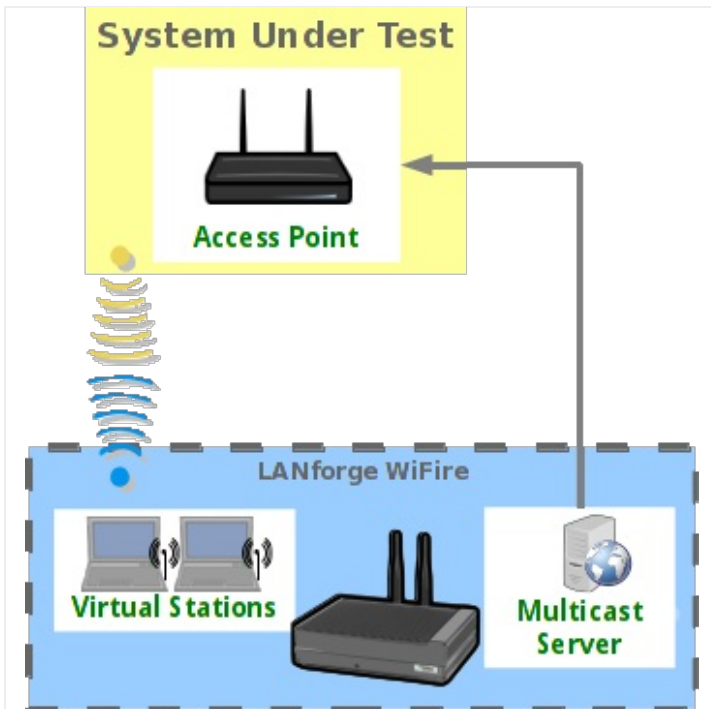
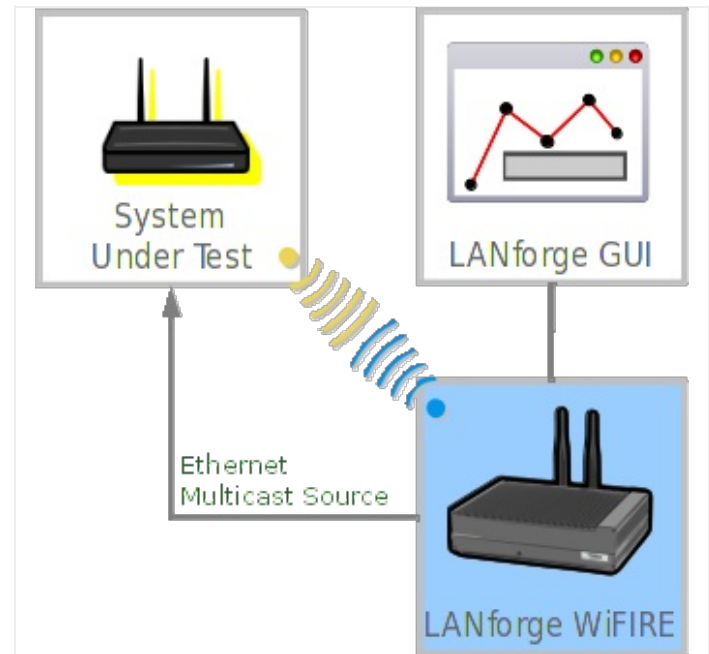


Test WiFi Multicast Download.

Goal: Test WiFi Multicast Download.

Test WiFi Multicast Download with a small number of stations. This example uses a pair of LANforge CT520 systems, but the procedure should work on all CT523, CT524 and CT525 systems. Multicast is a bit special in Wireless networks. Packets are normally transmitted at the lowest rate, so even a small bit of multicast traffic will slow down the entire network. In this example, we will transmit multicast frames from the AP to the stations. Many users will instead use the wired Ethernet port as the transmitter, but aside from the different port, the procedure should be the same. This example assumes you have already created and configured the desired amount of WiFi station interfaces.



1. Create Multicast transmitter on AP interface

- A. Go to the **L3 Endps** tab, and click **Create**. Set the IGMP Addr, IGMP Dest Port, name, PDU Size, Port, etc and click OK when done.

