



PingPair — LAN Characterization Report

Run ID	PingPair-sample-report
Started	2026-06-09 14:30:00
Finished	2026-06-09 14:45:50
Duration	15m 50s
Server IP	192.168.1.1
Client IP	192.168.1.2
Protocol	UDP
Cases ok	20 / 20
fping	5.5
iperf3	3.21
PingPair	0.1.0
Technician	Demo User
Customer / Site	Example Co. (sample report)
Test environment	Two laptops · Cat6 · point-to-point
Test record ID	SAMPLE-001
Cable length (m)	15.0

Performance Metrics

Steady-state network with no external simulated or video traffic. QoS: COS set to 0.

Payload (Bytes)	Bandwidth Pushed (Mbps)	Throughput Received (Mbps)	Jitter (ms)	Packet Loss (%)	Min Latency (ms)	Avg Latency (ms)	Max Latency (ms)
200	10	9.90	0.105	0.000	0.13	0.96	2.60

Payload (Bytes)	Bandwidth Pushed (Mbps)	Throughput Received (Mbps)	Jitter (ms)	Packet Loss (%)	Min Latency (ms)	Avg Latency (ms)	Max Latency (ms)
200	30	29.70	0.235	0.000	0.15	1.08	3.11
200	50	49.20	0.365	0.070	0.17	1.20	3.62
200	70	68.00	0.495	0.540	0.18	1.32	4.13
200	90	85.50	0.625	1.770	0.20	1.44	4.64
600	10	10.00	0.125	0.000	0.13	1.01	2.73
600	30	29.80	0.255	0.000	0.15	1.13	3.24
600	50	49.50	0.385	0.060	0.17	1.25	3.75
600	70	68.30	0.515	0.500	0.18	1.37	4.26
600	90	85.90	0.645	1.610	0.20	1.49	4.77
1000	10	10.00	0.145	0.000	0.13	1.06	2.86
1000	30	29.90	0.275	0.000	0.15	1.18	3.37
1000	50	49.60	0.405	0.060	0.17	1.30	3.88
1000	70	68.60	0.535	0.450	0.18	1.42	4.39
1000	90	86.20	0.665	1.460	0.20	1.54	4.90
1300	10	10.00	0.165	0.000	0.13	1.11	2.99
1300	30	30.00	0.295	0.000	0.15	1.23	3.50
1300	50	49.90	0.425	0.050	0.17	1.35	4.01
1300	70	68.90	0.555	0.400	0.18	1.47	4.52
1300	90	86.60	0.685	1.300	0.20	1.59	5.03

