Pantheon Report

Generated at 2018-11-15 14:25:03 (UTC).

Data path: Stanford on **eno1** (*remote*) →AWS California 1 on **ens5** (*local*).

Repeated the test of 18 congestion control schemes 5 times.

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.
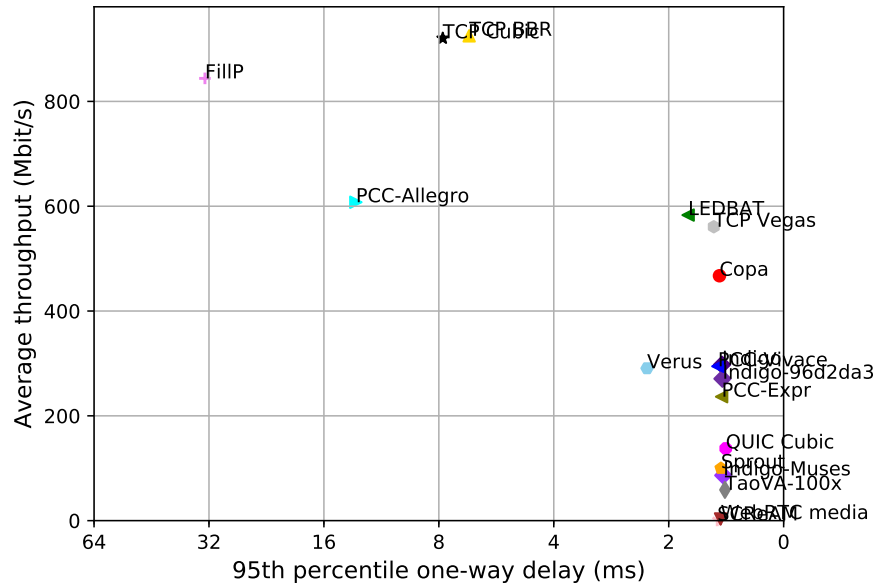
```
System info:
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 794ca3866981572cb73700a276691acf79c60f2b
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```
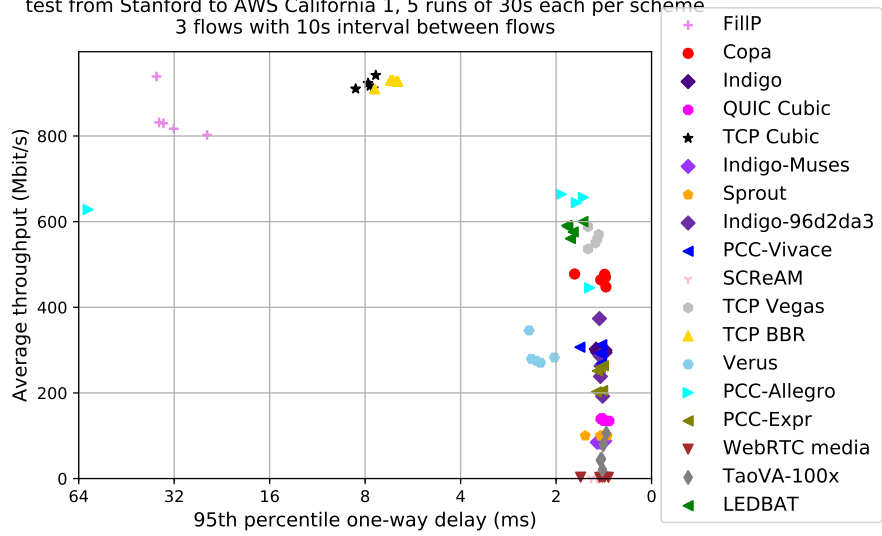
```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from Stanford to AWS California 1, 5 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	5	545.95	405.47	328.45	6.79	5.92	6.17	0.01	0.02	0.06
Copa	5	283.39	214.63	123.46	1.12	1.09	1.12	0.00	0.01	0.01
TCP Cubic	5	545.55	402.31	321.46	7.88	7.59	7.78	0.02	0.03	0.09
FillP	5	468.98	428.28	272.32	23.70	36.88	31.16	0.06	0.12	0.34
Indigo	5	159.09	145.72	125.98	1.05	1.06	1.17	0.00	0.01	0.02
Indigo-96d2da3	5	145.40	122.53	132.44	1.06	1.06	1.06	0.00	0.01	0.01
LEDBAT	5	353.72	254.10	184.65	1.60	1.82	1.50	0.00	0.01	0.02
Indigo-Muses	5	42.10	42.64	48.01	1.04	1.10	1.01	0.01	0.01	0.01
PCC-Allegro	5	480.99	140.47	101.24	14.30	1.48	1.50	0.01	0.01	0.02
PCC-Expr	5	195.42	43.87	36.19	1.08	1.06	1.03	0.00	0.00	0.06
QUIC Cubic	5	73.63	67.86	57.26	1.00	1.01	1.00	0.00	0.01	0.02
SCReAM	5	0.22	0.22	0.22	1.16	1.14	1.14	0.00	0.00	0.00
Sprout	5	50.24	50.14	49.89	1.09	1.08	1.09	0.02	0.01	0.00
TaoVA-100x	5	31.97	27.50	25.61	1.03	1.02	1.01	0.00	0.01	0.01
TCP Vegas	5	284.12	284.53	262.18	1.31	1.22	1.27	0.01	0.01	0.02
Verus	5	181.99	125.15	77.36	2.43	1.72	1.35	0.00	0.00	0.01
PCC-Vivace	5	199.97	107.43	70.10	1.12	1.18	1.25	0.00	0.01	0.02
WebRTC media	5	1.62	1.05	0.47	1.09	1.10	1.11	0.02	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-11-15 11:10:49
End at: 2018-11-15 11:11:19
Local clock offset: 4.084 ms
Remote clock offset: 3.073 ms


# Below is generated by plot.py at 2018-11-15 13:41:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 927.91 Mbit/s
95th percentile per-packet one-way delay: 6.363 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 548.53 Mbit/s
95th percentile per-packet one-way delay: 6.487 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 405.70 Mbit/s
95th percentile per-packet one-way delay: 5.958 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 328.38 Mbit/s
95th percentile per-packet one-way delay: 6.084 ms
Loss rate: 0.05%
```
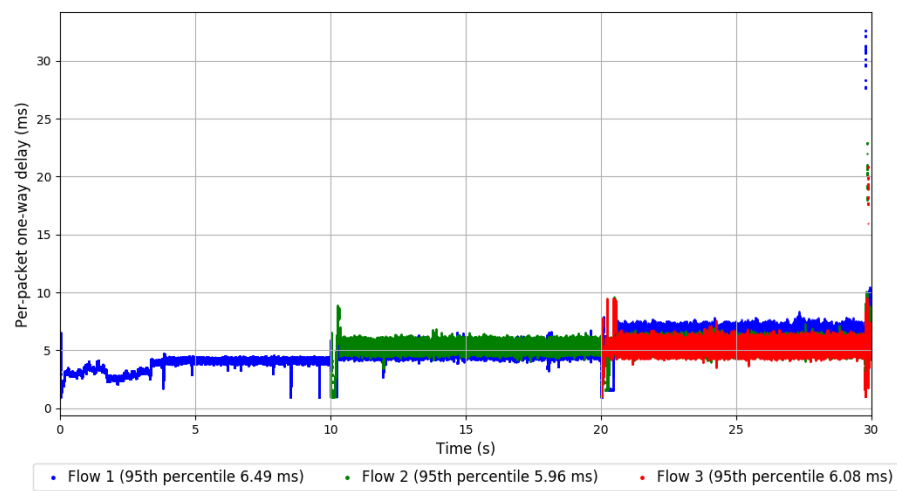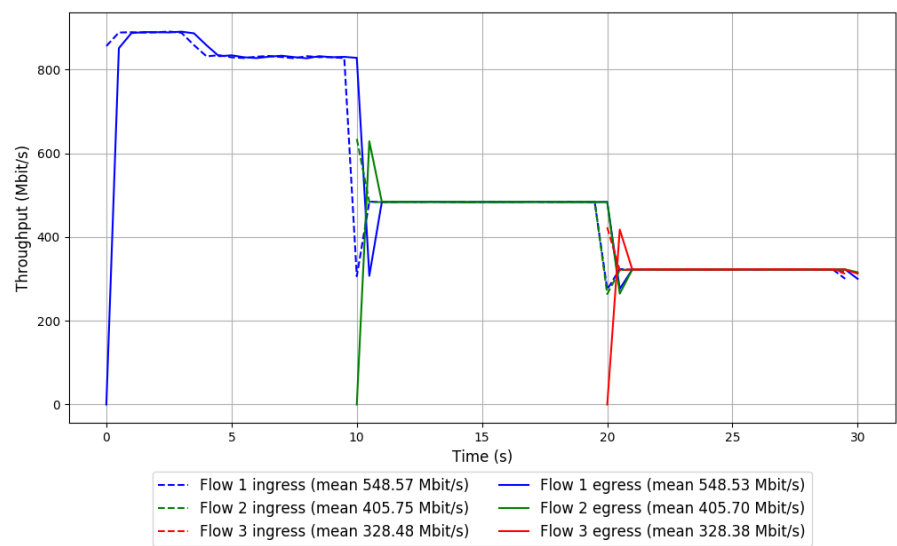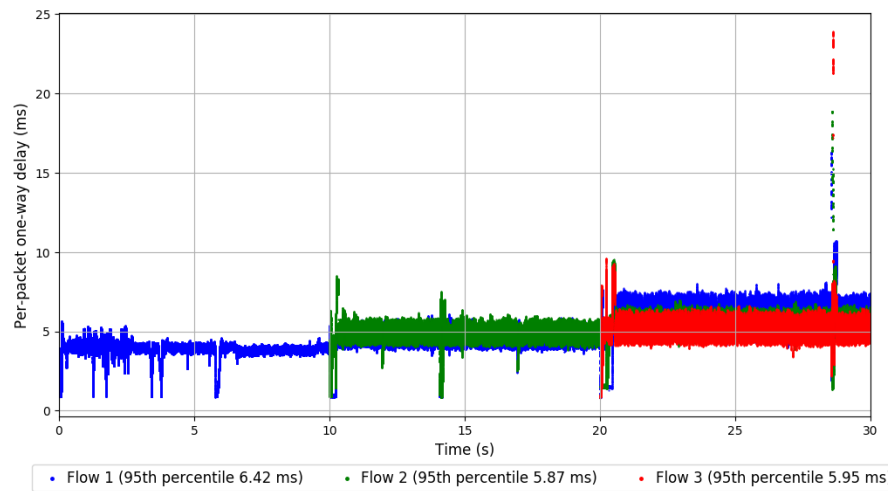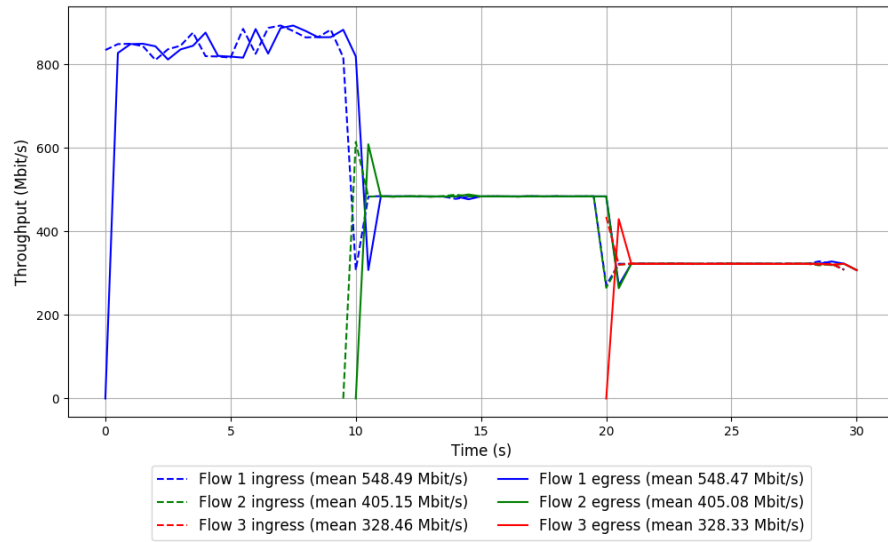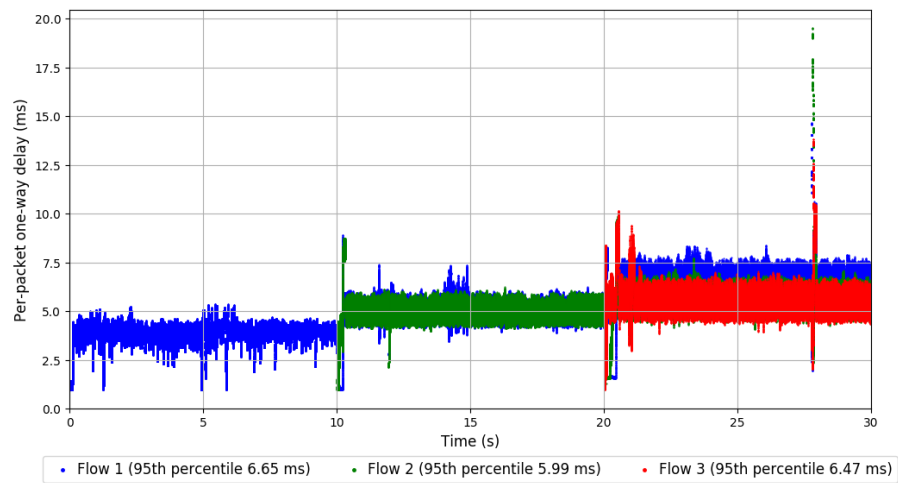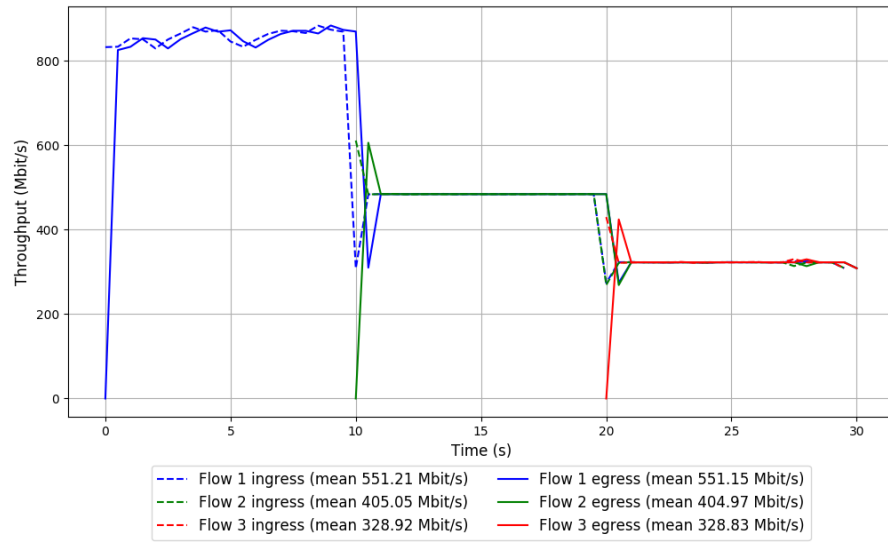
Run 1: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 548.57 Mbit/s) —— Flow 1 egress (mean 548.53 Mbit/s)
- - - Flow 2 ingress (mean 405.75 Mbit/s) —— Flow 2 egress (mean 405.70 Mbit/s)
- - - Flow 3 ingress (mean 328.48 Mbit/s) —— Flow 3 egress (mean 328.38 Mbit/s)

• Flow 1 (95th percentile 6.49 ms)   • Flow 2 (95th percentile 5.96 ms)   • Flow 3 (95th percentile 6.08 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-11-15 11:38:39
End at: 2018-11-15 11:39:09
Local clock offset: 4.405 ms
Remote clock offset: 1.631 ms


# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 927.54 Mbit/s
95th percentile per-packet one-way delay: 6.301 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 548.47 Mbit/s
95th percentile per-packet one-way delay: 6.417 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 405.08 Mbit/s
95th percentile per-packet one-way delay: 5.872 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.33 Mbit/s
95th percentile per-packet one-way delay: 5.953 ms
Loss rate: 0.06%
```
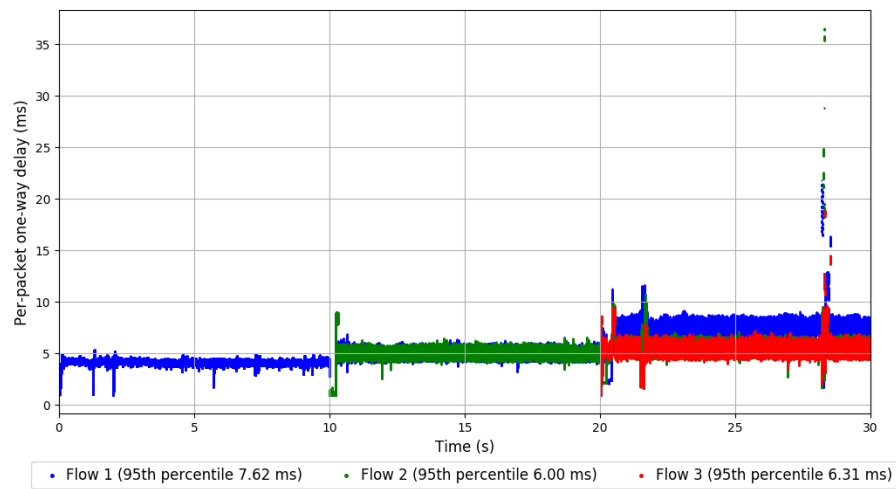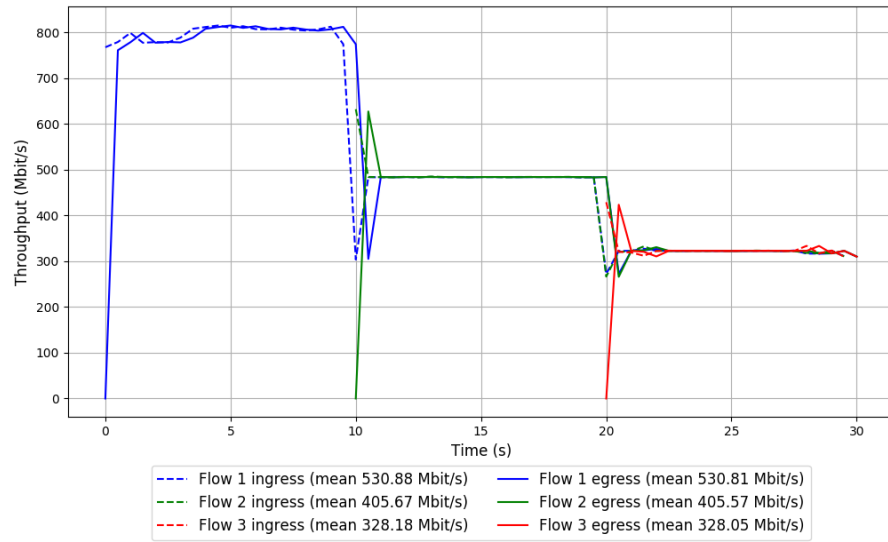
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-11-15 12:06:25
End at: 2018-11-15 12:06:55
Local clock offset: 4.316 ms
Remote clock offset: -0.208 ms


# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.14 Mbit/s
95th percentile per-packet one-way delay: 6.536 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 551.15 Mbit/s
95th percentile per-packet one-way delay: 6.652 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 404.97 Mbit/s
95th percentile per-packet one-way delay: 5.991 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 328.83 Mbit/s
95th percentile per-packet one-way delay: 6.475 ms
Loss rate: 0.06%
```
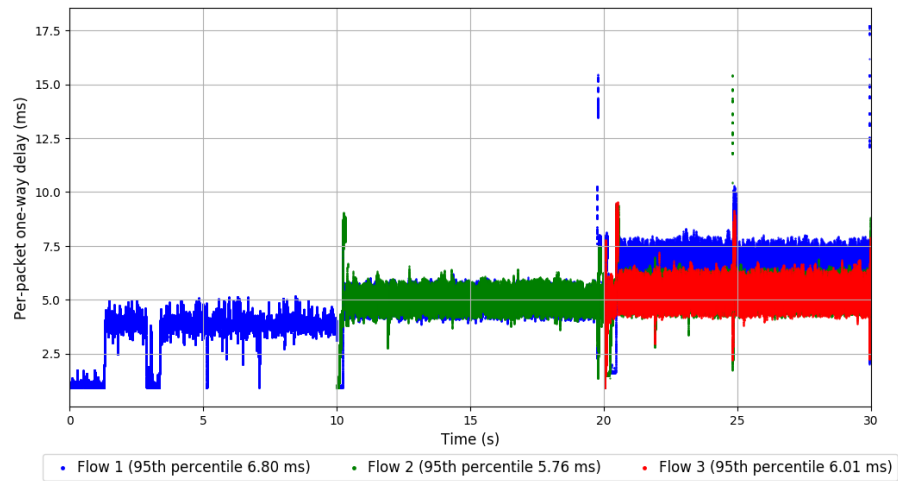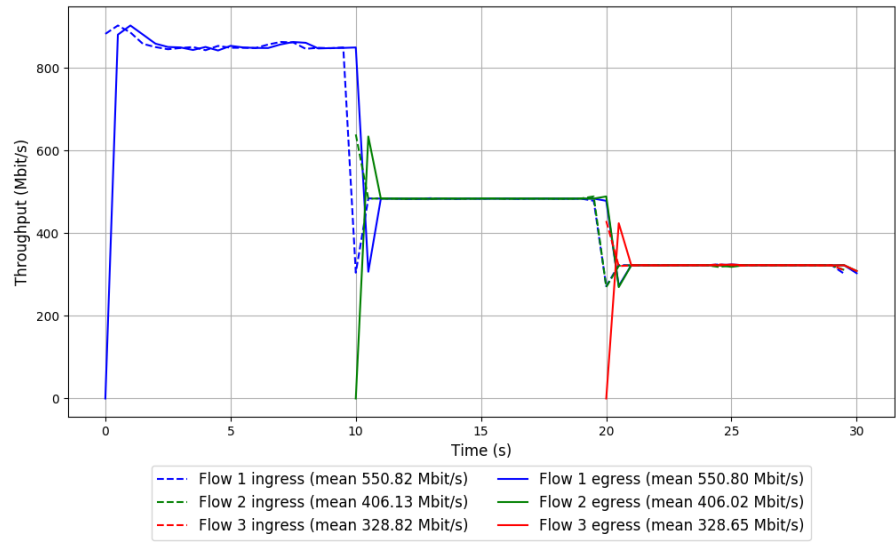
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-11-15 12:34:10
End at: 2018-11-15 12:34:40
Local clock offset: 3.931 ms
Remote clock offset: -0.286 ms


# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 909.96 Mbit/s
95th percentile per-packet one-way delay: 7.461 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 530.81 Mbit/s
95th percentile per-packet one-way delay: 7.615 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 405.57 Mbit/s
95th percentile per-packet one-way delay: 6.005 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 328.05 Mbit/s
95th percentile per-packet one-way delay: 6.312 ms
Loss rate: 0.06%
```

Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 530.88 Mbit/s) --- Flow 1 egress (mean 530.81 Mbit/s)
Flow 2 ingress (mean 405.67 Mbit/s) --- Flow 2 egress (mean 405.57 Mbit/s)
Flow 3 ingress (mean 328.18 Mbit/s) --- Flow 3 egress (mean 328.05 Mbit/s)

Flow 1 (95th percentile 7.62 ms)   Flow 2 (95th percentile 6.00 ms)   Flow 3 (95th percentile 6.31 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2018-11-15 13:02:02
End at: 2018-11-15 13:02:32
Local clock offset: 3.814 ms
Remote clock offset: -4.154 ms


# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.40 Mbit/s
95th percentile per-packet one-way delay: 6.654 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 550.80 Mbit/s
95th percentile per-packet one-way delay: 6.803 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 406.02 Mbit/s
95th percentile per-packet one-way delay: 5.759 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.65 Mbit/s
95th percentile per-packet one-way delay: 6.007 ms
Loss rate: 0.08%
```
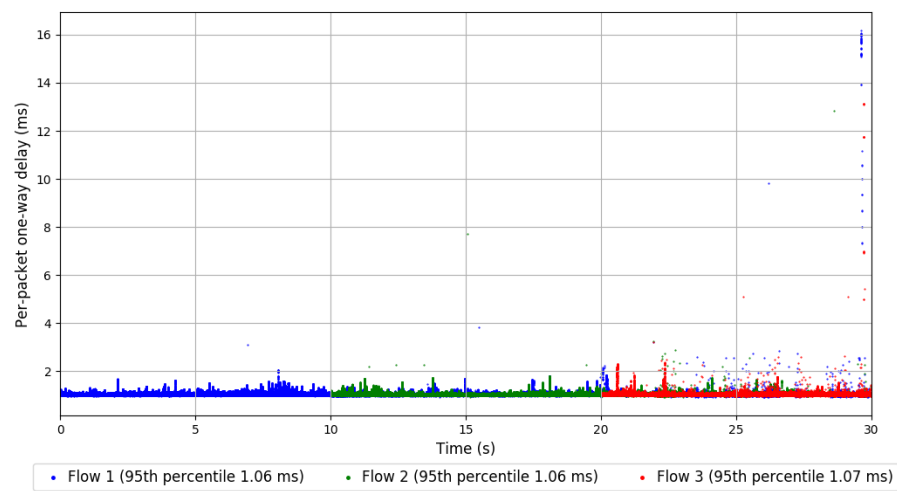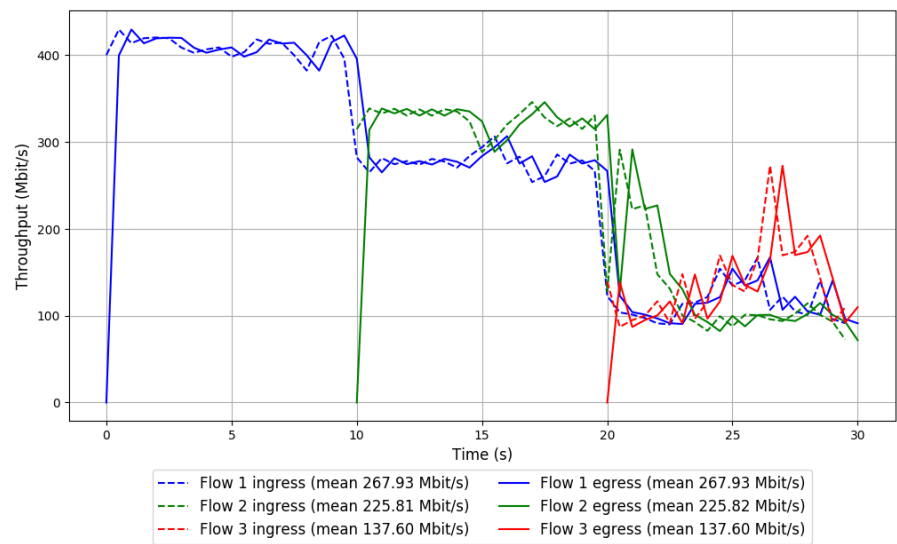
Run 5: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-11-15 11:23:08
End at: 2018-11-15 11:23:38
Local clock offset: 3.998 ms
Remote clock offset: 3.444 ms

# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.02 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 267.93 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 225.82 Mbit/s
95th percentile per-packet one-way delay: 1.060 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 137.60 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.00%
```
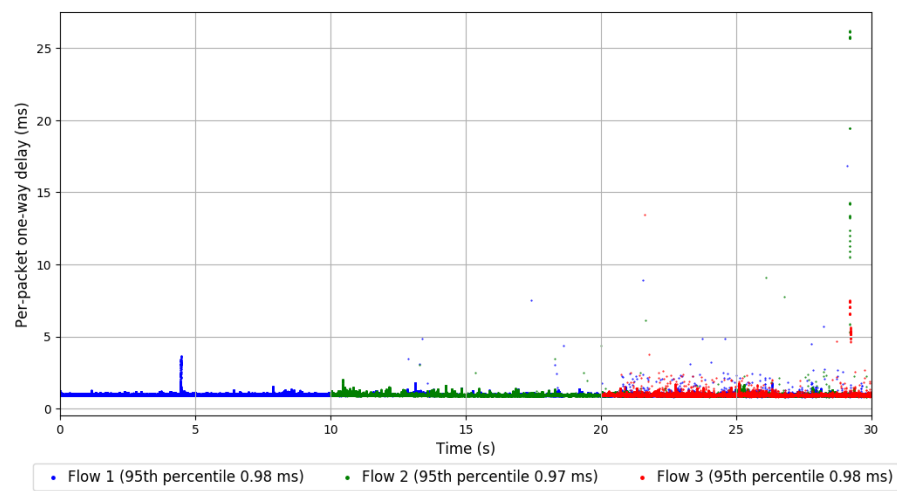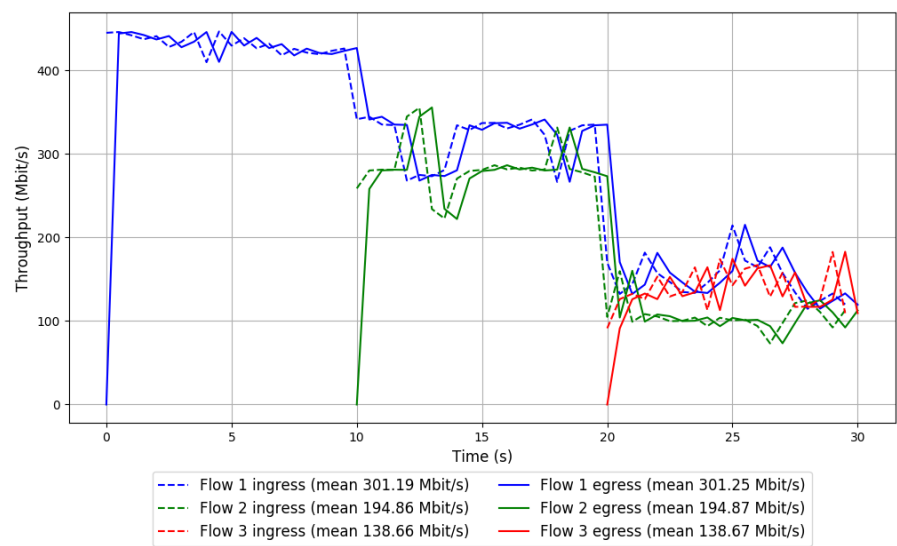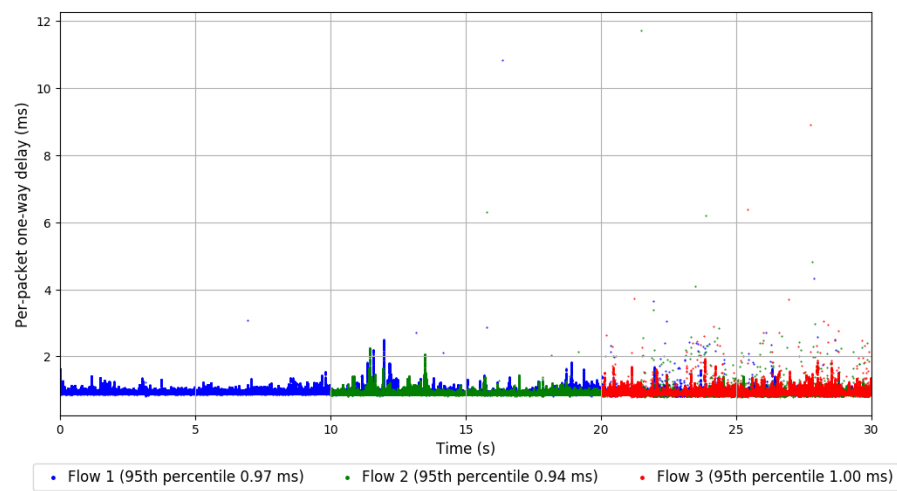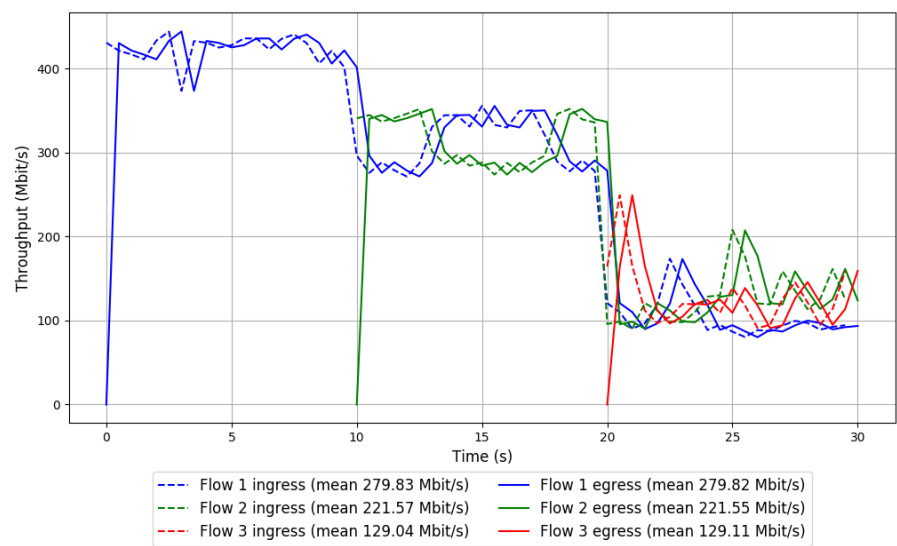
Run 1: Report of Copa — Data Link

Legend:
- Flow 1 ingress (mean 267.93 Mbit/s) — Flow 1 egress (mean 267.93 Mbit/s)
- Flow 2 ingress (mean 225.81 Mbit/s) — Flow 2 egress (mean 225.82 Mbit/s)
- Flow 3 ingress (mean 137.60 Mbit/s) — Flow 3 egress (mean 137.60 Mbit/s)

Legend:
- Flow 1 (95th percentile 1.06 ms)
- Flow 2 (95th percentile 1.06 ms)
- Flow 3 (95th percentile 1.07 ms)

```
Run 2: Statistics of Copa

Start at: 2018-11-15 11:50:54
End at: 2018-11-15 11:51:24
Local clock offset: 4.553 ms
Remote clock offset: 0.277 ms


# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.00 Mbit/s
95th percentile per-packet one-way delay: 0.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 301.25 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.87 Mbit/s
95th percentile per-packet one-way delay: 0.972 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 138.67 Mbit/s
95th percentile per-packet one-way delay: 0.984 ms
Loss rate: 0.01%
```
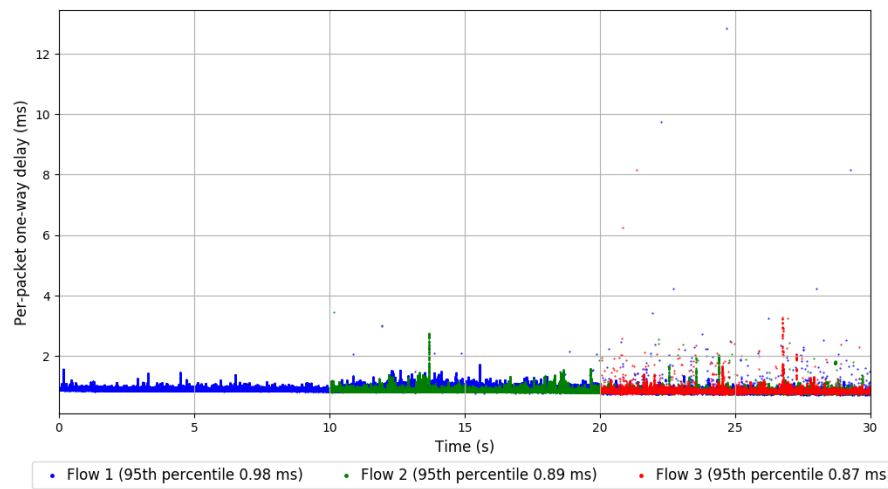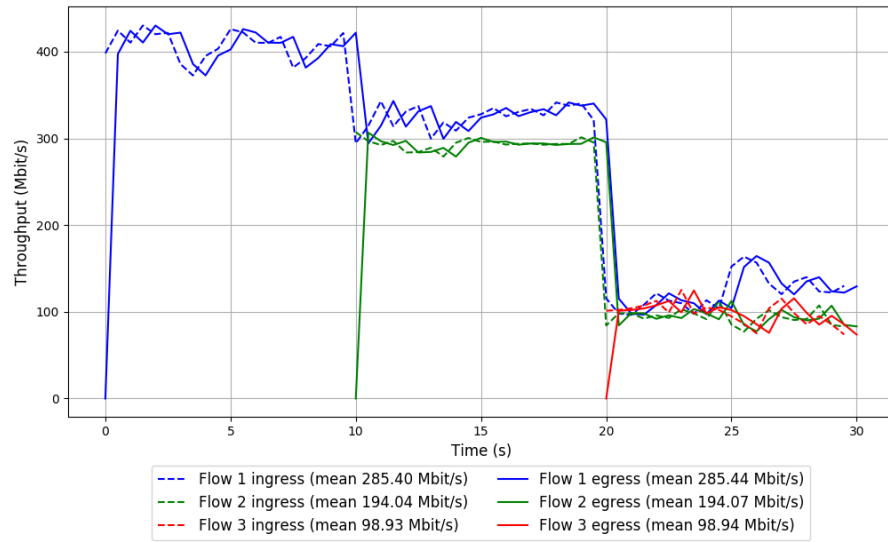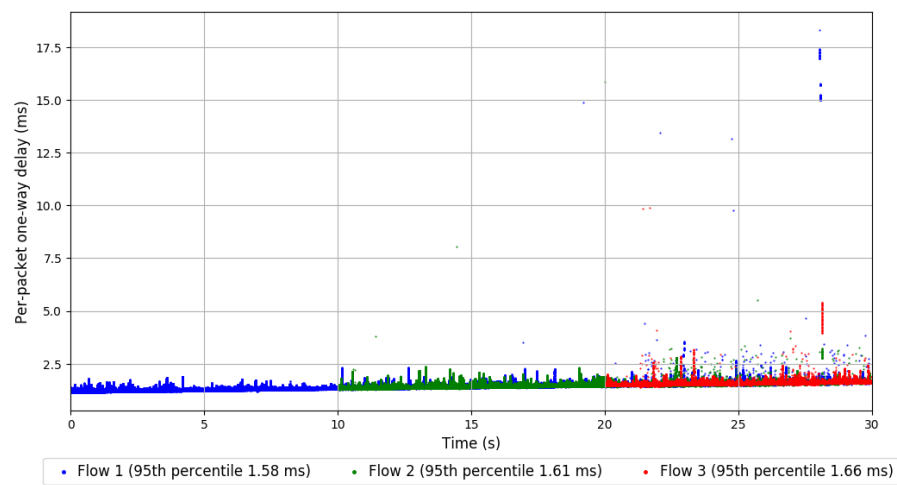
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 301.19 Mbit/s) ------ Flow 1 egress (mean 301.25 Mbit/s)
Flow 2 ingress (mean 194.86 Mbit/s) ------ Flow 2 egress (mean 194.87 Mbit/s)
Flow 3 ingress (mean 138.66 Mbit/s) ------ Flow 3 egress (mean 138.67 Mbit/s)

• Flow 1 (95th percentile 0.98 ms)   • Flow 2 (95th percentile 0.97 ms)   • Flow 3 (95th percentile 0.98 ms)

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```
Run 3: Statistics of Copa

Start at: 2018-11-15 12:18:43
End at: 2018-11-15 12:19:13
Local clock offset: 4.184 ms
Remote clock offset: -0.126 ms


