# Report for: Wifi Capacity Test

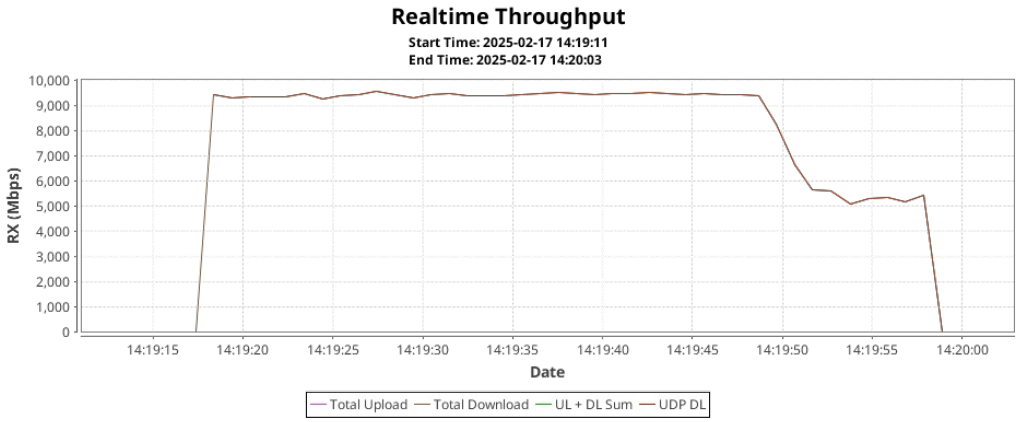
Mon Feb 17 14:21:01 IST 2025

## Objective

The Candela WiFi Capacity test is designed to measure performance of an Access Point when handling different amounts of WiFi Stations. The test allows the user to increase the number of stations in user defined steps for each test iteration and measure the per station and the overall throughput for each trial. Along with throughput other measurements made are client connection times, Fairness, % packet loss, DHCP times and more. The expected behavior is for the AP to be able to handle several stations (within the limitations of the AP specs) and make sure all stations get a fair amount of airtime both in the upstream and downstream. An AP that scales well will not show a significant over-all throughput decrease as more stations are added.

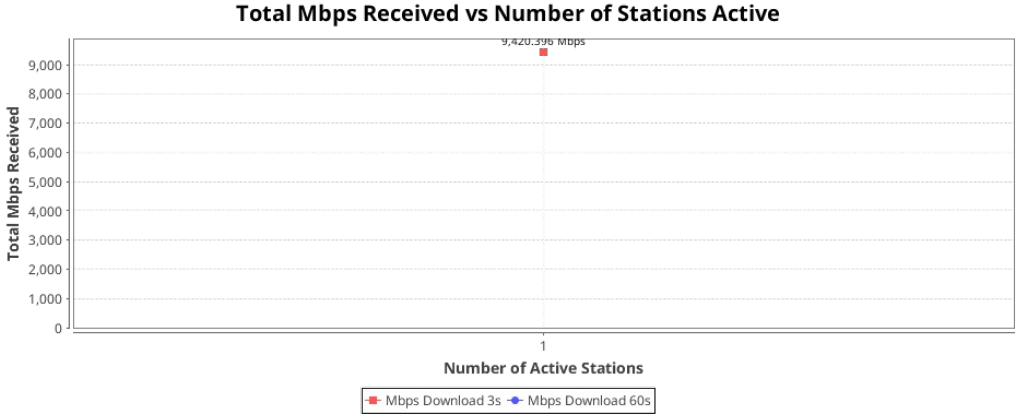
Realtime Graph shows summary download and upload RX Goodput rate of connections created by this test. Goodput does not include Ethernet, IP, UDP/TCP header overhead.

CSV Data for Realtime Throughput




Total Megabits-per-second transferred. This only counts the protocol payload, so it will not count the Ethernet, IP, UDP, TCP or other header overhead. A well behaving system will show about the same rate as stations increase. If the rate decreases significantly as stations increase, then it is not scaling we

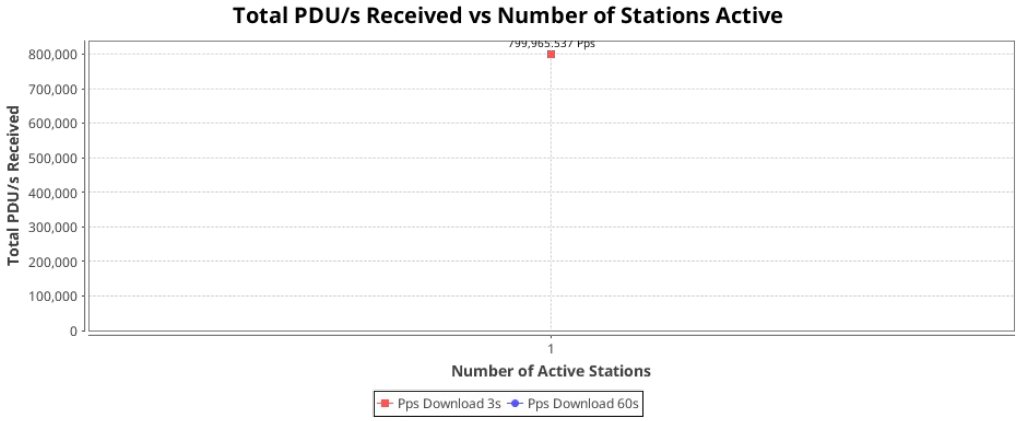
CSV Data for Total Mbps Received vs Number of Stations Active




Protocol-Data-Units received. For TCP, this does not mean much, but for UDP connections, this correlates to packet size. If the PDU size is larger than what fits into a single frame, then the network stack will

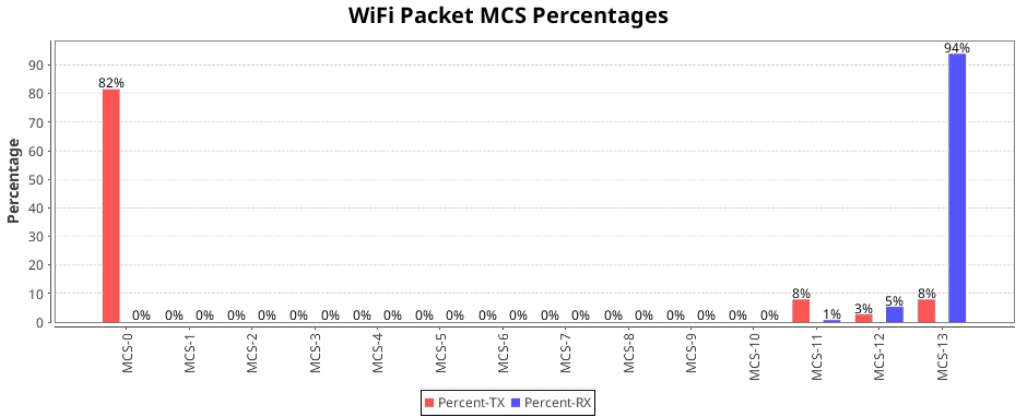
segment it accordingly. A well behaving system will show about the same rate as stations increase. If the rate decreases significantly as stations increase, then it is not scaling well.