Per-case detail

Case #01 — payload 200 B, bandwidth 10 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	9.900 Mbps
Jitter	0.105 ms
Loss	0.000 %
Min / Avg / Max latency	0.13 / 0.96 / 2.60 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 200 -b 10M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #02 — payload 200 B, bandwidth 30 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	29.700 Mbps
Jitter	0.235 ms
Loss	0.000 %
Min / Avg / Max latency	0.15 / 1.08 / 3.11 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 200 -b 30M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #03 — payload 200 B, bandwidth 50 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	49.200 Mbps
Jitter	0.365 ms
Loss	0.070 %
Min / Avg / Max latency	0.17 / 1.20 / 3.62 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 200 -b 50M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #04 — payload 200 B, bandwidth 70 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	68.000 Mbps
Jitter	0.495 ms
Loss	0.540 %
Min / Avg / Max latency	0.18 / 1.32 / 4.13 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 200 -b 70M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #05 — payload 200 B, bandwidth 90 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	85.500 Mbps
Jitter	0.625 ms
Loss	1.770 %
Min / Avg / Max latency	0.20 / 1.44 / 4.64 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 200 -b 90M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #06 — payload 600 B, bandwidth 10 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	10.000 Mbps
Jitter	0.125 ms
Loss	0.000 %
Min / Avg / Max latency	0.13 / 1.01 / 2.73 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 600 -b 10M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #07 — payload 600 B, bandwidth 30 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	29.800 Mbps
Jitter	0.255 ms
Loss	0.000 %
Min / Avg / Max latency	0.15 / 1.13 / 3.24 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 600 -b 30M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #08 — payload 600 B, bandwidth 50 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	49.500 Mbps
Jitter	0.385 ms
Loss	0.060 %
Min / Avg / Max latency	0.17 / 1.25 / 3.75 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 600 -b 50M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #09 — payload 600 B, bandwidth 70 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	68.300 Mbps
Jitter	0.515 ms
Loss	0.500 %
Min / Avg / Max latency	0.18 / 1.37 / 4.26 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 600 -b 70M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #10 — payload 600 B, bandwidth 90 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	85.900 Mbps
Jitter	0.645 ms
Loss	1.610 %
Min / Avg / Max latency	0.20 / 1.49 / 4.77 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 600 -b 90M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #11 — payload 1000 B, bandwidth 10 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	10.000 Mbps
Jitter	0.145 ms
Loss	0.000 %
Min / Avg / Max latency	0.13 / 1.06 / 2.86 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1000 -b 10M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #12 — payload 1000 B, bandwidth 30 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	29.900 Mbps
Jitter	0.275 ms
Loss	0.000 %
Min / Avg / Max latency	0.15 / 1.18 / 3.37 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1000 -b 30M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #13 — payload 1000 B, bandwidth 50 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	49.600 Mbps
Jitter	0.405 ms
Loss	0.060 %
Min / Avg / Max latency	0.17 / 1.30 / 3.88 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1000 -b 50M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #14 — payload 1000 B, bandwidth 70 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	68.600 Mbps
Jitter	0.535 ms
Loss	0.450 %
Min / Avg / Max latency	0.18 / 1.42 / 4.39 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1000 -b 70M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #15 — payload 1000 B, bandwidth 90 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	86.200 Mbps
Jitter	0.665 ms
Loss	1.460 %
Min / Avg / Max latency	0.20 / 1.54 / 4.90 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1000 -b 90M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #16 — payload 1300 B, bandwidth 10 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	10.000 Mbps
Jitter	0.165 ms
Loss	0.000 %
Min / Avg / Max latency	0.13 / 1.11 / 2.99 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1300 -b 10M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #17 — payload 1300 B, bandwidth 30 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	30.000 Mbps
Jitter	0.295 ms
Loss	0.000 %
Min / Avg / Max latency	0.15 / 1.23 / 3.50 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1300 -b 30M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #18 — payload 1300 B, bandwidth 50 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	49.900 Mbps
Jitter	0.425 ms
Loss	0.050 %
Min / Avg / Max latency	0.17 / 1.35 / 4.01 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1300 -b 50M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #19 — payload 1300 B, bandwidth 70 Mbps

Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	68.900 Mbps
Jitter	0.555 ms
Loss	0.400 %
Min / Avg / Max latency	0.18 / 1.47 / 4.52 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1300 -b 70M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Case #20 — payload 1300 B, bandwidth 90 Mbps