# Below is generated by plot.py at 2018-11-15 13:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.24 Mbit/s
95th percentile per-packet one-way delay: 0.967 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 279.82 Mbit/s
95th percentile per-packet one-way delay: 0.973 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 221.55 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 129.11 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
```
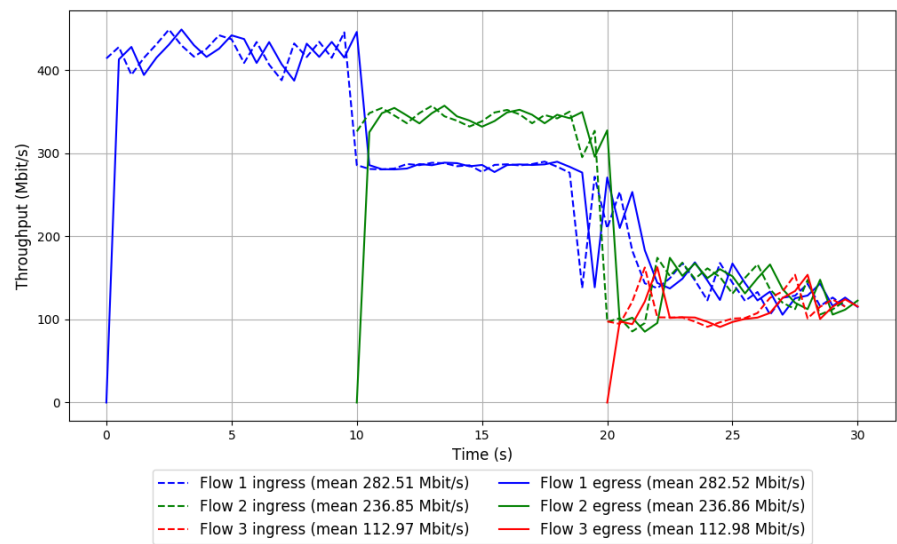
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-11-15 12:46:34
End at: 2018-11-15 12:47:04
Local clock offset: 3.747 ms
Remote clock offset: -2.122 ms


# Below is generated by plot.py at 2018-11-15 13:50:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.54 Mbit/s
95th percentile per-packet one-way delay: 0.956 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 285.44 Mbit/s
95th percentile per-packet one-way delay: 0.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.07 Mbit/s
95th percentile per-packet one-way delay: 0.888 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.94 Mbit/s
95th percentile per-packet one-way delay: 0.867 ms
Loss rate: 0.01%
```
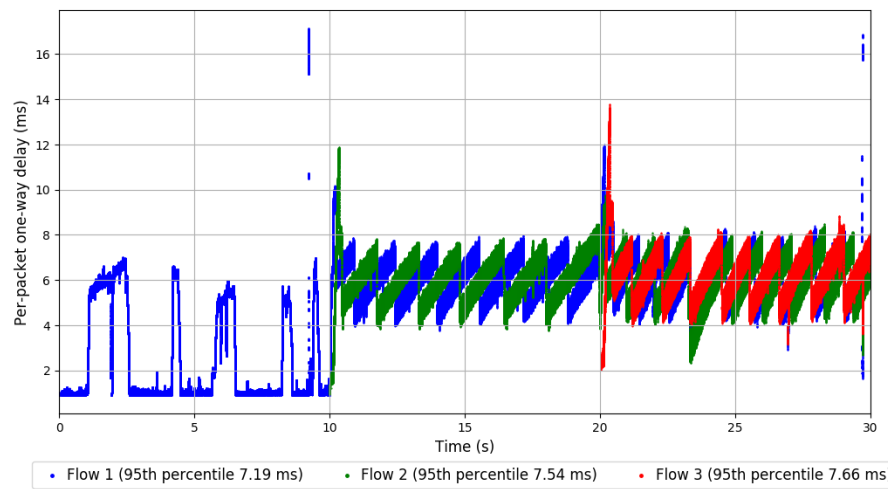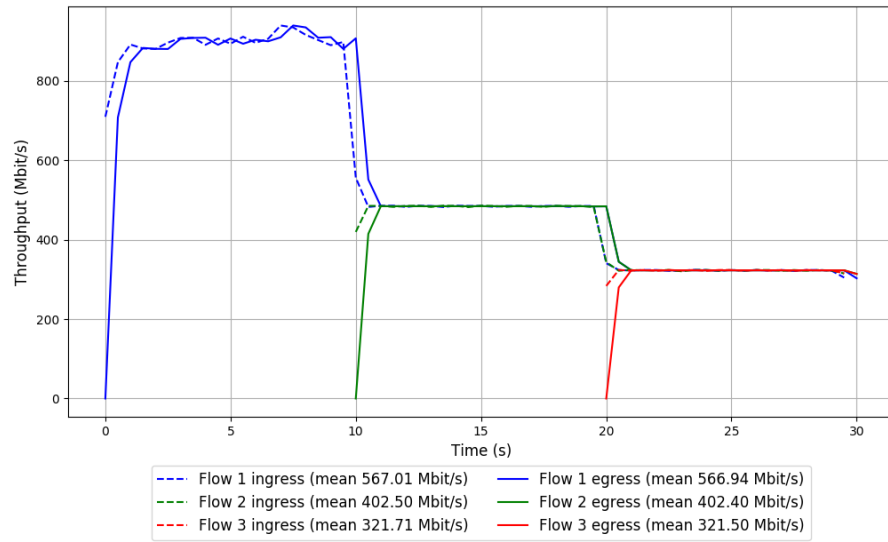
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-11-15 13:14:18
End at: 2018-11-15 13:14:48
Local clock offset: 3.958 ms
Remote clock offset: -4.837 ms


# Below is generated by plot.py at 2018-11-15 13:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.75 Mbit/s
95th percentile per-packet one-way delay: 1.612 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 282.52 Mbit/s
95th percentile per-packet one-way delay: 1.585 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 236.86 Mbit/s
95th percentile per-packet one-way delay: 1.612 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 112.98 Mbit/s
95th percentile per-packet one-way delay: 1.655 ms
Loss rate: 0.01%
```
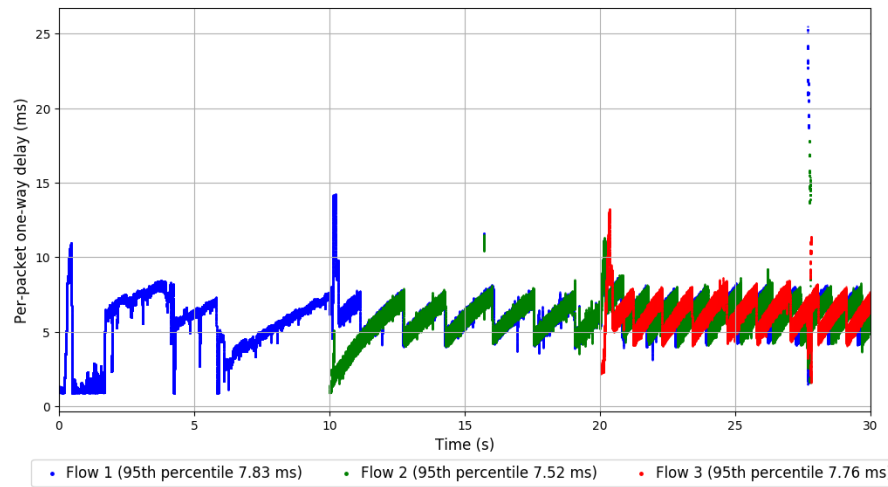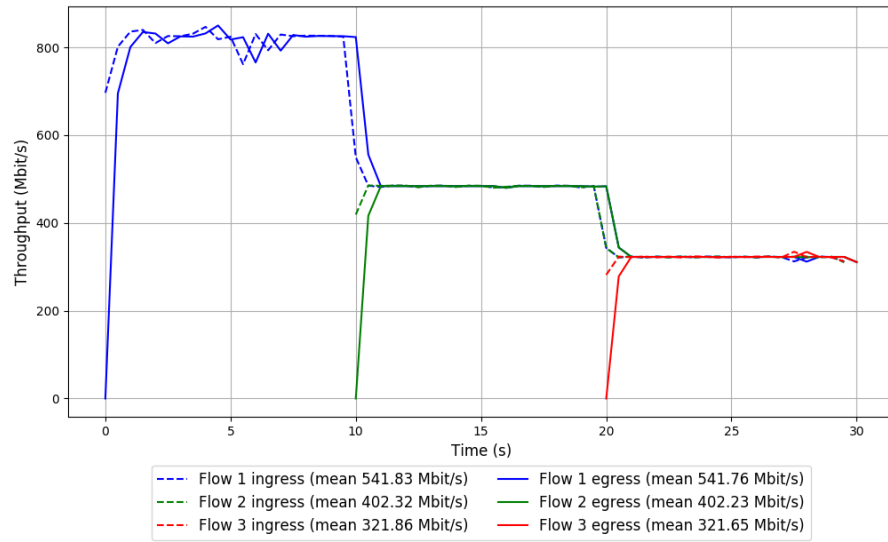
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 282.51 Mbit/s)   Flow 1 egress (mean 282.52 Mbit/s)
Flow 2 ingress (mean 236.85 Mbit/s)   Flow 2 egress (mean 236.86 Mbit/s)
Flow 3 ingress (mean 112.97 Mbit/s)   Flow 3 egress (mean 112.98 Mbit/s)

Flow 1 (95th percentile 1.58 ms)   Flow 2 (95th percentile 1.61 ms)   Flow 3 (95th percentile 1.66 ms)
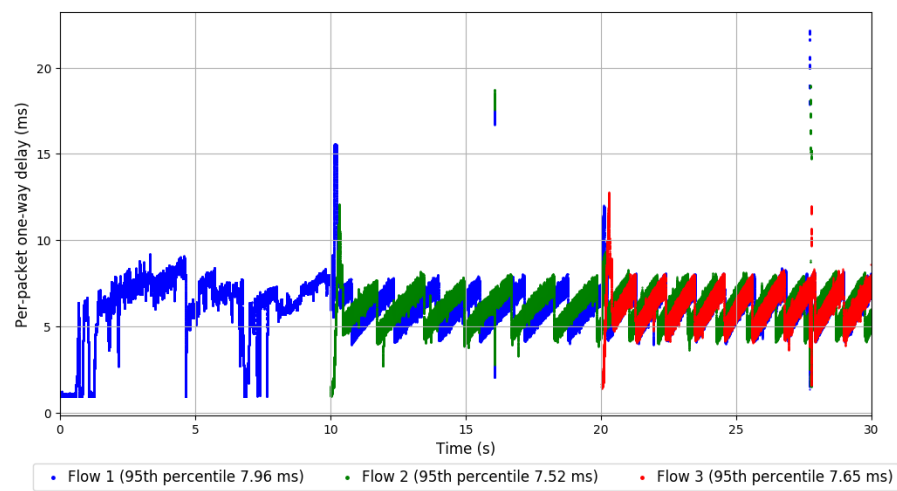
24

```
Run 1: Statistics of TCP Cubic

Start at: 2018-11-15 11:27:48
End at: 2018-11-15 11:28:18
Local clock offset: 4.025 ms
Remote clock offset: 3.704 ms


# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 941.78 Mbit/s
95th percentile per-packet one-way delay: 7.406 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 566.94 Mbit/s
95th percentile per-packet one-way delay: 7.192 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.40 Mbit/s
95th percentile per-packet one-way delay: 7.544 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.50 Mbit/s
95th percentile per-packet one-way delay: 7.659 ms
Loss rate: 0.09%
```
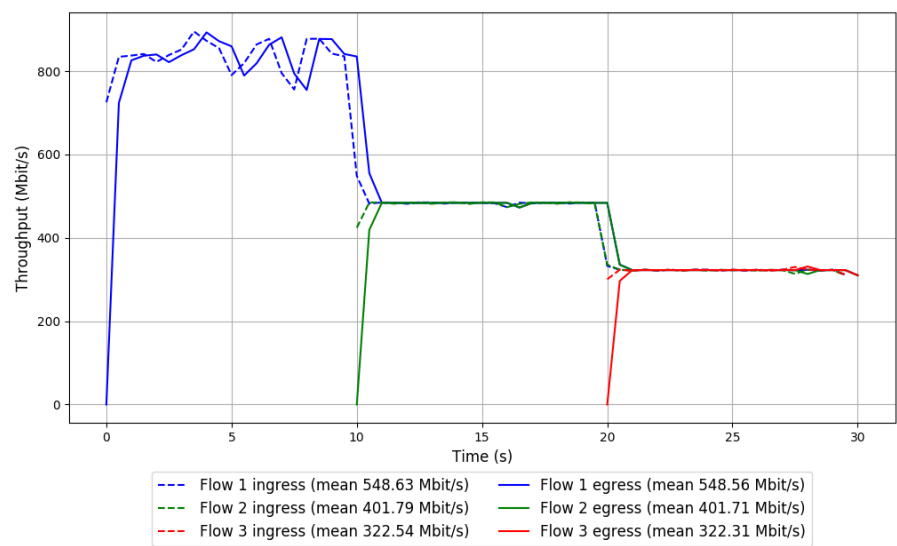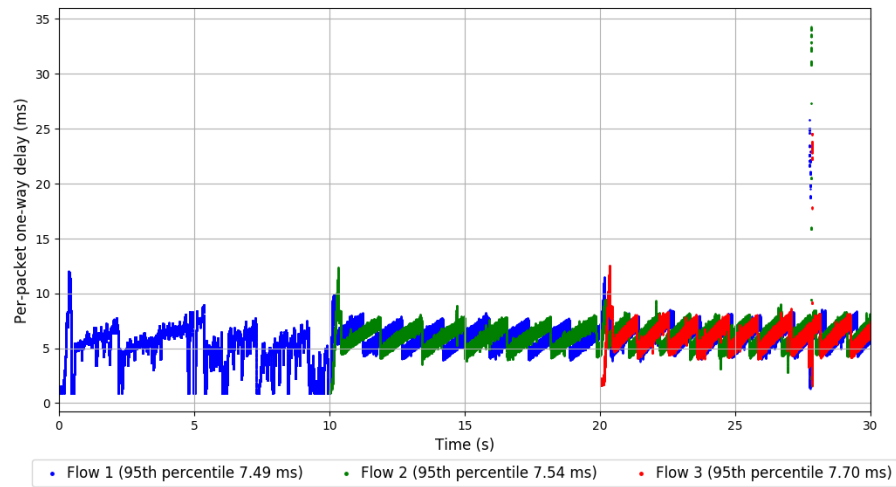
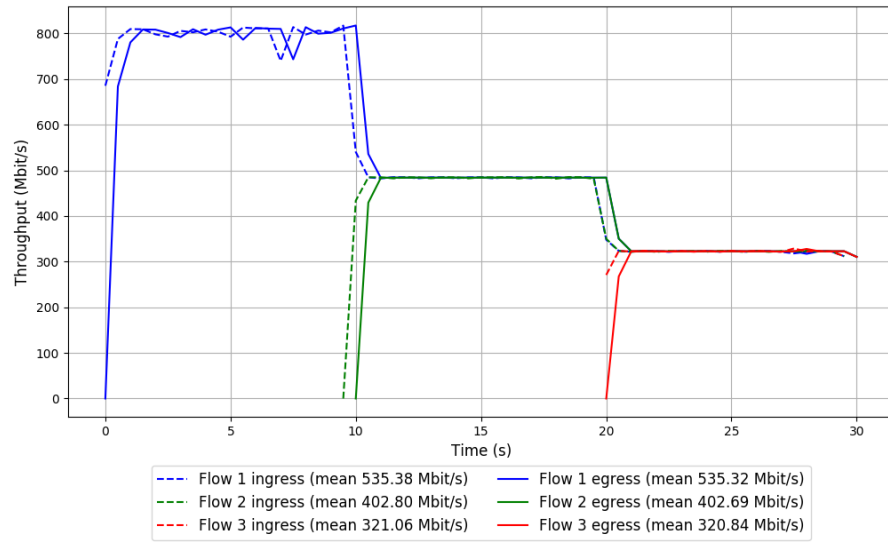Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-11-15 11:55:35
End at: 2018-11-15 11:56:05
Local clock offset: 4.576 ms
Remote clock offset: 0.124 ms


# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 916.59 Mbit/s
95th percentile per-packet one-way delay: 7.719 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 541.76 Mbit/s
95th percentile per-packet one-way delay: 7.829 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.23 Mbit/s
95th percentile per-packet one-way delay: 7.524 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.65 Mbit/s
95th percentile per-packet one-way delay: 7.756 ms
Loss rate: 0.09%
```
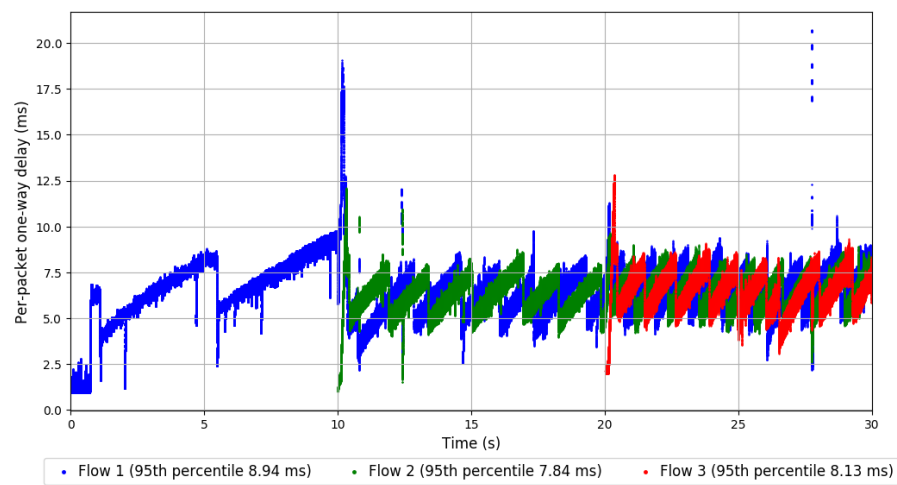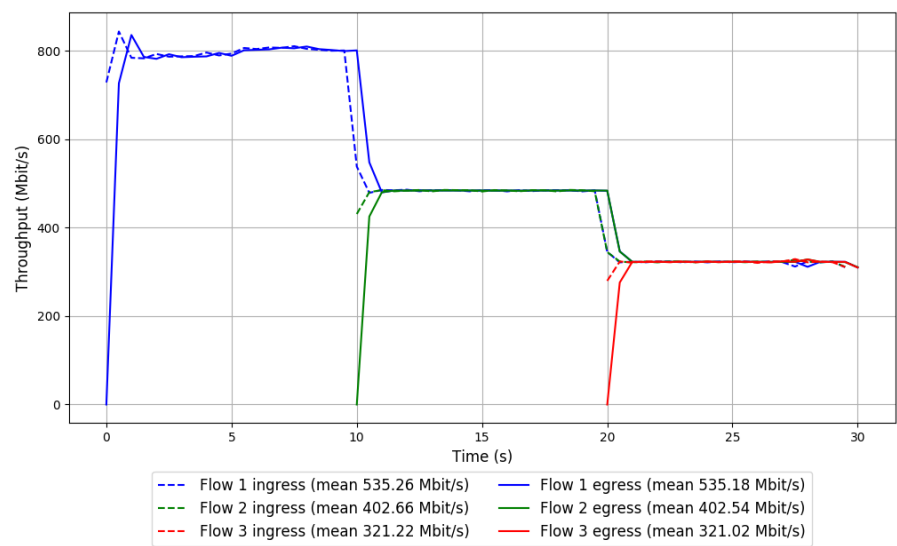
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 541.83 Mbit/s)   Flow 1 egress (mean 541.76 Mbit/s)
Flow 2 ingress (mean 402.32 Mbit/s)   Flow 2 egress (mean 402.23 Mbit/s)
Flow 3 ingress (mean 321.86 Mbit/s)   Flow 3 egress (mean 321.65 Mbit/s)

Flow 1 (95th percentile 7.83 ms)   Flow 2 (95th percentile 7.52 ms)   Flow 3 (95th percentile 7.76 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-11-15 12:23:21
End at: 2018-11-15 12:23:51
Local clock offset: 4.16 ms
Remote clock offset: -0.197 ms


# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 923.31 Mbit/s
95th percentile per-packet one-way delay: 7.832 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 548.56 Mbit/s
95th percentile per-packet one-way delay: 7.956 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 401.71 Mbit/s
95th percentile per-packet one-way delay: 7.517 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 322.31 Mbit/s
95th percentile per-packet one-way delay: 7.653 ms
Loss rate: 0.09%
```

Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2018-11-15 12:51:13
End at: 2018-11-15 12:51:43
Local clock offset: 3.71 ms
Remote clock offset: -2.932 ms


# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 910.25 Mbit/s
95th percentile per-packet one-way delay: 7.541 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 535.32 Mbit/s
95th percentile per-packet one-way delay: 7.494 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.69 Mbit/s
95th percentile per-packet one-way delay: 7.542 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 320.84 Mbit/s
95th percentile per-packet one-way delay: 7.699 ms
Loss rate: 0.09%
```
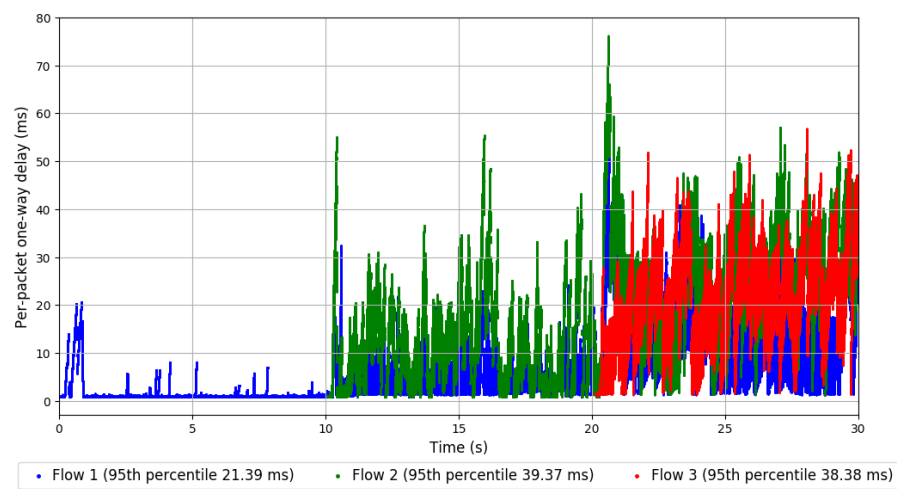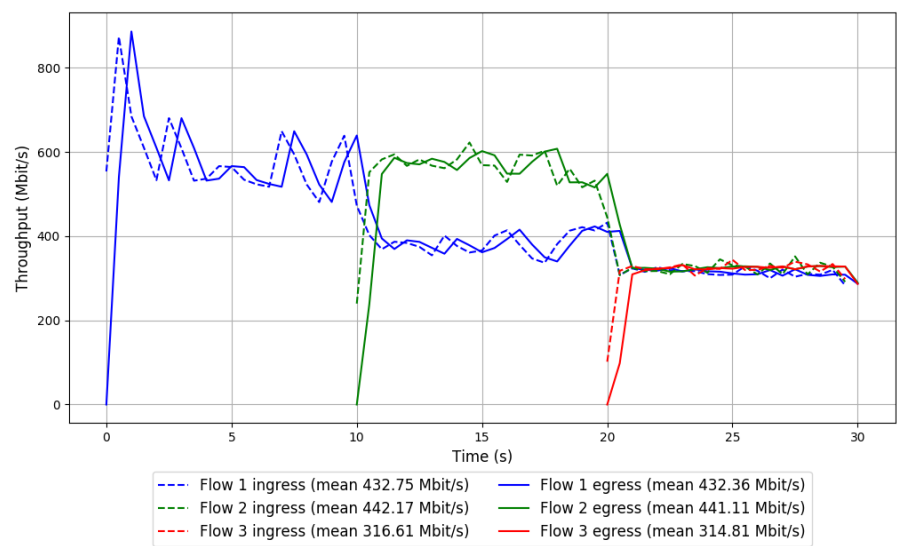
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 535.38 Mbit/s) --- Flow 1 egress (mean 535.32 Mbit/s)
Flow 2 ingress (mean 402.80 Mbit/s) --- Flow 2 egress (mean 402.69 Mbit/s)
Flow 3 ingress (mean 321.06 Mbit/s) --- Flow 3 egress (mean 320.84 Mbit/s)

Flow 1 (95th percentile 7.49 ms) • Flow 2 (95th percentile 7.54 ms) • Flow 3 (95th percentile 7.70 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-11-15 13:19:01
End at: 2018-11-15 13:19:31
Local clock offset: 3.967 ms
Remote clock offset: -1.166 ms


# Below is generated by plot.py at 2018-11-15 13:51:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 910.14 Mbit/s
95th percentile per-packet one-way delay: 8.570 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 535.18 Mbit/s
95th percentile per-packet one-way delay: 8.943 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.54 Mbit/s
95th percentile per-packet one-way delay: 7.842 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 321.02 Mbit/s
95th percentile per-packet one-way delay: 8.128 ms
Loss rate: 0.09%
```
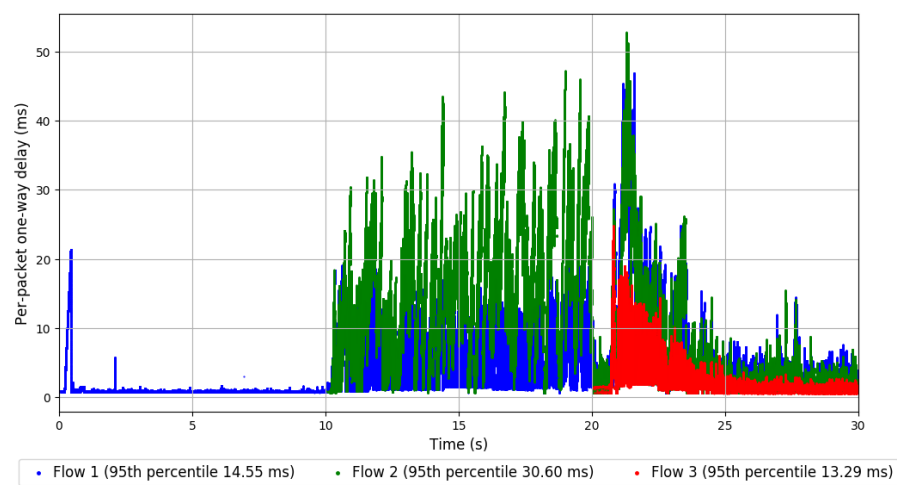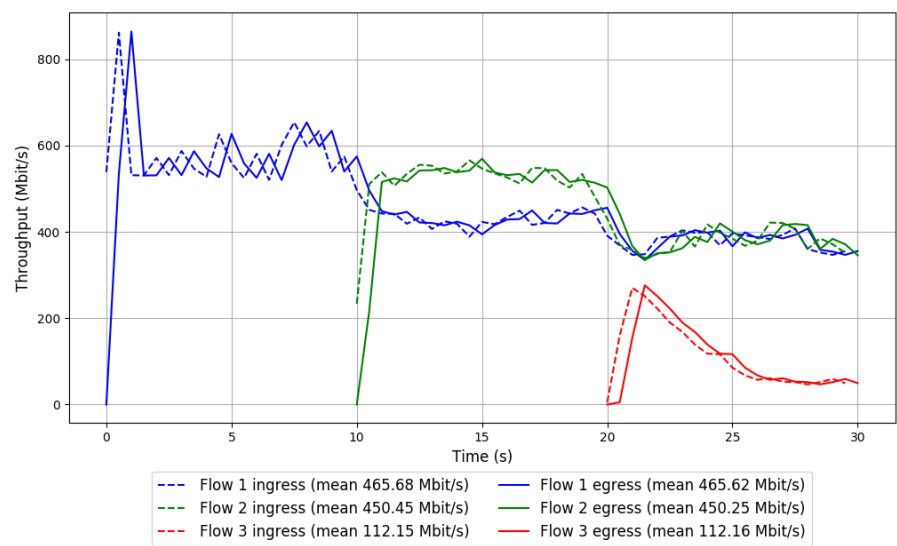
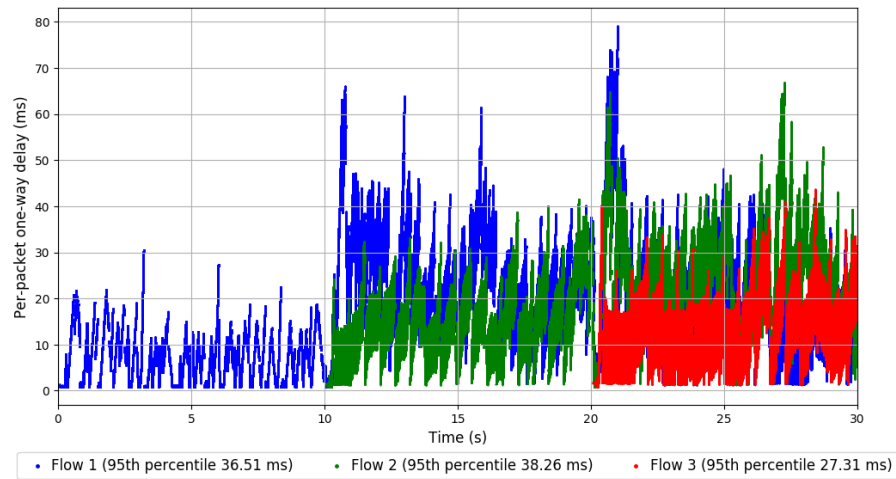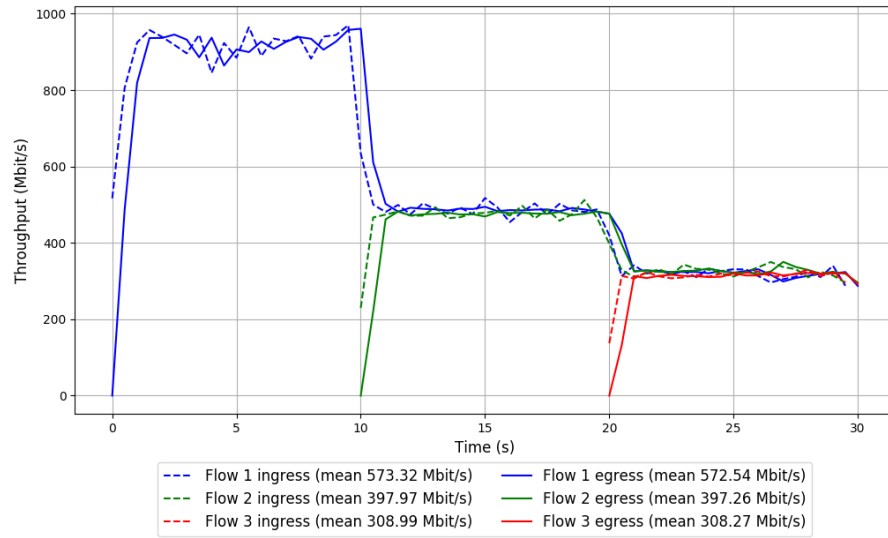Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-11-15 11:04:28
End at: 2018-11-15 11:04:58
Local clock offset: 4.143 ms
Remote clock offset: 3.108 ms


# Below is generated by plot.py at 2018-11-15 13:52:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 829.64 Mbit/s
95th percentile per-packet one-way delay: 34.604 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 432.36 Mbit/s
95th percentile per-packet one-way delay: 21.391 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 441.11 Mbit/s
95th percentile per-packet one-way delay: 39.372 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 314.81 Mbit/s
95th percentile per-packet one-way delay: 38.379 ms
Loss rate: 0.61%
```
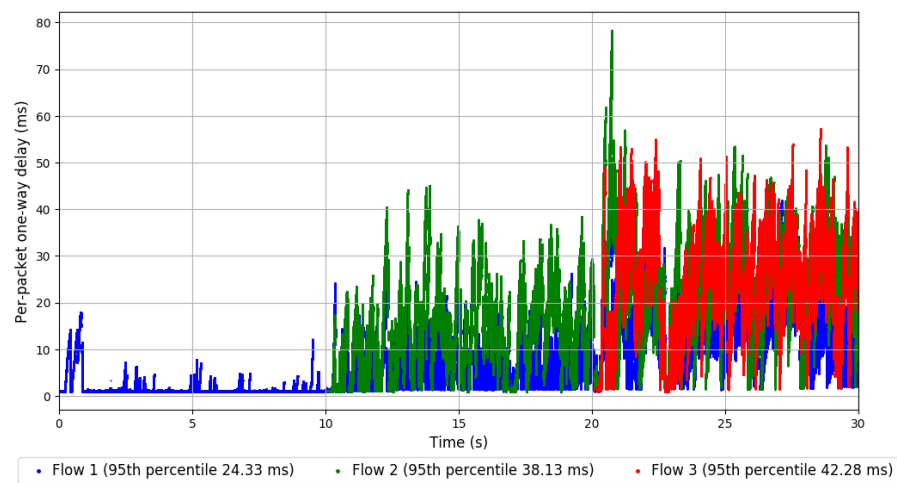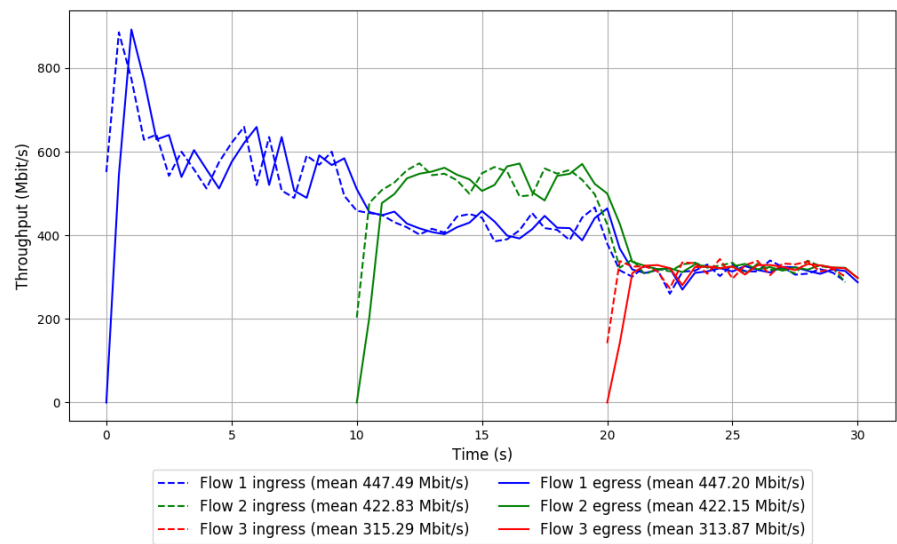
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-11-15 11:32:17
End at: 2018-11-15 11:32:47
Local clock offset: 4.252 ms
Remote clock offset: 3.559 ms

# Below is generated by plot.py at 2018-11-15 14:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 802.43 Mbit/s
95th percentile per-packet one-way delay: 25.195 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 465.62 Mbit/s
95th percentile per-packet one-way delay: 14.552 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 450.25 Mbit/s
95th percentile per-packet one-way delay: 30.598 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 112.16 Mbit/s
95th percentile per-packet one-way delay: 13.291 ms
Loss rate: 0.00%
```
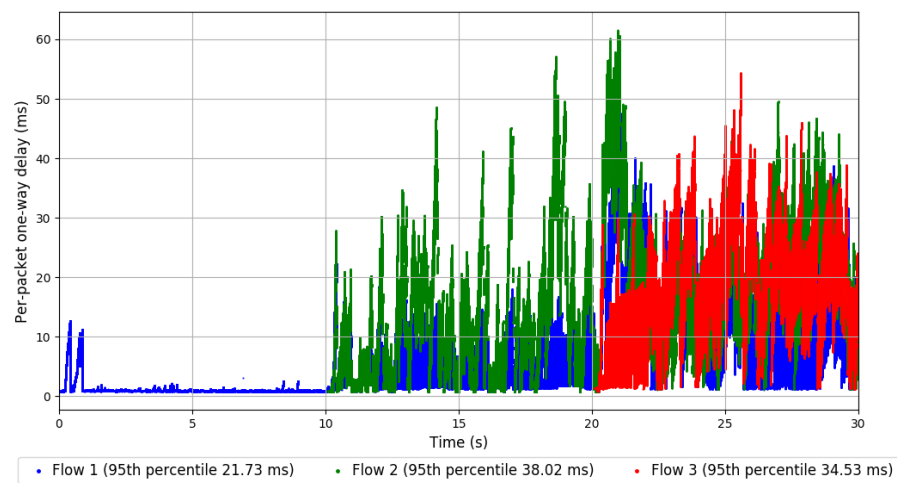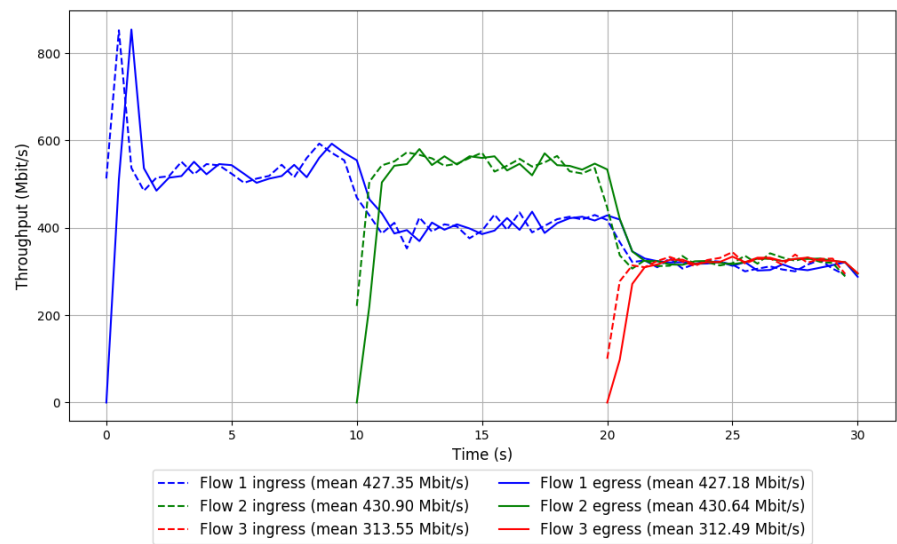
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-11-15 12:00:03
End at: 2018-11-15 12:00:33
Local clock offset: 4.467 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 938.94 Mbit/s
95th percentile per-packet one-way delay: 36.383 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 572.54 Mbit/s
95th percentile per-packet one-way delay: 36.510 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 397.26 Mbit/s
95th percentile per-packet one-way delay: 38.260 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 308.27 Mbit/s
95th percentile per-packet one-way delay: 27.308 ms
Loss rate: 0.26%
```
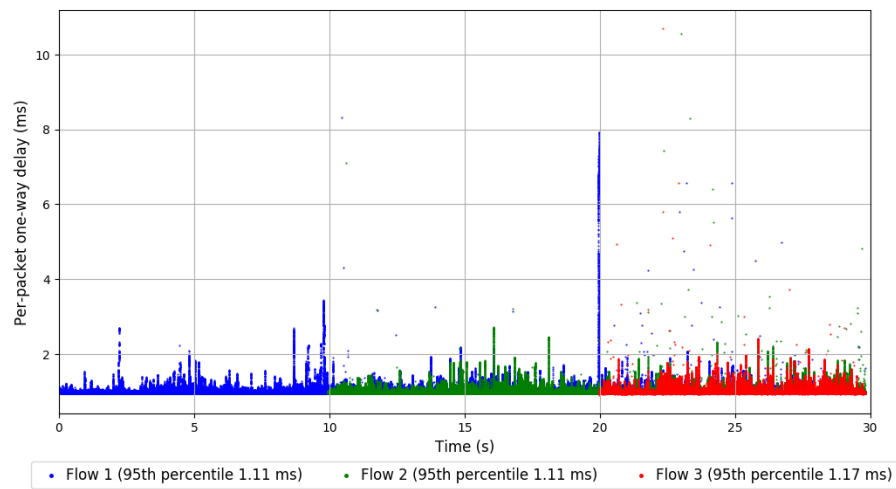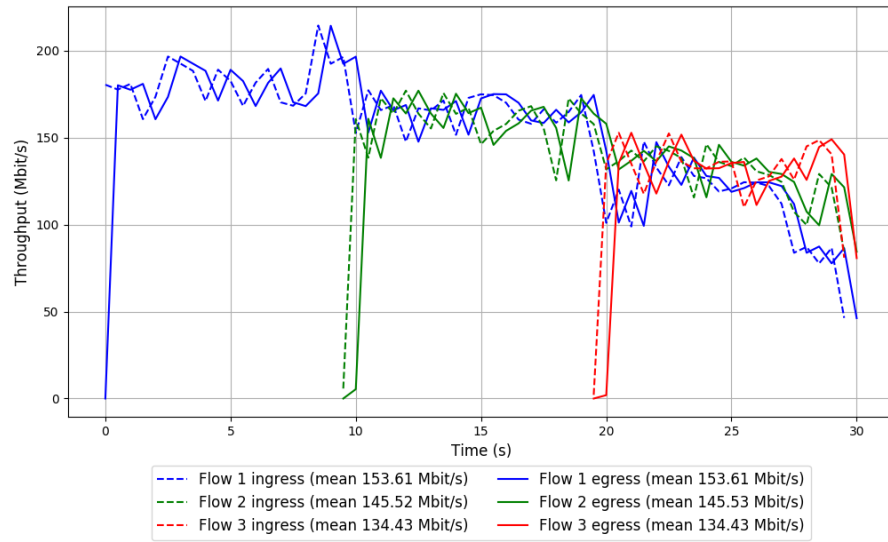
Run 3: Report of FillP — Data Link