CSV Data for Total PDU/s Received vs Number of Stations Active



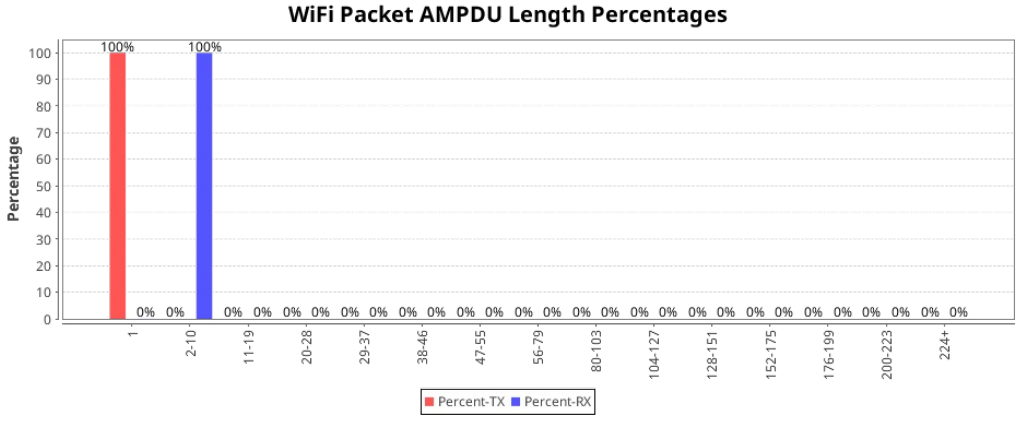

Histogram for WiFi MCS for packets sent and received by the wifi radios in the test.

CSV Data for WiFi Packet MCS Percentages



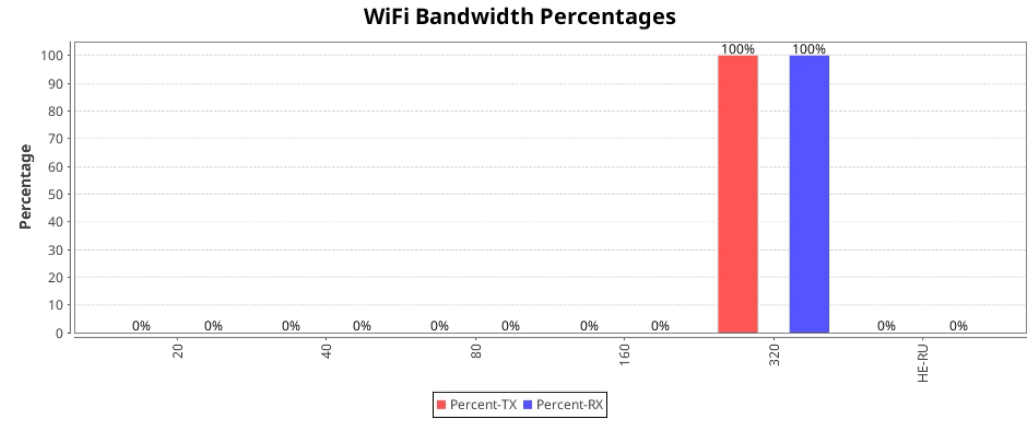

Block-Ack allows a series of frames to be sent in one transmit opportunity. This series of packets is known as a series of AMPDU frames. Having more frames in each AMPDU series normally improves throughput, but may increase latency or decrease airtime fairness. This histogram provides some visibility into the AMPDU chain length used in this test.

CSV Data for WiFi Packet AMPDU Length Percentages



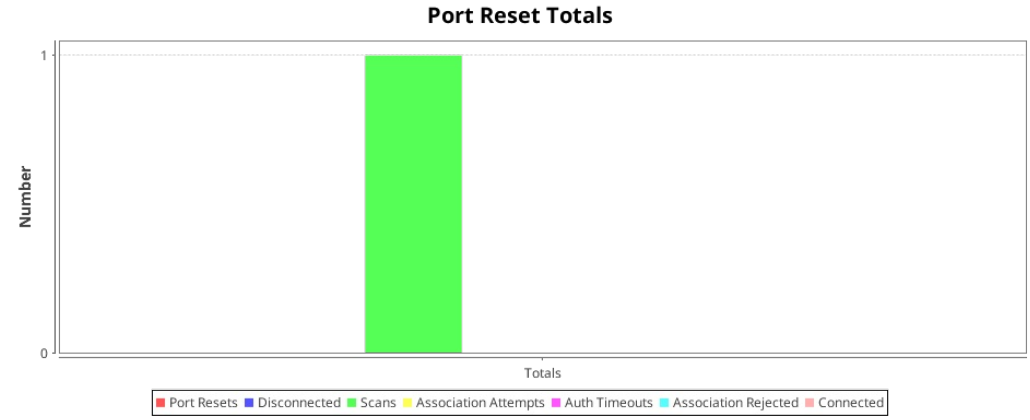

Histogram for WiFi bandwidths for packets sent and received by the wifi radios in the test.

CSV Data for WiFi Bandwidth Percentages



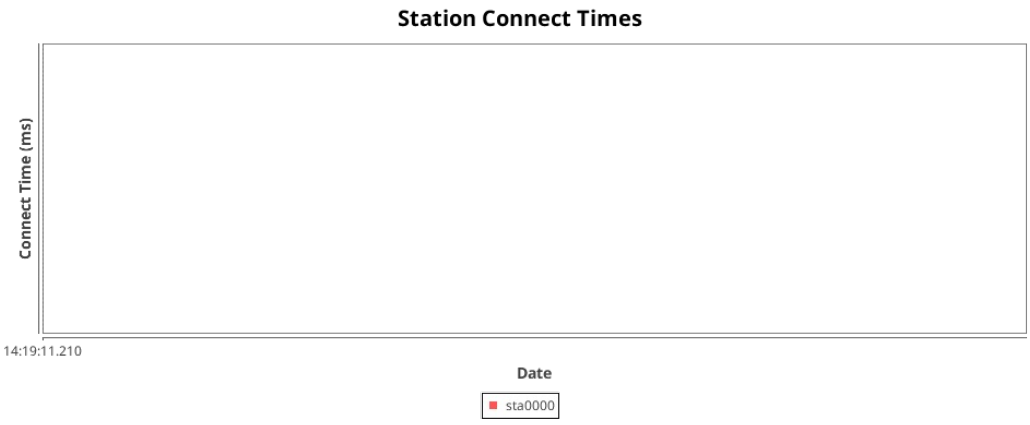

Station disconnect stats. These will be only for the last iteration. If the 'Clear Reset Counters' option is selected, the stats are cleared after the initial association. Any re-connects reported indicate a potential stability issue. Can be used for long-term stability testing in cases where you bring up all stations in one iteration and then run the test for a longer duration. Note: Port Resets shown in the graph happened after the initial association.