Create/Modify Endpoint

Endp Type: Multicast Rpt Timer: fast (1 s)

IGMP Addr: 224.9.9.9 IGMP Dest Port: 9999 IGMP Source IP: IGMP Source Port:

Endp Name: mcast-xmit-sta Shelf: 1 Resource: 1 (brent-521) Port: 6 (sta0)

Pld Pattern: increasing IP Addr: AUTO Min IP Port: 9999 Max IP Port: Same

Min Tx Rate: 4Mbps Max Tx Rate: Same Min PDU Size: UDP Pld (1,472 B) Max PDU Size: Same

IP ToS: Best Effort (0) Pkts To Send: Infinite TTL: 32 Quiesce: 3 (3 sec)

Min Duration: Forever Max Duration: Same Min Reconn: 0 (0 ms) Max Reconn: Same

Multi-Conn: Normal (0) Filename: Dest MAC: <custom>

Duration Quiesce Do Checksum UnManaged Rcv Mcast Multicast SSM Replay File Loop Dest Mac

Script Payload

Advanced Thresholds

APPLY OK Cancel

2. Create Multicast receivers on Station interfaces

- A. Go to the **L3 Endps** tab, and click **Create**. Set the IGMP Addr, Min IP Port, name, Port. The IGMP Addr and IP Port should match the transmitter. Make sure you also select the 'Rcv Mcast' checkbox. Click **Apply** when done. You can then change the name, change the Port, and click **Apply** again to create a duplicate endpoint on another station interface.

Create/Modify Endpoint

Endp Type: Multicast Rpt Timer: fast (1 s)

IGMP Addr: 224.9.9.9 IGMP Dest Port: 9999 IGMP Source IP: IGMP Source Port:

Endp Name: mcast-rcv-sta-001 Shelf: 1 Resource: 1 (brent-521) Port: 8 (sta1)

Pld Pattern: increasing IP Addr: AUTO Min IP Port: 9999 Max IP Port: Same

Min Tx Rate: Zero (0 bps) Max Tx Rate: Same Min PDU Size: UDP Pld (1,472 B) Max PDU Size: Same

IP ToS: Best Effort (0) Pkts To Send: Infinite TTL: 32 Quiesce: 3 (3 sec)

Min Duration: Forever Max Duration: Same Min Reconn: 0 (0 ms) Max Reconn: Same

Multi-Conn: Normal (0) Filename: Dest MAC: <custom>

Duration Quiesce Do Checksum UnManaged Rcv Mcast Multicast SSM Replay File Loop Dest Mac

Script Payload

Advanced Thresholds

APPLY OK Cancel

3. Test throughput

- A. Select the Multicast transmitter and receiver endpoints on the **L3 Endps** tab and click **Start**. Observe transmit and receive rates, packet-loss, and other statistics to verify performance is at expected value.

LANforge Manager Version(5.2.9)

Control Reporting Tear-Off Info Plugins

Min PDU Size: 1k (1,024 B)
 Max PDU Size: Same

MIN Tx Rate: New Modem (56 Kbps)
 MAX Tx Rate: Same

View: 0 - 400

All Endpoints

Name	Run	Mng	Script	Tx Rate	Tx Rate(1)	Rx Rate	Rx Rate(1)	Rx Drop %	Tx Pkts	Rx Pkts	Delay	Dropped	Jit
mcast-rcv-sta-001	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	3,982,040	3,983,503	0	0	1,124,155	5	3,970	
mcast-rcv-sta-002	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	3,982,038	3,983,767	0	0	1,123,984	6	3,968	
mcast-rcv-sta-003	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	3,982,038	3,983,868	0	0	1,124,018	5	3,968	
mcast-rcv-sta-004	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	3,982,039	3,983,802	0	0	1,124,086	5	3,969	
mcast-rcv-sta-005	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	3,982,035	3,983,467	0	0	1,124,188	5	3,970	
mcast-xmit-sta	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	3,996,096	3,995,421	0	0	0	1,127,879	0	0	0	
tcp-1.13-03.006-A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	0	0	0	0	0	0	0	
tcp-1.13-03.006-B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	0	0	0	0	0	0	0	
tcp-1.13-03.007-A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None	0	0	0	0	0	0	0	0	0	

Logged in to: 192.168.100.138:4002 as: Admin