- - - Flow 1 ingress (mean 573.32 Mbit/s) —— Flow 1 egress (mean 572.54 Mbit/s)
- - - Flow 2 ingress (mean 397.97 Mbit/s) —— Flow 2 egress (mean 397.26 Mbit/s)
- - - Flow 3 ingress (mean 308.99 Mbit/s) —— Flow 3 egress (mean 308.27 Mbit/s)

• Flow 1 (95th percentile 36.51 ms)   • Flow 2 (95th percentile 38.26 ms)   • Flow 3 (95th percentile 27.31 ms)

```
Run 4: Statistics of FillP

Start at: 2018-11-15 12:27:51
End at: 2018-11-15 12:28:21
Local clock offset: 4.127 ms
Remote clock offset: -0.264 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 831.77 Mbit/s
95th percentile per-packet one-way delay: 35.685 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 447.20 Mbit/s
95th percentile per-packet one-way delay: 24.333 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 422.15 Mbit/s
95th percentile per-packet one-way delay: 38.134 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 313.87 Mbit/s
95th percentile per-packet one-way delay: 42.282 ms
Loss rate: 0.49%
```
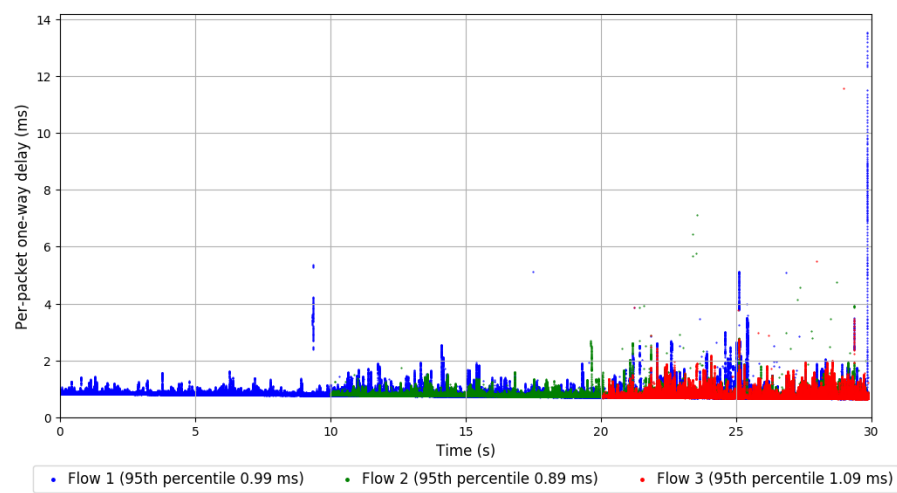
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 447.49 Mbit/s) --- Flow 1 egress (mean 447.20 Mbit/s)
Flow 2 ingress (mean 422.83 Mbit/s) --- Flow 2 egress (mean 422.15 Mbit/s)
Flow 3 ingress (mean 315.29 Mbit/s) --- Flow 3 egress (mean 313.87 Mbit/s)

Flow 1 (95th percentile 24.33 ms) Flow 2 (95th percentile 38.13 ms) Flow 3 (95th percentile 42.28 ms)

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```
Run 5: Statistics of FillP

Start at: 2018-11-15 12:55:41
End at: 2018-11-15 12:56:11
Local clock offset: 3.67 ms
Remote clock offset: -3.391 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 816.89 Mbit/s
95th percentile per-packet one-way delay: 32.085 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 427.18 Mbit/s
95th percentile per-packet one-way delay: 21.730 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 430.64 Mbit/s
95th percentile per-packet one-way delay: 38.021 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 312.49 Mbit/s
95th percentile per-packet one-way delay: 34.530 ms
Loss rate: 0.35%
```
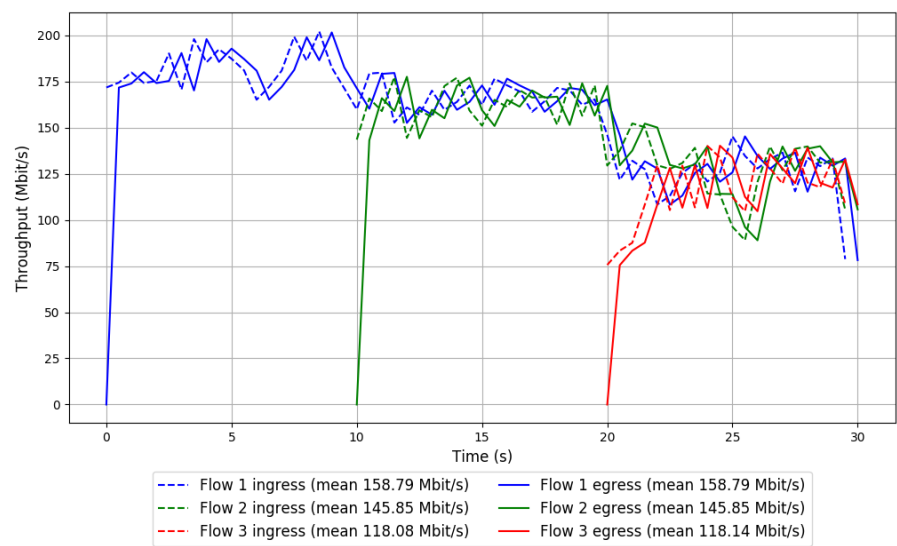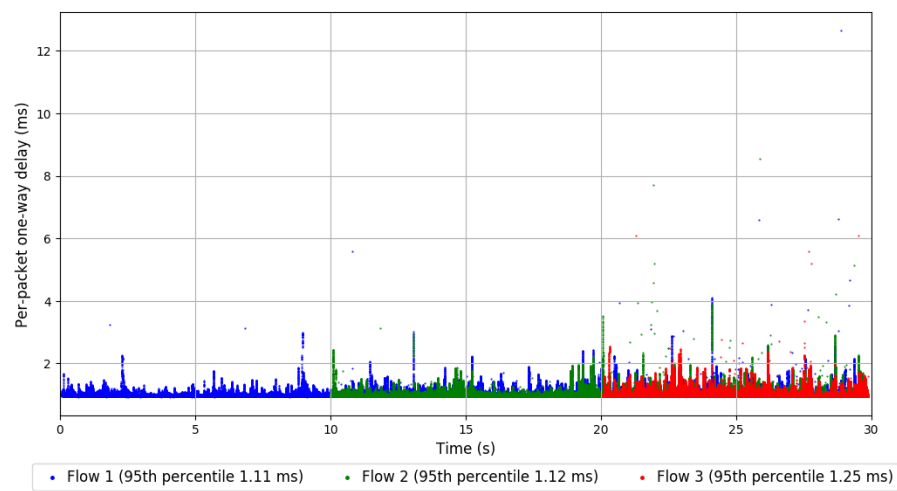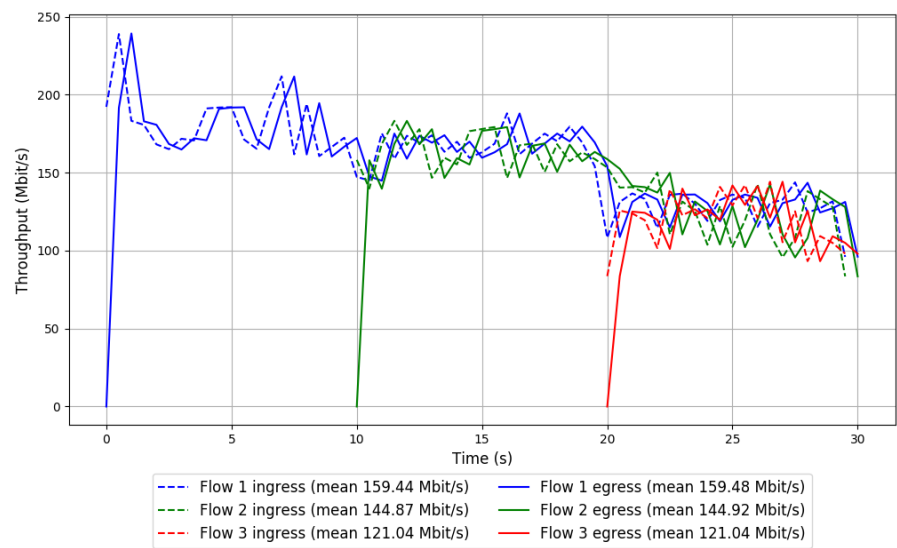
Run 5: Report of FillP — Data Link

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```
Run 1: Statistics of Indigo

Start at: 2018-11-15 11:06:10
End at: 2018-11-15 11:06:40
Local clock offset: 4.117 ms
Remote clock offset: 3.064 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.97 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 153.61 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 145.53 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 134.43 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.02%
```
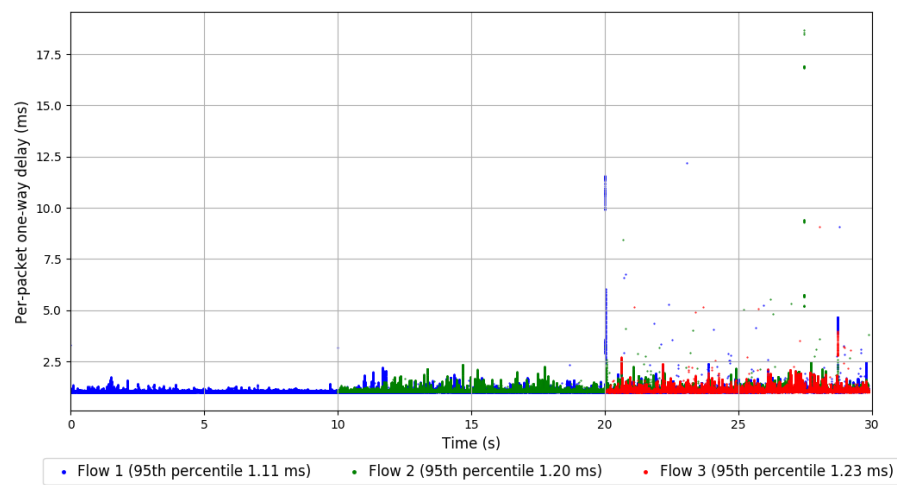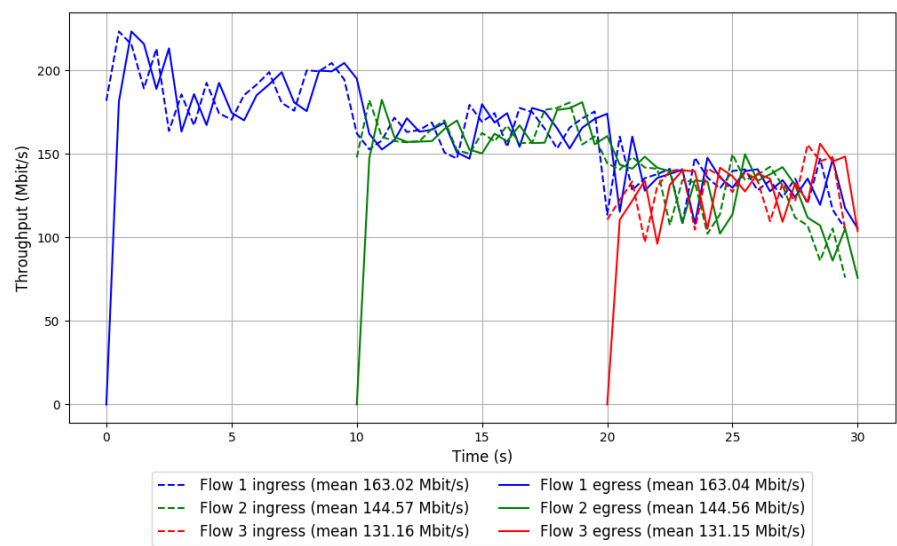
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-11-15 11:33:57
End at: 2018-11-15 11:34:27
Local clock offset: 4.3 ms
Remote clock offset: 2.926 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.55 Mbit/s
95th percentile per-packet one-way delay: 0.975 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 158.79 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 145.85 Mbit/s
95th percentile per-packet one-way delay: 0.889 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 118.14 Mbit/s
95th percentile per-packet one-way delay: 1.093 ms
Loss rate: 0.02%
```
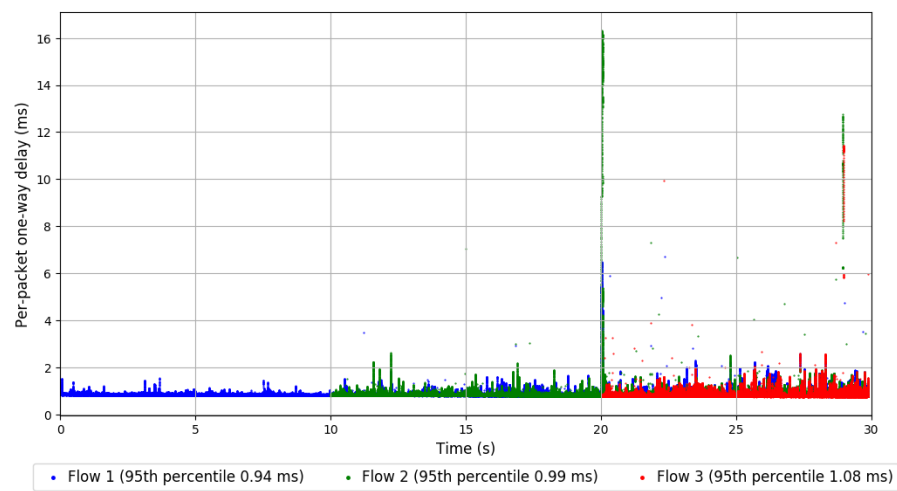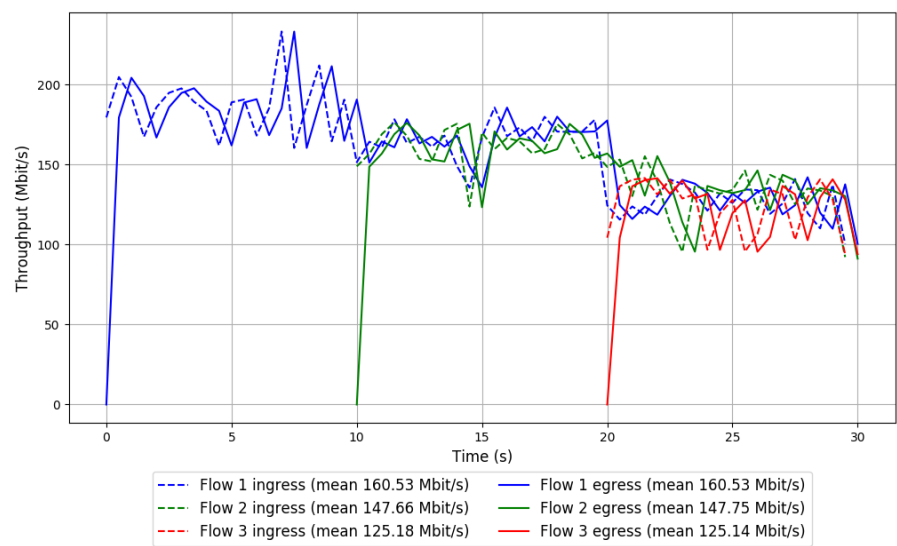
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-11-15 12:01:48
End at: 2018-11-15 12:02:18
Local clock offset: 4.409 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.59 Mbit/s
95th percentile per-packet one-way delay: 1.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.48 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 144.92 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.04 Mbit/s
95th percentile per-packet one-way delay: 1.252 ms
Loss rate: 0.01%
```

Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-11-15 12:29:33
End at: 2018-11-15 12:30:03
Local clock offset: 4.063 ms
Remote clock offset: -0.272 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.25 Mbit/s
95th percentile per-packet one-way delay: 1.160 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 163.04 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 144.56 Mbit/s
95th percentile per-packet one-way delay: 1.204 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 131.15 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.03%
```
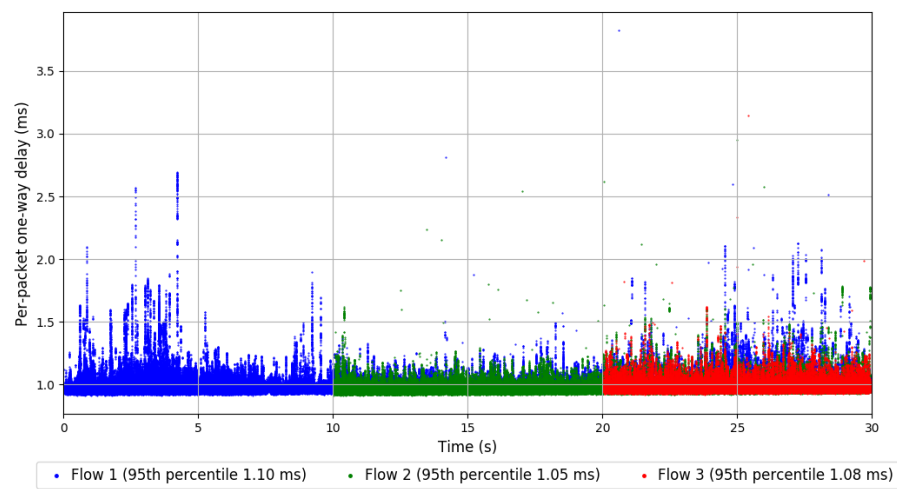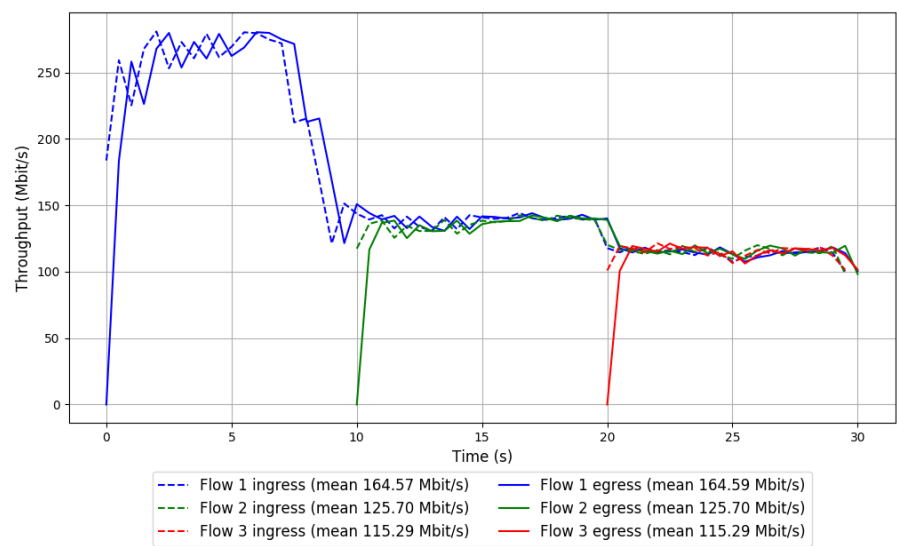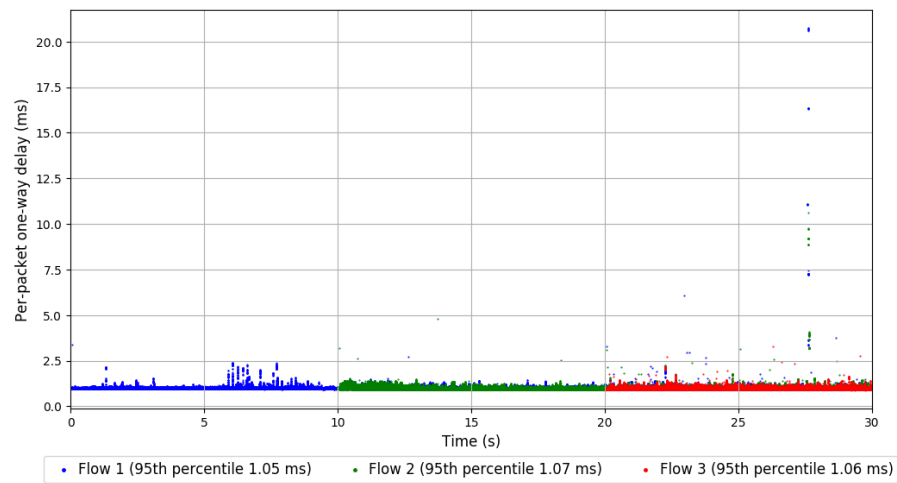
Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 163.02 Mbit/s) --- Flow 1 egress (mean 163.04 Mbit/s)
Flow 2 ingress (mean 144.57 Mbit/s) --- Flow 2 egress (mean 144.56 Mbit/s)
Flow 3 ingress (mean 131.16 Mbit/s) --- Flow 3 egress (mean 131.15 Mbit/s)

Flow 1 (95th percentile 1.11 ms)   Flow 2 (95th percentile 1.20 ms)   Flow 3 (95th percentile 1.23 ms)

```
Run 5: Statistics of Indigo

Start at: 2018-11-15 12:57:23
End at: 2018-11-15 12:57:53
Local clock offset: 3.686 ms
Remote clock offset: -3.612 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.91 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 160.53 Mbit/s
95th percentile per-packet one-way delay: 0.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 147.75 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 125.14 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.01%
```
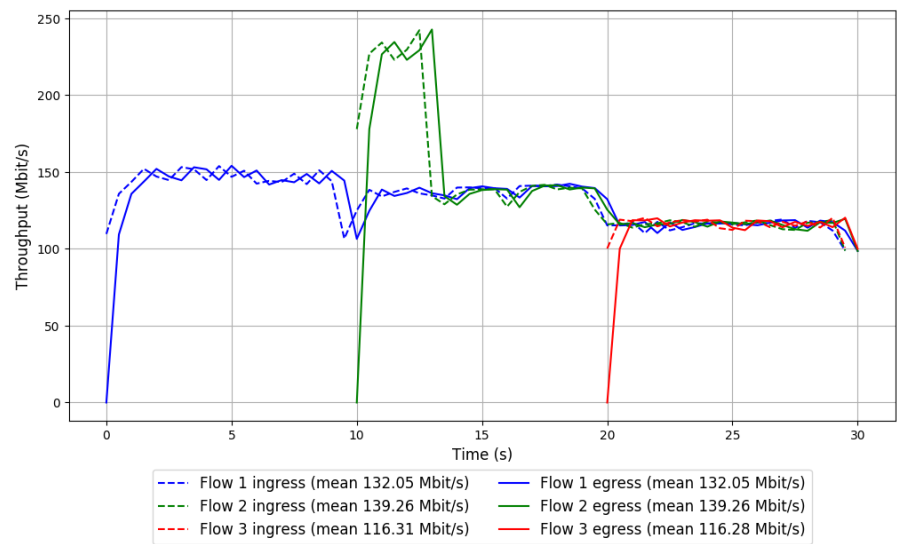
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-15 11:18:42
End at: 2018-11-15 11:19:12
Local clock offset: 4.036 ms
Remote clock offset: 3.344 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.43 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.59 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.70 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 115.29 Mbit/s
95th percentile per-packet one-way delay: 1.076 ms
Loss rate: 0.00%
```
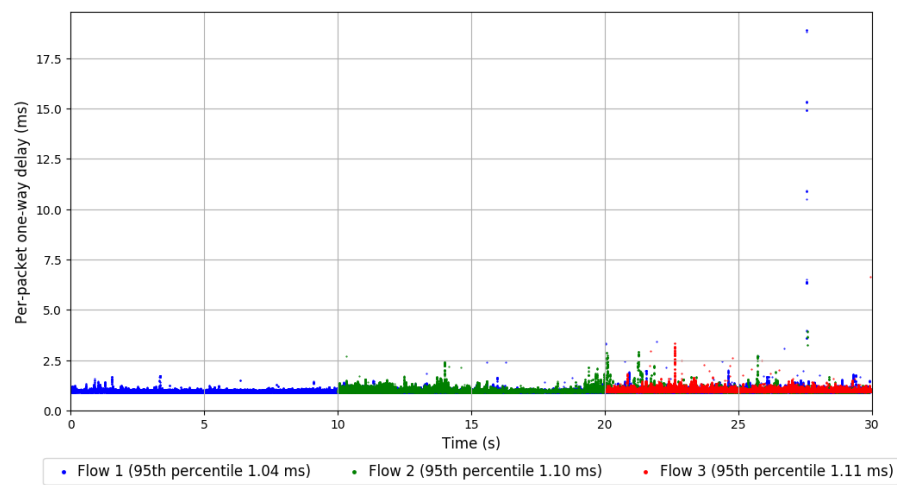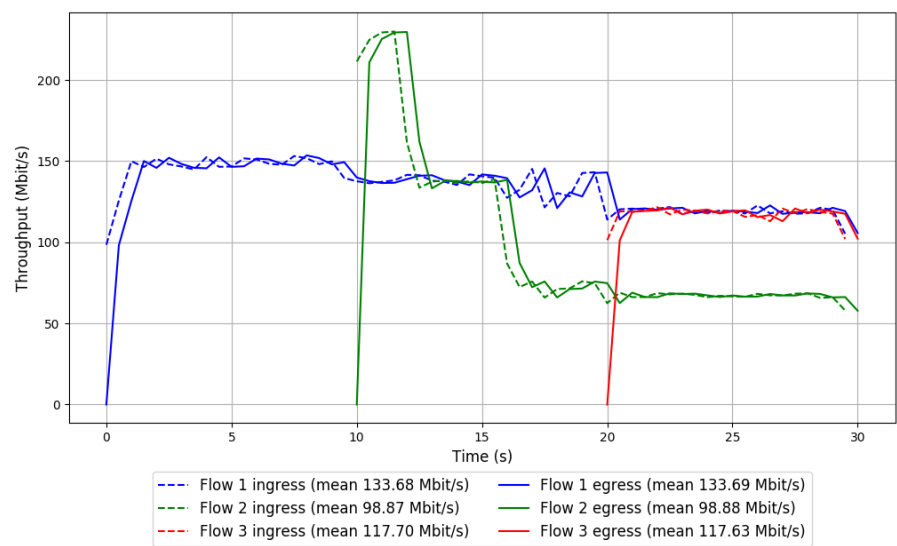
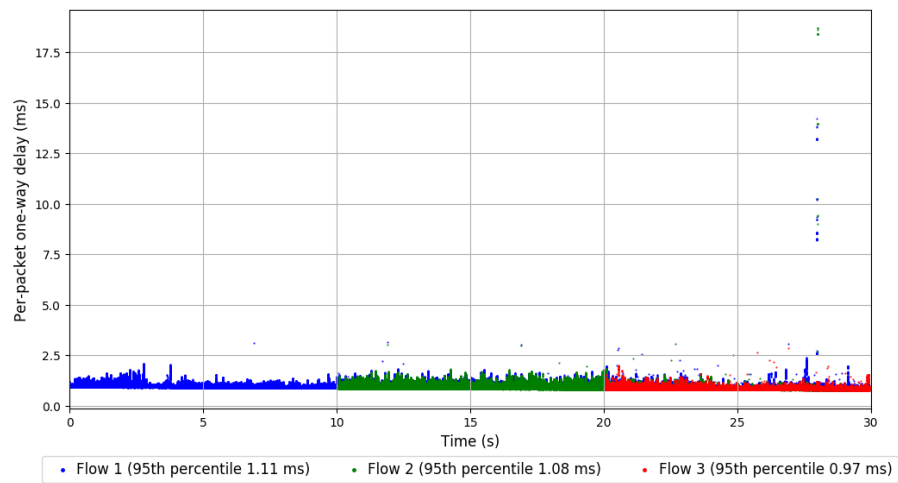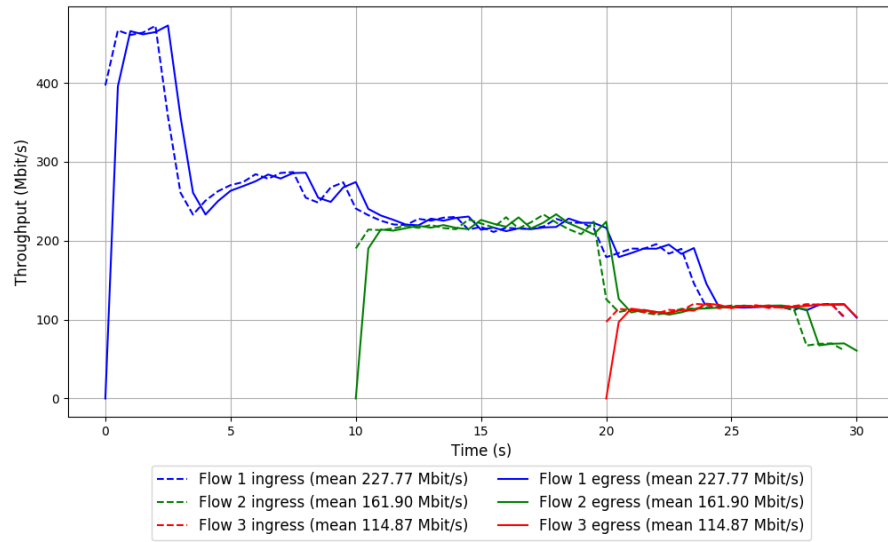Run 1: Report of Indigo-96d2da3 — Data Link

```
Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-15 11:46:29
End at: 2018-11-15 11:46:59
Local clock offset: 4.525 ms
Remote clock offset: 0.552 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.30 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 132.05 Mbit/s
95th percentile per-packet one-way delay: 1.050 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.26 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 116.28 Mbit/s
95th percentile per-packet one-way delay: 1.056 ms
Loss rate: 0.03%
```

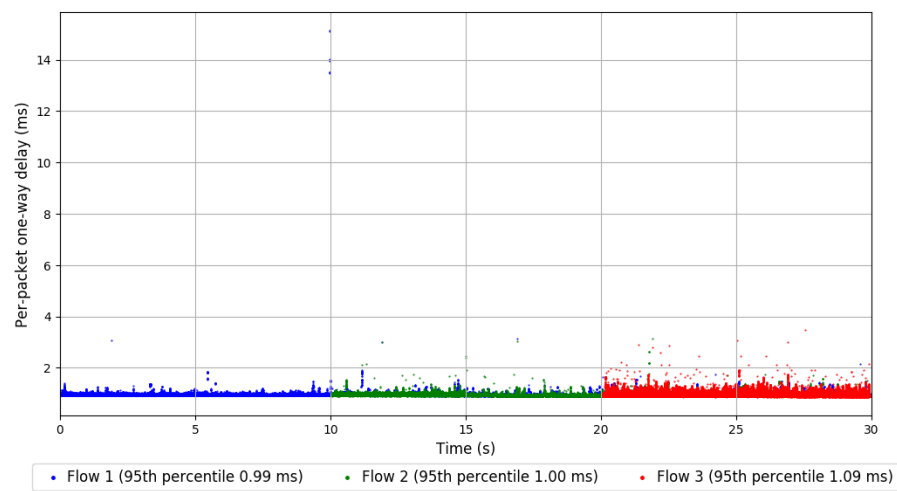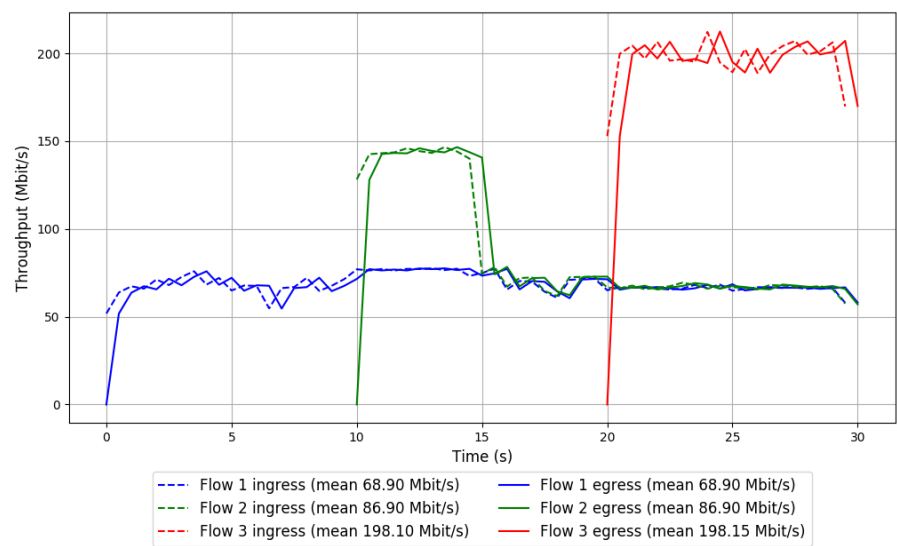Run 2: Report of Indigo-96d2da3 — Data Link

```
Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-15 12:14:19
End at: 2018-11-15 12:14:49
Local clock offset: 4.221 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.49 Mbit/s
95th percentile per-packet one-way delay: 1.071 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 133.69 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.88 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.63 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.00%
```

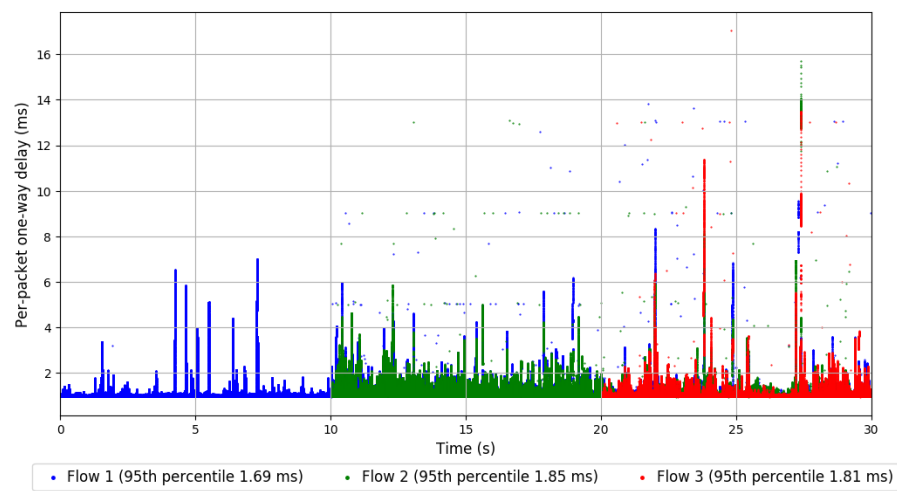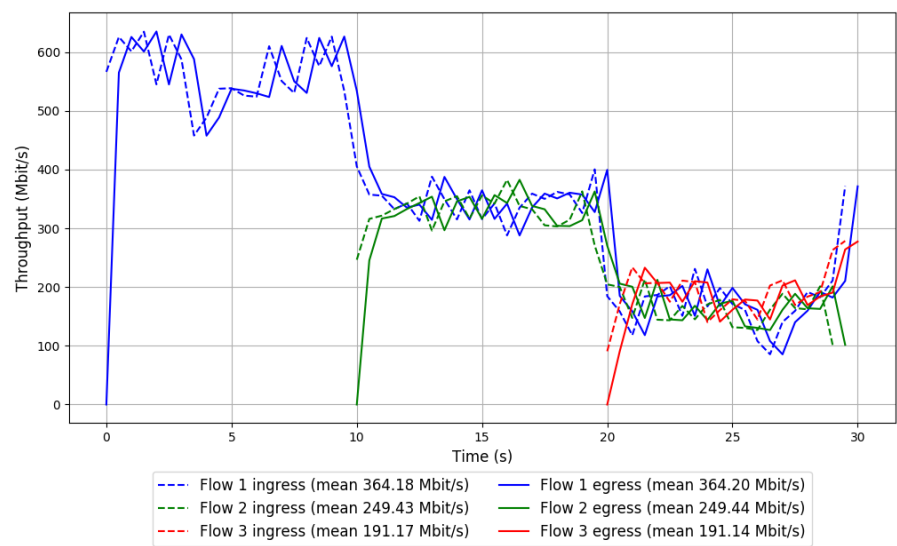Run 3: Report of Indigo-96d2da3 — Data Link

Flow 1 ingress (mean 133.68 Mbit/s)   Flow 1 egress (mean 133.69 Mbit/s)
Flow 2 ingress (mean 98.87 Mbit/s)   Flow 2 egress (mean 98.88 Mbit/s)
Flow 3 ingress (mean 117.70 Mbit/s)   Flow 3 egress (mean 117.63 Mbit/s)

Flow 1 (95th percentile 1.04 ms)   Flow 2 (95th percentile 1.10 ms)   Flow 3 (95th percentile 1.11 ms)

```
Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-15 12:42:04
End at: 2018-11-15 12:42:34
Local clock offset: 3.801 ms
Remote clock offset: -1.087 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 373.59 Mbit/s
95th percentile per-packet one-way delay: 1.091 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 227.77 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 161.90 Mbit/s
95th percentile per-packet one-way delay: 1.078 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 114.87 Mbit/s
95th percentile per-packet one-way delay: 0.975 ms
Loss rate: 0.02%
```

Run 4: Report of Indigo-96d2da3 — Data Link

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```
Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-15 13:09:58
End at: 2018-11-15 13:10:28
Local clock offset: 3.927 ms
Remote clock offset: -4.783 ms