CSV Data for Port Reset Totals



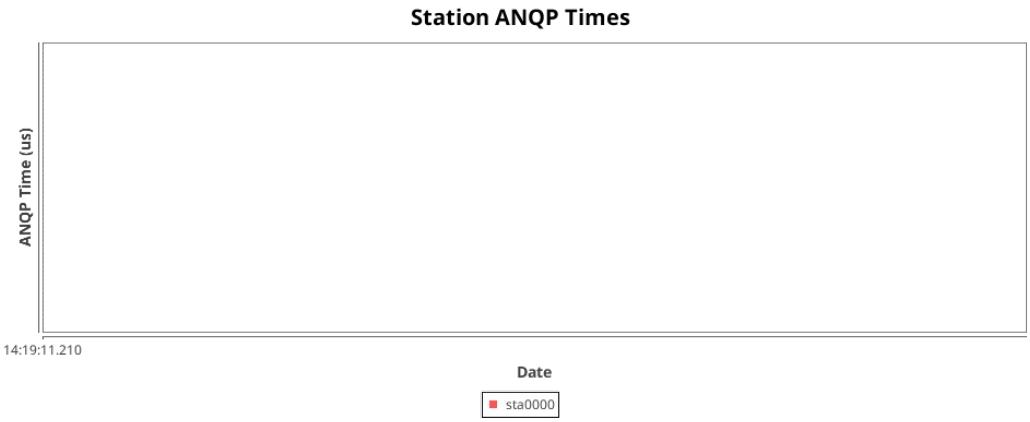

Station connect time is calculated from the initial Authenticate message through the completion of Open or RSN association/authentication.

CSV Data for Station Connect Times



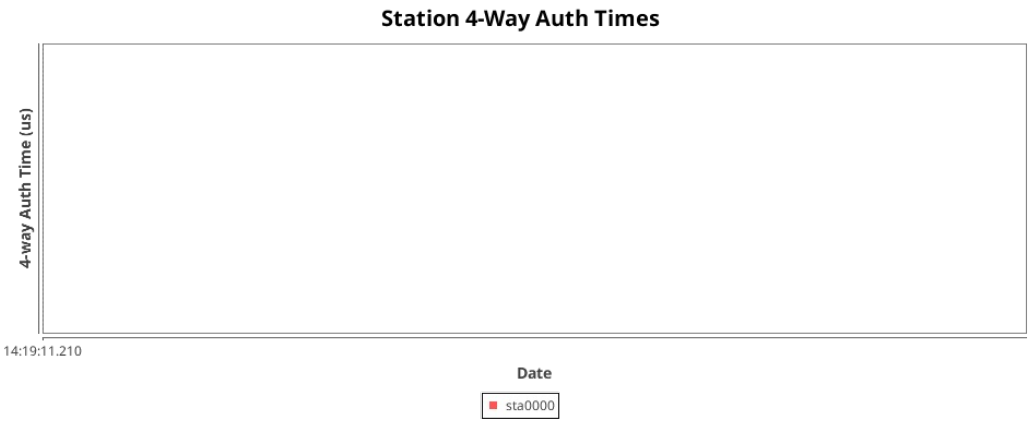

This measures the time it takes to complete the ANQP communication. This is used in Hot-Spot 2.0 (HS20) negotiation and discovery.

CSV Data for Station ANQP Times



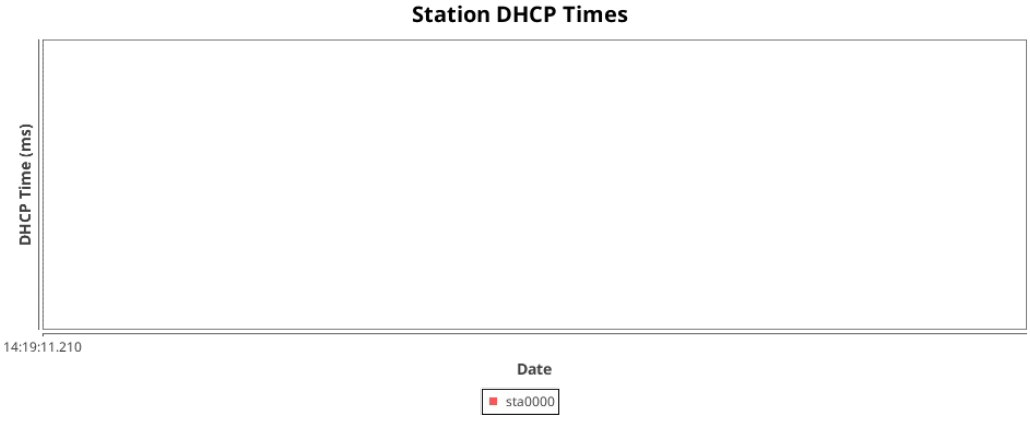

This measures the time it takes to complete the 4-way Authentication used by WPA encryption. If this increases as more stations are added, it may indicate scalability problems.

CSV Data for Station 4-Way Auth Times



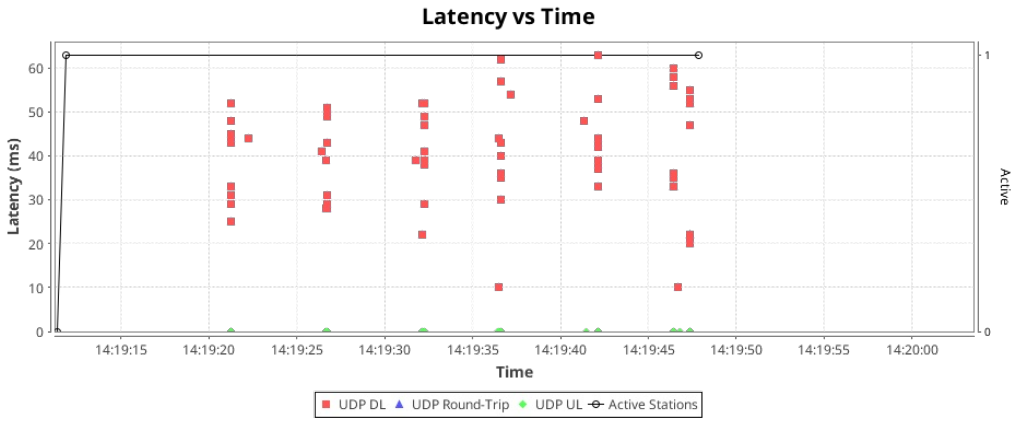

This measures the time it takes to acquire a DHCP lease. The DHCP protocol broadcasts at least one discovery message and then waits a second or two before trying to aquire a lease. So, longer times here are usually not a problem. If the time goes up as more stations associate then it may indicate scalability issues, and it may also mean that the DHCP server has run out of leases.

