Test Layer 3 Cross-Connect Traffic: test_l3.py

2025-09-05-18-36-34

Objective

The Layer 3 Traffic Generation Test is designed to test the performance of the Access Point by running layer 3 Cross-Connect Traffic. Layer-3 Cross-Connects represent a stream of data flowing through the system under test. A Cross-Connect (CX) is composed of two Endpoints, each of which is associated with a particular Port (physical or virtual interface).

Device Under Test Information

Device Under Test	DUT Name	
	DUT Hardware Version	
	DUT Software Version	
	DUT Serial Number	

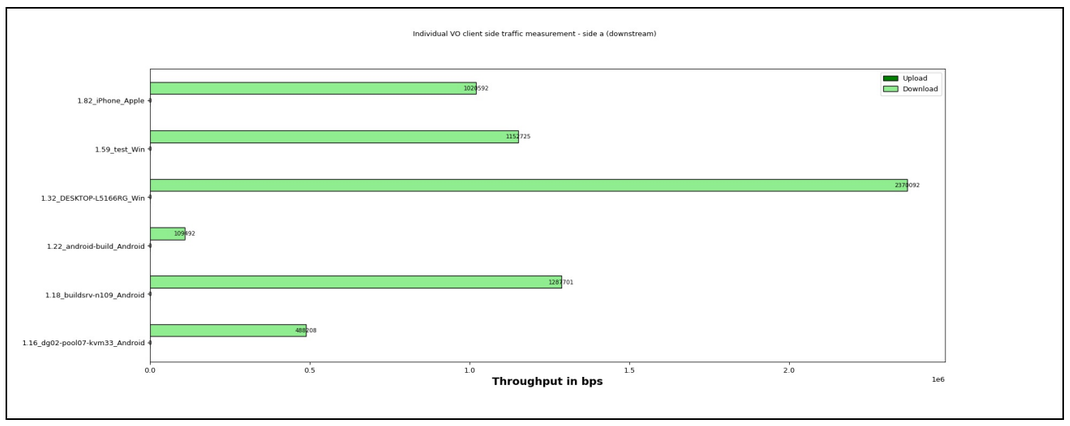
Test Configuration

Test Configuration	LANforge ip	192.168.214.107
	LANforge port	8080
	Upstream	eth3
	Test Duration	1m
	Polling Interval	1s
	Total No. of Devices	6

Radio Configuration

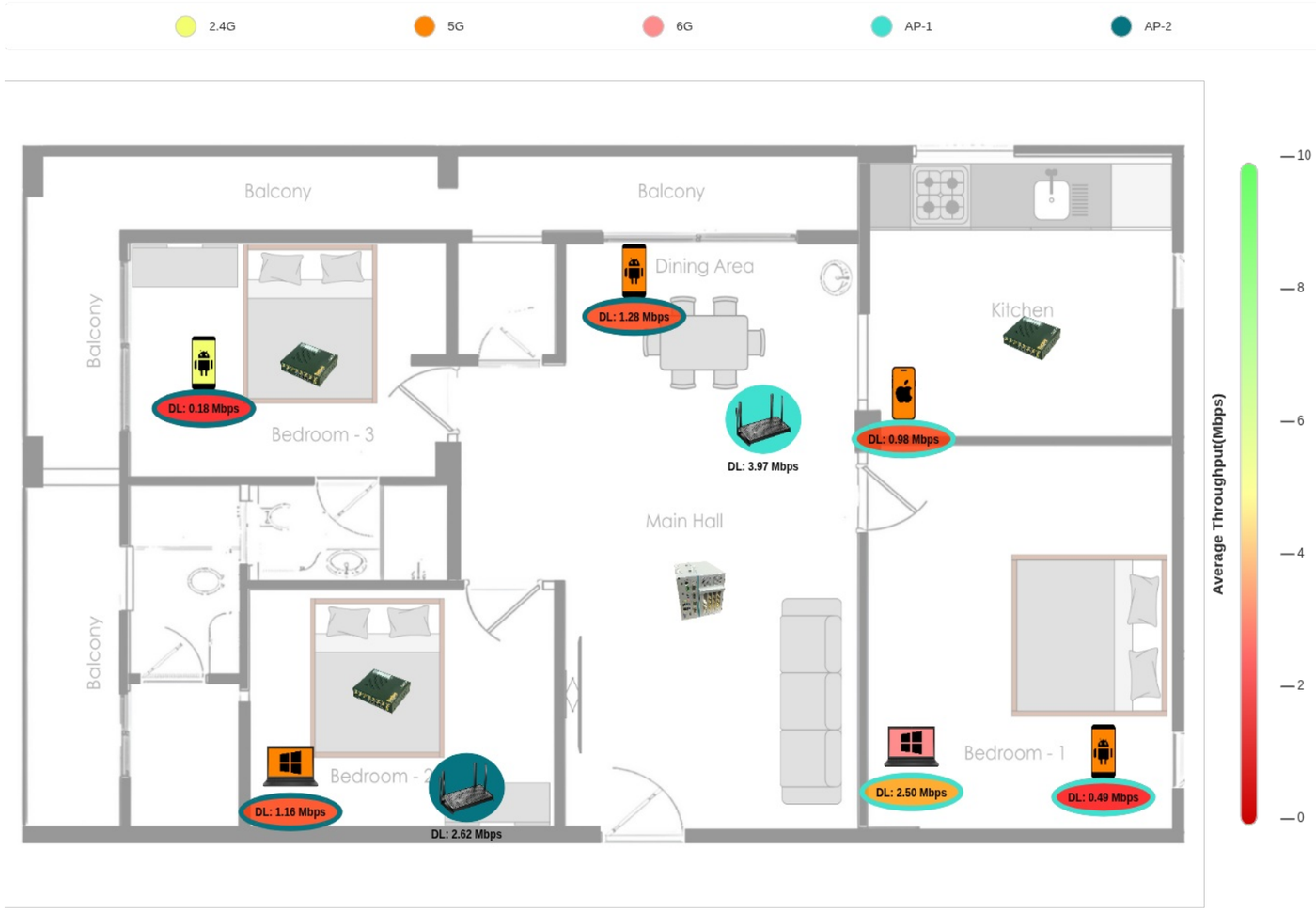
Individual throughput mcast download bps: 10000000 traffic VO (WiFi).

