

Customer Router Recommendation Guideline

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Purpose:

The purpose of this document is to provide our customers who inquire into what routers we recommend for use with our service a guideline to purchasing their router.

Please Note:

Bertram Communications does not advocate the use of any specific brand, make nor model of router. Even if the videos we provide you cover a specific brand, make or model. The videos are selected for the content and information they provide to both educate and inform our customers. Instead we provide a guideline to the features we recommend that the router you purchase have.

Guidelines:

- You do not need a separate modem
- The type of router should be a WiFi-Router
- For both Bertram Fixed Wireless & Fiber solutions we bring an ethernet cable into the home.
 - A router with a WAN port and WiFi functionality where there are
 - 1 - WAN (internet) port
 - LAN ports
 - USB Port(s)
 - Antennas
- The type of router should NOT be
 - A cable router/modem
 - A DSL router/modem
 - A Fiber router/modem
- The router should have both features allowing for
 - A hardwired connection or ethernet cable connection or LAN ports
 - WiFi functionality
- There are times it is best to use the hardwired connection
 - See Article - Wi-Fi vs. Ethernet: How Much Better Is a Wired Connection?
 - Cable vs. radio waves
 - <https://www.howtogeek.com/217463/wi-fi-vs.-ethernet-how-much-better-is-a-wired-connection/>

- The router should be a
 - dual band at the minimum
 - With a few people and a few devices
 - tri-band for those with
 - more people in the household and/or with a higher number of devices.
 - These products will provide specifications regarding people and/or devices.
 - See Videos
 - Smart Connect Technology Explained | NETGEAR Tri-Band and Dual Band WiFi Routers
 - NETGEAR
 - <https://www.youtube.com/watch?v=NaM-ihYd2xo>
 - Tri-Band vs. Dual-Band what's the difference for faster internet speed?
 - Liron Segev
 - <https://www.youtube.com/watch?v=jRbhleBddtc>
- The router should have MU-MIMO
 - Multi-User Multiple Input Multiple Output
 - See Video
 - Multi-User MIMO Technology Explained (MU-MIMO) | NETGEAR Nighthawk WiFi Routers
 - NETGEAR
 - https://www.youtube.com/watch?v=AsOp6_R_q54
- The router should have QoS or Quality of Service
 - What is QoS
 - See Video
 - Dynamic QoS Explained with NETGEAR Nighthawk X4 Smart Wireless Router | R7500
 - NETGEAR
 - https://www.youtube.com/watch?v=8P_HGLkEbG
 - Types of QoS
 - Traditional QoS is acceptable
 - This is the most complex as it provides very detailed QoS management
 - Dynamic QoS is acceptable
 - This is the least complex where the routers built in intelligence manages most of the QoS management
 - Adaptive QoS
 - This lies between the two types of QoS above.
 - See the video that explains the difference between the three features
 - <https://www.youtube.com/watch?v=Qh7CUkrZ8b8>
 - WiFi Guy - Home Network Mastery
 - Wireless Router Setup - Set Up QoS
- Router Location
 - Please refer to the section on the next page
 - Where to Place Your Router

Other videos of interest

Why you should purchase and the minimum a mid-range priced router

How to Setup QoS on your Router

Smart DNS Proxy

<https://www.youtube.com/watch?v=rCyB9QHeUx4>

Comment on mid-range router at 2:35 - 2:50 mark

Where to Place Your Router:

[Where to Place Your Router for the Best Wi-Fi Speeds \(howtogeek.com\)](https://www.howtogeek.com/2011/01/01/where-to-place-your-router-for-the-best-wi-fi-speeds/)

Comprehensive Router Discussion

This video is very good as it addresses multiple troubleshooting steps in resolving or improving your internet experience! It's a bit long and chatty, however, you will see there are quite a few variables that go into troubleshooting issues inside your personal network. Which is outside of the scope of the Bertram side of the internet part of the solution.

Router QoS Setup for Better Video

Tekzilla

<https://www.youtube.com/watch?v=PUUsBubloo4>

Image of Router

Showing back panel with ports and antenna

This is just for example as you may only require four (4) LAN ports