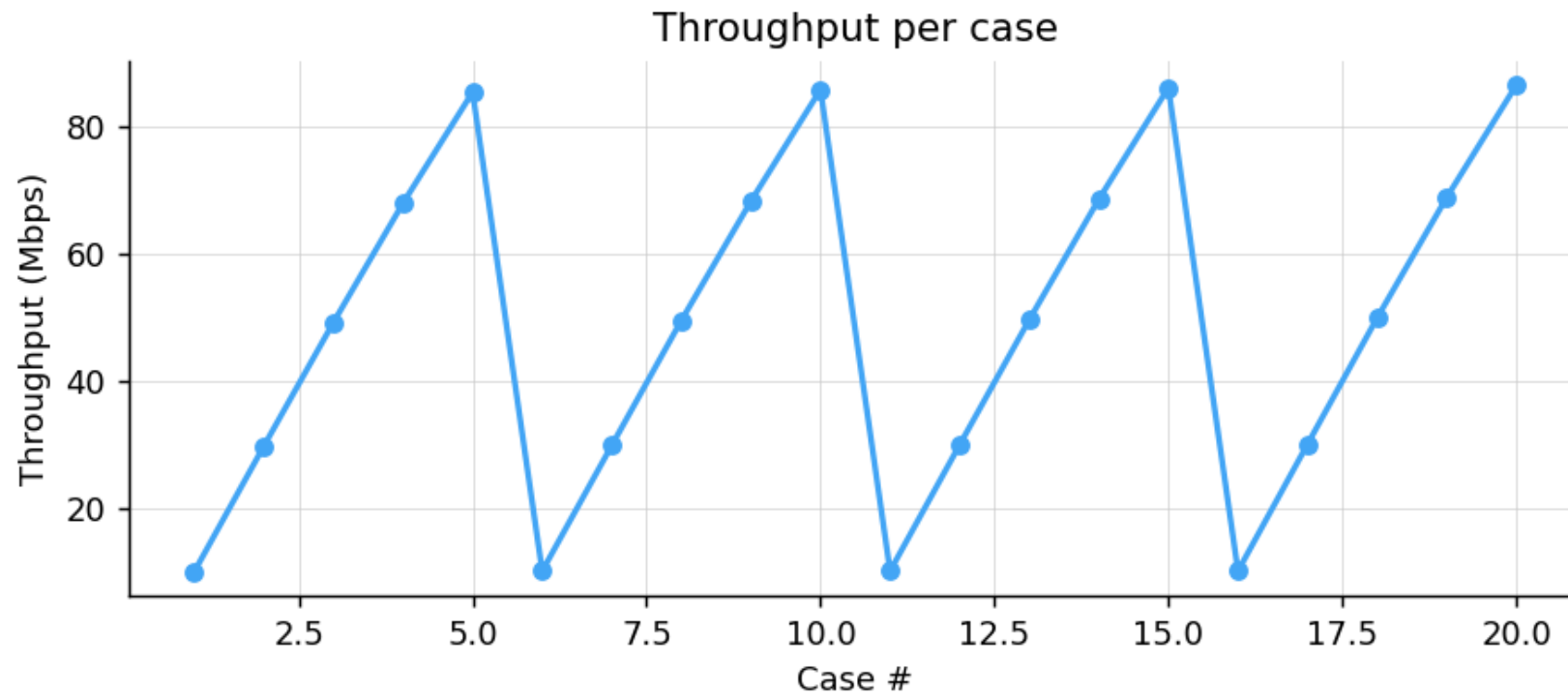
Status	ok
Error	—
iperf3 client rc	0
iperf3 server rc	—
fping rc	0
Throughput	86.600 Mbps
Jitter	0.685 ms
Loss	1.300 %
Min / Avg / Max latency	0.20 / 1.59 / 5.03 ms
iperf3 client cmd	iperf3.exe -c 192.168.1.1 -B 192.168.1.2 -u -i 1 -t 30 -l 1300 -b 90M