# Below is generated by plot.py at 2018-11-15 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 192.26 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.90 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 198.15 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 0.00%
```
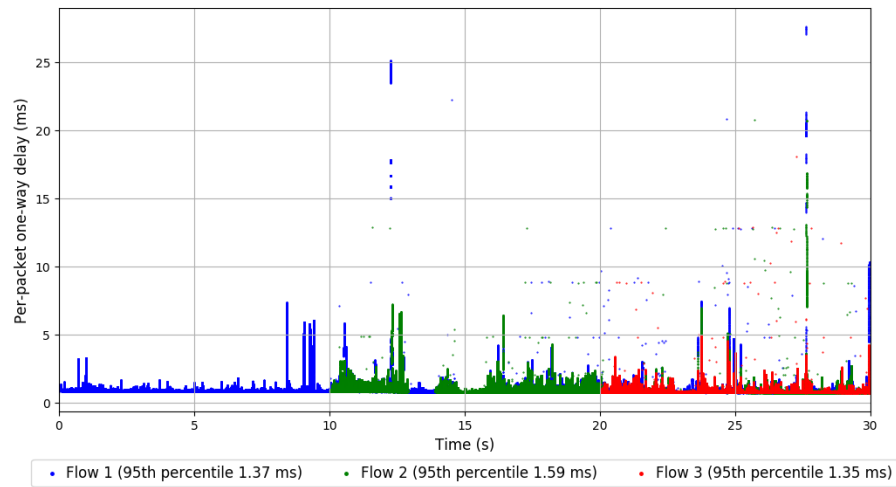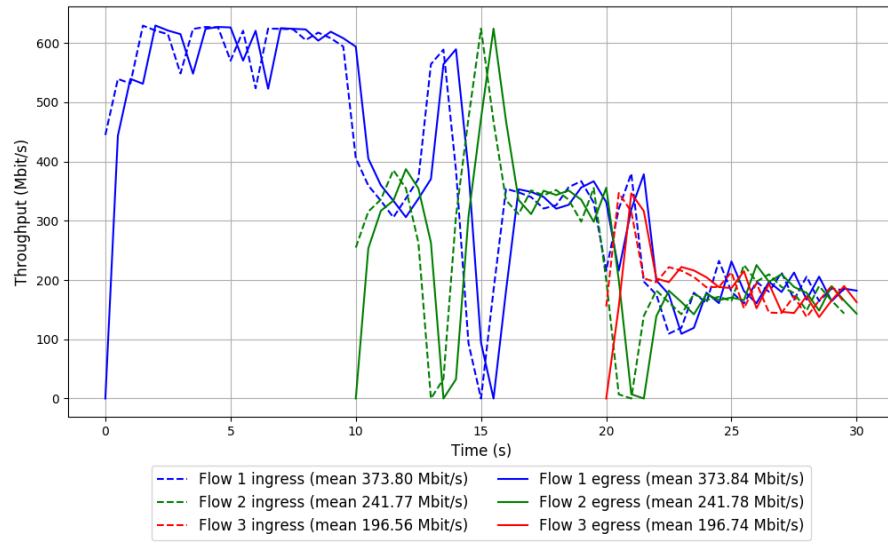
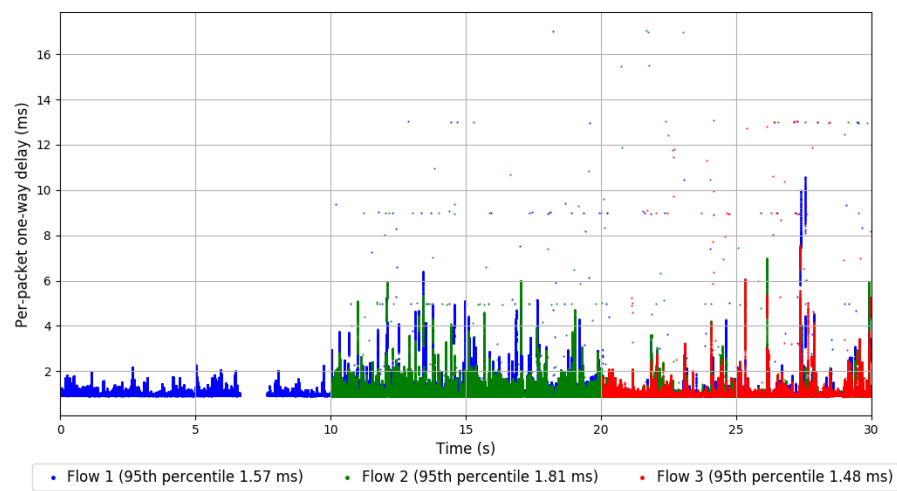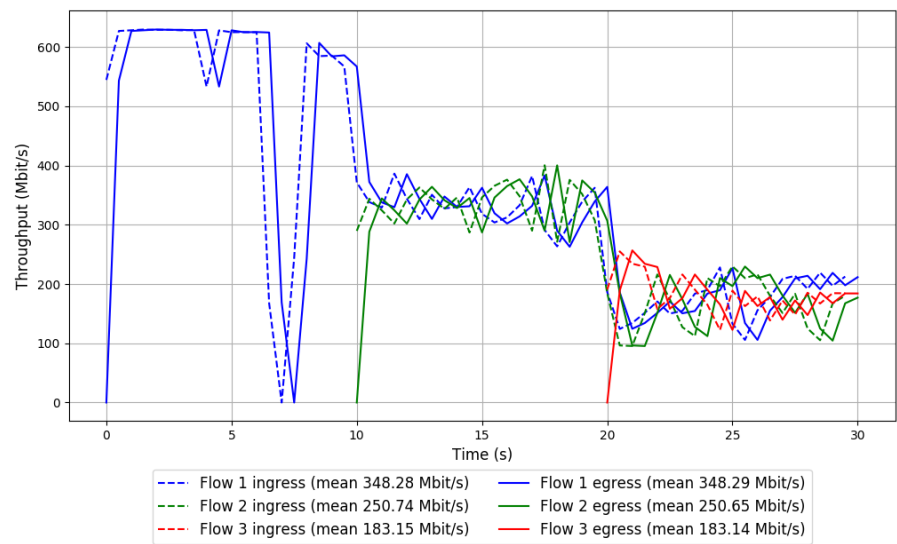Run 5: Report of Indigo-96d2da3 — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-11-15 11:07:41
End at: 2018-11-15 11:08:11
Local clock offset: 4.118 ms
Remote clock offset: 3.054 ms

# Below is generated by plot.py at 2018-11-15 14:04:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 588.04 Mbit/s
95th percentile per-packet one-way delay: 1.756 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 364.20 Mbit/s
95th percentile per-packet one-way delay: 1.689 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 249.44 Mbit/s
95th percentile per-packet one-way delay: 1.854 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 191.14 Mbit/s
95th percentile per-packet one-way delay: 1.807 ms
Loss rate: 0.03%
```
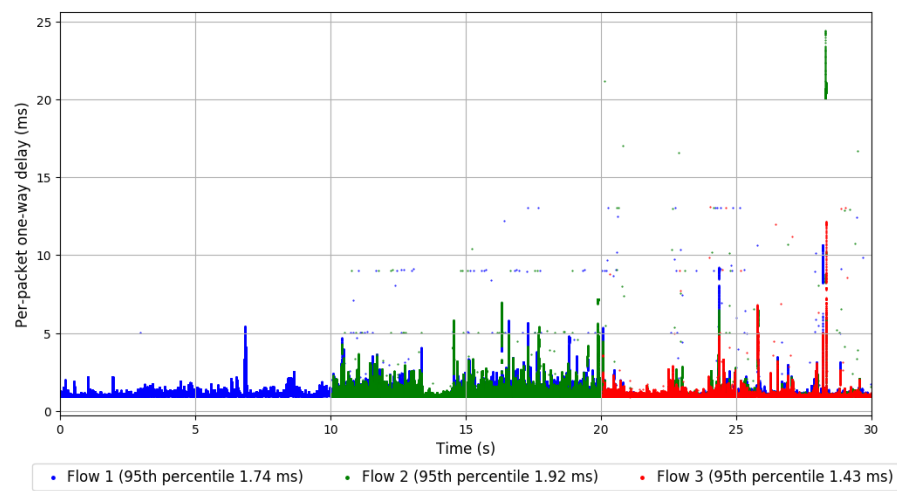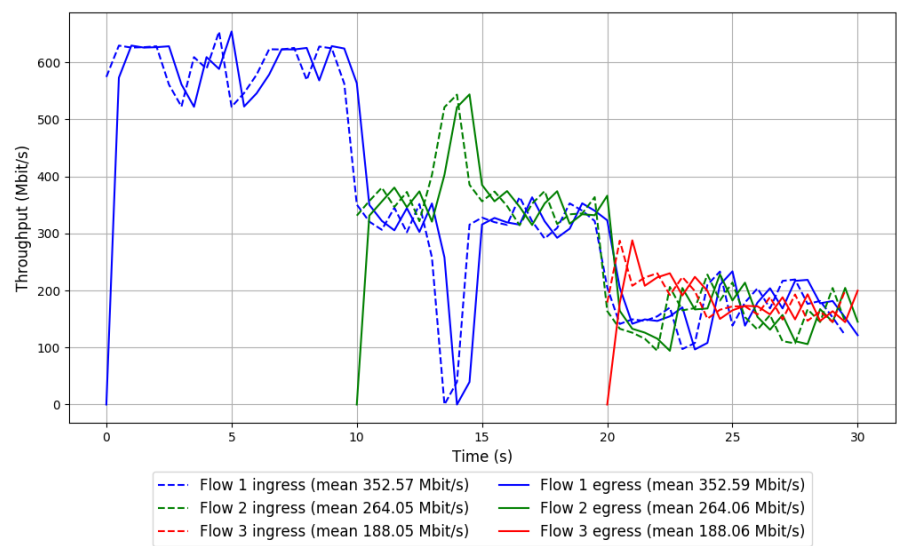
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-11-15 11:35:29
End at: 2018-11-15 11:35:59
Local clock offset: 4.36 ms
Remote clock offset: 2.407 ms


# Below is generated by plot.py at 2018-11-15 14:06:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 600.12 Mbit/s
95th percentile per-packet one-way delay: 1.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 373.84 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 241.78 Mbit/s
95th percentile per-packet one-way delay: 1.591 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 196.74 Mbit/s
95th percentile per-packet one-way delay: 1.351 ms
Loss rate: 0.00%
```
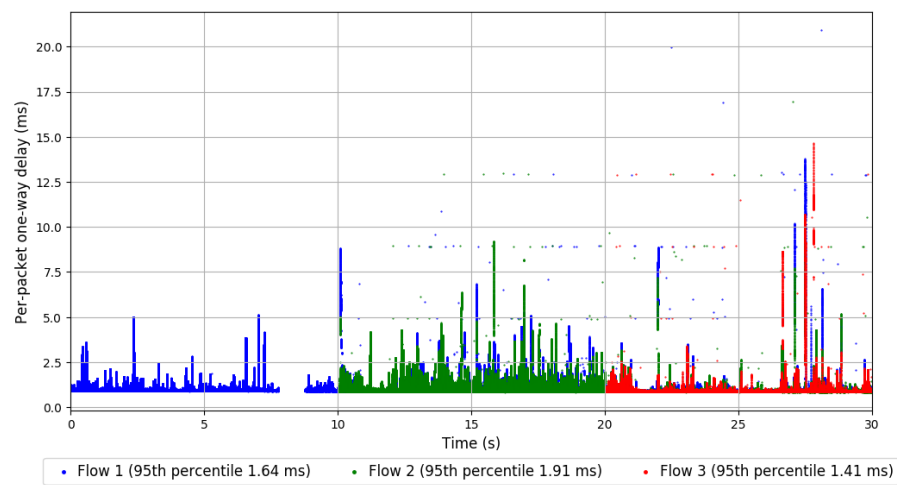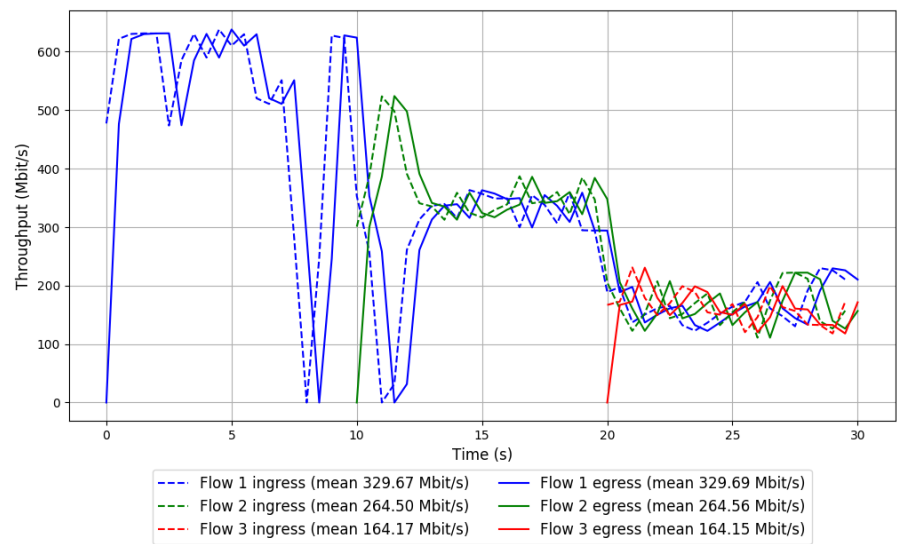
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-11-15 12:03:19
End at: 2018-11-15 12:03:49
Local clock offset: 4.37 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2018-11-15 14:06:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.05 Mbit/s
95th percentile per-packet one-way delay: 1.642 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 348.29 Mbit/s
95th percentile per-packet one-way delay: 1.575 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 250.65 Mbit/s
95th percentile per-packet one-way delay: 1.812 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 183.14 Mbit/s
95th percentile per-packet one-way delay: 1.479 ms
Loss rate: 0.02%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-11-15 12:31:05
End at: 2018-11-15 12:31:35
Local clock offset: 4.014 ms
Remote clock offset: -0.257 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 590.87 Mbit/s
95th percentile per-packet one-way delay: 1.776 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 352.59 Mbit/s
95th percentile per-packet one-way delay: 1.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.06 Mbit/s
95th percentile per-packet one-way delay: 1.915 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 188.06 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.02%
```
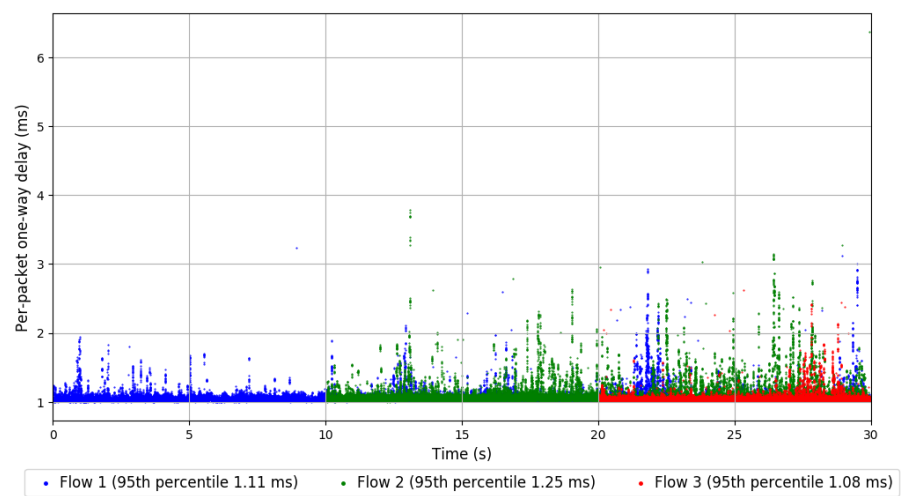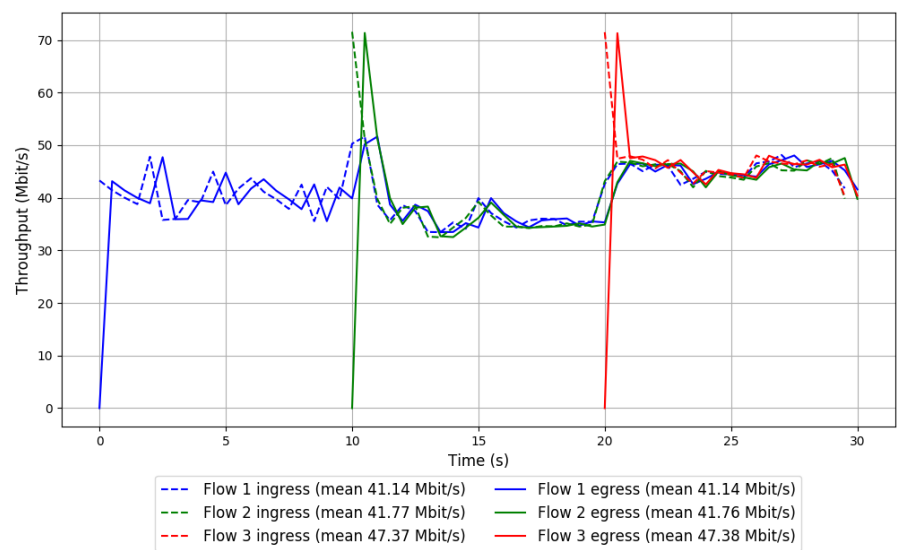
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-11-15 12:58:59
End at: 2018-11-15 12:59:29
Local clock offset: 3.738 ms
Remote clock offset: -3.854 ms


# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.44 Mbit/s
95th percentile per-packet one-way delay: 1.700 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 329.69 Mbit/s
95th percentile per-packet one-way delay: 1.635 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.56 Mbit/s
95th percentile per-packet one-way delay: 1.906 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 164.15 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 0.03%
```
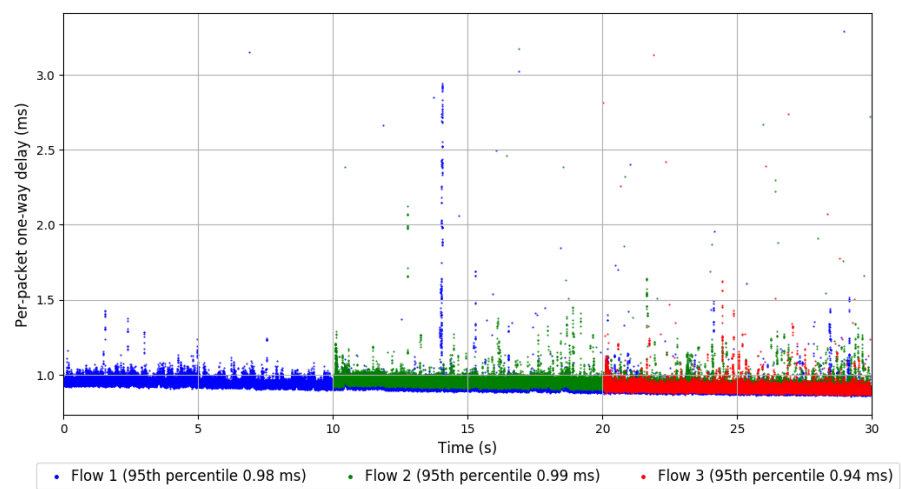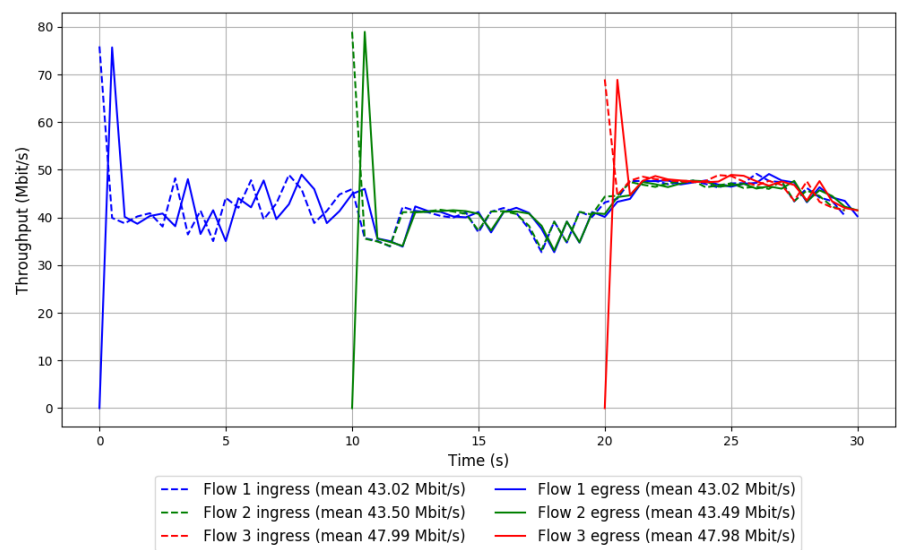
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 329.67 Mbit/s) --- Flow 1 egress (mean 329.69 Mbit/s)
Flow 2 ingress (mean 264.50 Mbit/s) --- Flow 2 egress (mean 264.56 Mbit/s)
Flow 3 ingress (mean 164.17 Mbit/s) --- Flow 3 egress (mean 164.15 Mbit/s)

Flow 1 (95th percentile 1.64 ms)   Flow 2 (95th percentile 1.91 ms)   Flow 3 (95th percentile 1.41 ms)
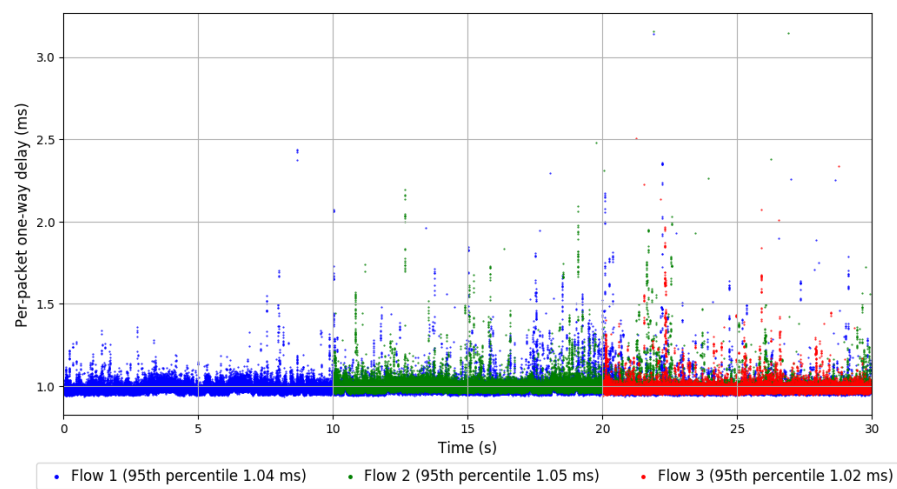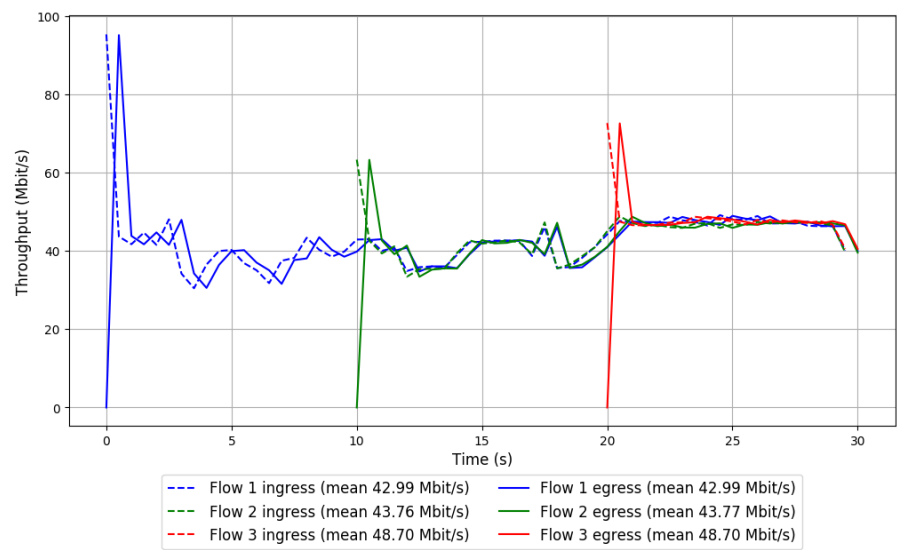
```
Run 1: Statistics of Indigo-Muses

Start at: 2018-11-15 11:15:44
End at: 2018-11-15 11:16:14
Local clock offset: 4.064 ms
Remote clock offset: 3.184 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.63 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.76 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.38 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.01%
```
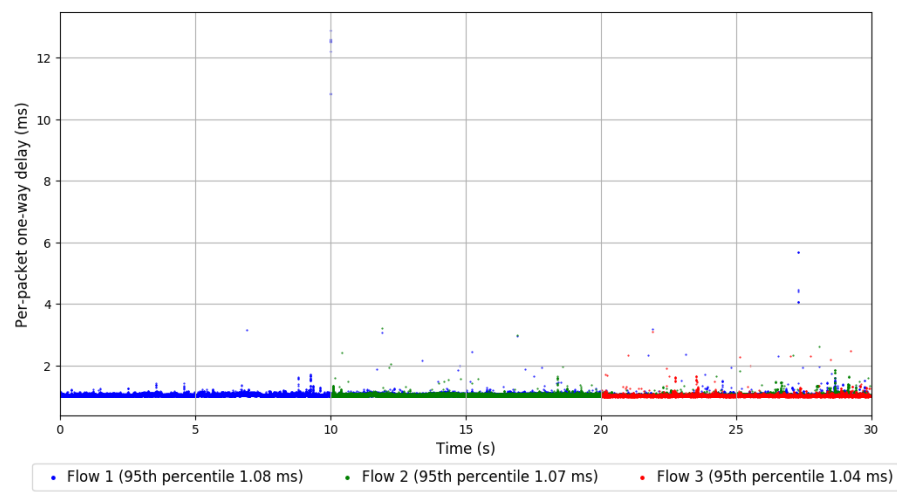
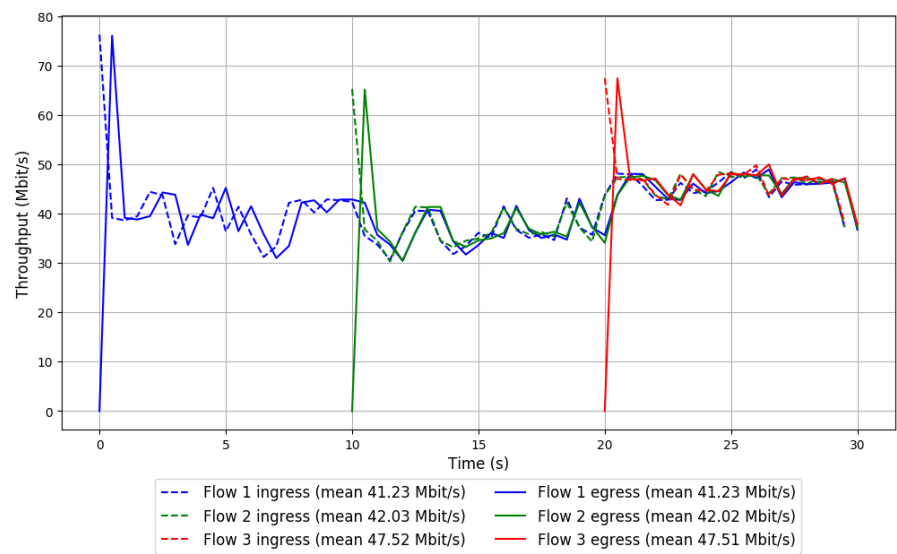Run 1: Report of Indigo-Muses — Data Link

```
Run 2: Statistics of Indigo-Muses

Start at: 2018-11-15 11:43:30
End at: 2018-11-15 11:44:00
Local clock offset: 4.479 ms
Remote clock offset: 0.851 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 0.981 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 43.02 Mbit/s
95th percentile per-packet one-way delay: 0.980 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.49 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 0.944 ms
Loss rate: 0.01%
```

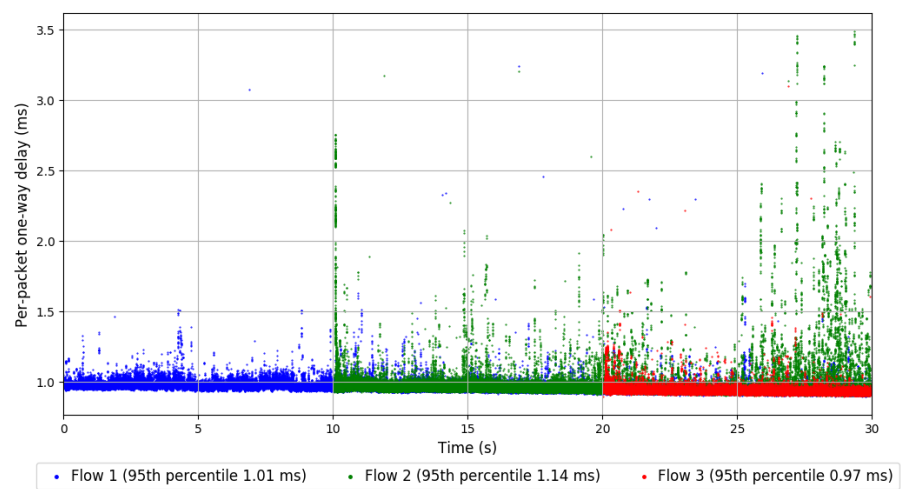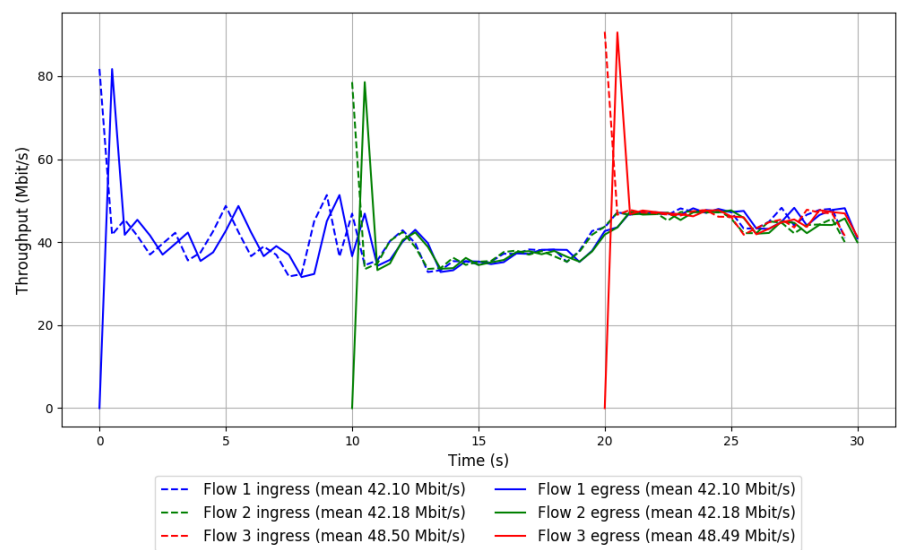Run 2: Report of Indigo-Muses — Data Link

```
Run 3: Statistics of Indigo-Muses

Start at: 2018-11-15 12:11:20
End at: 2018-11-15 12:11:50
Local clock offset: 4.26 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.77 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 48.70 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.01%
```

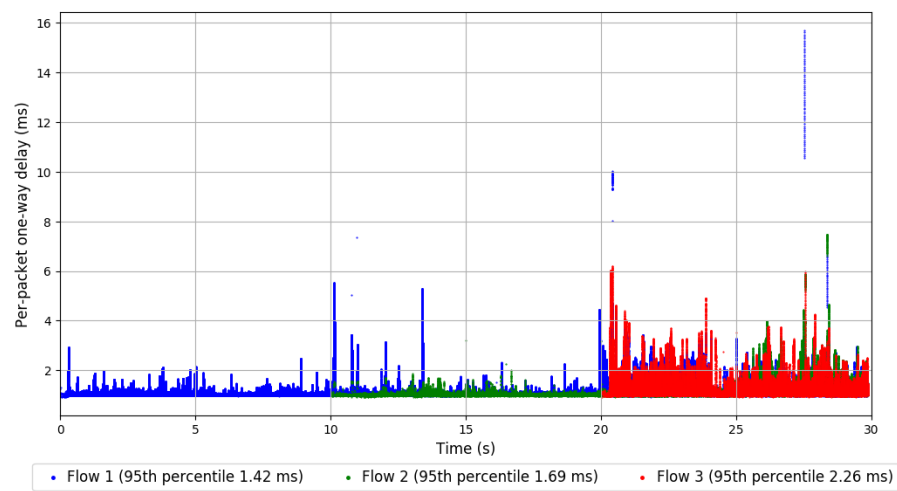Run 3: Report of Indigo-Muses — Data Link

```
Run 4: Statistics of Indigo-Muses

Start at: 2018-11-15 12:39:05
End at: 2018-11-15 12:39:35
Local clock offset: 3.86 ms
Remote clock offset: -0.348 ms


# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.51 Mbit/s
95th percentile per-packet one-way delay: 1.042 ms
Loss rate: 0.02%
```
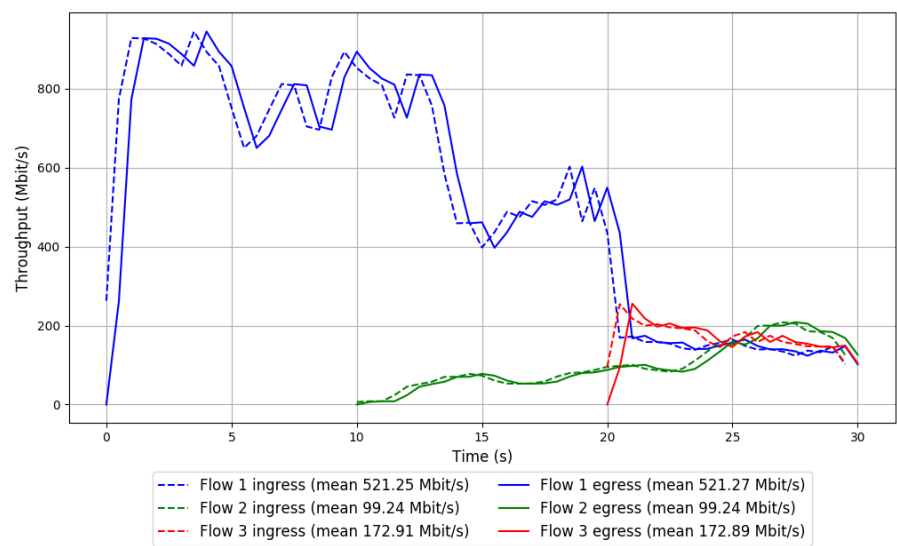
Run 4: Report of Indigo-Muses — Data Link

Flow 1 ingress (mean 41.23 Mbit/s) — Flow 1 egress (mean 41.23 Mbit/s)
Flow 2 ingress (mean 42.03 Mbit/s) — Flow 2 egress (mean 42.02 Mbit/s)
Flow 3 ingress (mean 47.52 Mbit/s) — Flow 3 egress (mean 47.51 Mbit/s)

Flow 1 (95th percentile 1.08 ms) • Flow 2 (95th percentile 1.07 ms) • Flow 3 (95th percentile 1.04 ms)

```
Run 5: Statistics of Indigo-Muses

Start at: 2018-11-15 13:06:58
End at: 2018-11-15 13:07:28
Local clock offset: 3.897 ms
Remote clock offset: -4.571 ms

# Below is generated by plot.py at 2018-11-15 14:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.24 Mbit/s
95th percentile per-packet one-way delay: 1.021 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.10 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.18 Mbit/s
95th percentile per-packet one-way delay: 1.140 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 48.49 Mbit/s
95th percentile per-packet one-way delay: 0.971 ms
Loss rate: 0.02%
```
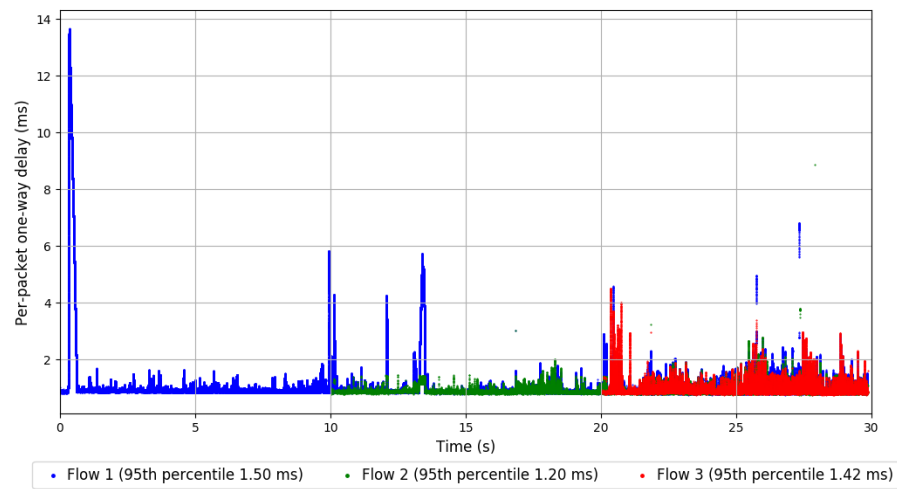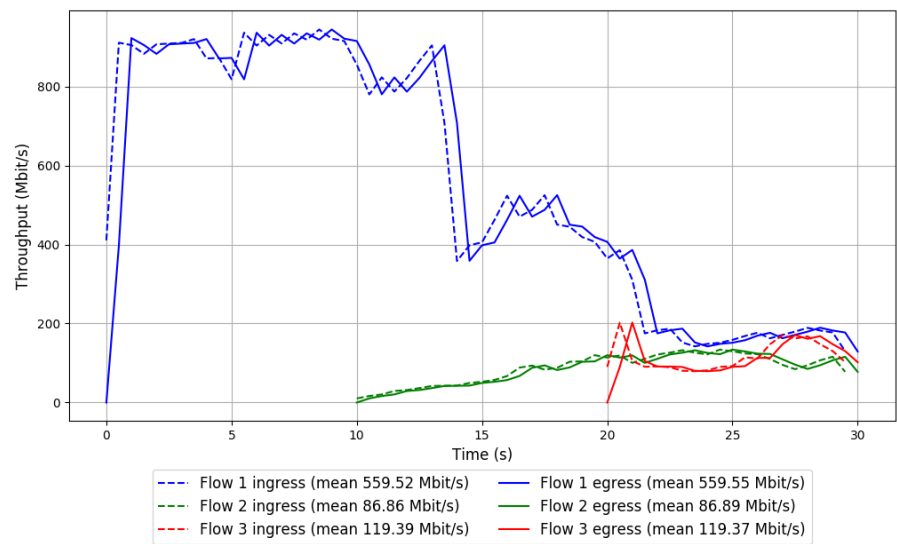
Run 5: Report of Indigo-Muses — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-11-15 11:20:11
End at: 2018-11-15 11:20:41
Local clock offset: 4.028 ms
Remote clock offset: 3.339 ms


# Below is generated by plot.py at 2018-11-15 14:11:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 644.12 Mbit/s
95th percentile per-packet one-way delay: 1.575 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 521.27 Mbit/s
95th percentile per-packet one-way delay: 1.421 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.24 Mbit/s
95th percentile per-packet one-way delay: 1.689 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 172.89 Mbit/s
95th percentile per-packet one-way delay: 2.261 ms
Loss rate: 0.02%
```
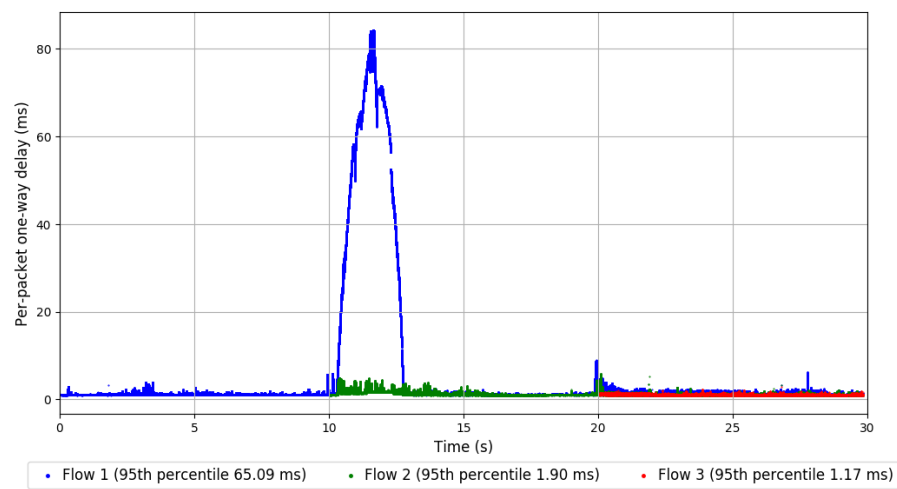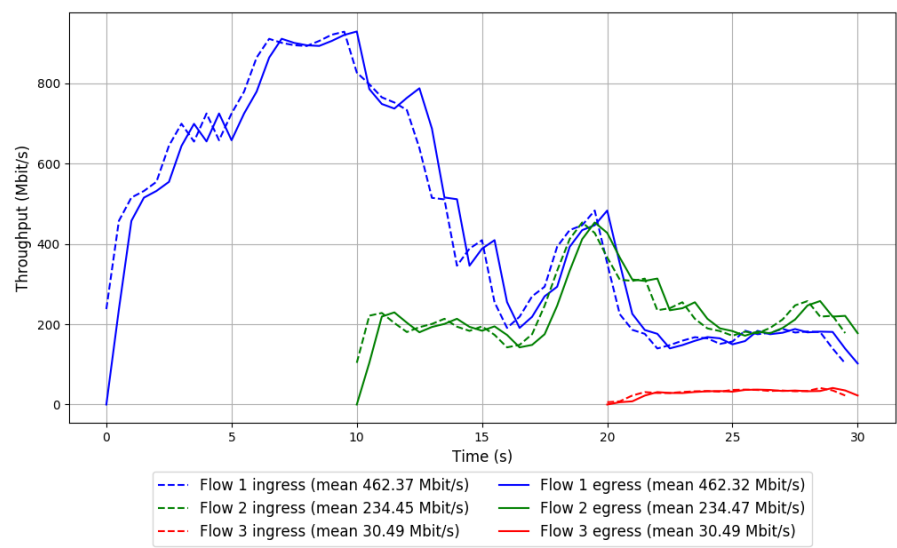
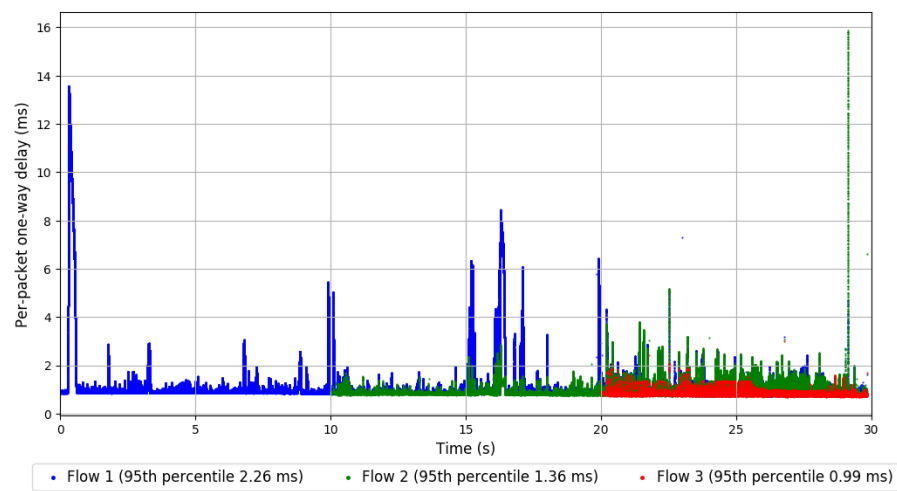# Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-11-15 11:47:56
End at: 2018-11-15 11:48:26
Local clock offset: 4.529 ms
Remote clock offset: 0.507 ms


