

What Is Fixed Wireless Internet?



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Since fixed wireless broadband transmits data through radio waves instead of wires, fixed wireless Internet offers some inherent advantages when compared to copper and fiber optic cable Internet services.

When people hear the term “wireless Internet,” many associate the term with mobile devices; however, Fixed Wireless Internet networks are typically point-to-point connections that connect fixed locations as opposed to devices that are mobile. Fixed wireless Internet systems, also called microwave wireless networks, transmit data via highly focused radio waves to roof-mounted antennas. Once the signal reaches its target, the data captured by the antenna then travels through the building’s Ethernet network. What are the advantages of this type of system when compared to wired transmission Internet services?

The Benefits of Fixed Wireless Internet By using radio waves to transmit data, fixed wireless Internet solves the problems associated with cable-based services.

- **Rapid Deployment:** Fiber optic Internet service requires a significant time investment to deploy due to the dependency on underground fiber runs. In contrast, fixed wireless Internet service provides fiber speed connections and can be deployed within a couple of days or even hours in some situations.
- **Low Impact Installation:** The installation of the infrastructure for fixed wireless Internet services is relatively simple when compared to what is involved with wired services. When a business places an order for fixed wireless broadband service, the service provider installs a small antenna using non-penetrating tripods on the roof of the company’s building. From the roof, Cat5/6 or fiber is connected to any business in the building that has arranged to connect to the service by an Ethernet connection dropped at the customer’s network location. This eliminates the need to wait months or even years to enjoy fiber speed Internet connection since fixed wireless service requires minimal low impact infrastructure.
- **High Speed Data Transfer with Low Latency:** Fixed wireless provides a dedicated point-to-point Internet connection. Since user data travels through a dedicated radio waves directly from one point to another, Internet speeds exceeding 1 Gbps (1,000 Mbps) or more, are possible with extremely low latency. If a business needs high quality, dedicated bandwidth, with low jitter and latency, fixed Wireless service is a very cost effective solution.
- **Reliability:** The underground cables used by wired Internet providers are vulnerable because they might be damaged when other utility providers work on their buried service lines. This increases the risk of costly service disruption. Alternatively, since fixed wireless Internet transmits data through the air, the likelihood of infrastructure damage is low, which enables the system to guarantee 99.99 percent uptime.
- **Security:** Fixed wireless Internet networks employ more encryption and levels of security than wired Internet connections. Every business is provisioned point-to-point encrypted circuit. Dedicated point-to-point fixed wireless Internet connections are more secured than standard wired connections.