CSV Data for Station DHCP Times



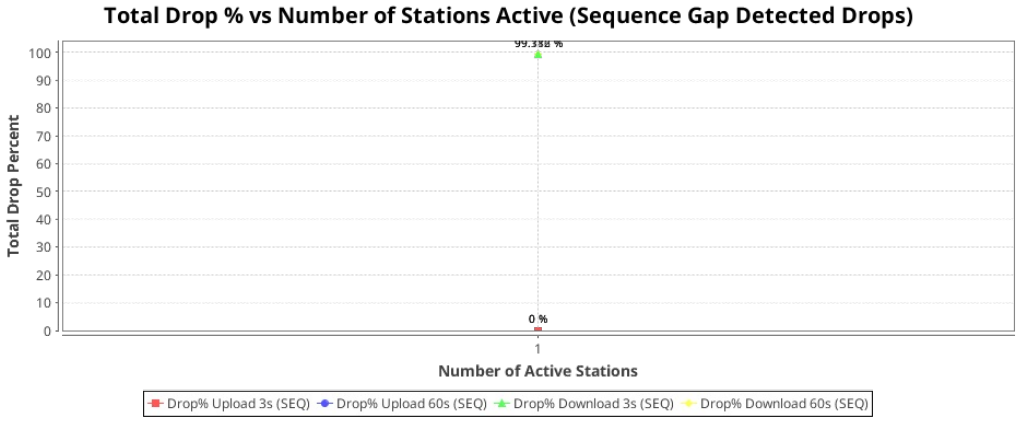

This measures the one-way latency reported by LANforge. Much of the latency will be in the LANforge itself when transmitting at maximum speeds because LANforge will have fairly large send buffers. You can force the send buffers smaller to decrease this. But, the device-under-test can also influence over-all latency. We often see multiple seconds of latency in our testing, but in a perfect world you would want the latency to not increase much as more stations are added.

CSV Data for Latency vs Time



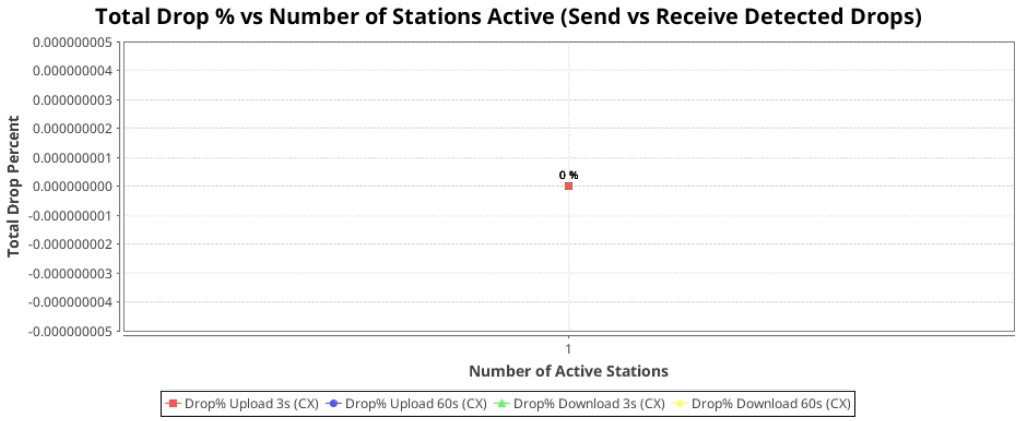

This packet loss is calculated based on the sequence-gap detected drops. If the device-under-test is reordering packets, then this value may be incorrect. Check the Layer-3 Endpoint out-of-order column if this graph is significantly different from the cx-detected-drop graph above.

CSV Data for Total Drop % vs Number of Stations Active (Sequence Gap Detected Drops)



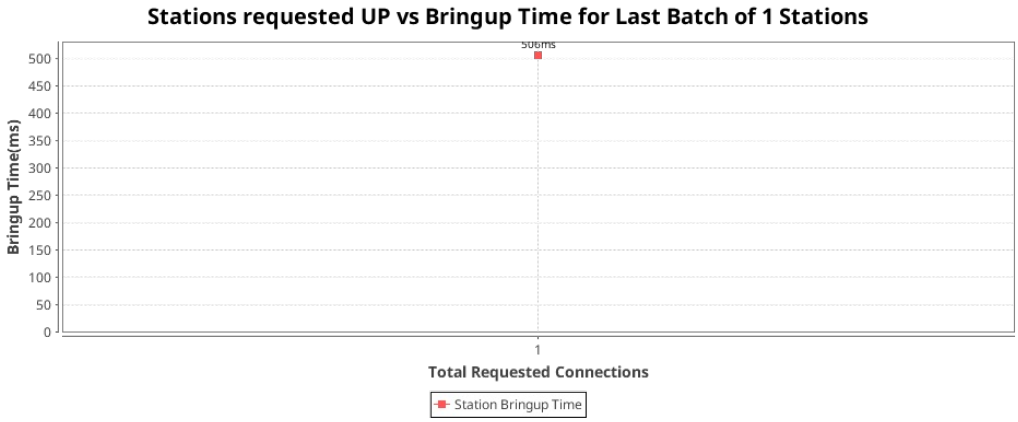

This packet loss is calculated based on the number of PDUs sent by one side versus the number received on the other. Please note that TCP does not actually drop packets, but it will instead just run slower and retransmit frames. UDP will give more accurate packet-loss statistics.

CSV Data for Total Drop % vs Number of Stations Active (Send vs Receive Detected Drops)




This charts the total time it takes the stations to associate and acquire a DHCP lease (if DHCP is being used). If the system is scaling well, this time should not increase much as more stations are brought up.

CSV Data for Stations requested UP vs Bringup Time for Last Batch of 1 Stations




## Wifi-Capacity Test requested values

| | |
|---|---|
| Station Increment: | 1 |
| Loop Iterations: | Single (1) |
| Duration: | 30 sec (30 s) |
| Estimated Run Duration: | 1 m |
| Layer 4-7 Endpoint: | NONE |
| IP Version | IPv4 |
| MSS | AUTO |
| Total Download Rate: | 10Gbps (10 Gbps) |
| Total Upload Rate: | Zero (0 bps) |
| Protocol: | UDP |
| Payload Size: | AUTO |
| Socket buffer size: | OS Default |
| IP ToS: | Best Effort (0) |
| Multi-Conn: | 3 |
| UDP-GRO | true |
| UDP-Burst | true |
| Use existing URL rate | false |
| Set Bursty Minimum Speed: | Burst Mode Disabled (-1) |
| Percentage TCP Rate: | 10% (10%) |
| Randomize Rates | true |
| Leave Ports Up | true |
| Advanced Latency Reporting | false |
| Settle Time: | 5 sec (5 s) |
| Rpt Timer: | fast (1 s) |
| Graph Max Samples: | Suggested (1,080) |
| Graph Compression Interval: | Suggested (5 min) (5 m) |
| Show-Per-Iteration-Charts | true |
| Show-Per-Loop-Totals | true |
| Hunt-Lower-Rates | false |

| | |
|---|---|
| Show Events | true |
| Clear Reset Counters | false |
| CSV Reporting Dir | - not selected - |
| Build Date | Thu 16 Jan 2025 07:00:39 PM PST |
| Build Version | 5.4.9 |
| Git Version | fdb4de067064dee0122c450354933ed75fbf699b |
| Ports | 1.1.eth3 1.1.sta0000 |
| Firmware | 0x80000aef, 1.1876.0 |
| Machines | ct523c-0b13 |

