Wireless Networks

Creating A Wireless Network

Removing a Wireless Network

Schedule a "Child Friendly" Wireless

Wireless Network Differences

Understanding Modern Wi-Fi: 2.4GHz, 5GHz & 6GHz

Why Does My Wi-Fi Use Different Frequencies?

Modern Wi-Fi networks operate on different "bands" or frequencies. Think of them as different roads that your devices can use to reach the internet.

Some roads are long and wide-reaching but slower, while others are extremely fast but don't travel as far.

Visual Comparison

2.4GHz – The Long-Distance Road

Best for:

- Smart home devices
- Security cameras
- Smart plugs
- Doorbells
- Devices far away from the router

Advantages:
✓ Travels furthest through a property
✓ Penetrates walls and floors well
✓ Reliable over long distances

Disadvantages:
✗ Slower speeds
✗ More interference from neighbours
✗ Used by many household devices

Think of 2.4GHz as a country road that reaches everywhere but isn't particularly fast.

5GHz – The Fast Motorway

Best for:

- Phones
- Tablets
- Laptops
- Smart TVs
- Streaming services
- Video calls

Advantages:
✓ Much faster than 2.4GHz
✓ Less interference
✓ Excellent for streaming and general internet use

Disadvantages:
✗ Doesn't travel as far
✗ Walls reduce performance more significantly

Think of 5GHz as a motorway. It's much faster than 2.4GHz but doesn't reach quite as far.

6GHz – The Private Express Lane

Best for:

- New Wi-Fi 6E and Wi-Fi 7 devices
- High-performance laptops
- Gaming systems
- Large file transfers

- Future-proof networking

Advantages:
✓ Fastest Wi-Fi available today
✓ Very little interference
✓ More wireless capacity
✓ Excellent performance in busy households

Disadvantages:
✗ Shortest range
✗ Requires newer devices
✗ Struggles most with walls and obstacles

Think of 6GHz as a private express lane with almost no traffic. It offers the highest performance but only over shorter distances.

Real-World Example

If you're standing:

In the same room as the Wi-Fi Access Point

Your device will usually use:
6GHz → Fastest

One or two rooms away

Your device will usually use:
5GHz → Best balance of speed and range

At the end of the garden or furthest bedroom

Your device may switch to:
2.4GHz → Best range and reliability

Why Doesn't Everything Just Use 6GHz?

While 6GHz is the fastest, it doesn't travel very far.

A good Wi-Fi system automatically allows devices to move between 2.4GHz, 5GHz and 6GHz depending on:

- Distance from the access point
- Signal strength
- Device capability
- Current network conditions

This happens automatically and usually requires no user interaction.

Which Band Should I Use?

Usage	Recommended Band
Smart Home Devices	2.4GHz
Security Cameras	2.4GHz / 5GHz
Phones & Tablets	5GHz / 6GHz
Smart TVs	5GHz
Video Calls	5GHz / 6GHz
Gaming	5GHz / 6GHz
Large Downloads	6GHz
Devices Far From Wi-Fi	2.4GHz

The Automated Integrations Recommendation

For most homes, the best experience comes from a professionally designed Wi-Fi system that broadcasts all three bands simultaneously.

Your devices will automatically connect to the most suitable frequency, ensuring the best combination of:

- Speed
- Reliability
- Coverage
- Future compatibility

In most cases, there is no need to manually select a specific Wi-Fi band, as modern systems are designed to make these decisions automatically.