iperf3 server cmd	iperf3.exe -s -i 1 -B 192.168.1.1 -1 --json
fping cmd	fping.exe 192.168.1.1 -S 192.168.1.2 -p 10 -c 3000 -s -D

Analysis appendix

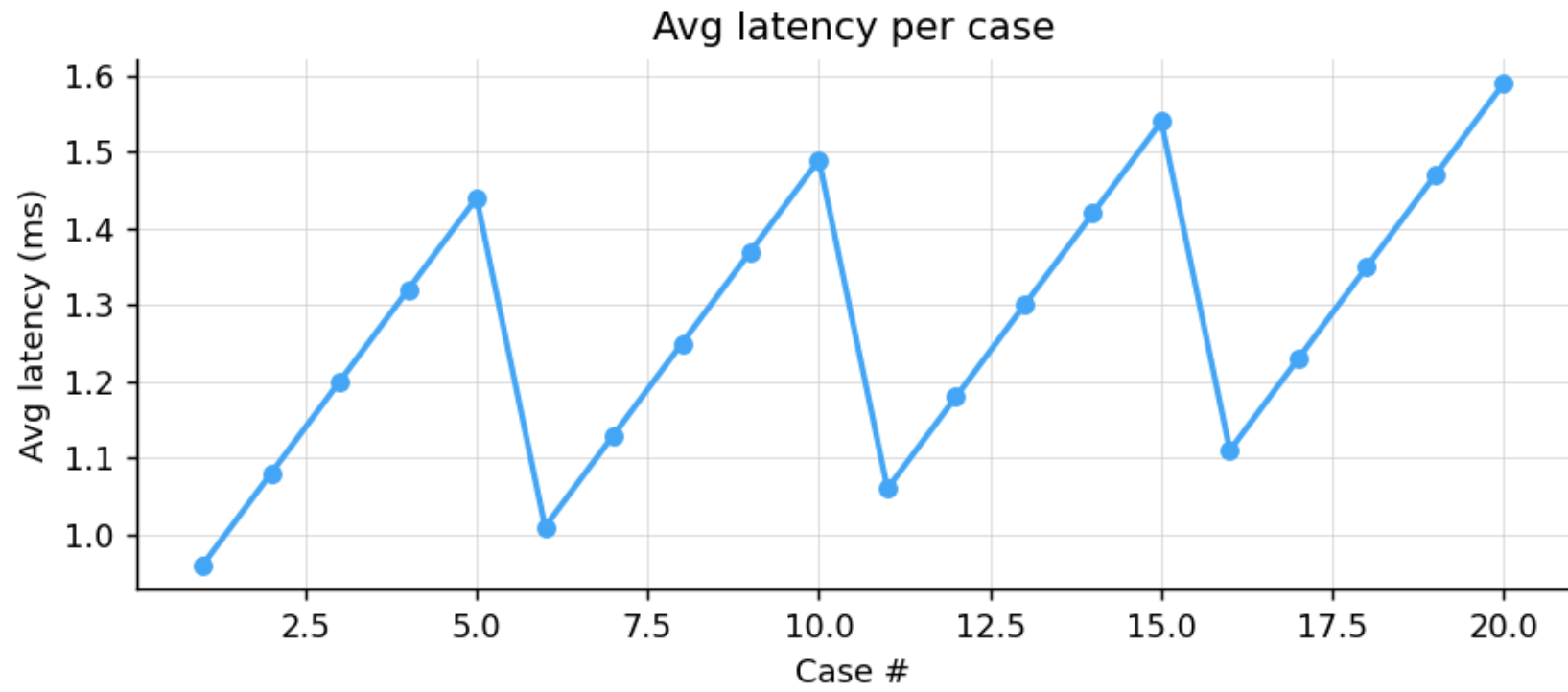
Per-metric stats and per-case charts for this run, plus per-payload and per-bandwidth breakdowns.

