

COMPARISON SINGLE ROUTER - SECOND ROUTER DOUBLE NATed

Date of Test August 19, 2018

Time: Between noon and 12: 25 PM

Router 1 ASUS N66 Merlin Firmware 380.70

Router 2 ASUS N66 F Tomato v 1.28

Both routers have gigabit LAN & WAN ports.

All tests were run with wifi disabled, no VPN, QOS, Parental controls, etc. with only a single computer connected to a LAN port on the router using an Ethernet cable.

Computer was using Google Chrome as a browser with just a single TAB open. Computer was restarted before the first test with just a single router and then again in the double NAT setup. Computer has a gigabit Ethernet port.

ISP - Comcast - Speed Tier 150Mbps down 20 Mbps up. Comcast over provisions service levels.

Speed tests were run on Speedtest.net on the nearest speedtest server in Bonita Springs, FL which is approximately 75 miles from where the N66 routers are housed.

Router 1 Only

Router 2 Double NATed behind Router 1

Trial	Ping	Download	Upload	Ping	Download	Upload
1	14	180.5	24.0	11	181.5	24.2
2	12	180.7	24.1	12	181.4	24.2
3	13	180.7	24.3	11	182.4	24.5
4	13	181.1	24.4	12	181.0	24.1
5	13	180.4	24.0	11	180.9	24.1
6	11	182.5	24.1	12	180.8	24.2
7	12	180.7	24.0	11	181.2	24.2
8	13	180.7	24.2	12	180.5	24.1
9	14	180.7	24.2	12	181.2	24.0
10	11	180.8	24.2	11	180.9	24.2
Average	12.6	180.88	24.15	11.5	181.18	24.18
Std Dev	1.075	0.598	0.135	0.527	0.520	0.132

99% Confidence Level = 3 Standard Deviations

Lower	9.4	179.1	23.7	9.9	179.6	23.8
Highest	15.8	182.7	24.6	13.1	182.7	24.6

While the average Ping was lower and the average speeds were higher when double NATed, at the 99% confidence level the difference was not great enough to support that conclusion that double NAT setup was faster.