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Set up a Secure Wireless Network at Home

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When setting up wireless at home, make sure to configure your box to protect your:

- bandwidth (don't let neighbors hog it)
- record (the net can be used for illegal activity)
- identifiable information (online banking, purchases, travel plans, etc.)
- computer (which could be compromised)

Secure your wireless router by taking these important steps:

Initial Setup and Placement

- Change the admin password (make it a strong one)
- Update the firmware (consider updating the drivers on your wireless card as well)
- Disable remote administration
- Place the router in a central location (keep away from outside walls and adjust its range)

Router Configuration

- Use MAC address filtering (specify what MAC addresses you allow onto your network and hard code those into the router's MAC filtering list)
- Pick a unique SSID (Service Set Identifier) and hide it (DON'T use the default; make sure you're not broadcasting the SSID)
- Change the default network addressing (to an another private [RFC1918 network](#))
- Disable DHCP on the wireless network (prevents someone connecting to your wireless router from obtaining an IP address)
- Turn off the router when away

Use the Strongest Encryption Option

- WEP (Wired Equivalent Privacy): 40-Bit or 104-Bit key algorithm, first cracked in 2001, now can be hacked as fast as 30 seconds; it has therefore been deprecated by IEEE as no longer meeting security goals

- WPA-TKIP: Uses 128-Bit encryption keys and dynamic session keys; made to be backwards compatible with Pre-WPA hardware
- WPA2-AES (Wi-Fi Protected Access 2): Uses the new Advanced Encryption Standard; not backward compatible

Useful Resources

- General Wireless Information: www.wi-fi.org
- Random Password Generation: www.grc.com/passwords.htm
- Check Your SSID Exposure: www.wigle.net

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