# Below is generated by plot.py at 2018-11-15 14:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 656.51 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 559.55 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 119.37 Mbit/s
95th percentile per-packet one-way delay: 1.424 ms
Loss rate: 0.02%
```
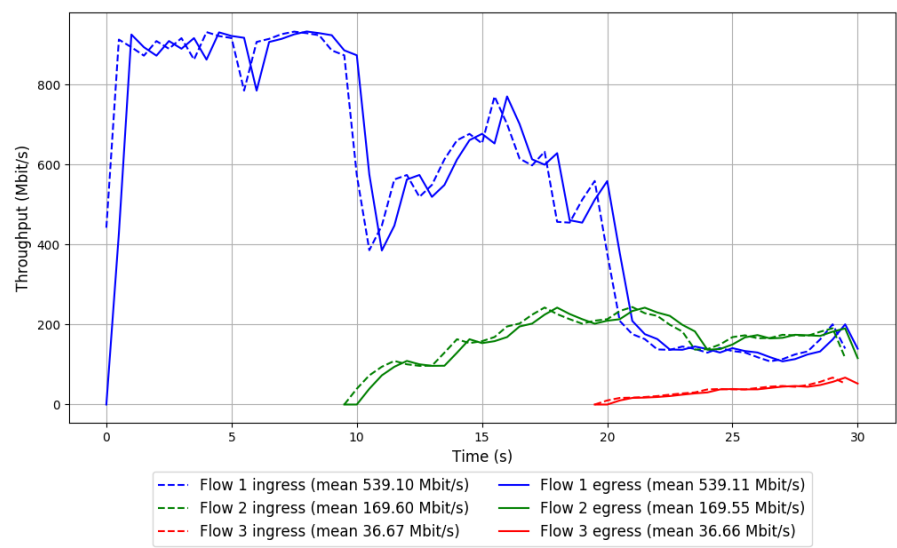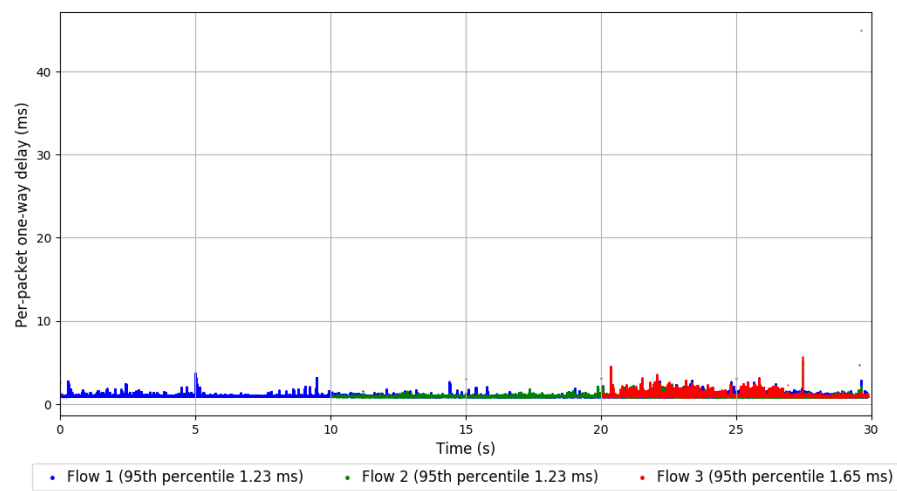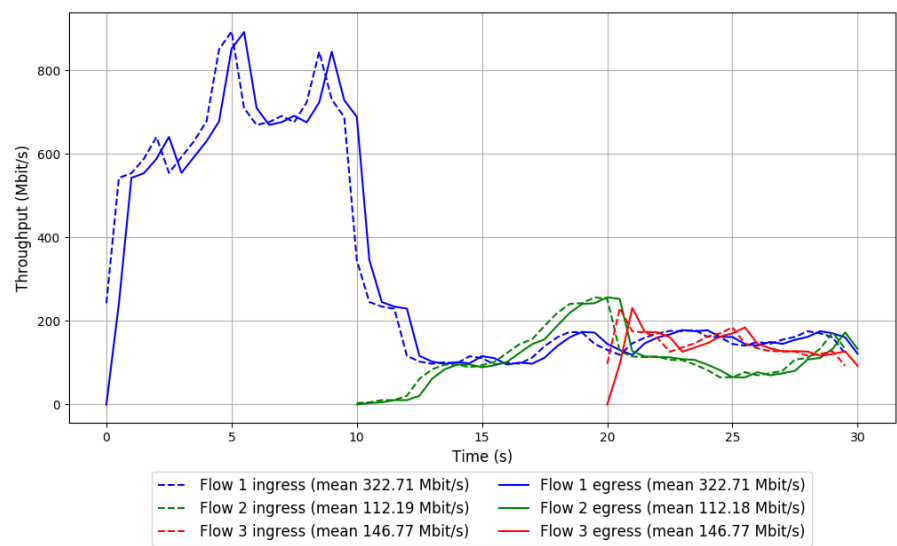
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-11-15 12:15:46
End at: 2018-11-15 12:16:16
Local clock offset: 4.226 ms
Remote clock offset: -0.17 ms


# Below is generated by plot.py at 2018-11-15 14:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.06 Mbit/s
95th percentile per-packet one-way delay: 59.772 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 462.32 Mbit/s
95th percentile per-packet one-way delay: 65.086 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 234.47 Mbit/s
95th percentile per-packet one-way delay: 1.896 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 1.170 ms
Loss rate: 0.02%
```

Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-11-15 12:43:36
End at: 2018-11-15 12:44:06
Local clock offset: 3.778 ms
Remote clock offset: -1.463 ms


# Below is generated by plot.py at 2018-11-15 14:12:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 663.85 Mbit/s
95th percentile per-packet one-way delay: 1.895 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 539.11 Mbit/s
95th percentile per-packet one-way delay: 2.259 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 169.55 Mbit/s
95th percentile per-packet one-way delay: 1.363 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 36.66 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.04%
```
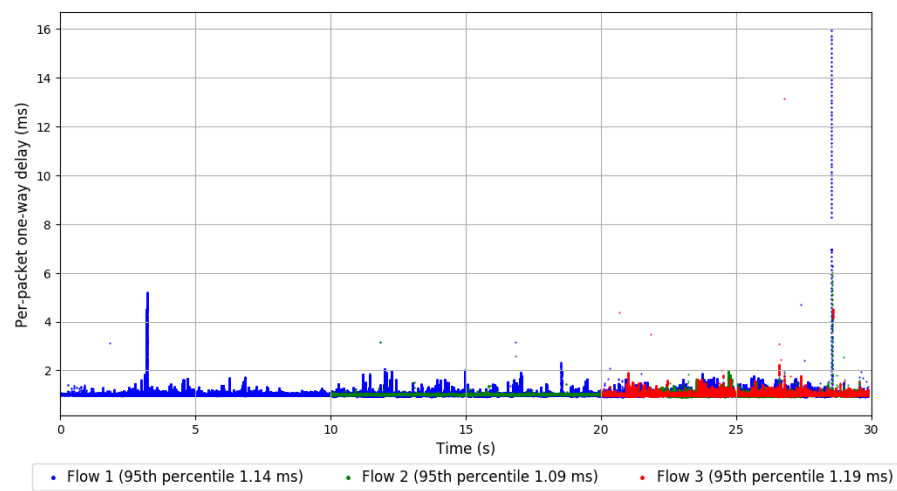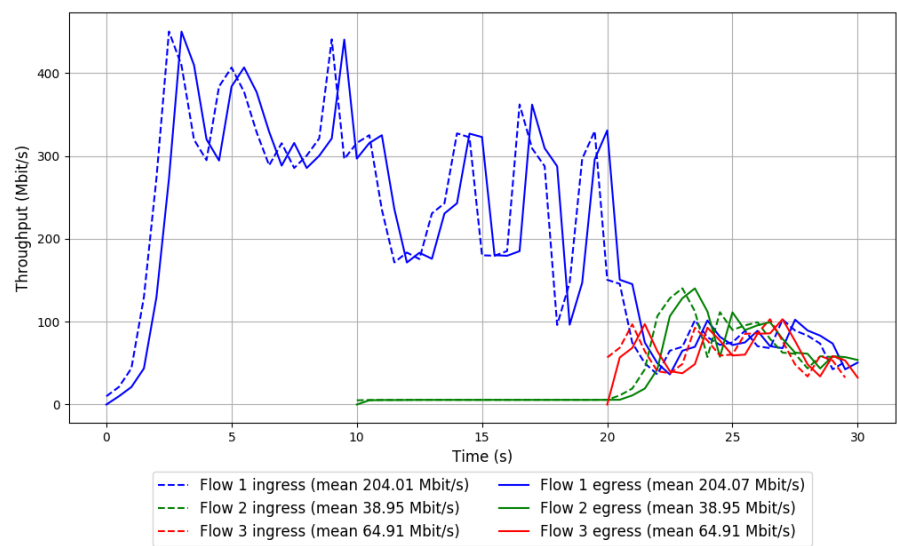
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-11-15 13:11:24
End at: 2018-11-15 13:11:54
Local clock offset: 3.933 ms
Remote clock offset: -4.911 ms


# Below is generated by plot.py at 2018-11-15 14:12:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.52 Mbit/s
95th percentile per-packet one-way delay: 1.297 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 322.71 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 112.18 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 146.77 Mbit/s
95th percentile per-packet one-way delay: 1.652 ms
Loss rate: 0.02%
```
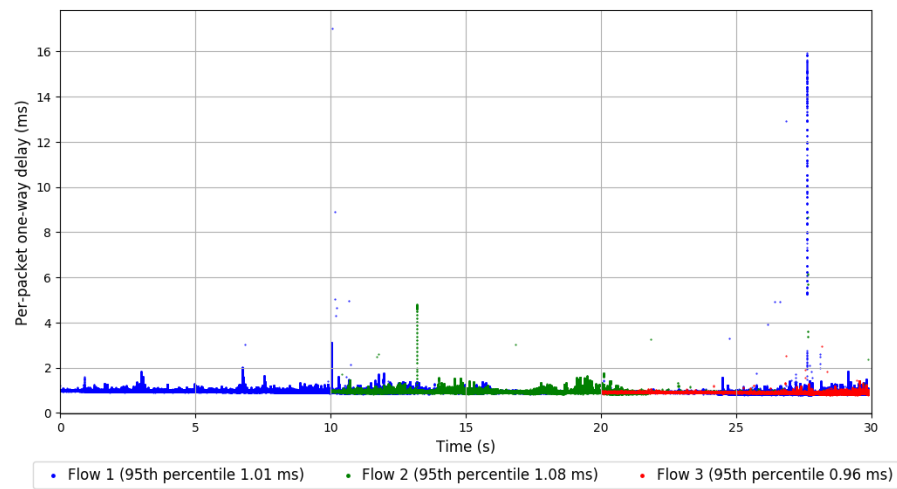
Run 5: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 322.71 Mbit/s) —— Flow 1 egress (mean 322.71 Mbit/s)
- - - Flow 2 ingress (mean 112.19 Mbit/s) —— Flow 2 egress (mean 112.18 Mbit/s)
- - - Flow 3 ingress (mean 146.77 Mbit/s) —— Flow 3 egress (mean 146.77 Mbit/s)

- Flow 1 (95th percentile 1.23 ms)   · Flow 2 (95th percentile 1.23 ms)   · Flow 3 (95th percentile 1.65 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-11-15 11:12:39
End at: 2018-11-15 11:13:09
Local clock offset: 4.072 ms
Remote clock offset: 3.101 ms

# Below is generated by plot.py at 2018-11-15 14:12:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.34 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 204.07 Mbit/s
95th percentile per-packet one-way delay: 1.136 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 64.91 Mbit/s
95th percentile per-packet one-way delay: 1.193 ms
Loss rate: 0.01%
```
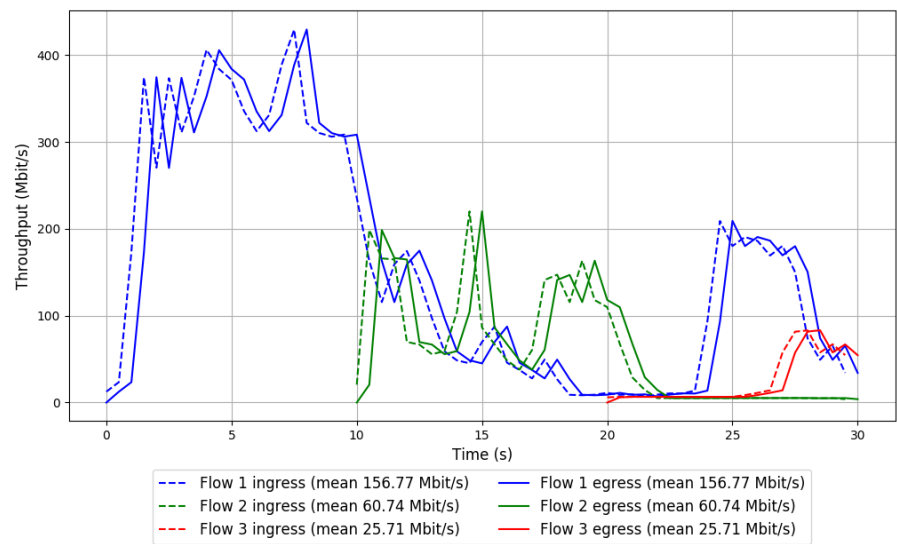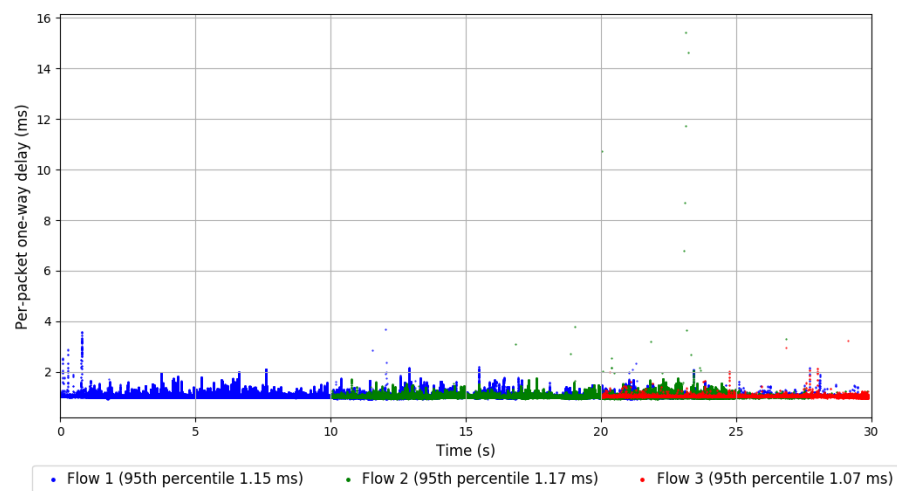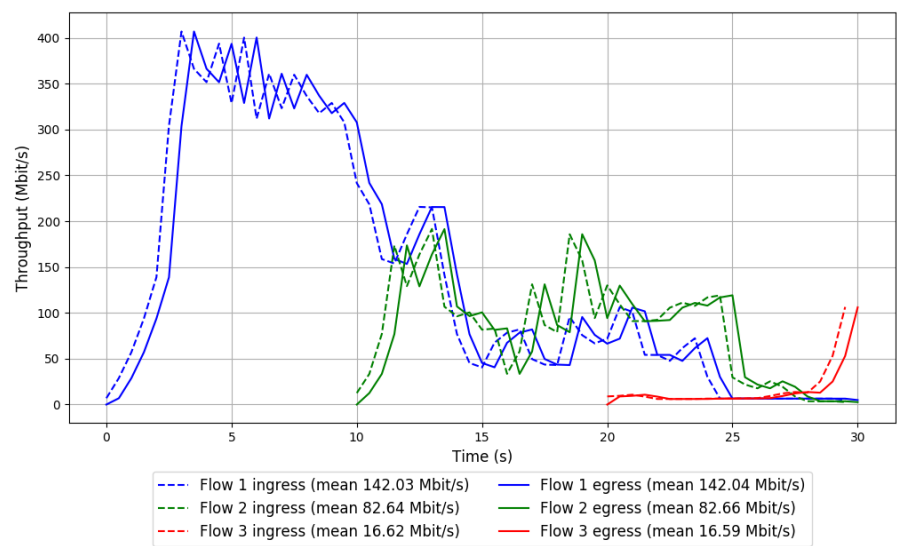
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-11-15 11:40:28
End at: 2018-11-15 11:40:58
Local clock offset: 4.44 ms
Remote clock offset: 1.259 ms


# Below is generated by plot.py at 2018-11-15 14:12:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 205.64 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.77 Mbit/s
95th percentile per-packet one-way delay: 1.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.74 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.71 Mbit/s
95th percentile per-packet one-way delay: 0.960 ms
Loss rate: 0.06%
```
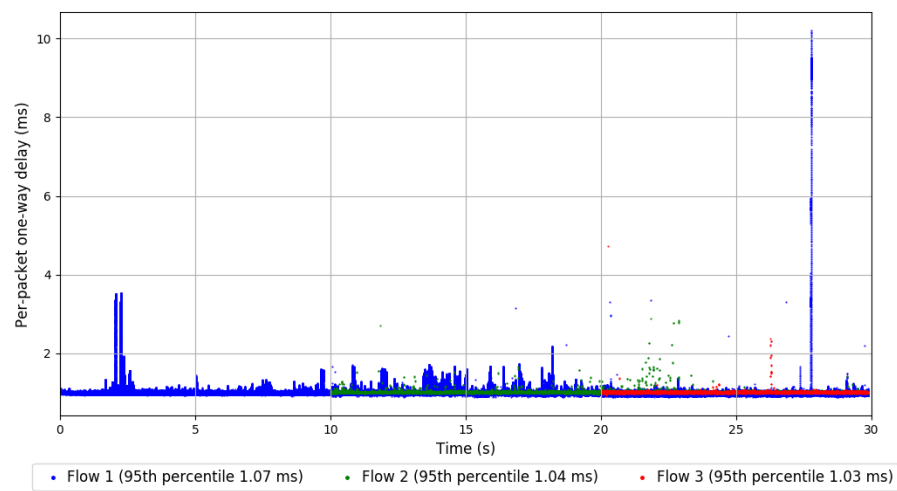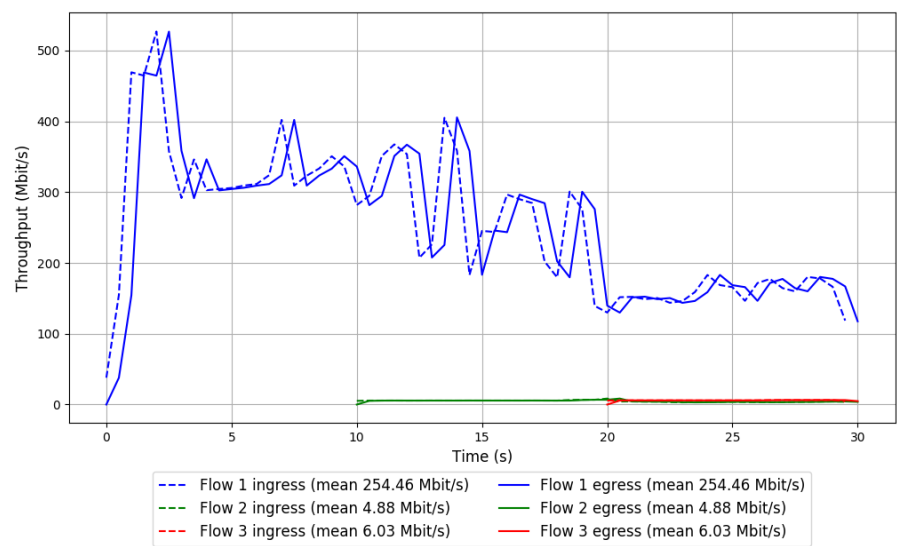
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-11-15 12:08:14
End at: 2018-11-15 12:08:44
Local clock offset: 4.289 ms
Remote clock offset: -0.207 ms


# Below is generated by plot.py at 2018-11-15 14:13:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 142.04 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 82.66 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.59 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.19%
```
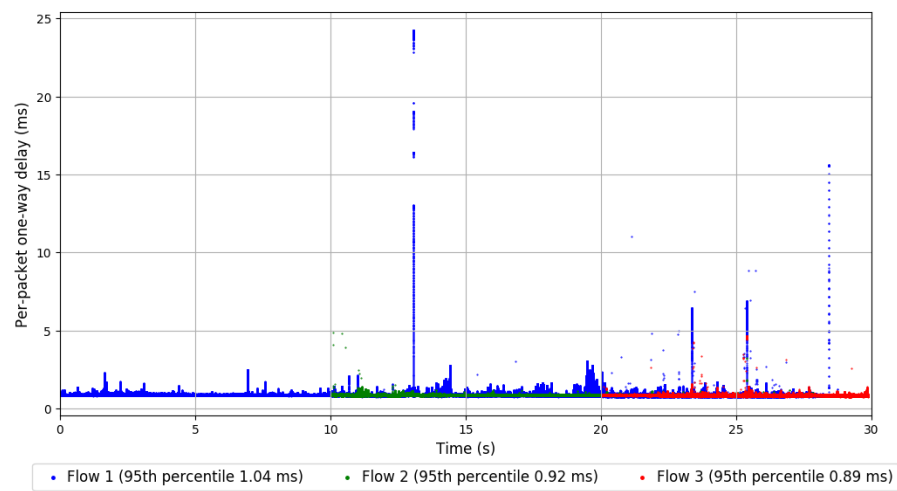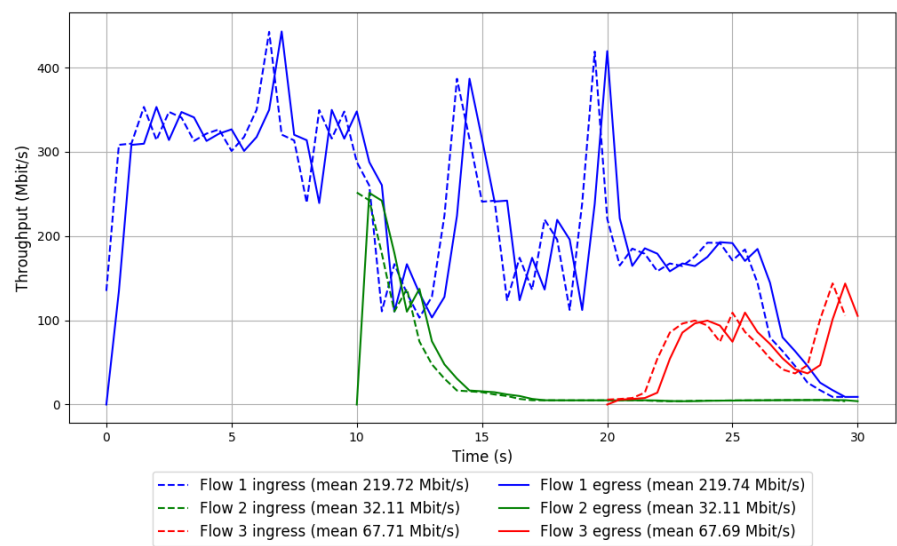
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-11-15 12:35:59
End at: 2018-11-15 12:36:29
Local clock offset: 3.895 ms
Remote clock offset: -0.316 ms


# Below is generated by plot.py at 2018-11-15 14:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.69 Mbit/s
95th percentile per-packet one-way delay: 1.072 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 254.46 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 4.88 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.00%
```
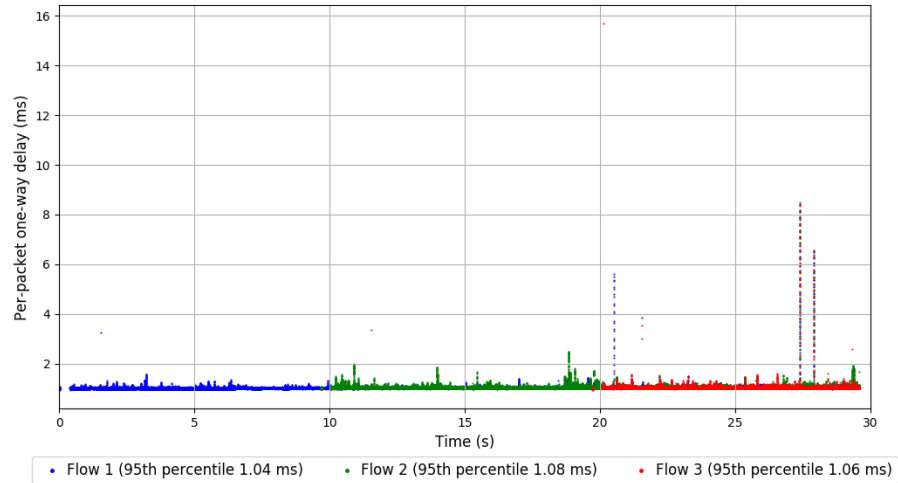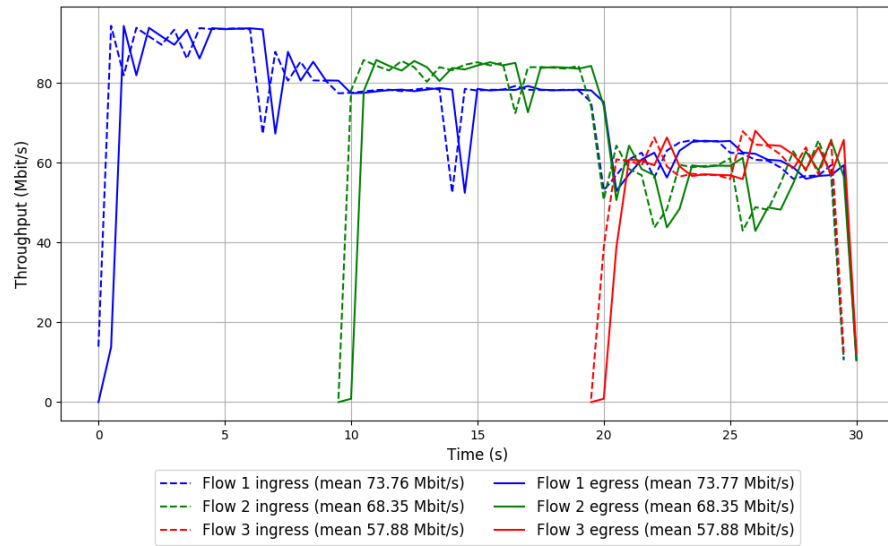
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 254.46 Mbit/s) — Flow 1 egress (mean 254.46 Mbit/s)
Flow 2 ingress (mean 4.88 Mbit/s) — Flow 2 egress (mean 4.88 Mbit/s)
Flow 3 ingress (mean 6.03 Mbit/s) — Flow 3 egress (mean 6.03 Mbit/s)

Flow 1 (95th percentile 1.07 ms) • Flow 2 (95th percentile 1.04 ms) • Flow 3 (95th percentile 1.03 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-11-15 13:03:52
End at: 2018-11-15 13:04:22
Local clock offset: 3.848 ms
Remote clock offset: -4.249 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.43 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.74 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 0.916 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.69 Mbit/s
95th percentile per-packet one-way delay: 0.891 ms
Loss rate: 0.04%
```
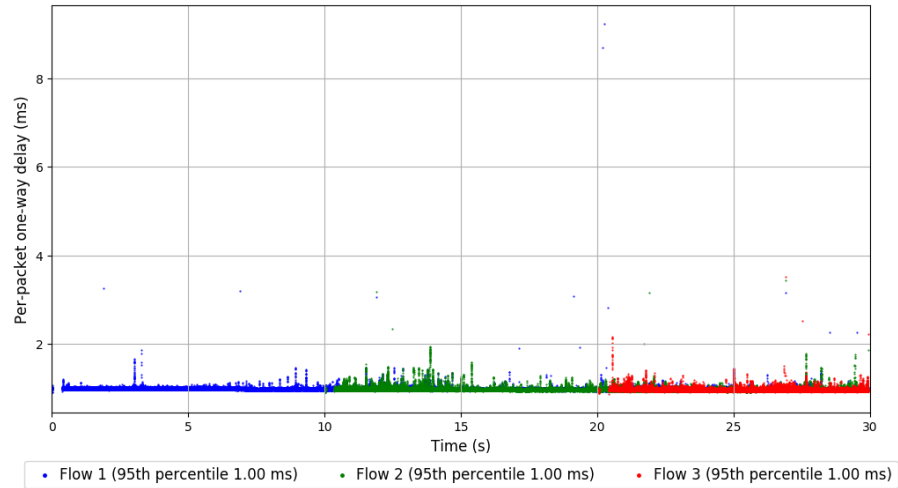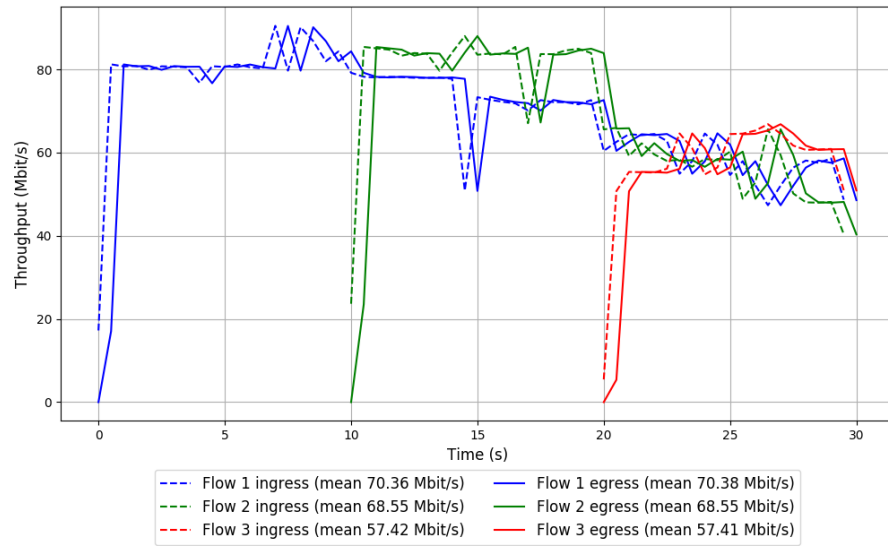
Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-11-15 11:21:45
End at: 2018-11-15 11:22:15
Local clock offset: 4.019 ms
Remote clock offset: 3.401 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.10 Mbit/s
95th percentile per-packet one-way delay: 1.061 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 73.77 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.35 Mbit/s
95th percentile per-packet one-way delay: 1.078 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 57.88 Mbit/s
95th percentile per-packet one-way delay: 1.064 ms
Loss rate: 0.02%
```
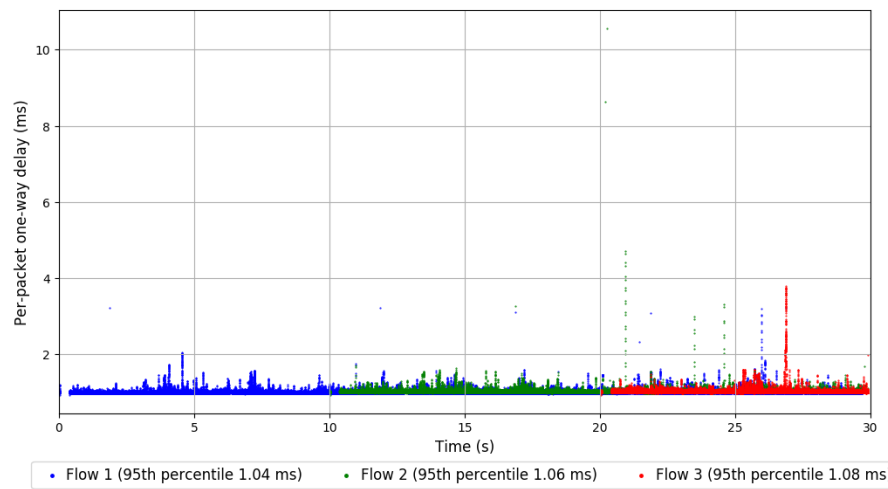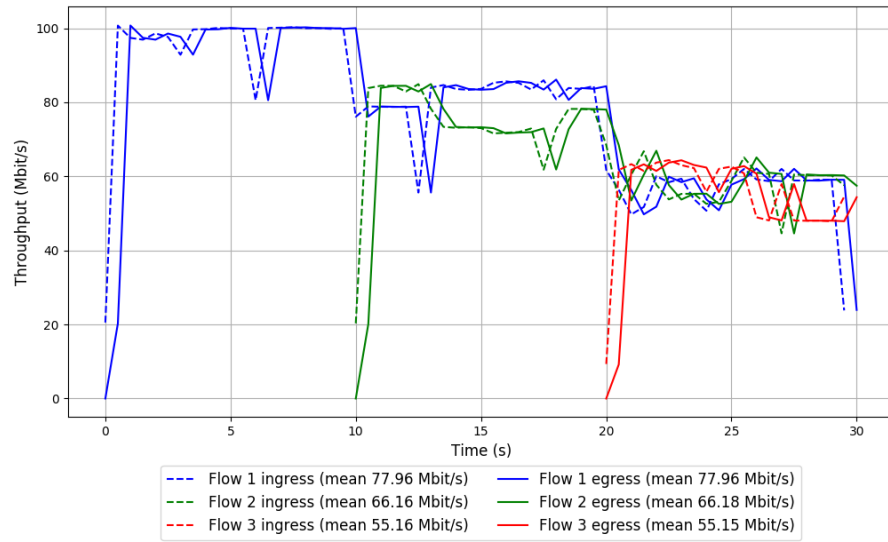
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-11-15 11:49:31
End at: 2018-11-15 11:50:01
Local clock offset: 4.548 ms
Remote clock offset: 0.331 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.95 Mbit/s
95th percentile per-packet one-way delay: 1.003 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.38 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.55 Mbit/s
95th percentile per-packet one-way delay: 0.996 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.02%
```
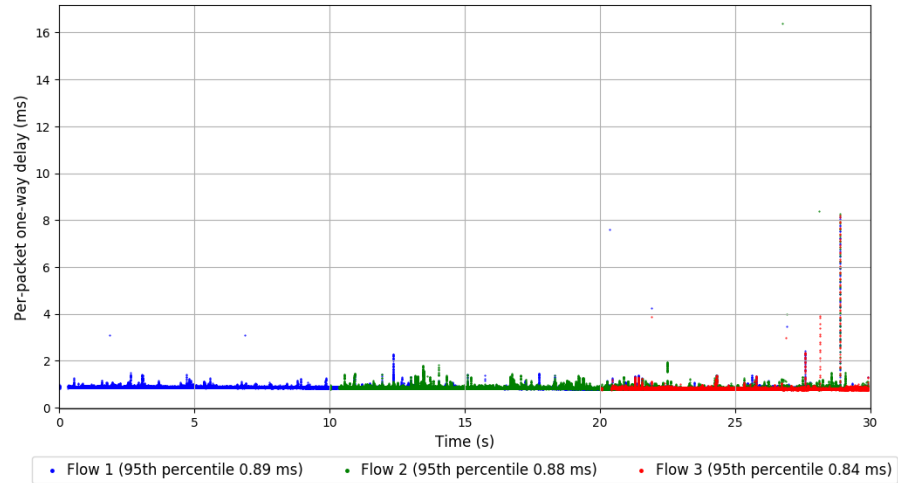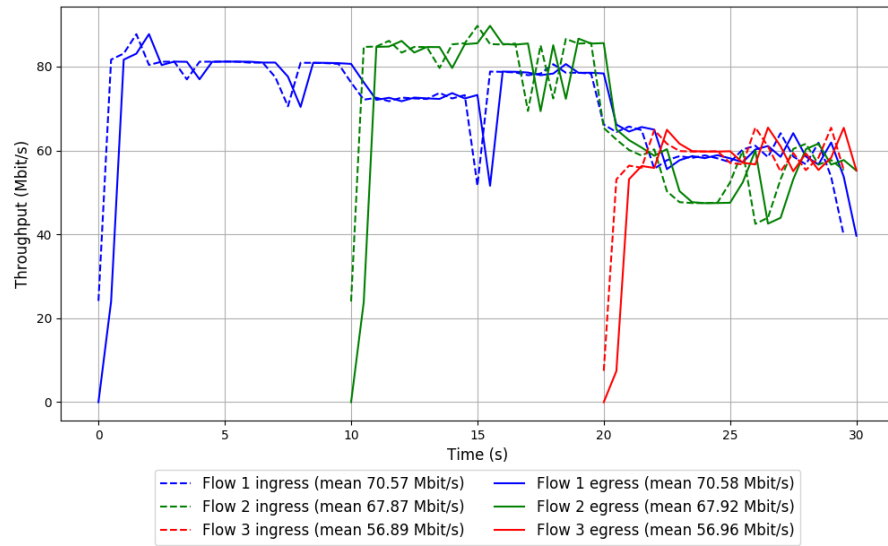
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-11-15 12:17:19
End at: 2018-11-15 12:17:50
Local clock offset: 4.207 ms
Remote clock offset: -0.209 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.67 Mbit/s
95th percentile per-packet one-way delay: 1.059 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 77.96 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.18 Mbit/s
95th percentile per-packet one-way delay: 1.062 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 55.15 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.02%
```
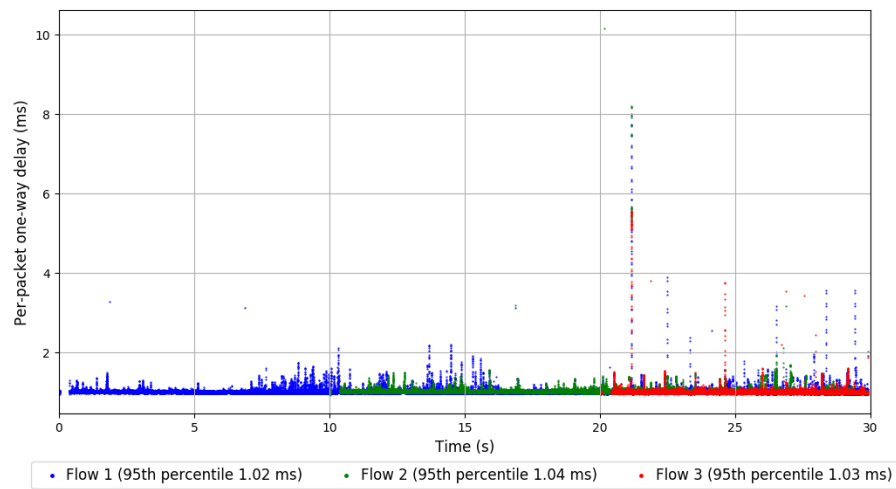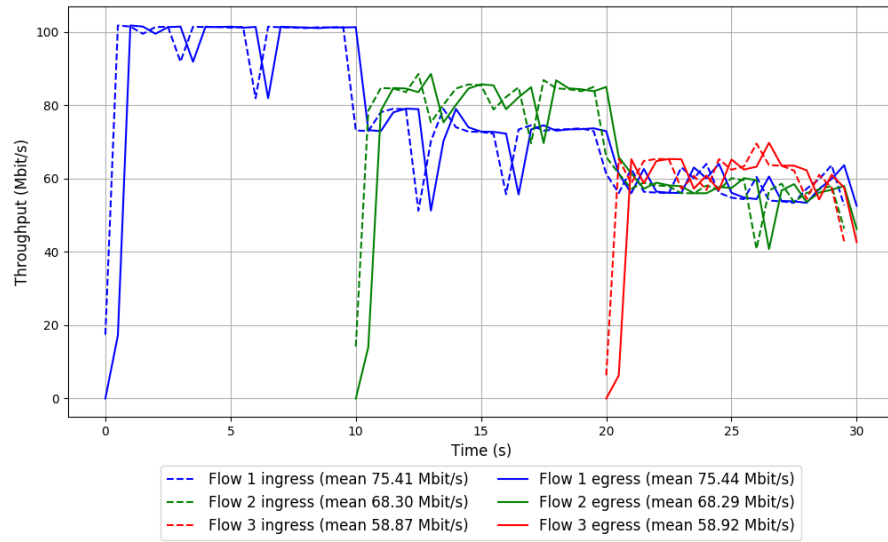
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 77.96 Mbit/s) --- Flow 1 egress (mean 77.96 Mbit/s)
Flow 2 ingress (mean 66.16 Mbit/s) --- Flow 2 egress (mean 66.18 Mbit/s)
Flow 3 ingress (mean 55.16 Mbit/s) --- Flow 3 egress (mean 55.15 Mbit/s)

