Wireless Tools and Gadget

DD-WRT

- "DD" stands for Dresden, a city in Germany, where DD-WRT firmware was developed. "WRT" refers to a wireless router.
- DD-WRT is firmware compatible with most router brands and was designed to significantly improve their performance.
- It expands your router's capabilities, enables new features, and even provides better speeds.
- The process of upgrading your old firmware to DD-WRT is called "flashing" and could take up to ten minutes.

Benefits of DD-WRT

- IPv6 support.
- Firewall.
- Increasing Wi-Fi range.
- Performance tracking.
- Bandwidth prioritization.

WRT54G

- One of the most popular access points in both the small business and home market is the Linksys WRT54G.
- The WRT54G retails for about \$60 and supports the DD-WRT firmware, making it perfect for many small business deployments as well as small office/home office (SOHO) environments or your home lab



Apple Airport Express

What does the Apple AirPort Express do?

- The AirPort Express lets you create a wireless Internet access point anywhere you need a fast, dependable connection.
- It features a built-in plug for an electrical outlet, meaning you don't need to carry an additional external power adapter.

• It has some other interesting features, including a USB port for a printer or USB drive

Mobile hotspot

• A mobile hotspot or hotspot device is like a personal, portable router you can use to connect to the internet with a compatible device when there are no public hotspots available.

Smartphones

- Smartphones are no longer just clients accessing wireless networks but are also full featured access points for other clients to connect.
- Currently, the most versatile operating system for smartphones is the Android OS by Google which is based on the Linux operating system.
- The processing power and storage available on these little devices.

Enterprise-Grade Access Points

- Carrier/Enterprise WLAN Access Points are used to deliver Wi-Fi services in enterprise and commercial environments.
- Typically, a single consumer-grade access point can support 30-50 devices.
- An enterprise network solution, on the other hand, that makes use of multiple access points that communicate with one another, can serve as many devices as a college campus.

Companies who provides Enterprise grade access point

- Ruckus
- HPE Aruba
- Cisco
- Dell
- Alcatel lucent
- Avaya
- Meraki
- Ubiquiti

There are several other factors to consider when picking an access point, including:

Price

• Naturally, one of the most significant factors you should look at is if the vendor's access points will fit into your budget.

Support

- If you're like most organizations, you and your users heavily rely on a robust wireless connection.
- If something interferes with that, you need a supportive team behind the technology to help you get your wireless back up and running.

Speed

- When it comes to speed, every business's needs are different, but it's essential to ensure your internet service and access point are compatible with speed.
- For example, if you have a 100 Mbps connection but your access points can only handle 50 Mbps, you're paying for more data than you'll be able to utilize.

Multi-user multiple input multiple output (MU MIMO)

- This feature refers to a device's data stream capability, specifically how data is sent and received by the access point.
- It's displayed as a multiplier $(2\times2, 3\times3, 4\times4)$ and tells you how many transmitters and receivers the access point has.

Mesh technology

- Access points that can seek out other access points and connect to the network have mesh technology.
- It can be used to easily connect large areas even cities to the internet.

Security

- Of course, any access point you consider for your business needs to have security features.
- This includes the ability to set up guest networks so outsiders aren't on the same network as your critical data.

Ruckus beam flex technology