The below graph represents individual throughput for 6 clients running VO (WiFi) traffic. Y- axis shows “Client names“ and X-axis shows “Throughput in Mbps”.



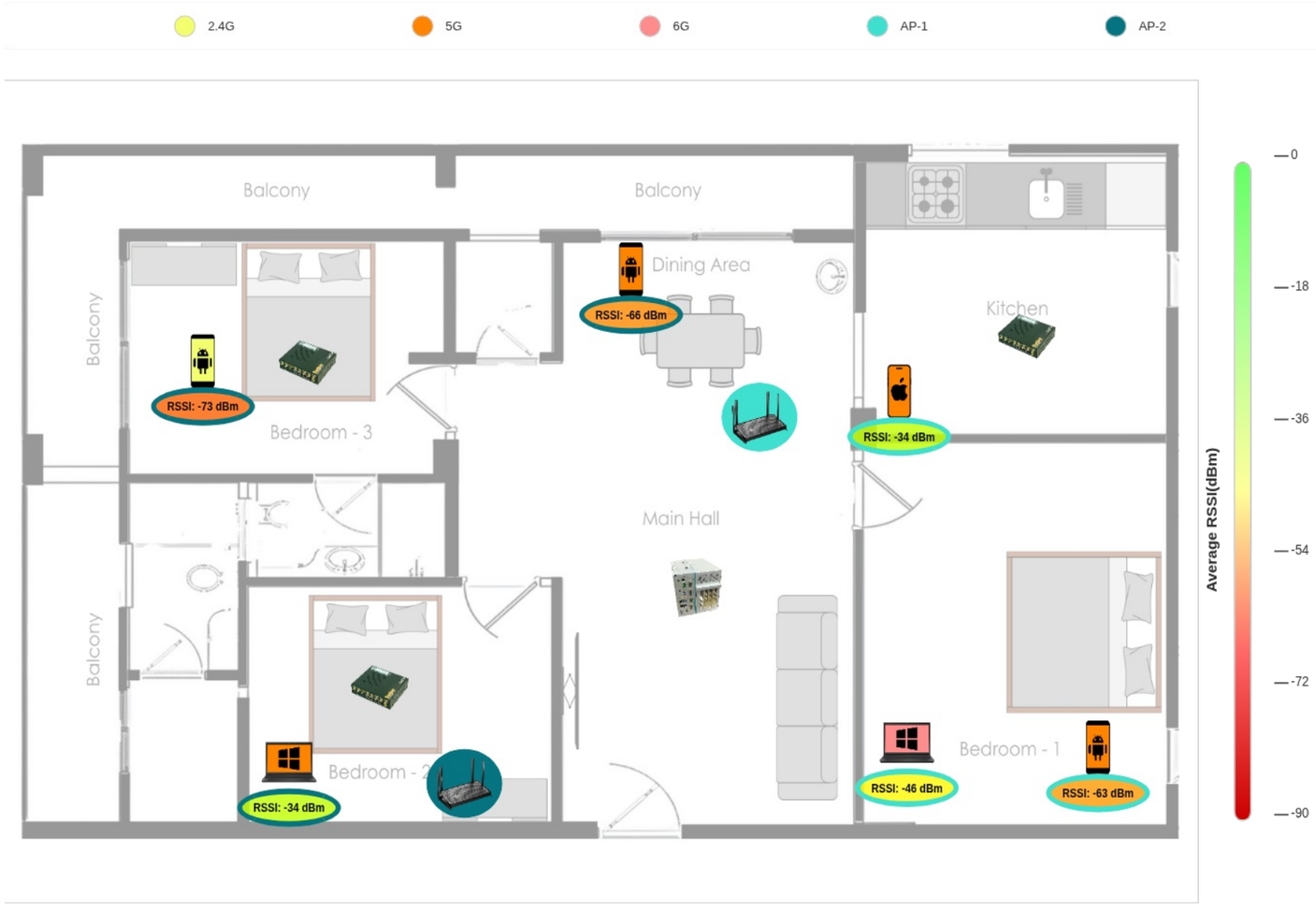
Achieved Average Download Throughput

Floor Name: floor1234



Achieved Average RSSI

Floor: floor1234

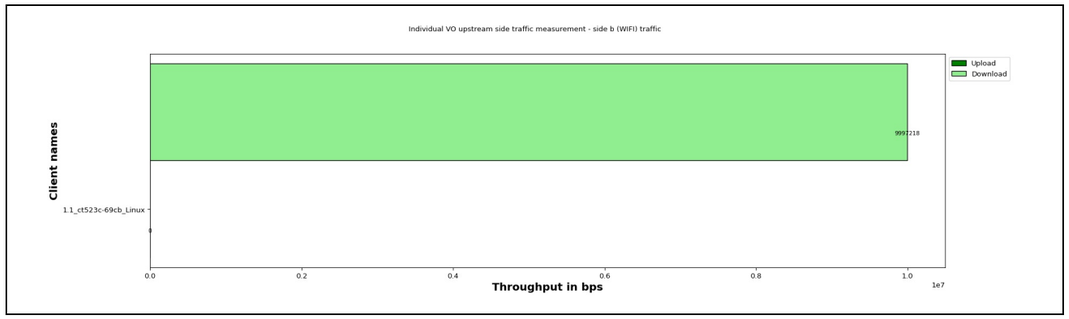


Client Alias	Host eid	Host Name	Device Type / Hw Ver	Endp Name	Port Name	Mode	Mac	SSID	Channel	Type of traffic	Traffic Protocol	Offered Upload Rate Per Client	Offered Download Rate Per Client	Upload Rate Per Client	Download Rate Per Client	Drop Percentage (%)
1.16_dg02-pool07-kvm33_Android	1.16	dg02-pool07-kvm33	OPPO CPH2641 r14 sdk: 34	MLT-mrx-VO-wlan0-5	1.16.wlan0	802.11abgn-AC 80	2e:68:2d:99:ac:d0	Testhouse	100	VO	Mcast	0	10000000	0	488208	0.0