## Requested Parameters:

| | | | | |
|---|---|---|---|---|
| Download Rate: | Per station: | 1000000000 ( 1 Gbps) | All: | 10000000000 ( 10 Gbps) |
| Upload Rate: | Per station: | 0 ( 0 bps) | All: | 0 ( 0 bps) |
| Total: | | | | 10000000000 ( 10 Gbps) |
| Station count: | | | | 1 |
| Connections per station: | | | | 10 |
| Payload (PDU) sizes: | | | | AUTO (AUTO) |

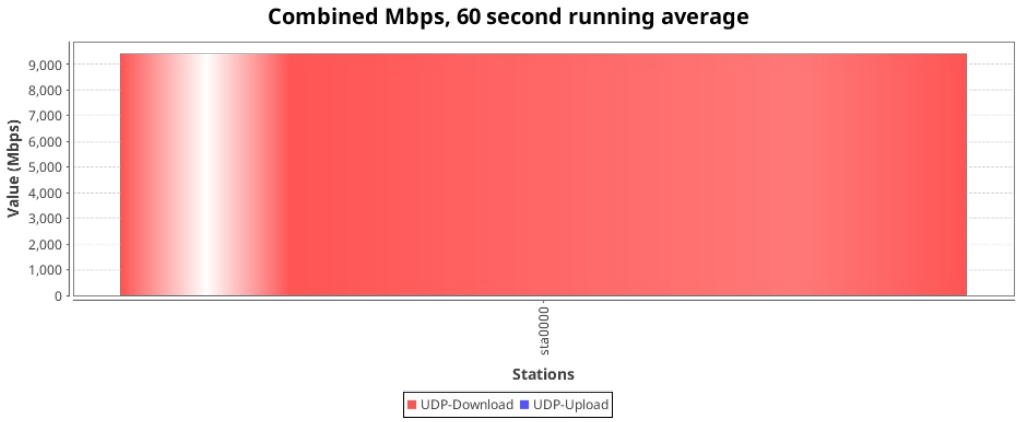
## Observed Rate:

This table shows stats for all connections this iteration based on their reporting interval average.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Download Rate: | Cx Min: | 9.42 Gbps | Cx Ave: | 9.42 Gbps | Cx Max: | 9.42 Gbps | All Cx: | 9.42 Gbps |
| Upload Rate: | Cx Min: | 0 bps | Cx Ave: | 0 bps | Cx Max: | 0 bps | All Cx: | 0 bps |
| Total: | | | | | | | | 9.42 Gbps |
| Aggregated Rate: | Min: | 9.42 Gbps | Avg: | 9.42 Gbps | Max: | 9.42 Gbps | | |

This graph shows fairness. On a fair system, each station should get about the same throughput.
In the download direction, it is mostly the device-under-test that is responsible for this behavior,
but in the upload direction, LANforge itself would be the source of most fairness issues
unless the device-under-test takes specific actions to ensure fairness.

CSV Data for Combined Mbps, 60 second running average




## Requested Parameters:

| | | | | |
|---|---|---|---|---|
| Download Rate: | Per station: | 1000000000 ( 1 Gbps) | All: | 10000000000 ( 10 Gbps) |
| Upload Rate: | Per station: | 0 ( 0 bps) | All: | 0 ( 0 bps) |
| Total: | | | | 10000000000 ( 10 Gbps) |
| Station count: | | | | 1 |
| Connections per station: | | | | 10 |
| Payload (PDU) sizes: | | | | AUTO (AUTO) |

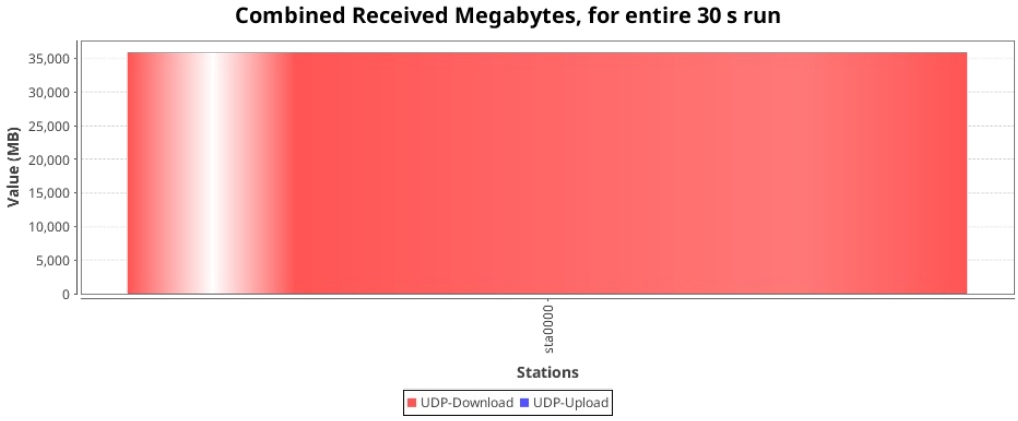
## Observed Amount:

This table shows stats for all connections this iteration based on their reporting interval average.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Download Amount: | Cx Min: | 33.424 GB | Cx Ave: | 33.424 GB | Cx Max: | 33.424 GB | All Cx: | 33.424 GB |
| Upload Amount: | Cx Min: | 0 B | Cx Ave: | 0 B | Cx Max: | 0 B | All Cx: | 0 B |
| Total: | | | | | | | | 33.424 GB |

This graph shows fairness. On a fair system, each station should get about the same throughput.
In the download direction, it is mostly the device-under-test that is responsible for this behavior,
but in the upload direction, LANforge itself would be the source of most fairness issues
unless the device-under-test takes specific actions to ensure fairness.

