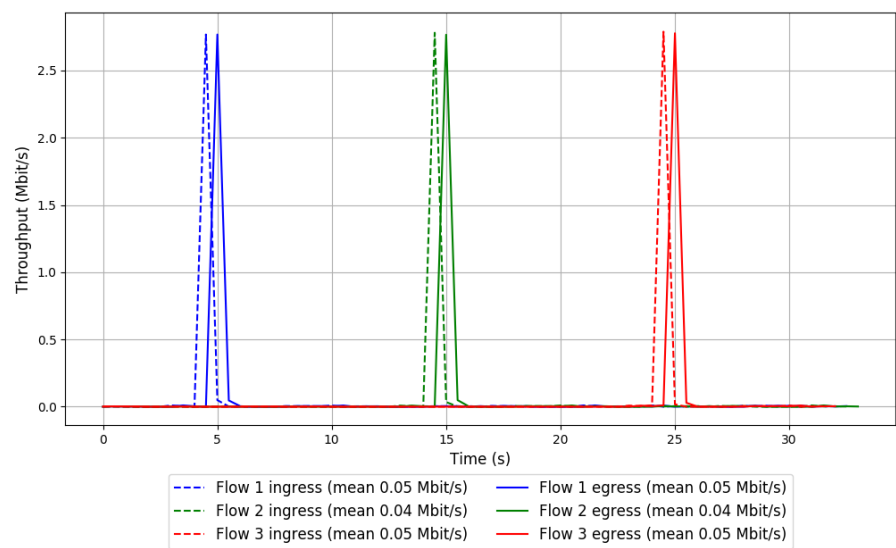
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-05-22 06:41:46
End at: 2018-05-22 06:42:16
Local clock offset: 0.609 ms
Remote clock offset: 7.248 ms


# Below is generated by plot.py at 2018-05-22 07:16:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 35.563 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.250 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 35.915 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.362 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link