Flow 1 (95th percentile 1.04 ms) • Flow 2 (95th percentile 1.06 ms) • Flow 3 (95th percentile 1.08 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-11-15 12:45:11
End at: 2018-11-15 12:45:41
Local clock offset: 3.768 ms
Remote clock offset: -1.822 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.60 Mbit/s
95th percentile per-packet one-way delay: 0.888 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.58 Mbit/s
95th percentile per-packet one-way delay: 0.892 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.92 Mbit/s
95th percentile per-packet one-way delay: 0.882 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 0.842 ms
Loss rate: 0.02%
```
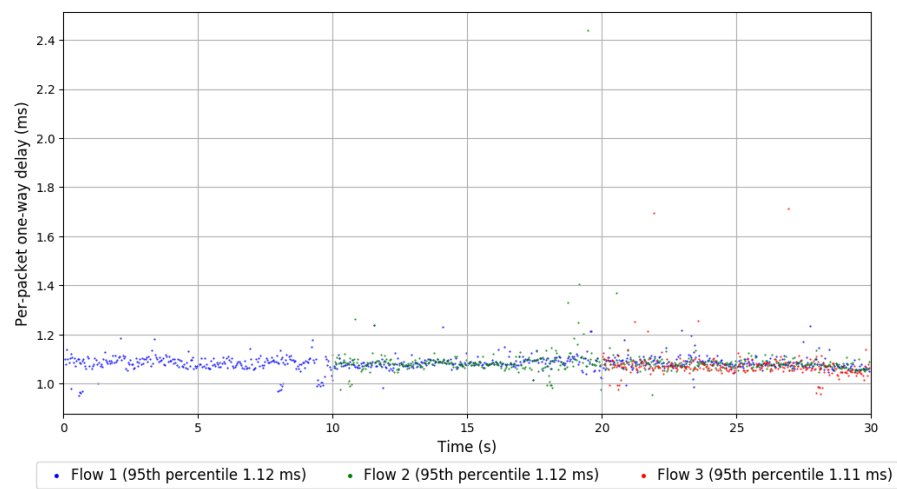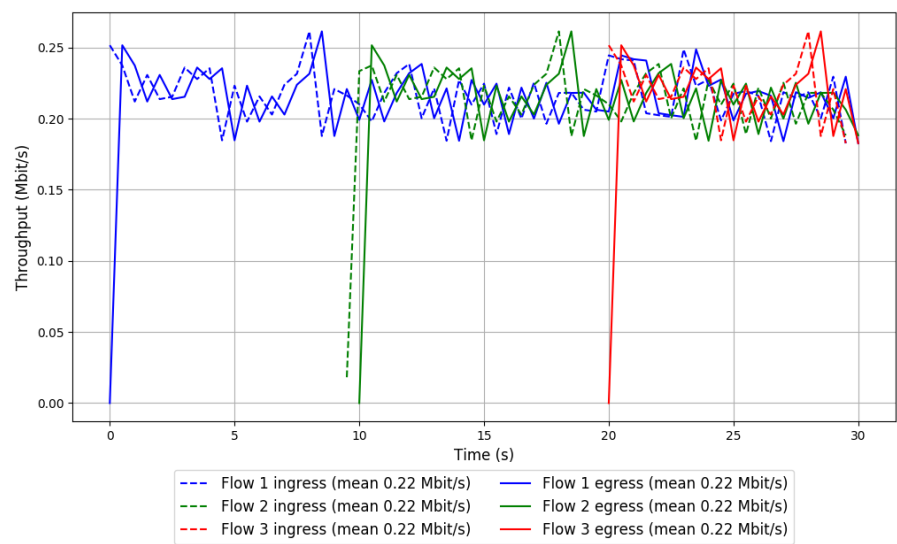
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-11-15 13:12:54
End at: 2018-11-15 13:13:24
Local clock offset: 3.951 ms
Remote clock offset: -5.053 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.39 Mbit/s
95th percentile per-packet one-way delay: 1.028 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 68.29 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 1.027 ms
Loss rate: 0.03%
```
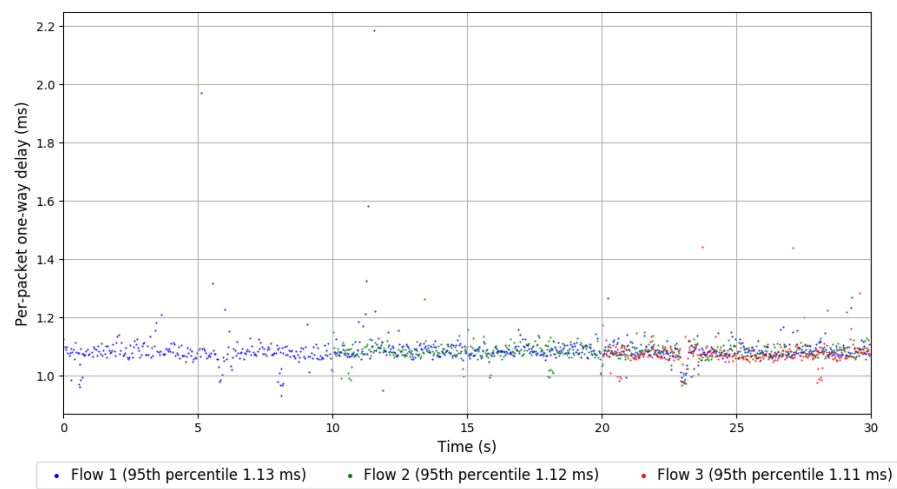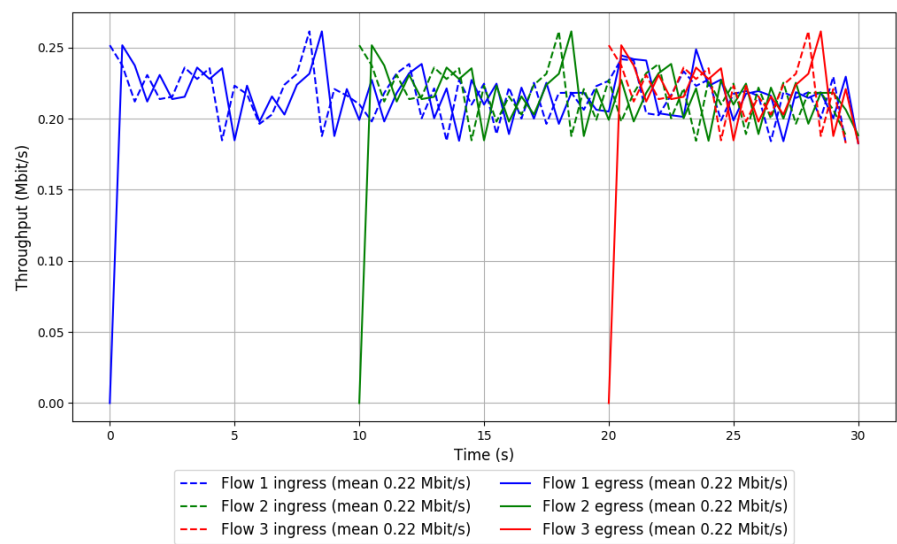
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 75.41 Mbit/s) — Flow 1 egress (mean 75.44 Mbit/s)
Flow 2 ingress (mean 68.30 Mbit/s) — Flow 2 egress (mean 68.29 Mbit/s)
Flow 3 ingress (mean 58.87 Mbit/s) — Flow 3 egress (mean 58.92 Mbit/s)

Flow 1 (95th percentile 1.02 ms) • Flow 2 (95th percentile 1.04 ms) • Flow 3 (95th percentile 1.03 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-11-15 11:30:58
End at: 2018-11-15 11:31:28
Local clock offset: 4.195 ms
Remote clock offset: 3.827 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.112 ms
Loss rate: 0.00%
```
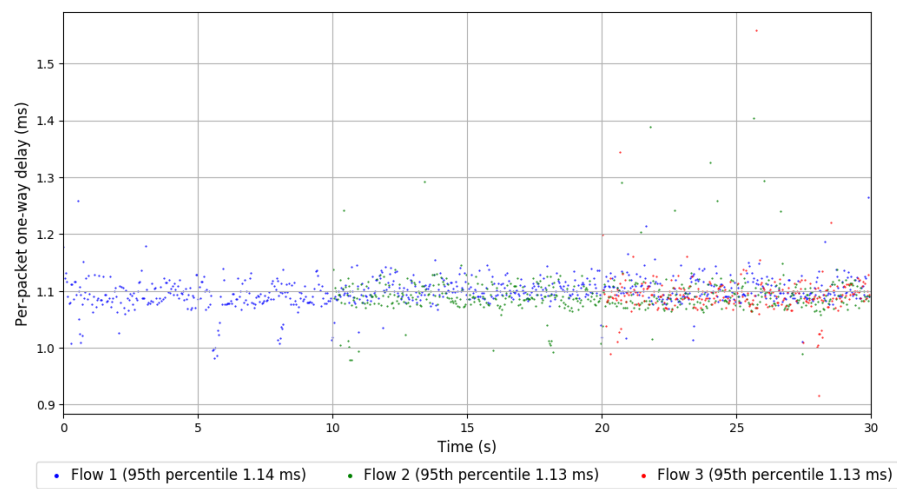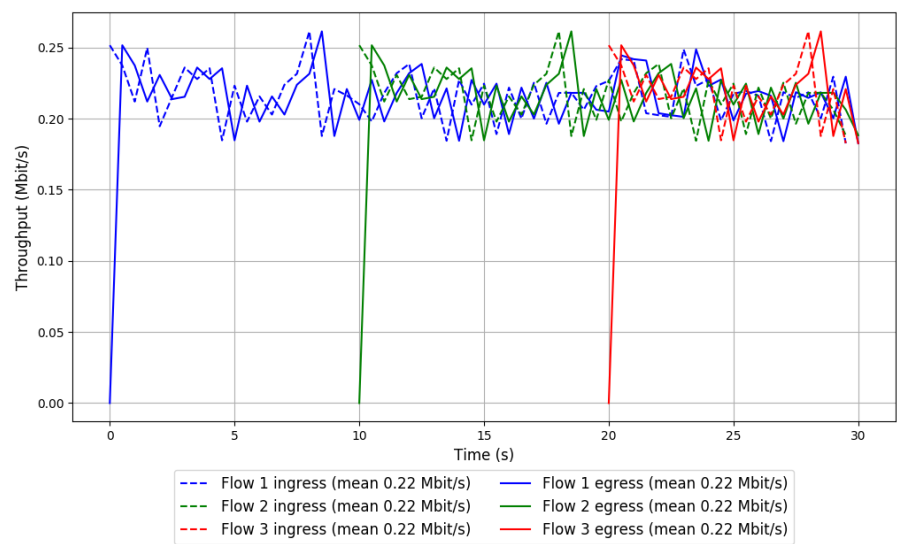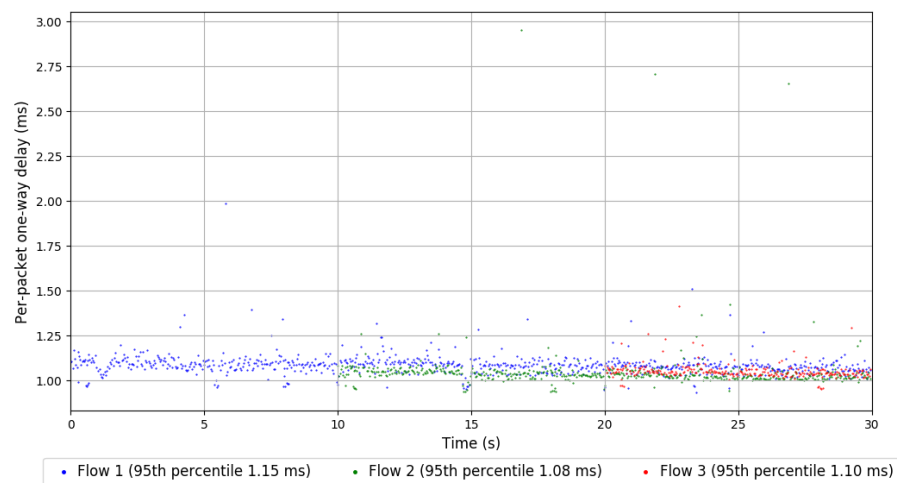
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-11-15 11:58:45
End at: 2018-11-15 11:59:15
Local clock offset: 4.5 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 0.00%
```
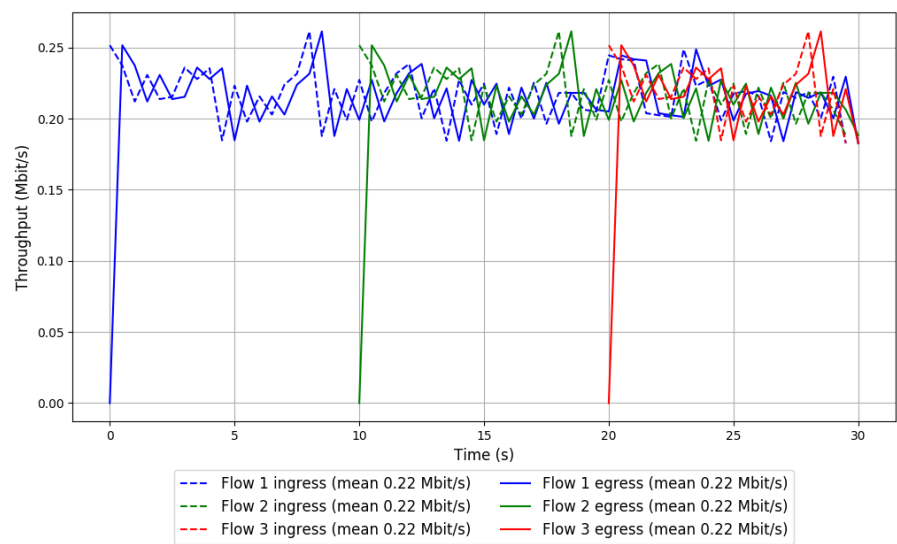
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-11-15 12:26:32
End at: 2018-11-15 12:27:02
Local clock offset: 4.14 ms
Remote clock offset: -0.223 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.131 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.127 ms
Loss rate: 0.00%
```
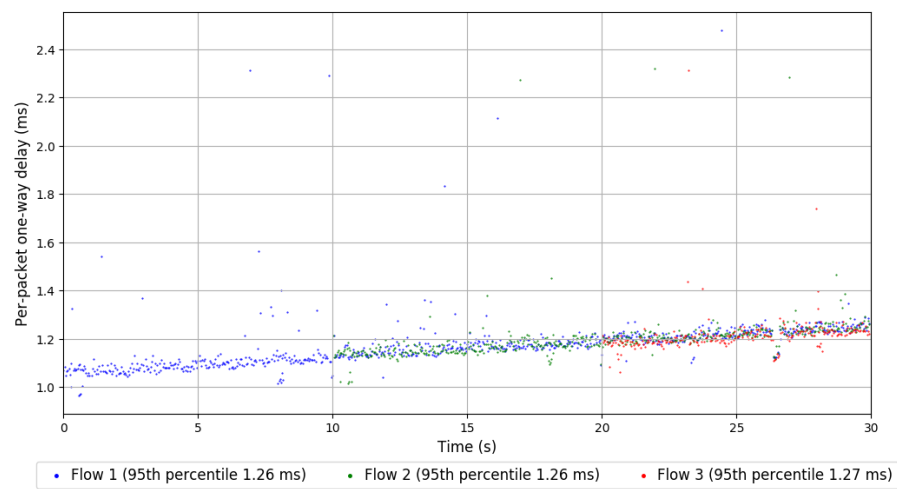
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-11-15 12:54:23
End at: 2018-11-15 12:54:53
Local clock offset: 3.681 ms
Remote clock offset: -3.363 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.149 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.103 ms
Loss rate: 0.00%
```
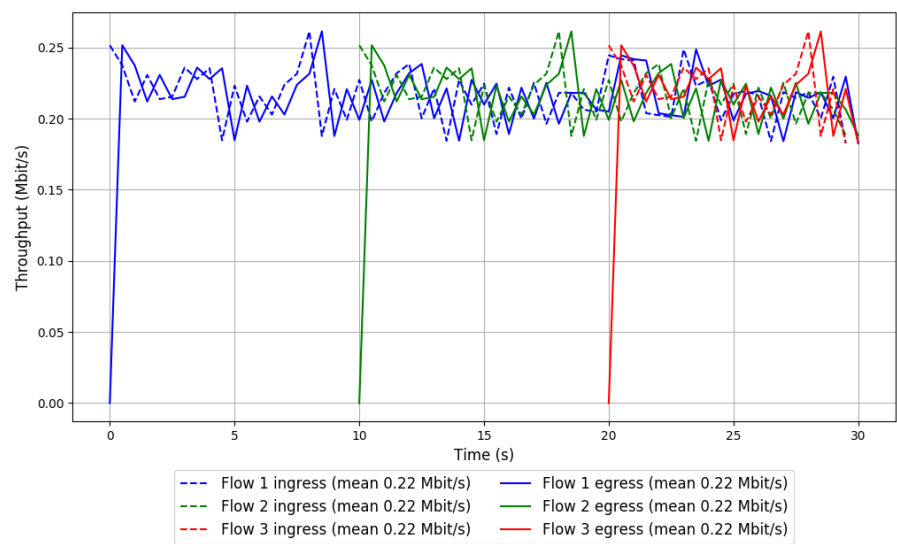
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-11-15 13:22:11
End at: 2018-11-15 13:22:41
Local clock offset: 3.966 ms
Remote clock offset: 0.376 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.263 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.264 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.267 ms
Loss rate: 0.00%
```
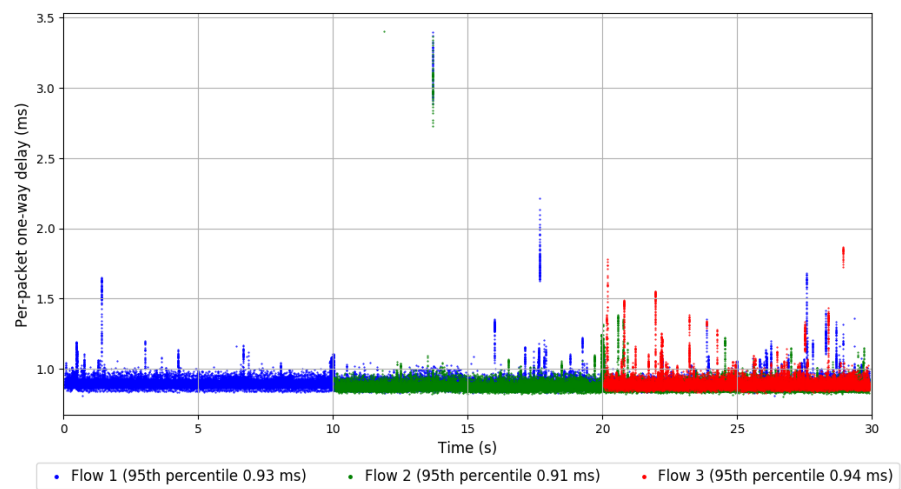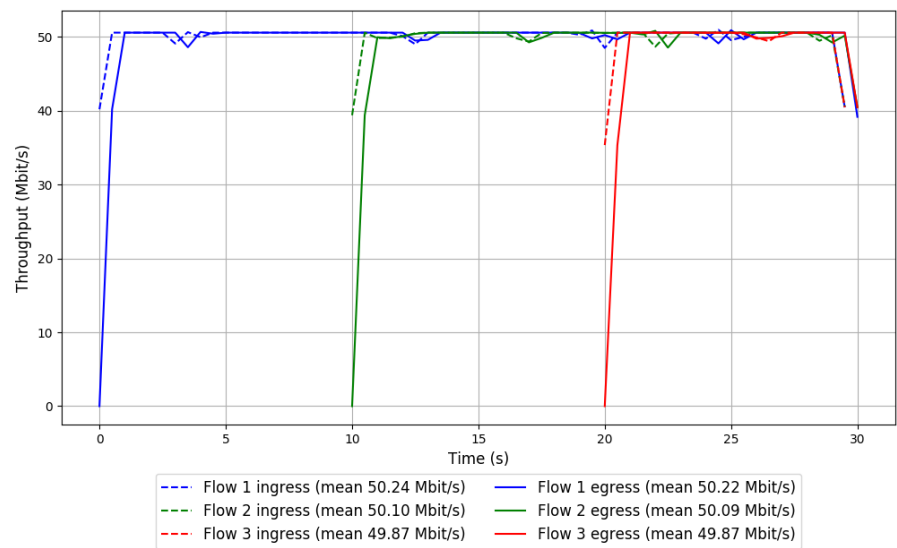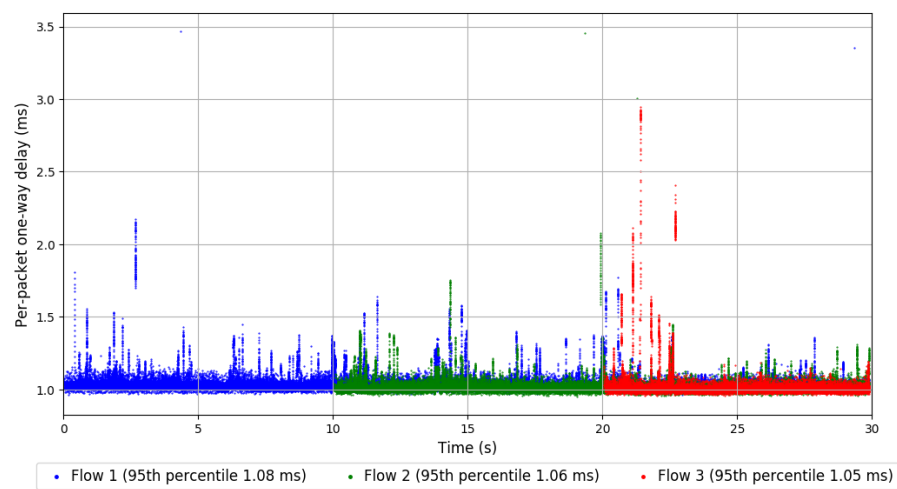
Run 5: Report of SCReAM — Data Link

Throughput (Mbit/s) vs Time (s)

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

Per-packet one-way delay (ms) vs Time (s)

- Flow 1 (95th percentile 1.26 ms)   • Flow 2 (95th percentile 1.26 ms)   • Flow 3 (95th percentile 1.27 ms)

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```
Run 1: Statistics of Sprout

Start at: 2018-11-15 11:29:37
End at: 2018-11-15 11:30:07
Local clock offset: 4.131 ms
Remote clock offset: 3.876 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.99 Mbit/s
95th percentile per-packet one-way delay: 0.928 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 0.933 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 50.09 Mbit/s
95th percentile per-packet one-way delay: 0.909 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 49.87 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.00%
```
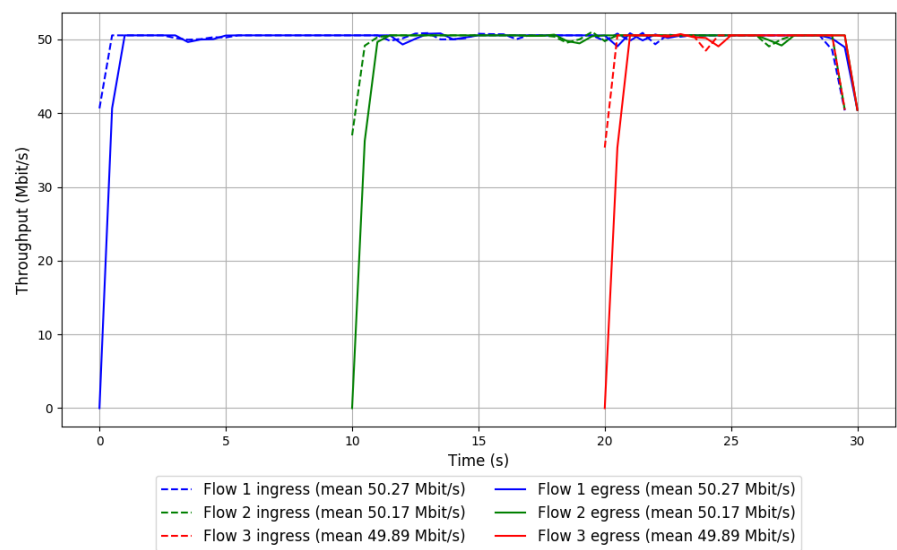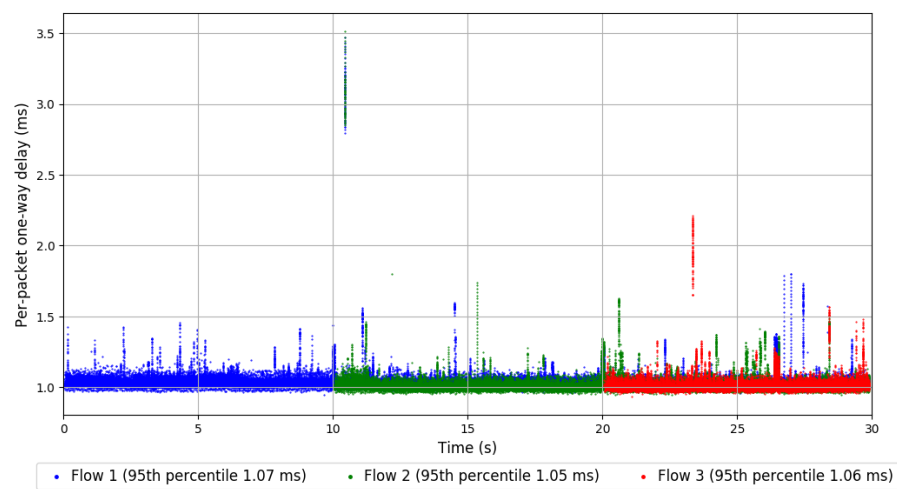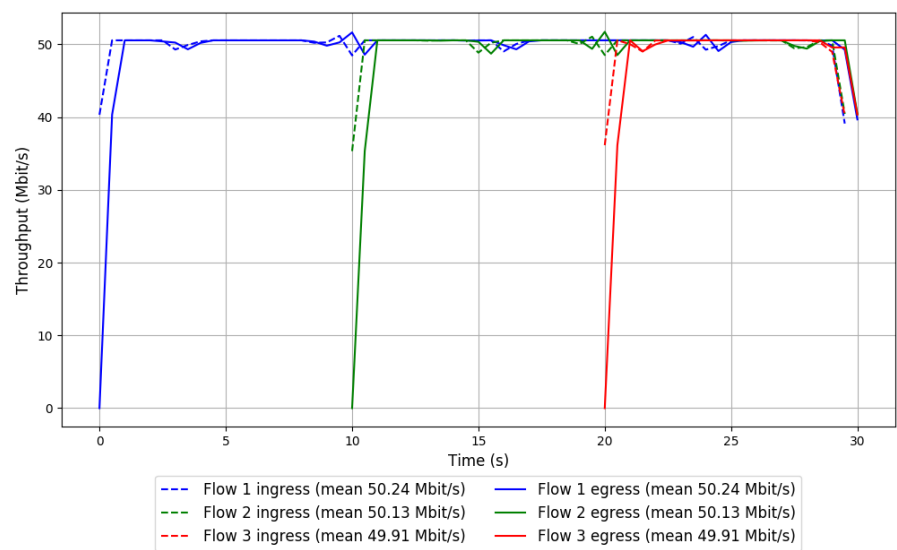
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-11-15 11:57:24
End at: 2018-11-15 11:57:54
Local clock offset: 4.562 ms
Remote clock offset: 0.023 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.03 Mbit/s
95th percentile per-packet one-way delay: 1.069 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 1.078 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.17 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.89 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.00%
```
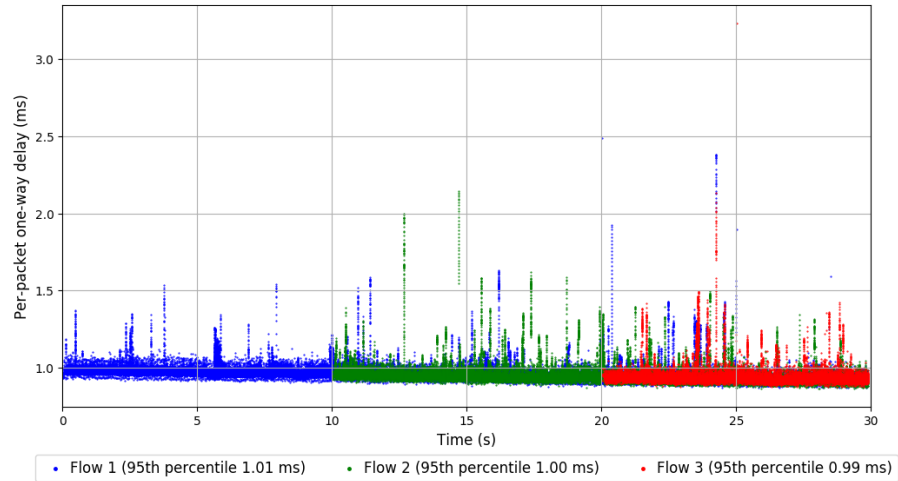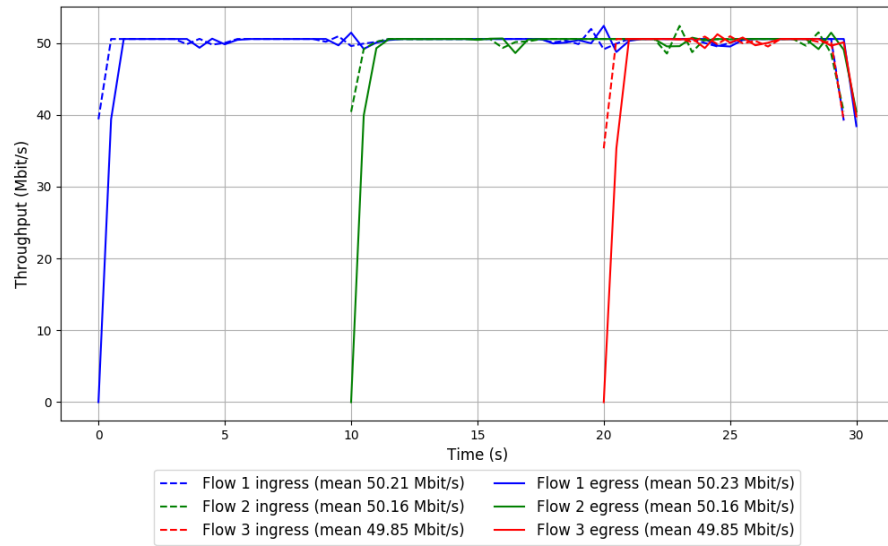
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-11-15 12:25:11
End at: 2018-11-15 12:25:41
Local clock offset: 4.154 ms
Remote clock offset: -0.219 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.96 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.13 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
```
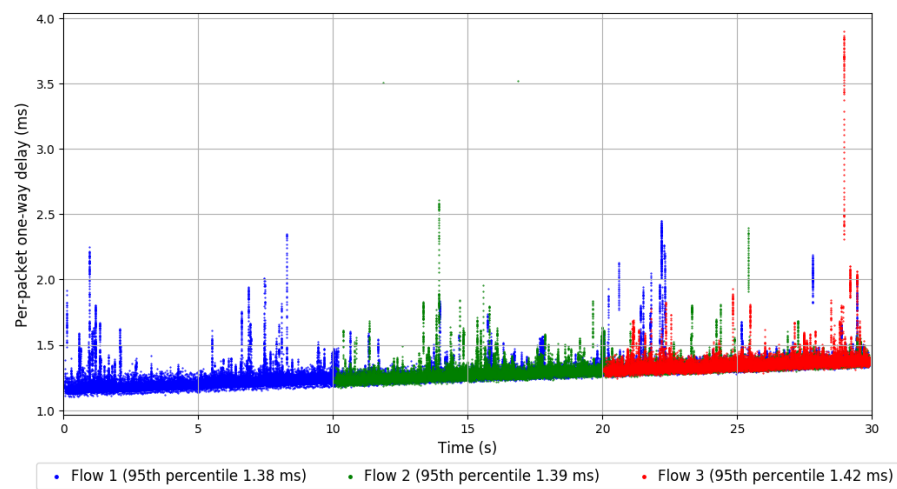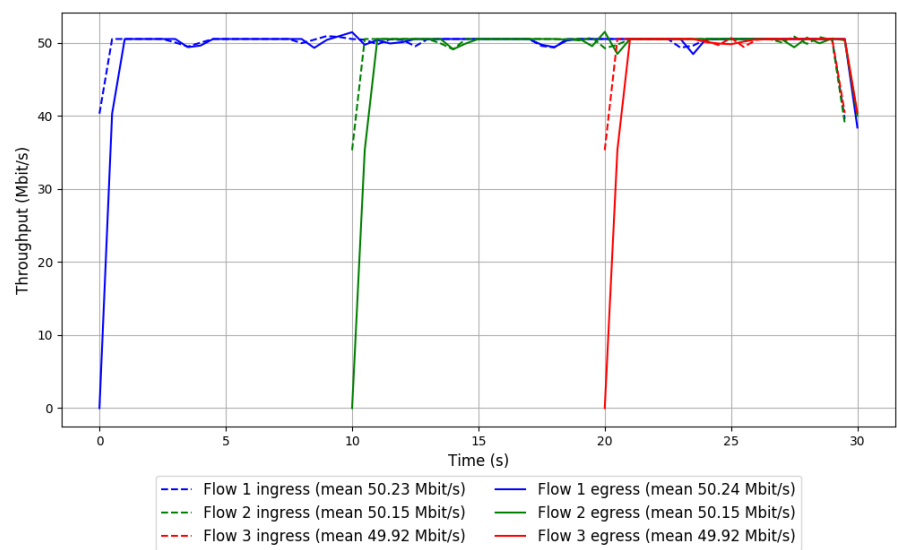
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-11-15 12:53:02
End at: 2018-11-15 12:53:32
Local clock offset: 3.707 ms
Remote clock offset: -3.161 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.00 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.85 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 0.00%
```
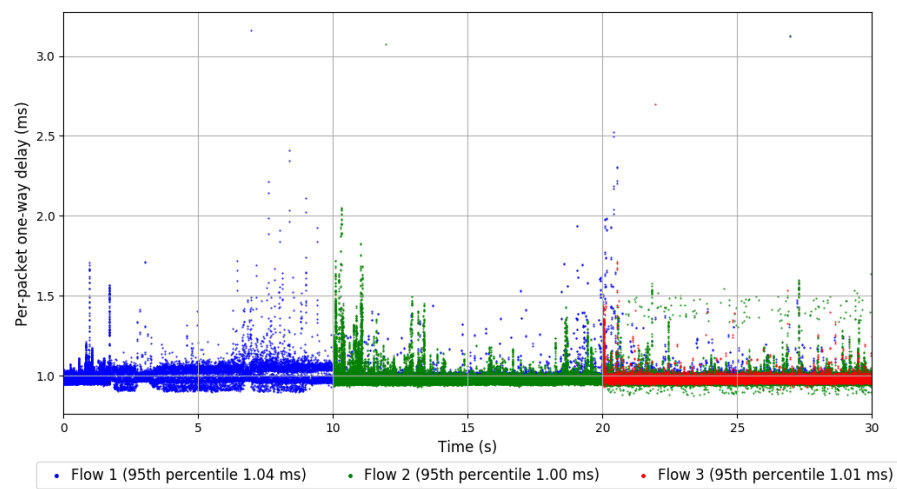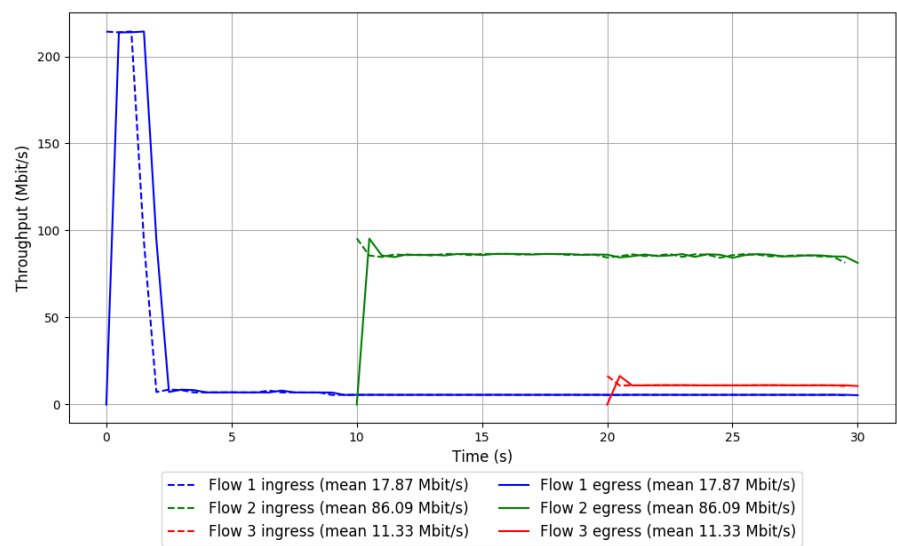
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-11-15 13:20:50
End at: 2018-11-15 13:21:20
Local clock offset: 3.974 ms
Remote clock offset: -0.381 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 1.389 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 1.379 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 50.15 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.92 Mbit/s
95th percentile per-packet one-way delay: 1.417 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

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

Start at: 2018-11-15 11:09:26
End at: 2018-11-15 11:09:56
Local clock offset: 4.094 ms
Remote clock offset: 3.079 ms

# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.98 Mbit/s
95th percentile per-packet one-way delay: 1.010 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 17.87 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.09 Mbit/s
95th percentile per-packet one-way delay: 1.001 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.00%
```
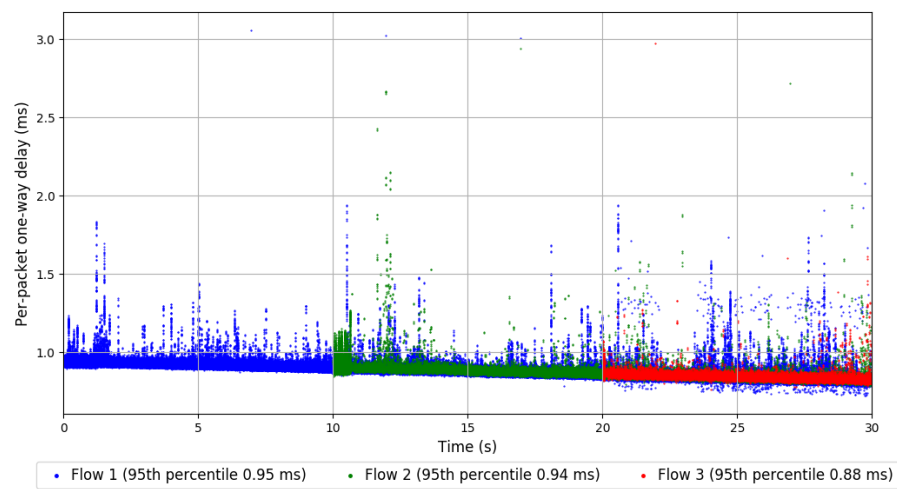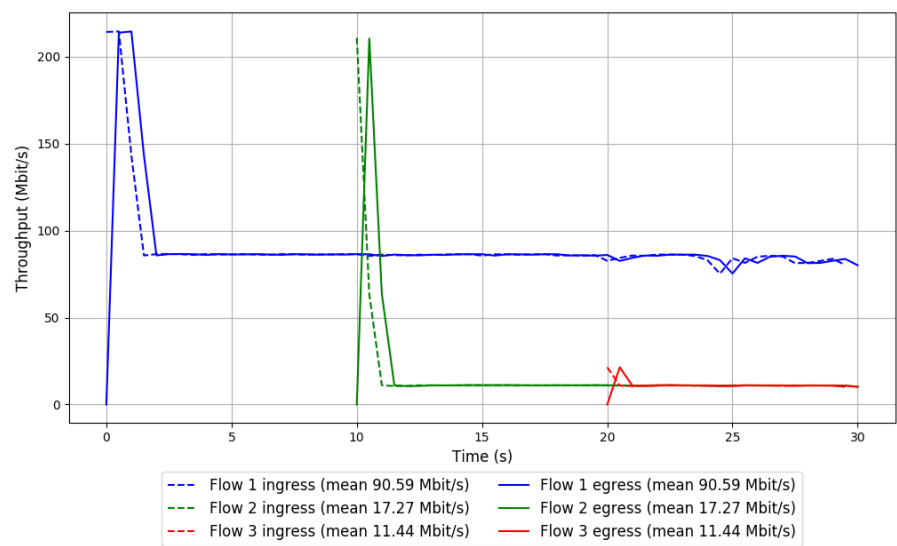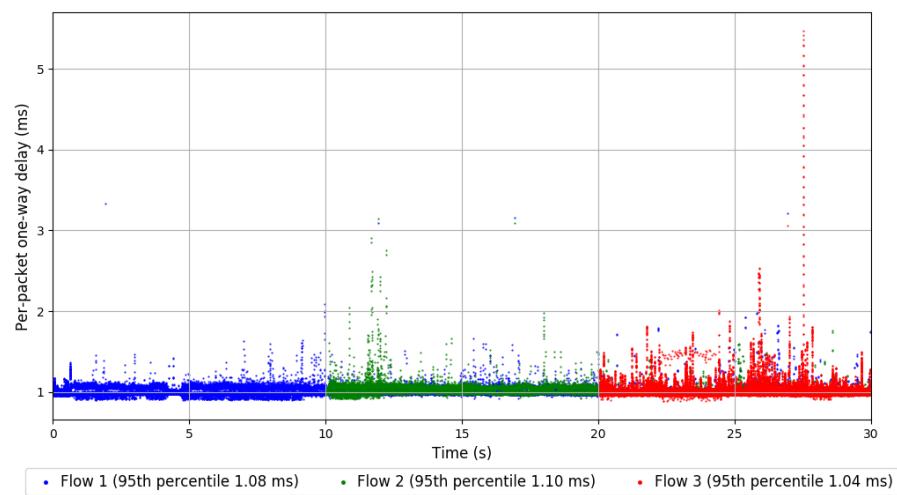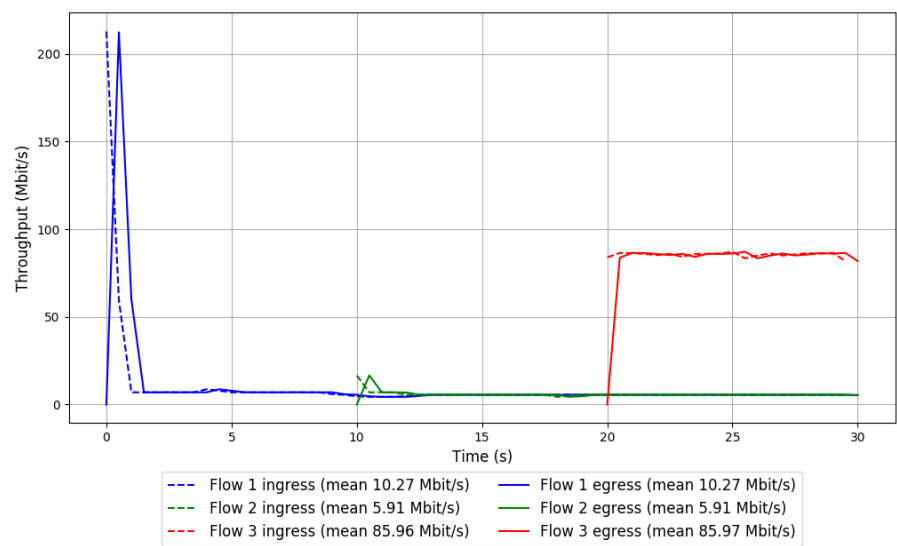
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-11-15 11:37:13
End at: 2018-11-15 11:37:43
Local clock offset: 4.376 ms
Remote clock offset: 1.934 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.90 Mbit/s
95th percentile per-packet one-way delay: 0.947 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 90.59 Mbit/s
95th percentile per-packet one-way delay: 0.948 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 17.27 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.44 Mbit/s
95th percentile per-packet one-way delay: 0.883 ms
Loss rate: 0.01%
```

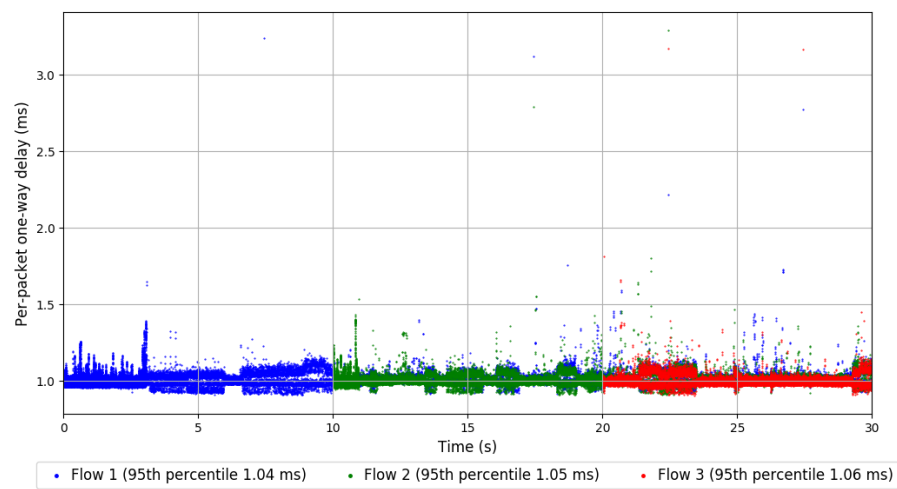Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-11-15 12:05:03
End at: 2018-11-15 12:05:33
Local clock offset: 4.336 ms
Remote clock offset: -0.188 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 1.072 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 85.97 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.02%
```