CSV Data for Combined Received Megabytes, for entire 30 s run



# Capacity Snapshot 1 Stations

| Port | Tx-Bps 1m | Rx-Bps 1m | Tx-Fail % | Tx Link-Rate | Rx Link-Rate | Mode | Channel | Last CX-Time (ms) | RSSI (dBm) | AP | IP | MAC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1.11 sta0000 | 9.024 Kbps | 6.793 Gbps | 0.187 | 11529.3 Mbps | 11.529 Gbps | 802.11a-BE 320 4x4 | 259 | 49 | -14 | 5E:8C:B5:48:D3:88 | 192.168.0.231 | 38:f8:f6:9f:0e:16 |

| Port | Tx-Bps 1m | Rx-Bps 1m | Link-Rate | IP | MAC |
|---|---|---|---|---|---|
| 1.1.3 eth3 | 8.673 Gbps | 7.515 Kbps | 10 Gbps | 192.168.0.210 | 9c:69:b4:64:fe:fd |

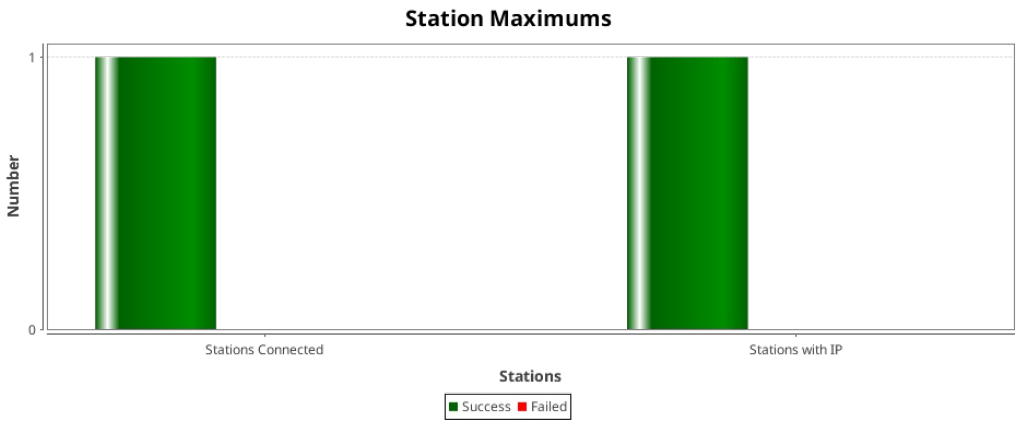
| Endpoint | Tx-Bps 1m | Rx-Bps 1m | TxPkts | RxPkts | RX Lat (ms) | RT Lat (ms) | Jitter | Rx Pkt Loss % | Rx OOO % | Rx DUP | Rx Seq Drop |
|---|---|---|---|---|---|---|---|---|---|---|---|
| udp--1.eth3-01.sta0000-0-A | 0 bps | 940.86 Mbps | 0 | 2432207 | 47 | 47 | 0 | 0.417 | 5.713 | 0 | 358,722,171 |
| udp--1.eth3-01.sta0000-0-B | 962.041 Mbps | 0 bps | 2490186 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-1-A | 0 bps | 946.837 Mbps | 0 | 2450851 | 22 | 22 | 0 | 2.334 | 5.652 | 0 | 347,501,803 |
| udp--1.eth3-01.sta0000-1-B | 969.472 Mbps | 0 bps | 2509422 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-2-A | 0 bps | 937.862 Mbps | 0 | 2427600 | 55 | 55 | 0 | 0 | 5.730 | 0 | 358,172,845 |
| udp--1.eth3-01.sta0000-2-B | 959.735 Mbps | 0 bps | 2484217 | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-3-A | 0 bps | 947.991 Mbps | 0 | 2453818 | 22 | 22 | 0 | 0 | 5.931 | 0 | 360,723,518 |
| udp--1.eth3-01.sta0000-3-B | 970.924 Mbps | 0 bps | 2513263 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-4-A | 0 bps | 935.106 Mbps | 0 | 2420471 | 53 | 53 | 0 | 0 | 5.453 | 0 | 339,891,701 |
| udp--1.eth3-01.sta0000-4-B | 957.278 Mbps | 0 bps | 2477776 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-5-A | 0 bps | 946.453 Mbps | 0 | 2449890 | 22 | 22 | 6 | 0 | 5.847 | 0 | 361,011,463 |
| udp--1.eth3-01.sta0000-5-B | 969.539 Mbps | 0 bps | 2509594 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-6-A | 0 bps | 936.67 Mbps | 0 | 2424482 | 52 | 52 | 0 | 0 | 5.692 | 0 | 348,686,416 |
| udp--1.eth3-01.sta0000-6-B | 959.775 Mbps | 0 bps | 2484240 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-7-A | 0 bps | 946.463 Mbps | 0 | 2449912 | 21 | 21 | 0 | 0 | 5.607 | 0 | 345,341,652 |
| udp--1.eth3-01.sta0000-7-B | 967.964 Mbps | 0 bps | 2505517 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-8-A | 0 bps | 935.947 Mbps | 0 | 2422608 | 52 | 52 | 0 | 0 | 5.596 | 0 | 352,939,489 |
| udp--1.eth3-01.sta0000-8-B | 959.312 Mbps | 0 bps | 2483164 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-9-A | 0 bps | 946.207 Mbps | 0 | 2449122 | 20 | 20 | 1 | 0 | 5.710 | 0 | 350,248,979 |
| udp--1.eth3-01.sta0000-9-B | 967.417 Mbps | 0 bps | 2504019 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 |

Notes:

- Counters may be slightly out-of-sync, as snapshots are taken while CXs are still running to ensure that tx-bps and rx-bps are reported as accurately as possible.
- Snapshot data is captured at the end of an iteratation.
- Connection statistics are reset at the start of each iteration.

```
Maximum Stations Connected: 1
Stations NOT connected at this time: 0
Maximum Stations with IP Address: 1
Stations without IP at this time: 0
```

CSV Data for Station Maximums



## Capacity Snapshot 1 Stations after CX down

| Port | Tx-Bps 1m | Rx-Bps 1m | Tx-Fail % | Tx Link-Rate | Rx Link-Rate | Mode | Channel | Last CX-Time (ms) | RSSI (dBm) | AP | IP | MAC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1.11 sta0000 | 12.64 Kbps | 6.542 Gbps | 0.187 | 6 Mbps | 11.529 Gbps | 802.11a-BE 320 4x4 | 259 | 49 | -27 | 5E:8C:B5:48:D3:88 | 192.168.0.231 | 38:f8:f6:9f:0e:16 |

| Port | Tx-Bps 1m | Rx-Bps 1m | Link-Rate | IP | MAC |
|---|---|---|---|---|---|
| 1.1.3 eth3 | 8.431 Gbps | 12.524 Kbps | 10 Gbps | 192.168.0.210 | 9c:69:b4:64:fe:fd |