1.18_buildsrv-n109_Android	1.18	buildsrv-n109	ITEL itel P661N r13 sdk: 33	MLT-mrx-VO-wlan0-3	1.18.wlan0	802.11abgn-AC 80	5a:f3:d2:a5:60:59	Testhouse	100	VO	Mcast	0	10000000	0	1287701	0.0
1.22_android-build_Android	1.22	android-build	TCL Smart TV r11 sdk: 30	MLT-mrx-VO-wlan0-4	1.22.wlan0	802.11abg 20	38:c8:04:58:cc:23	Testhouse	11	VO	Mcast	0	10000000	0	109492	0.0
1.32_DESKTOP-L5166RG_Win	1.32	DESKTOP-L5166RG	Win/x86 6.2	MLT-mrx-VO-wlan0-1	1.32.wlan0	802.11abgn-BE 20 1x1	70:15:fb:0f:e9:ac	Testhouse	307	VO	Mcast	0	10000000	0	2370092	0.0
				MLT-												

1.59_test_Win	1.59	test	Win/x86 6.2	mrx-VO-wlan0-2	1.59.wlan0	802.11abgn-AC 20 1x1	64:5d:86:28:c3:87	Testhouse	100	VO	Mcast	0	10000000	0	1152725	0.0
1.82_iPhone_Apple	1.82	iPhone	Apple/x86-64	MLT-mrx-VO-en0-6	1.82.en0	AUTO 80	a6:40:a9:43:81:af	Testhouse	100	VO	Mcast	0	10000000	0	1020592	0.0

Individual throughput upstream endp, offered upload bps: 0 offered download bps: 10000000 /station for traffic VO (WiFi).

