

# Wireless Network

Why you need to go Wireless



# What is a Wireless Network?

A wireless local-area network (LAN) uses radio waves to connect devices such as laptops to the Internet and to your business network and its applications. When you connect a laptop to a WiFi hotspot at a cafe, hotel, airport lounge, or other public place, you're connecting to that business's wireless network.

## What Is a Wireless Network vs. a Wired Network?

A wired network connects devices to the Internet or other network using cables. The most common wired networks use cables connected to Ethernet ports on the network router on one end and to a computer or other device on the cable's opposite end.

## Catching Up with Wired Networks

In the past, some believed wired networks were faster and more secure than wireless networks. But continual enhancements to wireless networking standards and technologies have eroded those speed and security differences.

## The Benefits of a Wireless Network:

A business can experience many benefits from a wireless network, including:

**Convenience.** Access your network resources from any location within your wireless network's coverage area or from any WiFi hotspot.

**Mobility.** You're no longer tied to your desk, as you were with a wired connection.

**Productivity.** Wireless access to the Internet and to your company's key applications and resources helps your staff get the job done and encourages collaboration.

**Easy setup.** You don't have to string cables, so installation can be quick and cost-effective.

**Expandable.** You can easily expand wireless networks with existing equipment, while a wired network might require additional wiring.

**Security.** Advances in wireless networks provide robust security protections.

**Cost.** Wireless networks reduce wiring costs.

## Other reasons to go Wireless:

### Enhanced guest access

- Give secure network access to customers and business partners
- Offer a value-added service

A wireless network allows your business to provide secure wireless access to the Internet for guests such as customers or business partners.

### Improved responsiveness

- Connect to the information you need when you need it
- Provide better customer service

A wireless network can improve customer service by quickly connecting staff to the information they need. For example, a doctor in a small medical office can access online patient files while moving between exam rooms, or a retail sales person can check on available inventory necessary to write up orders on the showroom floor.

### Better access to information

- Connect hard-to-reach areas
- Improve your processes

Wireless LANs allow a business to bring network access to areas that would be difficult to connect to a wired network. For example, adding wireless access points to a warehouse can make it easier to check and manage inventory, providing the company with accurate inventory figures in real time.

## Wireless Networking: Getting Started

Ready to get started with wireless networking?

Consider these steps:

### 1. Make Sure Your PCs Are Wireless

Most laptops today have built-in wireless networking connections. If yours doesn't, you'll need to install a wireless network adapter card, which is typically inexpensive and easy to use.

### 2. Get a Router Capable of Wireless Networking

Many network routers today act as wireless networking access points. They let you connect multiple computers to a single wireless network. And they connect your network to the Internet.

You can extend wireless networking throughout your office, store, or campus by placing additional wireless access points in various locations. The additional access points extend the wireless signal's range and strength over a wider geographical area, so that it's available in more places, such as conference rooms.

### 3. Pay Attention to Location

The signal generated from each wireless access point or router extends up to approximately 300 feet. Walls, metal (such as in elevator shafts) and floors can negatively affect range. And the wireless signal's strength weakens the longer it has to travel. For best results, space out your access points and position them in central areas. Tip: Access points can provide stronger signals when installed on or near ceilings.

#### 4. Don't Overshare Access Point

For best results, don't share any single [wireless access point](#) with more than 20 users. Typically, the more users sharing an access point, the slower the wireless network can become. If your business network supports a voice over Internet Protocol (VoIP) or Unified Communications system, limit each access point to 8-12 users.

#### 5. Secure Your Network

Security is vital to wireless networking. Some security methods to consider for your network include:

- Data encryption, so only authorised users can access information over your wireless network
- User authentication, which identifies computers trying to access the network
- Secure access for visitors and guests
- Control systems, which protect the laptops and other devices that use the network.



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