| Endpoint | Tx-Bps 1m | Rx-Bps 1m | TxPkts | RxPkts | RX Lat (ms) | RT Lat (ms) | Jitter | Rx Pkt Loss % | Rx OOO % | Rx DUP | Rx Seq Drop |
|---|---|---|---|---|---|---|---|---|---|---|---|
| udp--1.eth3-01.sta0000-0-A | 0 bps | 842.222 Mbps | 0 | 2970233 | 39 | 39 | 0 | 12.911 | 5.677 | 0 | 432,615,464 |
| udp--1.eth3-01.sta0000-0-B | 967.139 Mbps | 0 bps | 3410584 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-1-A | 0 bps | 842.83 Mbps | 0 | 2972429 | 44 | 44 | 0 | 12.797 | 5.574 | 0 | 419,713,153 |
| udp--1.eth3-01.sta0000-1-B | 966.52 Mbps | 0 bps | 3408629 | 0 | 0 | 44 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-2-A | 0 bps | 841.242 Mbps | 0 | 2967006 | 42 | 42 | 0 | 12.769 | 5.673 | 0 | 426,840,121 |
| udp--1.eth3-01.sta0000-2-B | 964.379 Mbps | 0 bps | 3401303 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-3-A | 0 bps | 844.349 Mbps | 0 | 2978235 | 13 | 13 | 0 | 12.759 | 5.826 | 0 | 434,643,860 |
| udp--1.eth3-01.sta0000-3-B | 967.834 Mbps | 0 bps | 3413801 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-4-A | 0 bps | 841.504 Mbps | 0 | 2968353 | 27 | 27 | 7 | 12.694 | 5.505 | 0 | 419,355,504 |
| udp--1.eth3-01.sta0000-4-B | 963.862 Mbps | 0 bps | 3399933 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-5-A | 0 bps | 843.762 Mbps | 0 | 2976544 | 55 | 55 | 0 | 12.703 | 5.748 | 0 | 436,065,181 |
| udp--1.eth3-01.sta0000-5-B | 966.555 Mbps | 0 bps | 3409661 | 0 | 0 | 55 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-6-A | 0 bps | 839.956 Mbps | 0 | 2963260 | 40 | 40 | 0 | 12.849 | 5.671 | 0 | 419,888,630 |
| udp--1.eth3-01.sta0000-6-B | 963.811 Mbps | 0 bps | 3400152 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-7-A | 0 bps | 843.978 Mbps | 0 | 2977646 | 33 | 33 | 21 | 12.626 | 5.549 | 0 | 418,211,192 |
| udp--1.eth3-01.sta0000-7-B | 965.956 Mbps | 0 bps | 3407947 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-8-A | 0 bps | 839.297 Mbps | 0 | 2961277 | 40 | 40 | 0 | 12.966 | 5.535 | 0 | 421,486,774 |
| udp--1.eth3-01.sta0000-8-B | 964.336 Mbps | 0 bps | 3402456 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 |
| udp--1.eth3-01.sta0000-9-A | 0 bps | 844.027 Mbps | 0 | 2978051 | 20 | 20 | 0 | 12.481 | 5.657 | 0 | 426,602,706 |
| udp--1.eth3-01.sta0000-9-B | 964.376 Mbps | 0 bps | 3402745 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 |

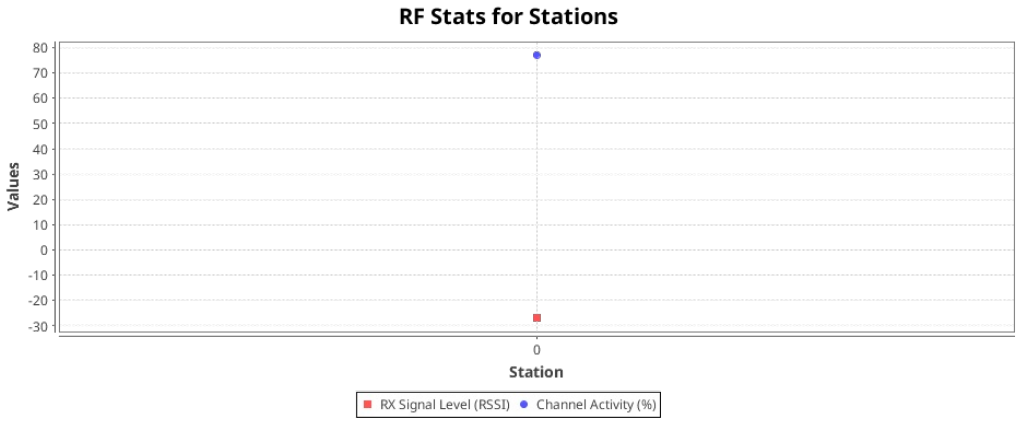
Notes:

- Counters after the CX is down do not accurately reflect the test environment as the connections run for some time after the test has completed.
- CX down snapshot data is captured at the end of a full iteratation, with the maximum number of connections up.
- Connection statistics are reset at the start of each iteration.

RF stats give an indication of how well how congested is the RF environment. Channel activity is what the wifi radio reports as the busy-time for the RF environment. It is expected that this be near 100% when LANforge is running at max speed, but at lower speeds, this should be a lower percentage unless the RF environment is busy with other systems.

RF stats are collected at the end of the iteration.

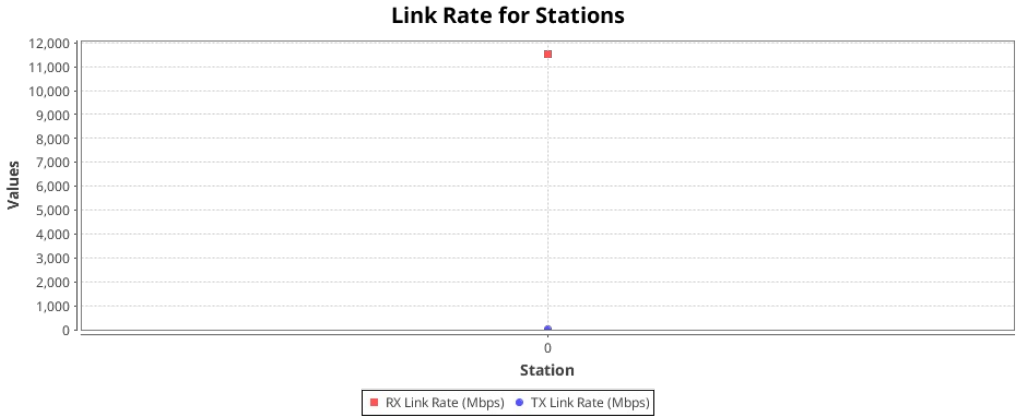
CSV Data for RF Stats for Stations




Link rate stats give an indication of how well the rate-control is working. For rate-control, the 'RX' link rate corresponds to what the device-under-test is transmitting. If all of the stations are on the same radio, then the TX and RX encoding rates should be similar for all stations. If there is a definite pattern where some stations do not get good RX rate, then probably the device-under-test has rate-control problems. The TX rate is what LANforge is transmitting at.

Link Rate is recorded at the end of each iteration. Please see individual station statistics CSV files for link rate over time.