The below graph represents individual throughput for 1 clients running VO (WiFi) traffic. Y- axis shows “Client names“ and X-axis shows “Throughput in Mbps”.



Client Alias	Host eid	Host Name	Device Type / HW Ver	Endp Name	Port Name	Mode	Mac	SSID	Channel	Type of traffic	Traffic Protocol	Offered Upload Rate Per Client	Offered Download Rate Per Client	Upload Rate Per Client	Download Rate Per Client	Drop Percentage (%)
1.1_ct523c-69cb_Linux	1.1	ct523c-69cb	Linux/x86-64	MLT-mtx-VO-eth3-0	1.1.eth3		90:e3:ba:01:3a:4b		[channel: 3]	VO	Mcast	0	10000000	0	9997218	0.0

Layer 3 Cx Traffic Last Reporting Interval eth3

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	eth3	163135	6584901	5 Gbps	5 Gbps	NaN	NaN	NaN	90:e3:ba:01:3a:4b	[channel: 3]	0	0	0	0	0	0	0	0	0	0

Layer 3 Cx Traffic Last Reporting Interval 1.32.wlan0

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	1.32.wlan0	360656587	360957396	5.189 Gbps	5188 Mbps	-46 dBm	18:A9:ED:33:68:48	802.11abgn-BE 20 1x1	70:15:fb:0f:e9:ac	307	-29	1	2372838	2404230	12484	0.0	0	0	0	0

Layer 3 Cx Traffic Last Reporting Interval 1.59.wlan0

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	1.59.wlan0	361934813	362115330	866.7 Mbps	866 Mbps	-34 dBm	18:A9:ED:2F:1B:07	802.11abgn-AC 20 1x1	64:5d:86:28:c3:87	100	4347	3	1153919	1188082	6091	0.0	0	0	0	0

Layer 3 Cx Traffic Last Reporting Interval 1.18.wlan0

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	1.18.wlan0	1288701	20861	292 Mbps	292 Mbps	-66	18:A9:ED:2F:1B:07	802.11abgn-AC 80	5a:f3:d2:a5:60:59	100	4995	0	1285985	1323631	6884	0.0	0	0	0	0

Layer 3 Cx Traffic Last Reporting Interval 1.22.wlan0

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	1.22.wlan0	0	0	39 Mbps	39 Mbps	-71	18:A9:ED:2F:1B:06	802.11abg 20	38:c8:04:58:cc:23	11	4465	0	116570	120632	585	0.0	0	0	0	0

Layer 3 Cx Traffic Last Reporting Interval 1.16.wlan0

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	1.16.wlan0	496364	24390	433 Mbps	433 Mbps	-63	18:A9:ED:33:68:47	802.11abgn-AC 80	2e:68:2d:99:ac:d0	100	5216	0	491917	507203	2475	0.0	0	0	0	0

Layer 3 Cx Traffic Last Reporting Interval 1.82.en0

Time epoch	Time	Total-Station-Count	UL-Min-Requested	UL-Max-Requested	DL-Min-Requested	DL-Max-Requested	UL-Min-PDU	UL-Max-PDU	DL-Min-PDU	DL-Max-PDU	Attenuation	Name	Rx-Bps	Tx-Bps	Rx-Link-Rate	Tx-Link-Rate	RSSI	AP	Mode	MAC	Channel	Rx-Latency	Rx-Jitter	Ul-Rx-Goodput-bps	Ul-Rx-Rate-ll	Ul-Rx-Pkts-ll	Ul-Rx-Drop_Percent	Dl-Rx-Goodput-bps	Dl-Rx-Rate-ll	Dl-Rx-Pkts-ll	DL-Rx-Drop-Percent
1757077672	09_05_2025_18_37_52	12	0	0	10000000	10000000	MTU	MTU	MTU	MTU	-1	1.82.en0	0	0	1.081 Gbps	1200.9	-34 dBm	18:A9:ED:33:68:47	AUTO 80	a6:40:a9:43:81:af	100	4967	7	1020592	1052211	5470	0.0	0	0	0	0