Metric	Samples	Min	Avg	Median	Max	Stdev
Throughput (Mbps)	20	9.90	48.77	49.55	86.60	26.99
Avg latency (ms)	20	0.96	1.27	1.27	1.59	0.18
Packet loss (%)	20	0.000	0.414	0.060	1.770	0.594
Jitter (ms)	20	0.105	0.395	0.395	0.685	0.185

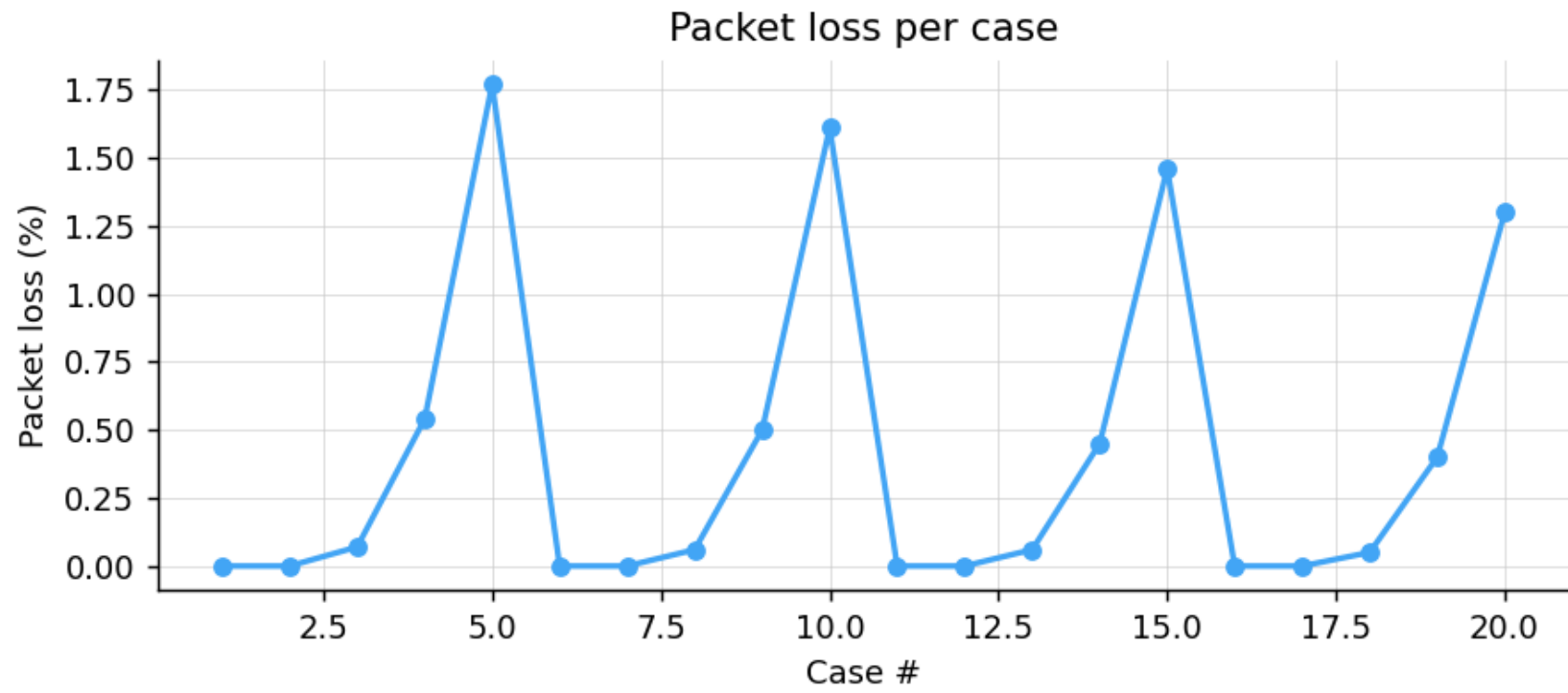
Throughput



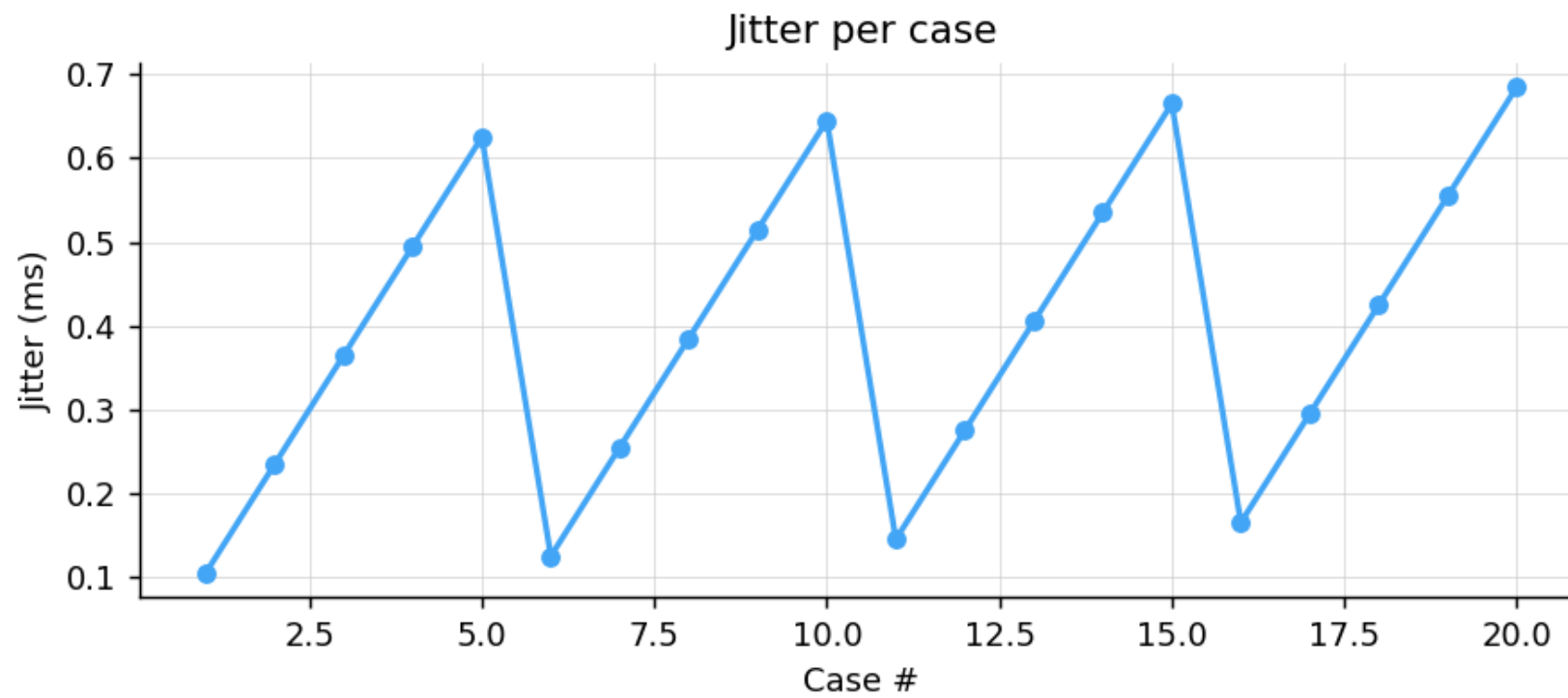
Avg latency



Packet loss



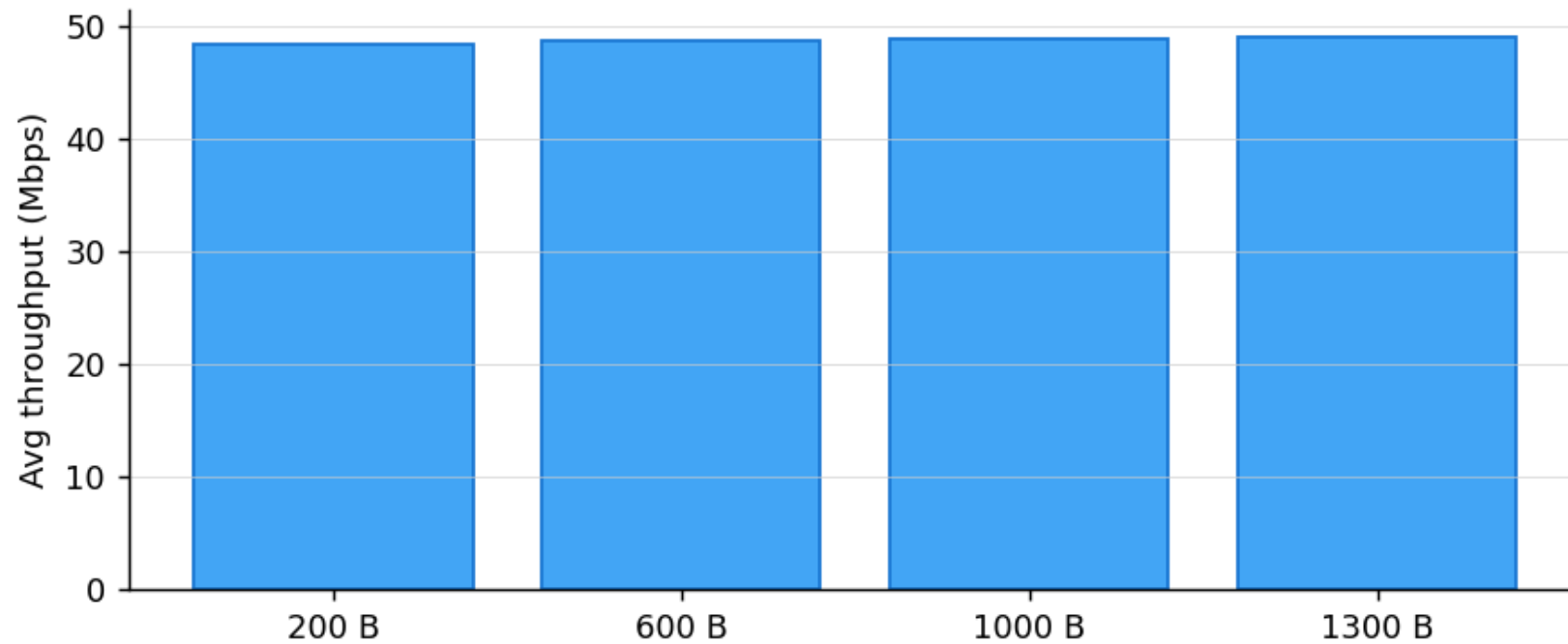
Jitter



Mean metrics by payload size

Bucket	Cases	Avg Throughput (Mbps)	Avg Avg (ms)	Avg Packet (%)	Avg Jitter (ms)
200 B	5	48.46	1.20	0.476	0.365
600 B	5	48.70	1.25	0.434	0.385
1000 B	5	48.86	1.30	0.394	0.405
1300 B	5	49.08	1.35	0.350	0.425

Mean throughput by payload size



Mean metrics by bandwidth

Bucket	Cases	Avg Throughput (Mbps)	Avg Avg (ms)	Avg Packet (%)	Avg Jitter (ms)
10 Mbps	4	9.97	1.04	0.000	0.135

Bucket	Cases	Avg Throughput (Mbps)	Avg Avg (ms)	Avg Packet (%)	Avg Jitter (ms)
30 Mbps	4	29.85	1.16	0.000	0.265
50 Mbps	4	49.55	1.27	0.060	0.395
70 Mbps	4	68.45	1.40	0.473	0.525
90 Mbps	4	86.05	1.52	1.535	0.655

Mean throughput by bandwidth