CSV Data for Link Rate for Stations




Key Performance Indicators CSV

```
Scan Results for SSIDs used in this test.

BSS 5e:8c:b5:48:d3:88(on sta0000) -- associated
        last seen: 457.125s [boottime]
        TSF: 933171260 usec (0d, 00:15:33)
        freq: 6295.0
        beacon interval: 100 TUs
        capability: ESS Privacy SpectrumMgmt ShortSlotTime RadioMeasure (0x1511)
        signal: -28.00 dBm
        last seen: 139 ms ago
        SSID: TPLINK_6G
        Supported rates: 6.0* 9.0 12.0* 18.0 24.0* 36.0 48.0 54.0
        TIM: DTIM Count 0 DTIM Period 1 Bitmap Control 0x0 Bitmap[0] 0x0
        Country: US     Environment: bogus
                Extension ID: 201 Regulatory Class: 131 Coverage class: 0 (up to 0m)
                Channels [33 - 233] @ 0 dBm
        Power constraint: 0 dB
        TPC report: TX power: 22 dBm
        RSN:     * Version: 1
                 * Group cipher: CCMP
                 * Pairwise ciphers: CCMP
                 * Authentication suites: SAE
                 * Capabilities: 16-PTKSA-RC 1-GTKSA-RC MFP-required MFP-capable (0x00cc)
        RM enabled capabilities:
                Capabilities: 0x73 0xd0 0x00 0x00 0x0c
                        Link Measurement
                        Neighbor Report
                        Beacon Passive Measurement
                        Beacon Active Measurement
                        Beacon Table Measurement
                        LCI Measurement
                        Transmit Stream/Category Measurement
                        Triggered Transmit Stream/Category
                        FTM Range Report
                        Civic Location Measurement
```

```
        Nonoperating Channel Max Measurement Duration: 0
        Measurement Pilot Capability: 4
Extended capabilities:
         * Extended Channel Switching
         * TFS
         * WNM-Sleep Mode
         * TIM Broadcast
         * BSS Transition
         * Multiple BSSID
         * SSID List
         * Operating Mode Notification
         * 80
         * 83
Transmit Power Envelope: <invalid: 6 bytes: 53 3c 3c 3c 3c 3c>
Transmit Power Envelope: <invalid: 6 bytes: 13 30 30 30 30 30>
HE capabilities:
        HE MAC Capabilities (0x01091a081040):
                +HTC HE Supported
                Dynamic BA Fragementation Level: 1
                Minimum Payload size of 128 bytes: 1
                BSR
                OM Control
                Maximum A-MPDU Length Exponent: 3
                A-MSDU in A-MPDU
                OM Control UL MU Data Disable RX
        HE PHY Capabilities: (0x0c634088fd5b811c110800):
                HE40/HE80/5GHz
                HE160/5GHz
                Punctured Preamble RX: 3
                LDPC Coding in Payload
                HE SU PPDU with 1x HE-LTF and 0.8us GI
                Full Bandwidth UL MU-MIMO
                DCM Max Constellation Rx: 1
                SU Beamformer
                SU Beamformee
                Beamformee STS <= 80Mhz: 7
                Beamformee STS > 80Mhz: 7
                Sounding Dimensions <= 80Mhz: 3
                Sounding Dimensions > 80Mhz: 3
                Ng = 16 SU Feedback
                Codebook Size SU Feedback
                PPE Threshold Present
                HE SU PPDU & HE PPDU 4x HE-LTF 0.8us GI
                Max NC: 3
                HE ER SU PPDU 4x HE-LTF 0.8us GI
                HE ER SU PPDU 1x HE-LTF 0.8us GI
                RX 1024-QAM
        HE RX MCS and NSS set <= 80 MHz
                1 streams: MCS 0-11
                2 streams: MCS 0-11
                3 streams: MCS 0-11
                4 streams: MCS 0-11
                5 streams: not supported
                6 streams: not supported
                7 streams: not supported
                8 streams: not supported
        HE TX MCS and NSS set <= 80 MHz
                1 streams: MCS 0-11
                2 streams: MCS 0-11
                3 streams: MCS 0-11
                4 streams: MCS 0-11
                5 streams: not supported
                6 streams: not supported
                7 streams: not supported
                8 streams: not supported
        HE RX MCS and NSS set 160 MHz
                1 streams: MCS 0-11
                2 streams: MCS 0-11
                3 streams: MCS 0-11
                4 streams: MCS 0-11
                5 streams: not supported
                6 streams: not supported
                7 streams: not supported
                8 streams: not supported
        HE TX MCS and NSS set 160 MHz
                1 streams: MCS 0-11
                2 streams: MCS 0-11
                3 streams: MCS 0-11
                4 streams: MCS 0-11
                5 streams: not supported
                6 streams: not supported
                7 streams: not supported
                8 streams: not supported
        PPE Threshold 0x7b 0x1c 0xc7 0x71 0x1c 0xc7 0x71 0x1c 0xc7 0x71 0x1c 0xc7 0x71
EHT capabilties:
        EHT MAC Capabilities (0x0000):
        EHT PHY Capabilities: (0xe2ffdb001836d83e):
                320MHz in 6GHz Supported
                SU Beamformer
                SU Beamformee
                Beamformee SS <= 80MHz: 7
                Beamformee SS = 160MHz: 7
                Beamformee SS = 320MHz: 7
                Number Of Sounding Dimensions <= 80MHz: 3
                Number Of Sounding Dimensions = 160MHz: 3
                Number Of Sounding Dimensions = 320MHz: 3
                EHT MU PPDU With 4x EHT-LTF And 0.8 µs GI
                Max Nc: 1
                Tx 1024-QAM And 4096-QAM < 242-tone RU
                Rx 1024-QAM And 4096-QAM < 242-tone RU
                Common Nominal Packet Padding: 3
                MCS 15 Supported: 11
```

```
                EHT DUP (MCS 14) In 6 GHz Supported
                Non-OFDMA UL MU-MIMO <= 80MHz
                Non-OFDMA UL MU-MIMO = 160MHz
                Non-OFDMA UL MU-MIMO = 320MHz
                MU Beamformer (BW <= 80MHz)
                MU Beamformer (BW = 160MHz)
        EHT MCS/NSS: (0x444444444444444444):
        EHT MCS and NSS set <= 80 MHz
                RX Max NSS that supports MCS 0-9: 4 streams
                TX Max NSS that supports MCS 0-9: 4 streams
                RX Max NSS that supports MCS 10-11: 4 streams
                TX Max NSS that supports MCS 10-11: 4 streams
                RX Max NSS that supports MCS 12-13: 4 streams
                TX Max NSS that supports MCS 12-13: 4 streams
        EHT MCS and NSS set 160 MHz
                RX Max NSS that supports MCS 0-9: 4 streams
                TX Max NSS that supports MCS 0-9: 4 streams
                RX Max NSS that supports MCS 10-11: 4 streams
                TX Max NSS that supports MCS 10-11: 4 streams
                RX Max NSS that supports MCS 12-13: 4 streams
                TX Max NSS that supports MCS 12-13: 4 streams
        EHT MCS and NSS set 320 MHz
                RX Max NSS that supports MCS 0-9: 4 streams
                TX Max NSS that supports MCS 0-9: 4 streams
                RX Max NSS that supports MCS 10-11: 4 streams
                TX Max NSS that supports MCS 10-11: 4 streams
                RX Max NSS that supports MCS 12-13: 4 streams
                TX Max NSS that supports MCS 12-13: 4 streams
WMM:     * Parameter version 1
         * u-APSD
         * BE: CW 15-1023, AIFSN 3
         * BK: CW 15-1023, AIFSN 7
         * VI: CW 7-15, AIFSN 2, TXOP 3008 usec
         * VO: CW 3-7, AIFSN 2, TXOP 1504 usec
```

[META Information for Report for: Wifi Capacity Test]