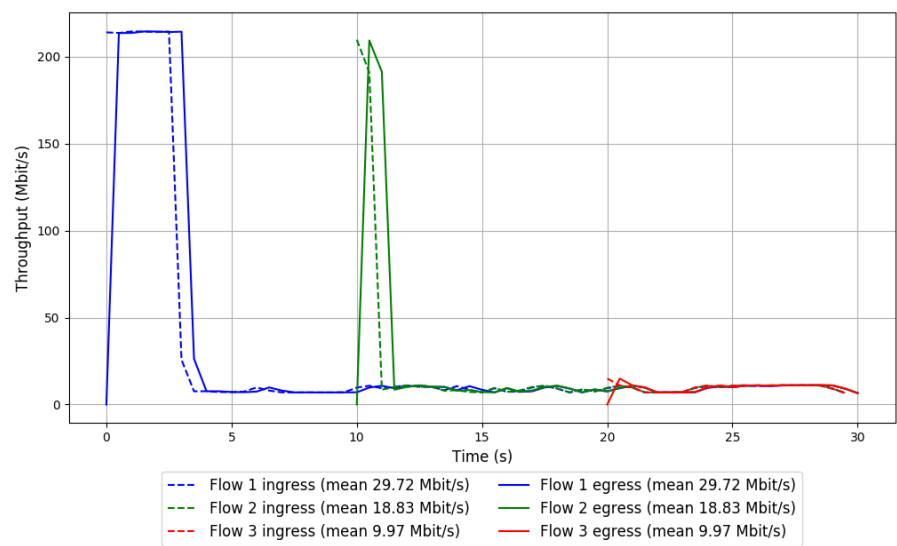Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2018-11-15 12:32:49
End at: 2018-11-15 12:33:19
Local clock offset: 3.967 ms
Remote clock offset: -0.268 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.57 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.72 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.83 Mbit/s
95th percentile per-packet one-way delay: 1.051 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.01%
```

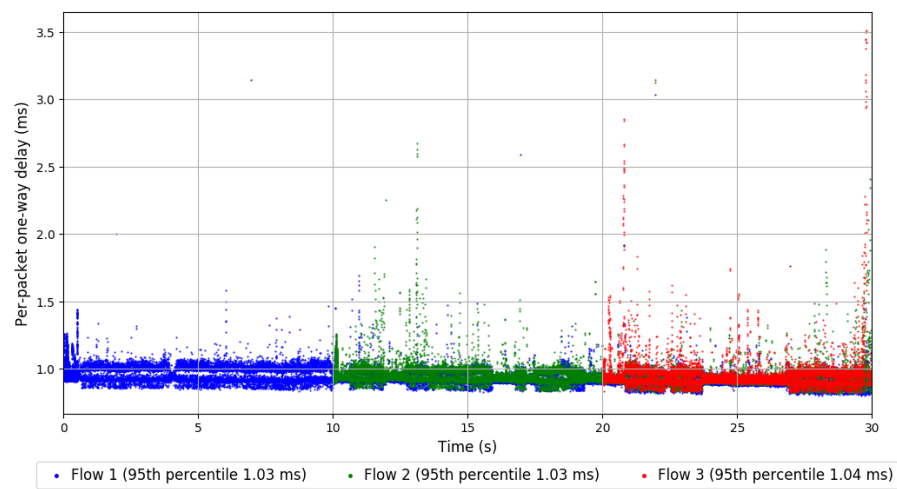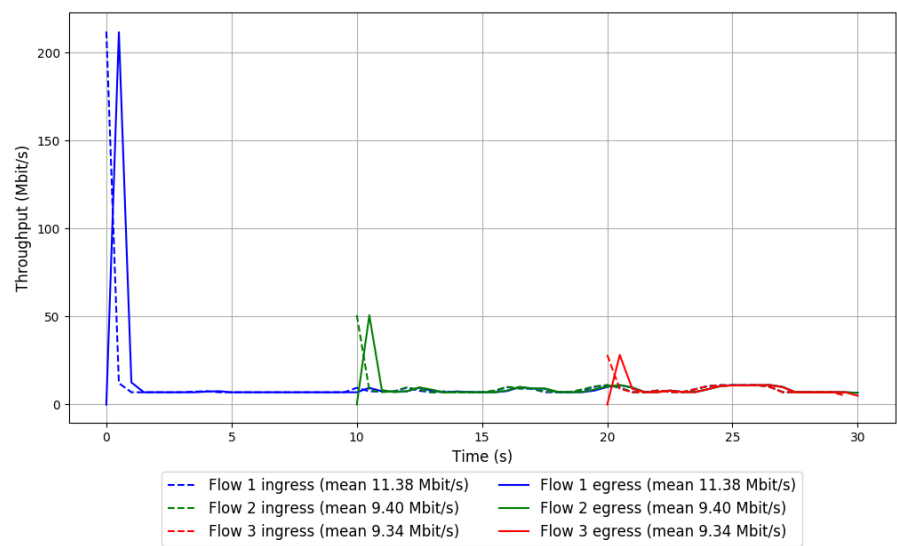# Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-11-15 13:00:42
End at: 2018-11-15 13:01:12
Local clock offset: 3.772 ms
Remote clock offset: -4.043 ms


# Below is generated by plot.py at 2018-11-15 14:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.74 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 1.026 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.01%
```
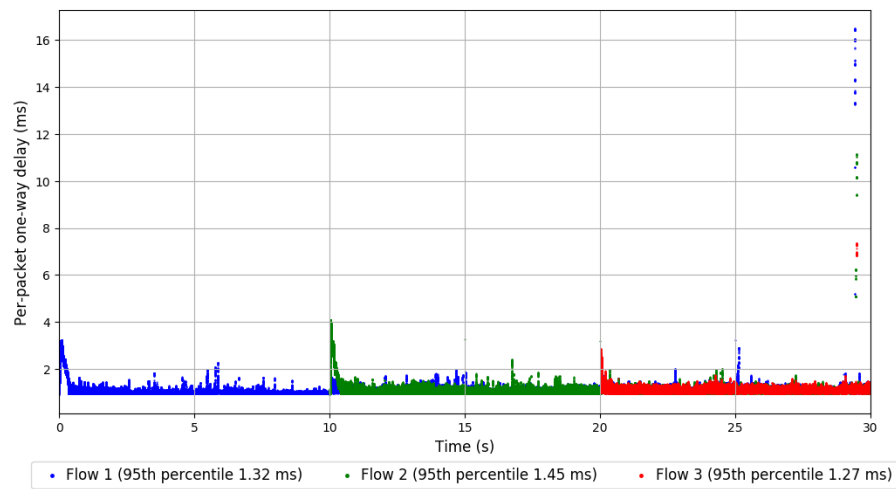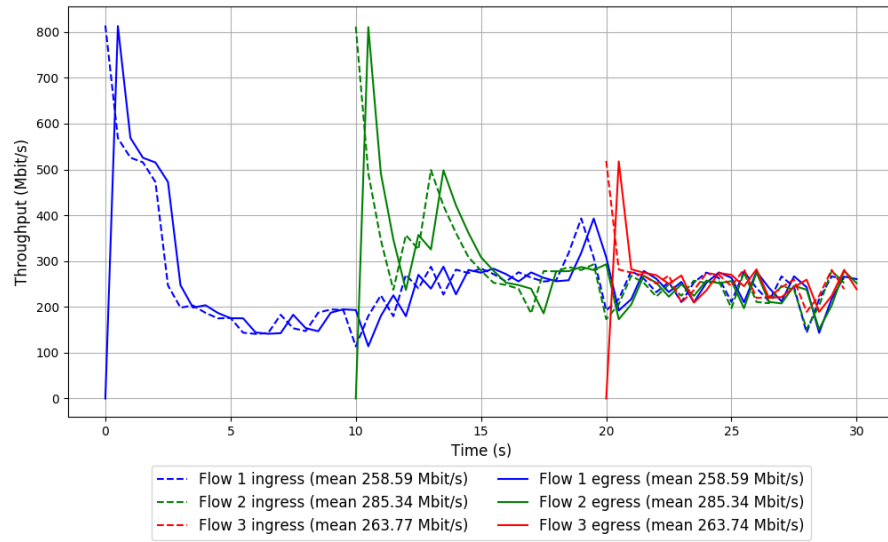
Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-11-15 11:17:06
End at: 2018-11-15 11:17:36
Local clock offset: 4.036 ms
Remote clock offset: 3.245 ms


# Below is generated by plot.py at 2018-11-15 14:21:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.30 Mbit/s
95th percentile per-packet one-way delay: 1.330 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 258.59 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 285.34 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 263.74 Mbit/s
95th percentile per-packet one-way delay: 1.271 ms
Loss rate: 0.02%
```
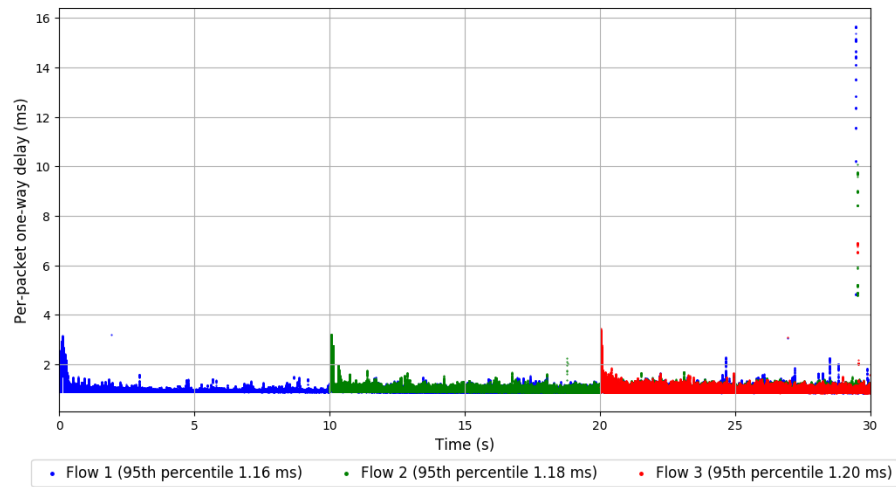
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-11-15 11:44:52
End at: 2018-11-15 11:45:22
Local clock offset: 4.499 ms
Remote clock offset: 0.733 ms


# Below is generated by plot.py at 2018-11-15 14:22:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.11 Mbit/s
95th percentile per-packet one-way delay: 1.176 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 266.45 Mbit/s
95th percentile per-packet one-way delay: 1.159 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 287.25 Mbit/s
95th percentile per-packet one-way delay: 1.184 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 277.63 Mbit/s
95th percentile per-packet one-way delay: 1.197 ms
Loss rate: 0.02%
```
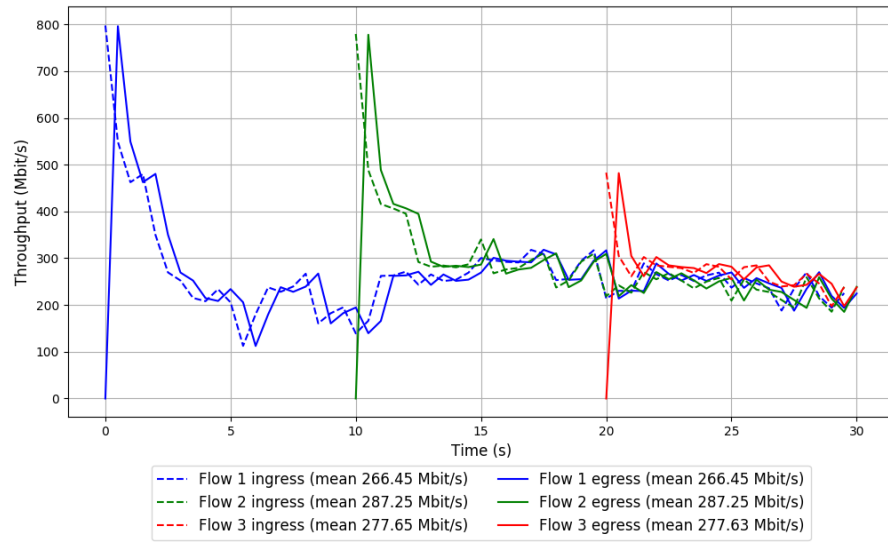
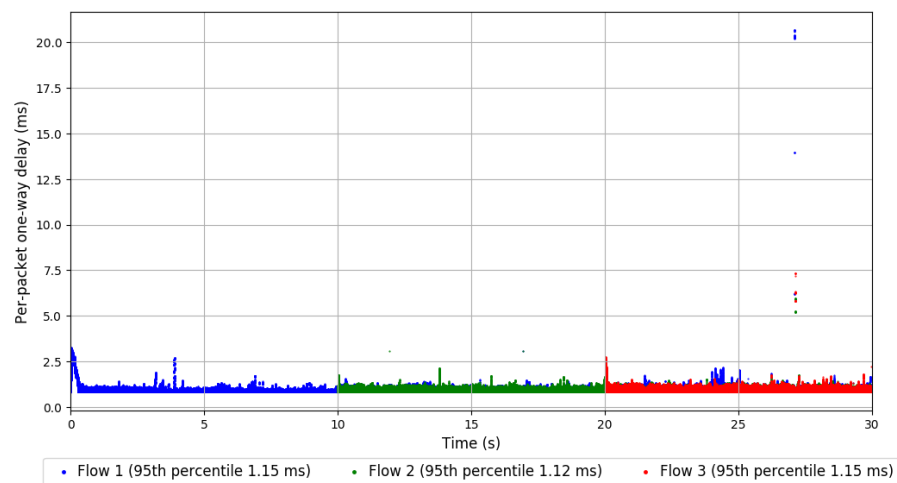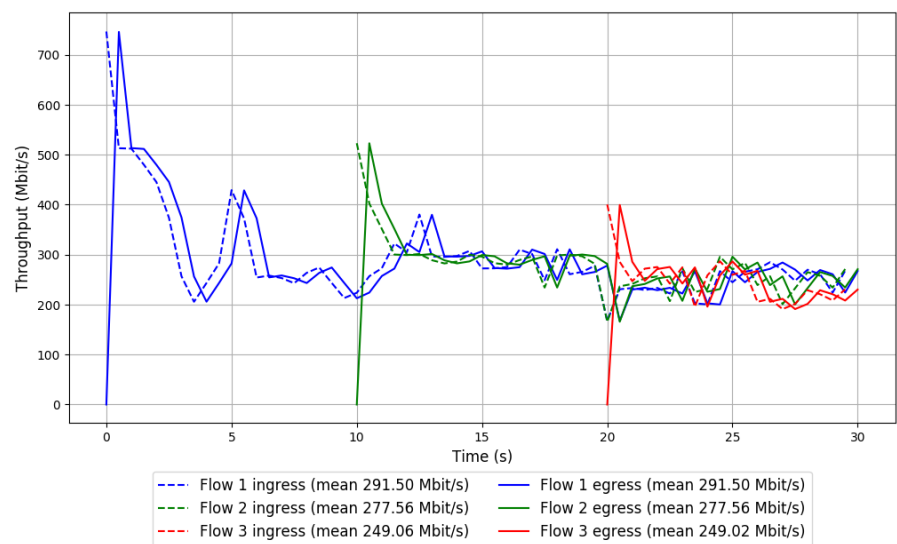Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-11-15 12:12:42
End at: 2018-11-15 12:13:12
Local clock offset: 4.235 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-11-15 14:22:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.19 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 291.50 Mbit/s
95th percentile per-packet one-way delay: 1.146 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 277.56 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 249.02 Mbit/s
95th percentile per-packet one-way delay: 1.152 ms
Loss rate: 0.02%
```
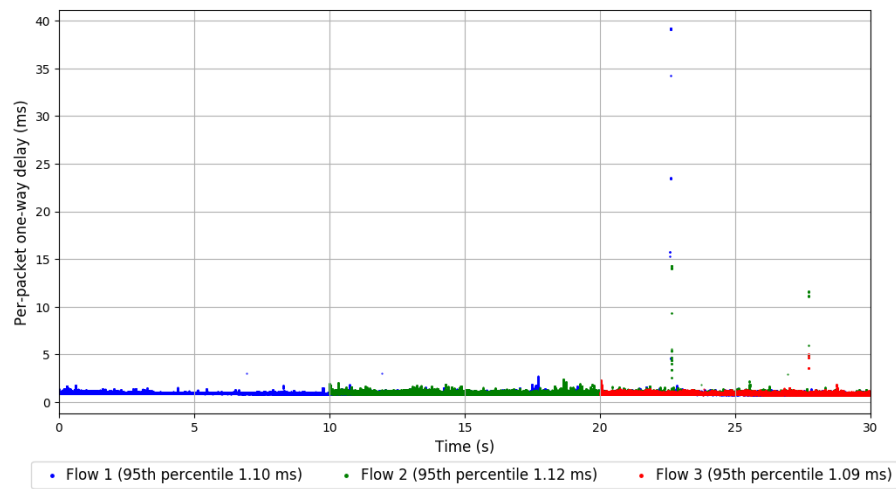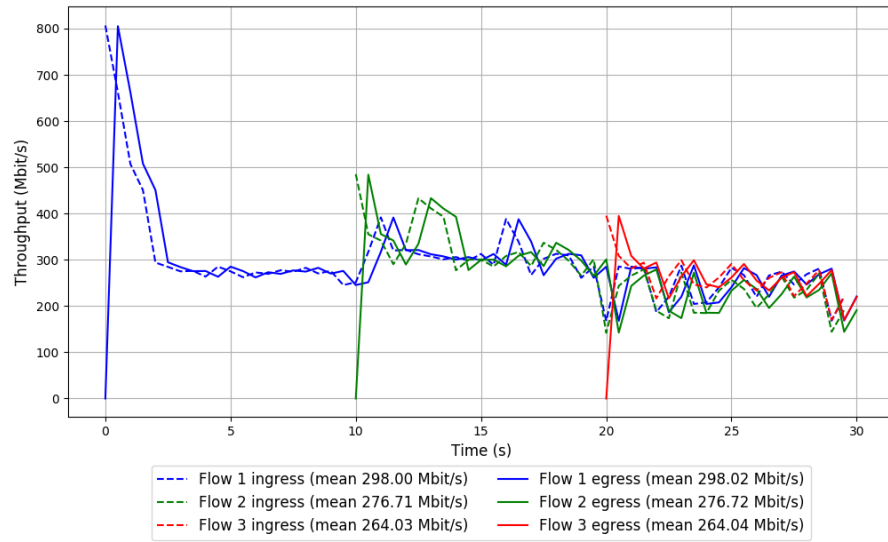
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 291.50 Mbit/s)   Flow 1 egress (mean 291.50 Mbit/s)
Flow 2 ingress (mean 277.56 Mbit/s)   Flow 2 egress (mean 277.56 Mbit/s)
Flow 3 ingress (mean 249.06 Mbit/s)   Flow 3 egress (mean 249.02 Mbit/s)

Flow 1 (95th percentile 1.15 ms)   Flow 2 (95th percentile 1.12 ms)   Flow 3 (95th percentile 1.15 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-11-15 12:40:27
End at: 2018-11-15 12:40:57
Local clock offset: 3.82 ms
Remote clock offset: -0.569 ms


# Below is generated by plot.py at 2018-11-15 14:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.11 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 298.02 Mbit/s
95th percentile per-packet one-way delay: 1.101 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 276.72 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 264.04 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.02%
```
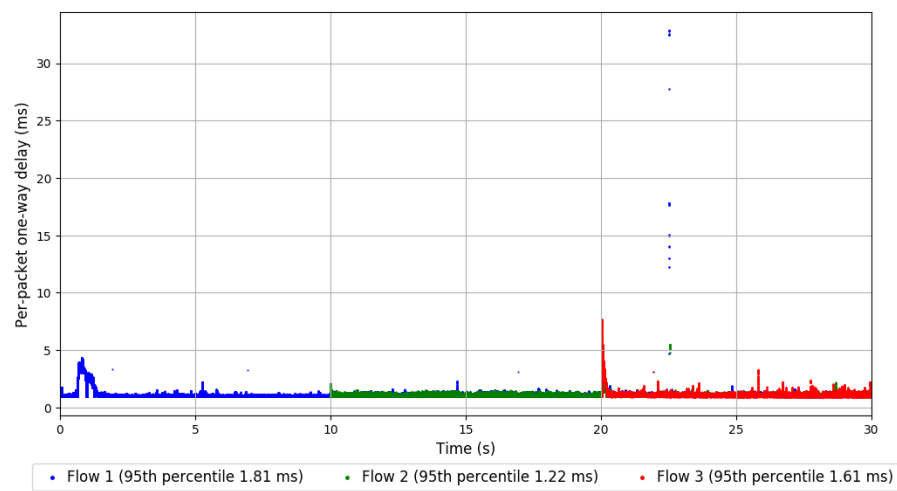
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-11-15 13:08:20
End at: 2018-11-15 13:08:50
Local clock offset: 3.917 ms
Remote clock offset: -4.7 ms


# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 588.27 Mbit/s
95th percentile per-packet one-way delay: 1.331 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 306.03 Mbit/s
95th percentile per-packet one-way delay: 1.807 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 295.76 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 256.47 Mbit/s
95th percentile per-packet one-way delay: 1.614 ms
Loss rate: 0.01%
```
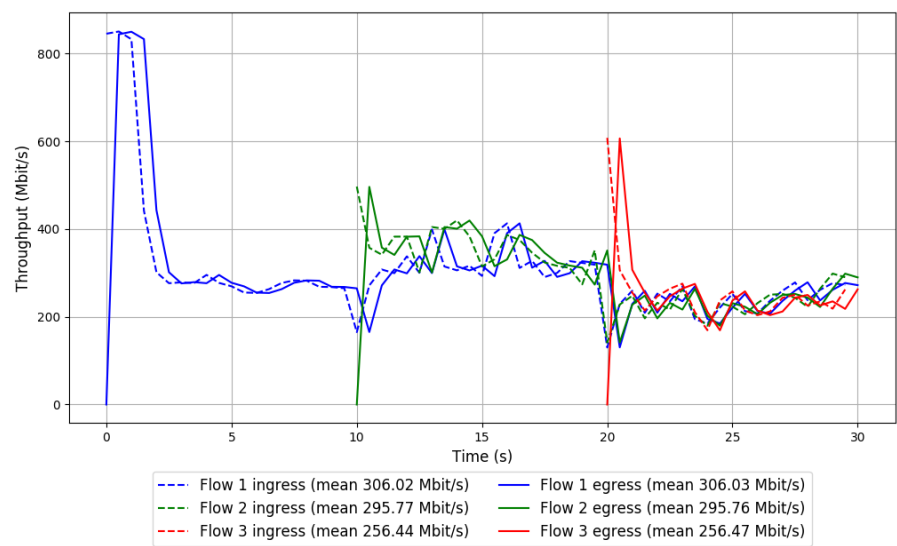
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-11-15 11:14:13
End at: 2018-11-15 11:14:43
Local clock offset: 4.07 ms
Remote clock offset: 3.146 ms


# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.58 Mbit/s
95th percentile per-packet one-way delay: 2.392 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.25 Mbit/s
95th percentile per-packet one-way delay: 2.412 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 75.73 Mbit/s
95th percentile per-packet one-way delay: 2.495 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.06 Mbit/s
95th percentile per-packet one-way delay: 1.514 ms
Loss rate: 0.00%
```
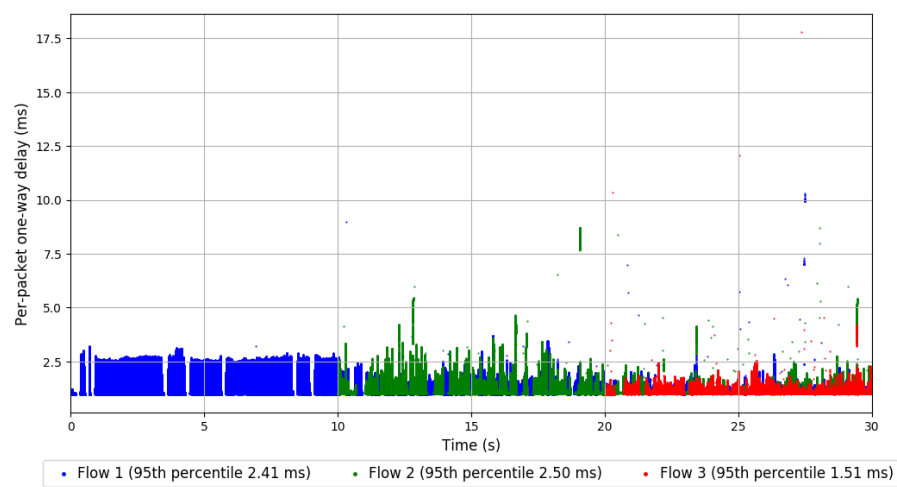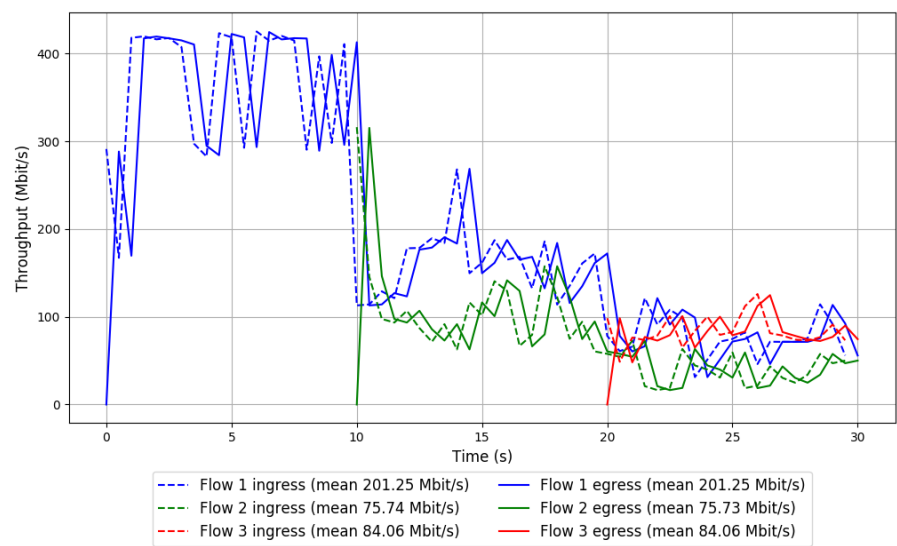
Run 1: Report of Verus — Data Link

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```
Run 2: Statistics of Verus

Start at: 2018-11-15 11:41:59
End at: 2018-11-15 11:42:29
Local clock offset: 4.477 ms
Remote clock offset: 1.097 ms


# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.99 Mbit/s
95th percentile per-packet one-way delay: 2.308 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 179.75 Mbit/s
95th percentile per-packet one-way delay: 2.454 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 110.24 Mbit/s
95th percentile per-packet one-way delay: 1.349 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.80 Mbit/s
95th percentile per-packet one-way delay: 1.251 ms
Loss rate: 0.00%
```
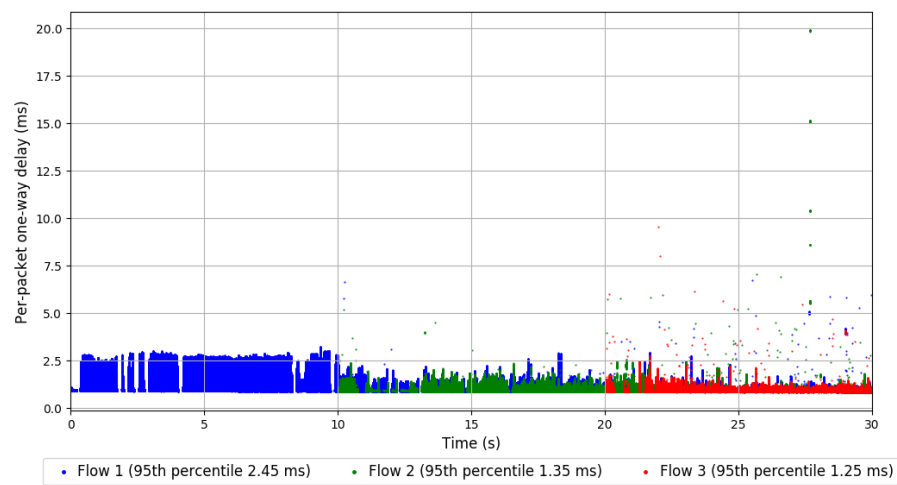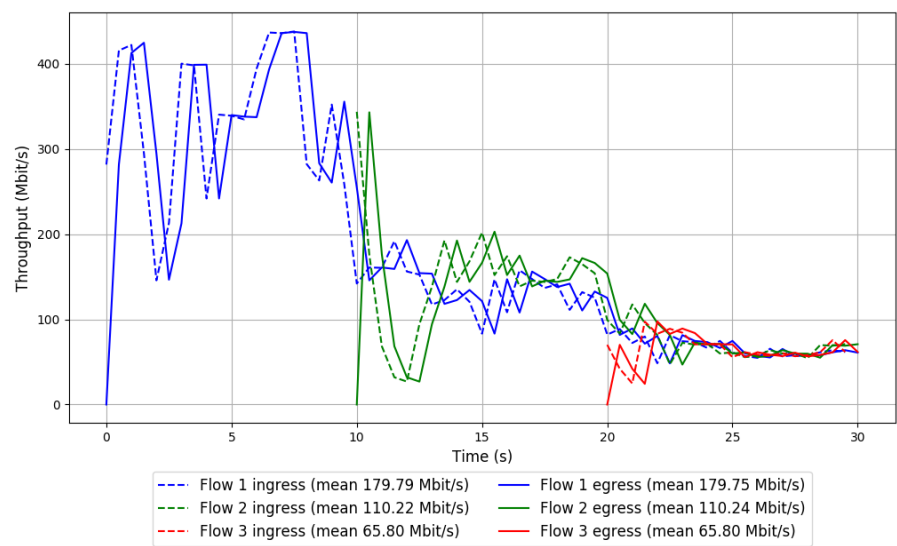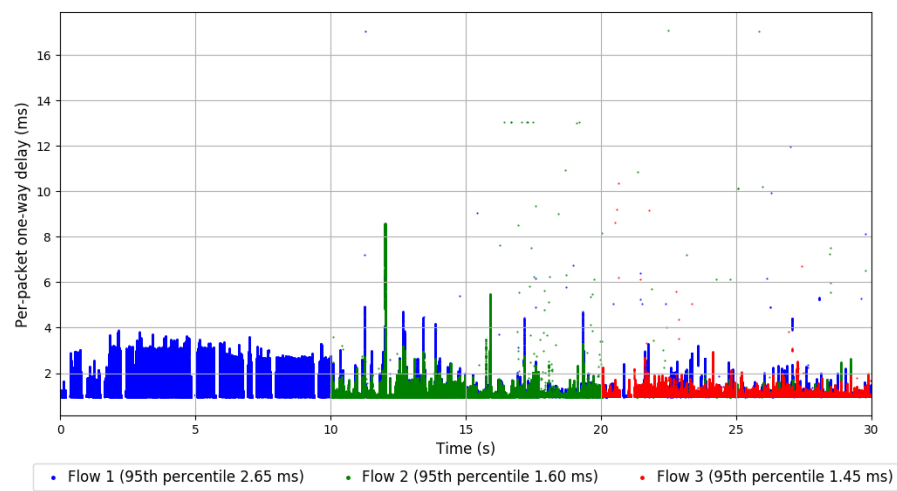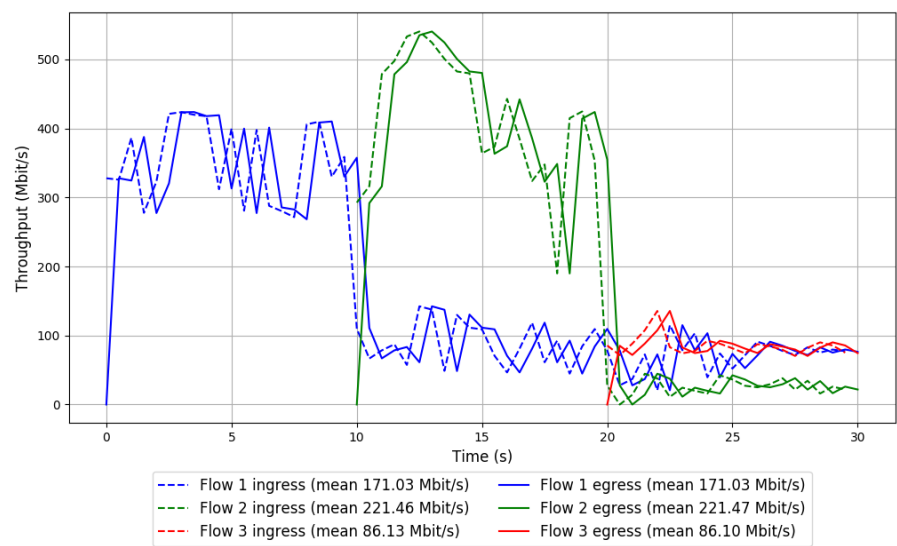
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-11-15 12:09:46
End at: 2018-11-15 12:10:16
Local clock offset: 4.278 ms
Remote clock offset: -0.176 ms


# Below is generated by plot.py at 2018-11-15 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 346.01 Mbit/s
95th percentile per-packet one-way delay: 2.434 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 171.03 Mbit/s
95th percentile per-packet one-way delay: 2.655 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 221.47 Mbit/s
95th percentile per-packet one-way delay: 1.600 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 86.10 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 0.04%
```
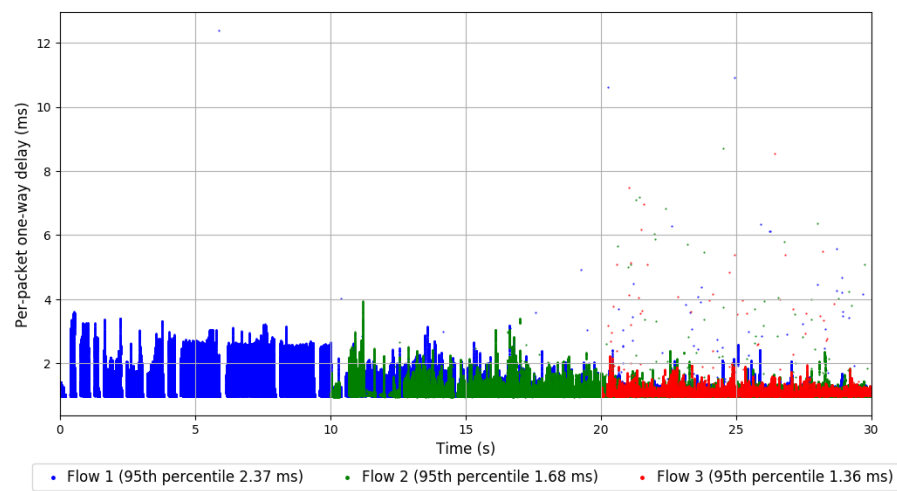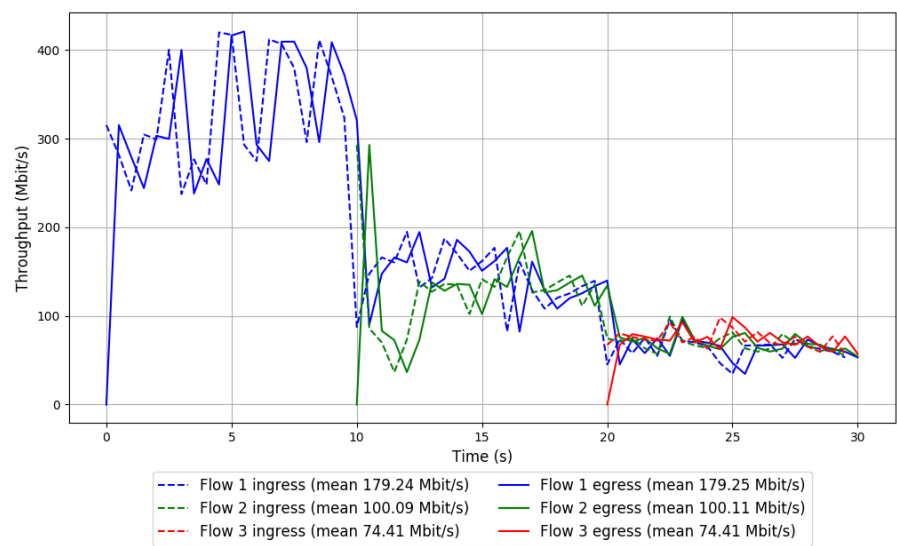
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 171.03 Mbit/s) --- Flow 1 egress (mean 171.03 Mbit/s)
Flow 2 ingress (mean 221.46 Mbit/s) --- Flow 2 egress (mean 221.47 Mbit/s)
Flow 3 ingress (mean 86.13 Mbit/s) --- Flow 3 egress (mean 86.10 Mbit/s)

Flow 1 (95th percentile 2.65 ms)   Flow 2 (95th percentile 1.60 ms)   Flow 3 (95th percentile 1.45 ms)

```
Run 4: Statistics of Verus

Start at: 2018-11-15 12:37:34
End at: 2018-11-15 12:38:04
Local clock offset: 3.872 ms
Remote clock offset: -0.327 ms


# Below is generated by plot.py at 2018-11-15 14:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 270.62 Mbit/s
95th percentile per-packet one-way delay: 2.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 179.25 Mbit/s
95th percentile per-packet one-way delay: 2.371 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.11 Mbit/s
95th percentile per-packet one-way delay: 1.677 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 74.41 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.00%
```
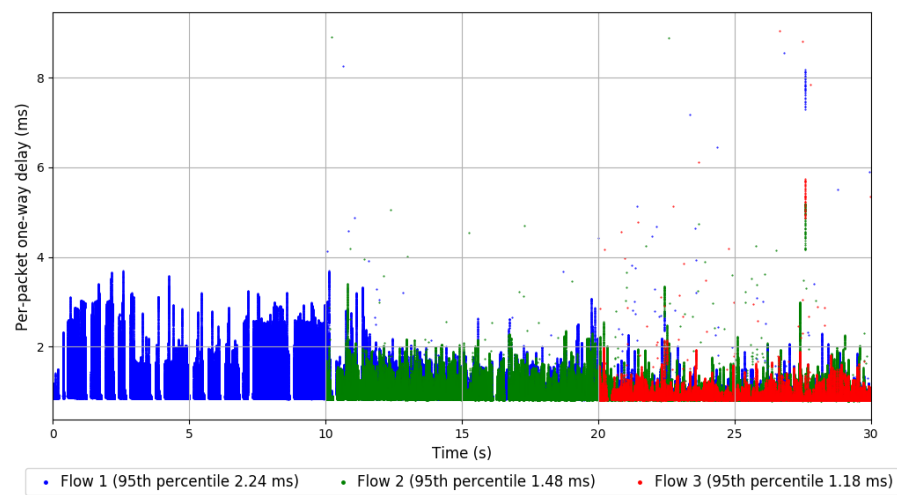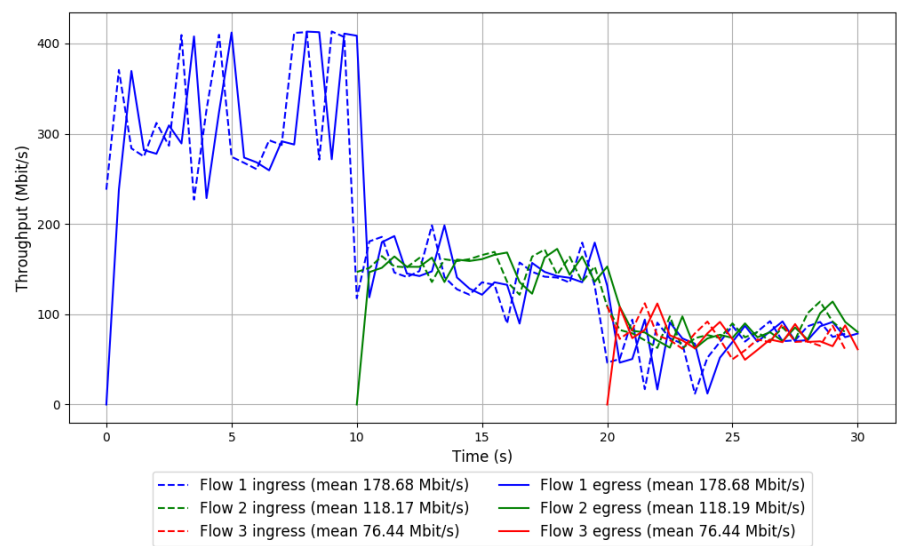
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-11-15 13:05:27
End at: 2018-11-15 13:05:57
Local clock offset: 3.86 ms
Remote clock offset: -4.389 ms


# Below is generated by plot.py at 2018-11-15 14:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 282.77 Mbit/s
95th percentile per-packet one-way delay: 2.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.68 Mbit/s
95th percentile per-packet one-way delay: 2.237 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 118.19 Mbit/s
95th percentile per-packet one-way delay: 1.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.44 Mbit/s
95th percentile per-packet one-way delay: 1.184 ms
Loss rate: 0.00%
```
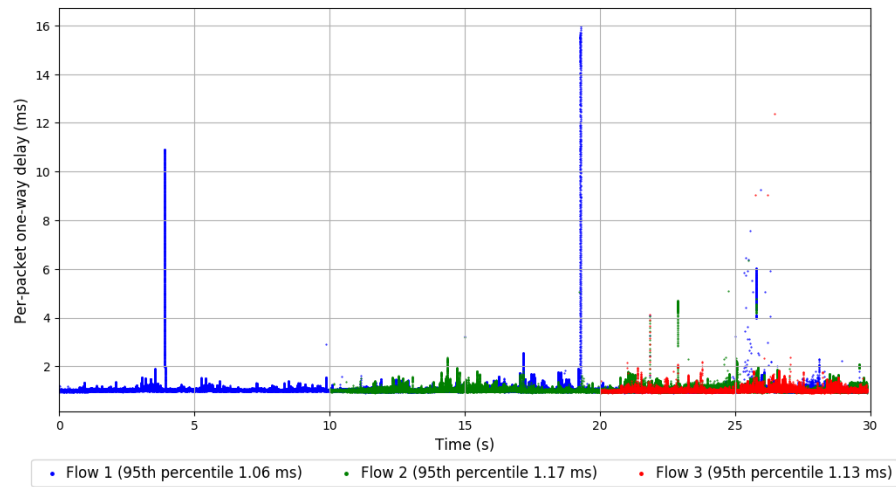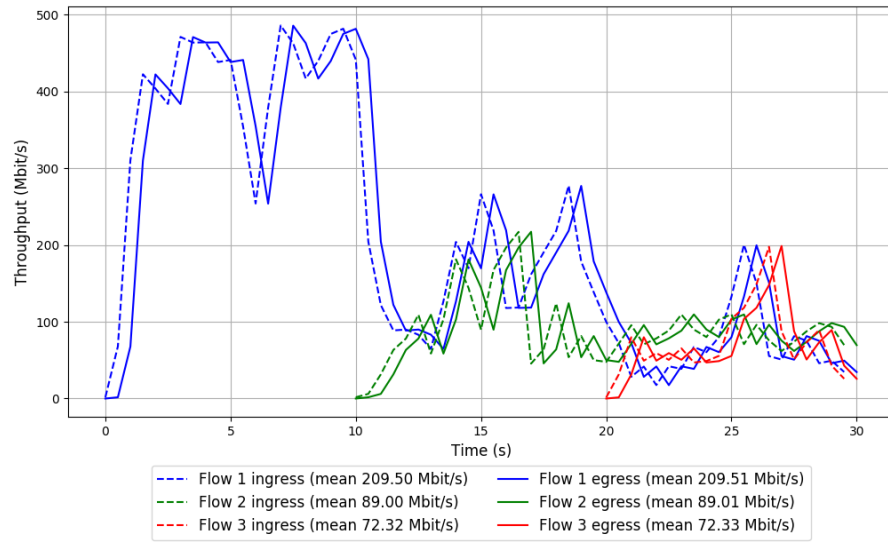
Run 5: Report of Verus — Data Link

- - - Flow 1 ingress (mean 178.68 Mbit/s) ——— Flow 1 egress (mean 178.68 Mbit/s)
- - - Flow 2 ingress (mean 118.17 Mbit/s) ——— Flow 2 egress (mean 118.19 Mbit/s)
- - - Flow 3 ingress (mean 76.44 Mbit/s) ——— Flow 3 egress (mean 76.44 Mbit/s)

- Flow 1 (95th percentile 2.24 ms)   - Flow 2 (95th percentile 1.48 ms)   - Flow 3 (95th percentile 1.18 ms)

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```
Run 1: Statistics of PCC-Vivace

Start at: 2018-11-15 11:26:15
End at: 2018-11-15 11:26:45
Local clock offset: 3.984 ms
Remote clock offset: 3.596 ms


# Below is generated by plot.py at 2018-11-15 14:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.57 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.51 Mbit/s
95th percentile per-packet one-way delay: 1.059 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 89.01 Mbit/s
95th percentile per-packet one-way delay: 1.169 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 72.33 Mbit/s
95th percentile per-packet one-way delay: 1.130 ms
Loss rate: 0.01%
```
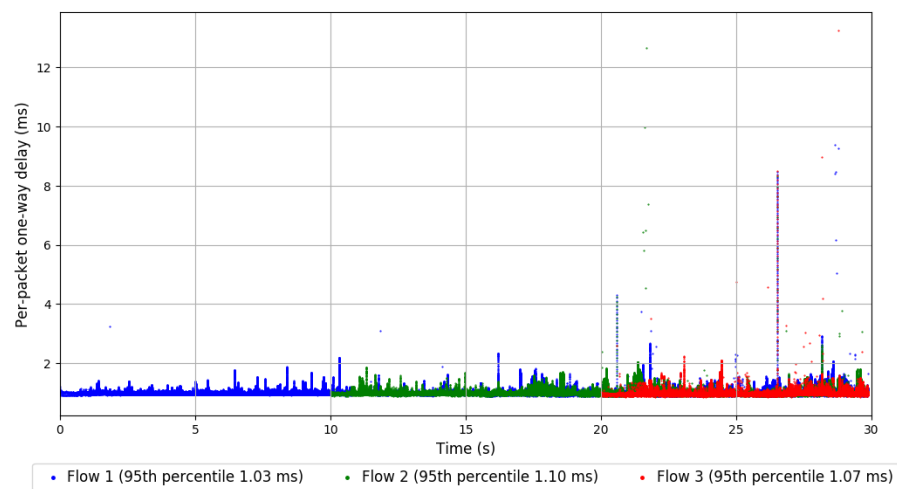
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-11-15 11:54:02
End at: 2018-11-15 11:54:32
Local clock offset: 4.569 ms
Remote clock offset: 0.111 ms


# Below is generated by plot.py at 2018-11-15 14:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.49 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 197.02 Mbit/s
95th percentile per-packet one-way delay: 1.028 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 103.34 Mbit/s
95th percentile per-packet one-way delay: 1.104 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 77.94 Mbit/s
95th percentile per-packet one-way delay: 1.074 ms
Loss rate: 0.01%
```
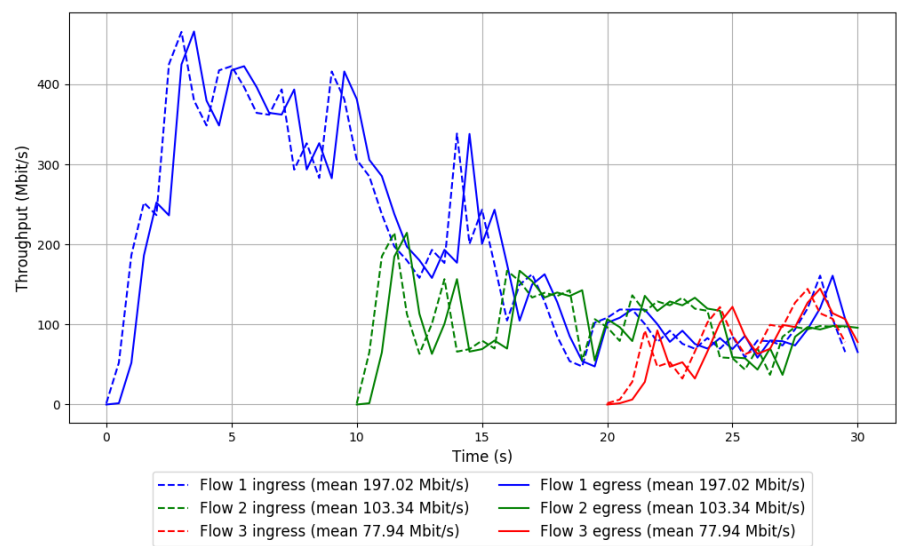
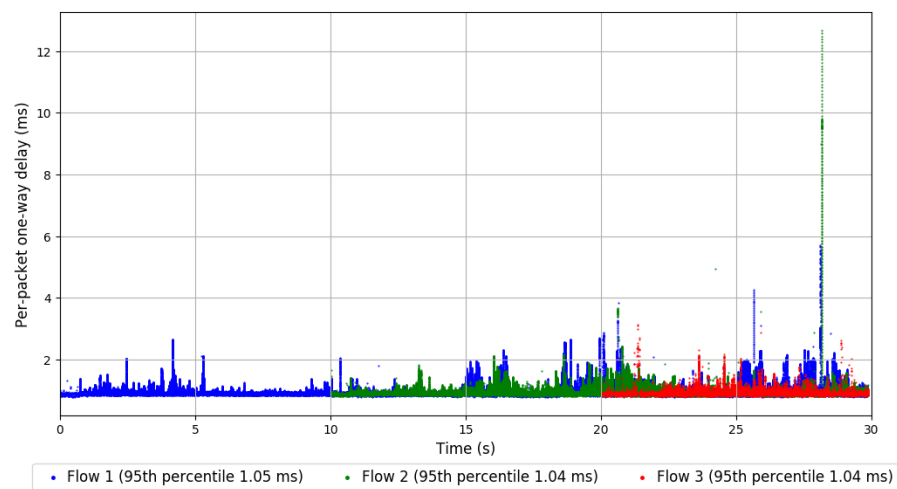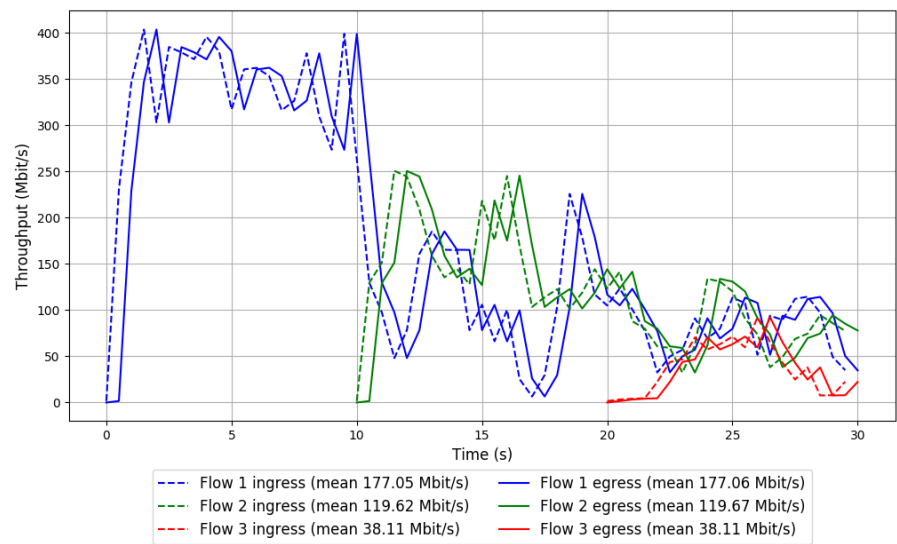Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-11-15 12:21:50
End at: 2018-11-15 12:22:20
Local clock offset: 4.172 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2018-11-15 14:24:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.20 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 177.06 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.67 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.03%
```

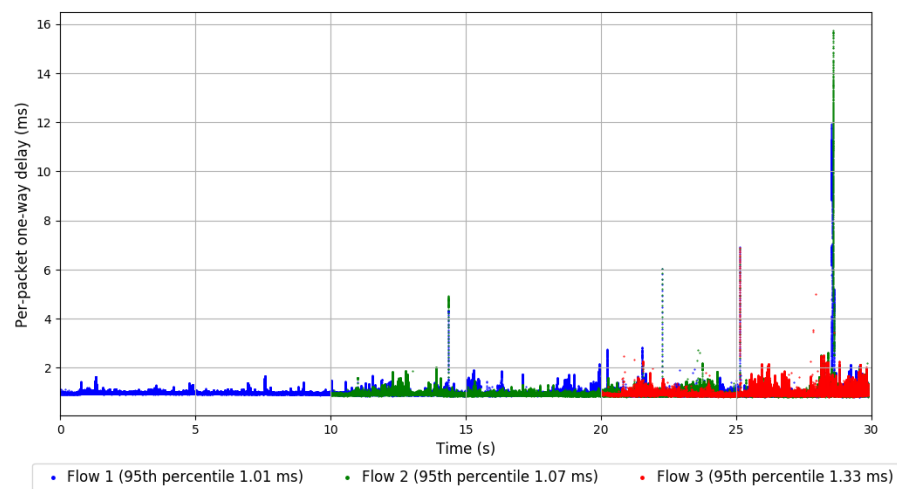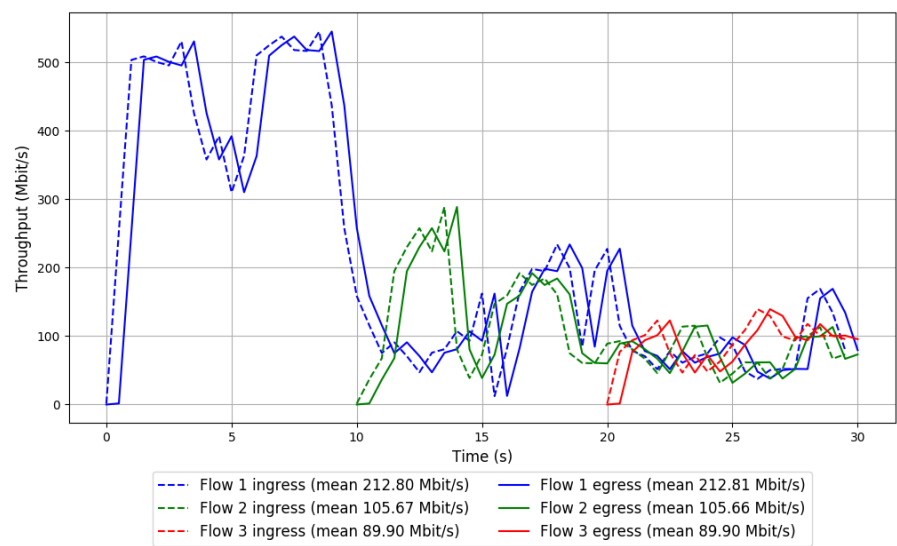## Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-11-15 12:49:40
End at: 2018-11-15 12:50:10
Local clock offset: 3.716 ms
Remote clock offset: -2.733 ms


# Below is generated by plot.py at 2018-11-15 14:24:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.73 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 212.81 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 105.66 Mbit/s
95th percentile per-packet one-way delay: 1.068 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 89.90 Mbit/s
95th percentile per-packet one-way delay: 1.334 ms
Loss rate: 0.02%
```

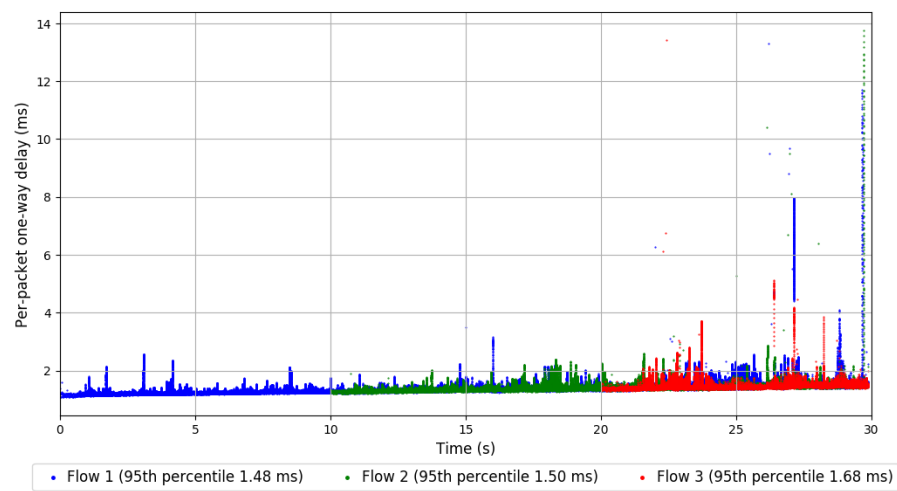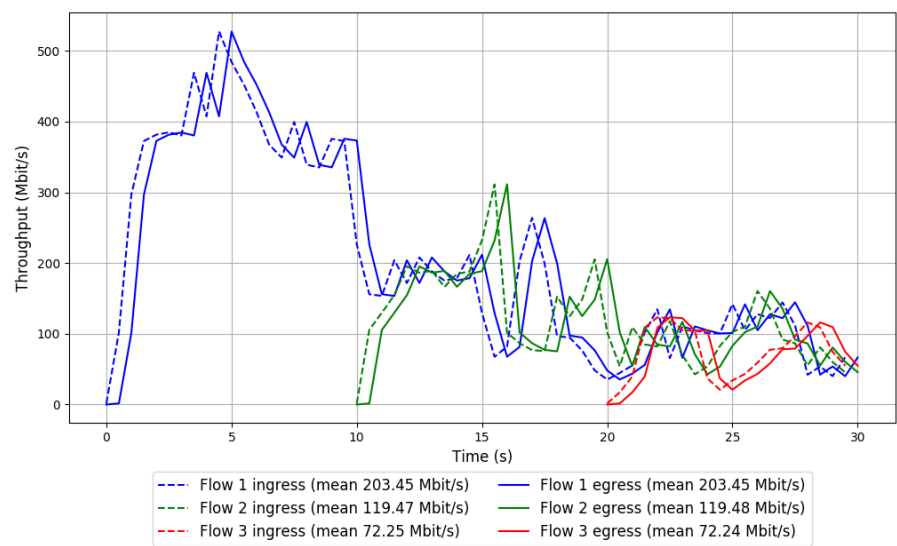Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-11-15 13:17:27
End at: 2018-11-15 13:17:57
Local clock offset: 3.971 ms
Remote clock offset: -2.317 ms


# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.72 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 203.45 Mbit/s
95th percentile per-packet one-way delay: 1.480 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.48 Mbit/s
95th percentile per-packet one-way delay: 1.502 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 72.24 Mbit/s
95th percentile per-packet one-way delay: 1.678 ms
Loss rate: 0.02%
```

Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-11-15 11:24:57
End at: 2018-11-15 11:25:27
Local clock offset: 3.997 ms
Remote clock offset: 3.625 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 1.042 ms
Loss rate: 0.00%
```
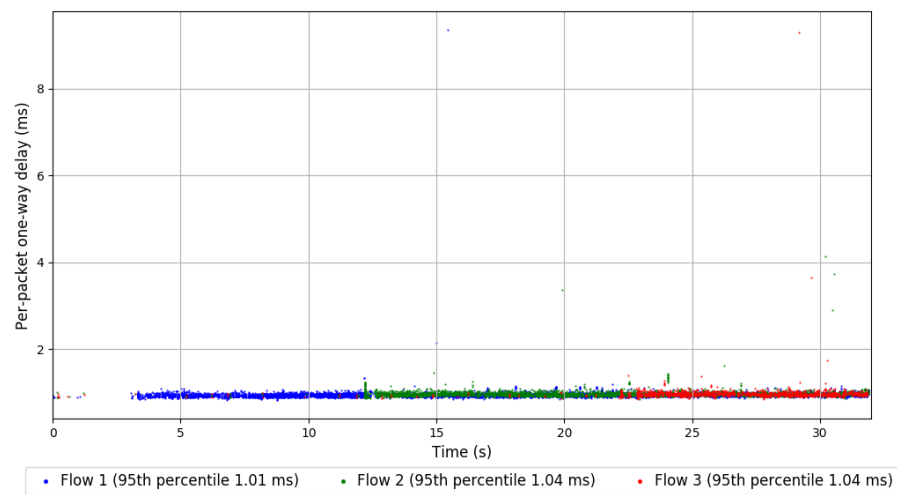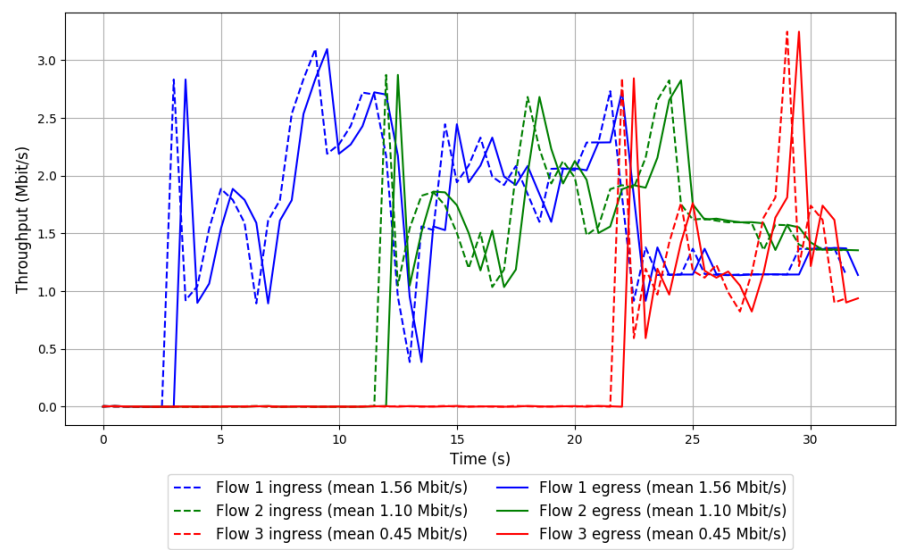
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-11-15 11:52:43
End at: 2018-11-15 11:53:13
Local clock offset: 4.564 ms
Remote clock offset: 0.246 ms

# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 0.983 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 0.984 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 0.975 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.00%
```
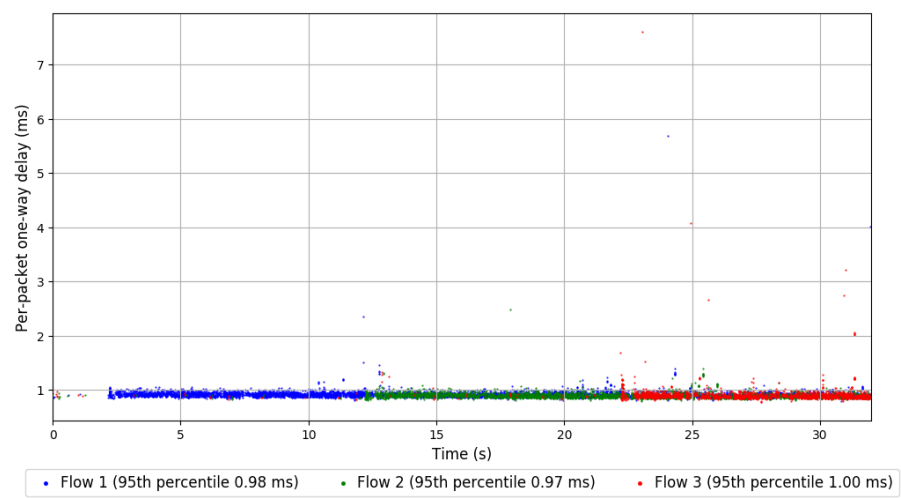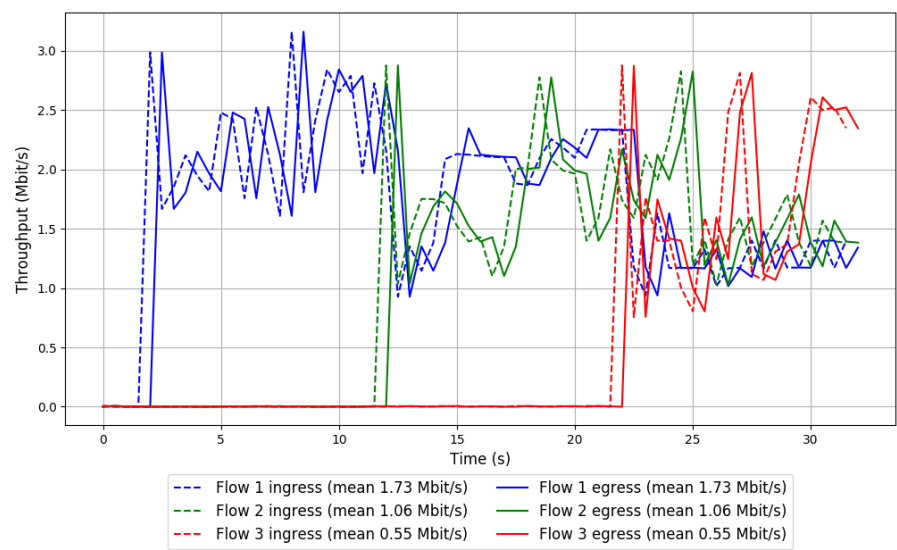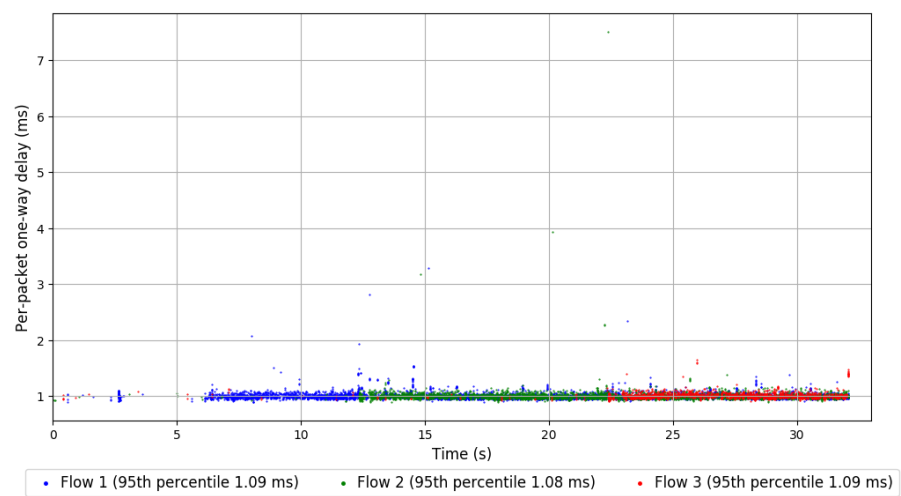
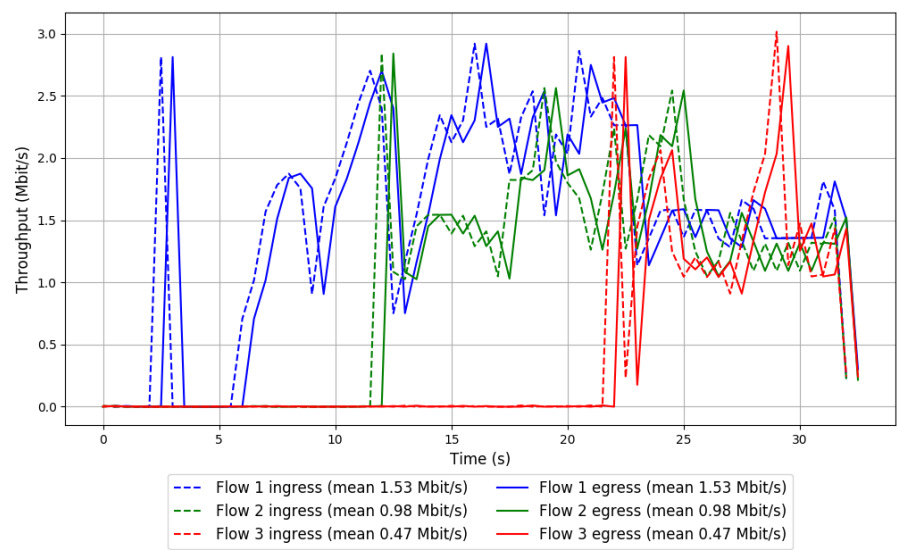Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-11-15 12:20:31
End at: 2018-11-15 12:21:01
Local clock offset: 4.188 ms
Remote clock offset: -0.187 ms


# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 1.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 1.078 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 1.089 ms
Loss rate: 0.00%
```

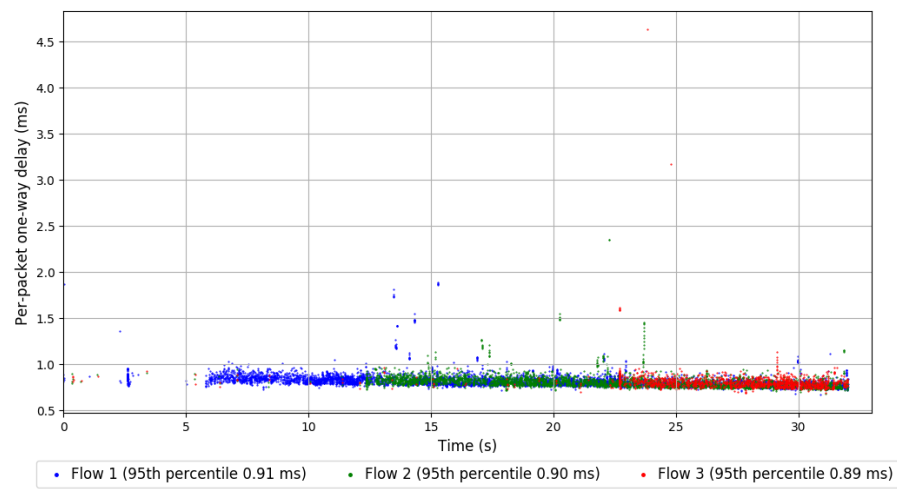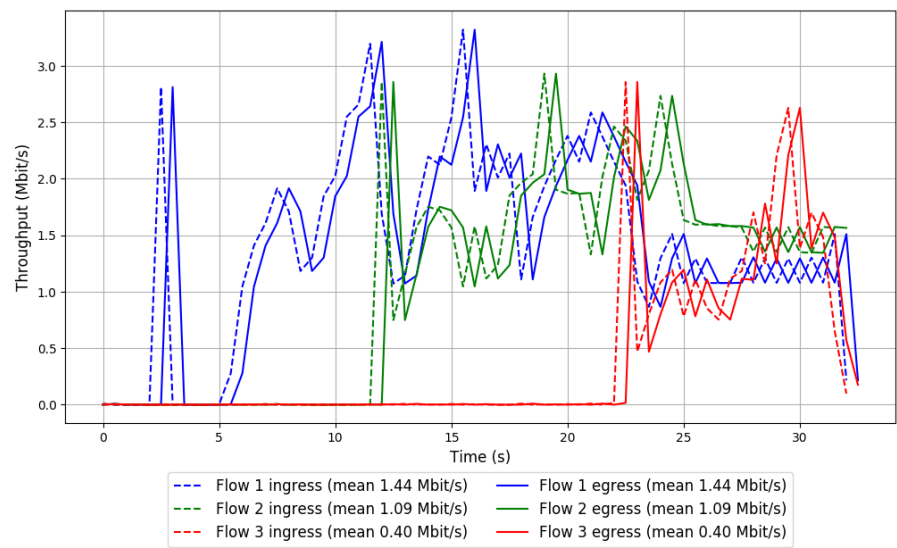Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-11-15 12:48:21
End at: 2018-11-15 12:48:51
Local clock offset: 3.735 ms
Remote clock offset: -2.372 ms


# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 0.904 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 0.911 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 0.899 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 0.888 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-11-15 13:16:08
End at: 2018-11-15 13:16:38
Local clock offset: 3.933 ms
Remote clock offset: -3.226 ms


# Below is generated by plot.py at 2018-11-15 14:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 1.486 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 1.462 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 1.500 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 1.517 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link