

# Internet and Wireless

## How can I help make wifi better on campus?

There are things users of wifi on the Carthage campus can do to help create a better wifi environment. Consult the tips below to see if some of your behaviors may be influencing the performance of campus wifi.

Be sure to report any connectivity issues (wired or wireless) by emailing [connectivity@help.carthage.edu](mailto:connectivity@help.carthage.edu). That will create a help request in Request Tracker, our help ticketing system. You may also call the Library Information Desk at 262-551-5950 or visit the library to request help. Please provide as much information as you can, including

- Location of the problem (dorm building, room number)
- What you are trying to do (connect Chromecast, stream Netflix on Mac laptop, etc.)
- What device and OS you are using
- Whether the problem is constant, recent, or intermittent
- Whether others are having a connectivity problem in the same area

The more information you can give us, the better we can troubleshoot your connectivity problem.

### TIPS FOR A BETTER WIRELESS CONNECTION FOR YOU AND YOUR NEIGHBORS

**Use a Wired Connection if Possible:** Plug gaming consoles into a wired connection whenever possible. We recommend that any data-intensive use (such as streaming movies, gaming, video chatting, large downloads, etc.) be connected via the wire whenever possible. The library can provide a cable of reasonable length upon request for free (send an email to [connectivity@help.carthage.edu](mailto:connectivity@help.carthage.edu) to request one).

**Wireless Printers:** Wireless printers are not allowed on campus. Turn off the wireless function on printers. The printer will never connect to our network but will still cause interference for other devices using wifi.

- For most HP Models, use the menu to navigate to "Setup," then "Network," then "Wireless Radio" (on some models, this is towards the bottom of the scrollable menu). Turn the Wireless Radio OFF.

**Register all Devices:** Register your Chromecasts, Rokus, and other allowed devices that broadcast onto the network (we have found that once they are registered, they usually stop broadcasting on the network).

- [How-to to register devices](#)
- [How to set-up your Chromecast](#)

**Run Anti-virus:** Run anti-virus and anti-malware programs on a regular basis.

**Charge Your Battery:** A fully charged battery has been known to increase WiFi performance.

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**Reboot:** Reboot your device or try closing all of your browsers and reopening them.

**Routers Prohibited:** No personal routers, extenders, repeaters, etc. are allowed on campus. They will not function and are a leading cause of disruption in our delivery of stable Wifi.

**Turn Off Devices that Emit or Consume a Wifi Signal When Not in Use:**

Whenever you are not in your room, turn off any applications or devices that consume large amounts of data or bandwidth. That is, stop your Netflix, Pandora, etc. if you are not using it.

**Always Update Devices:** Always be sure to have your devices updated, this improves a lot of connectivity issues (especially with iOS).

**Update Wireless Network Adapter and Card:** Always be sure you have the latest wireless network adapter drivers. Simply clicking "check for updates" doesn't always work, so you should search online for the adapter name/model for available updates.

- What is a network adapter on a computer?
  - A network adapter is the component of a computer's internal hardware that is used for communicating over a network with another computer. It enables a computer to connect with another computer, server or any networking device over an LAN connection. A network adapter can be used over a wired or wireless network.
- What is a network card in a computer?
  - A network interface card (NIC or network card) is an electronic device that connects a computer to a computer network, usually a LAN. It is considered a piece of computer hardware. Today, most computers are equipped with network cards.

**Check SSIDs on Devices:** Check what wireless networks (SSIDs) are defined on your device. If you have used wifi at home, school, hotels, etc., the device saves these networks to automatically connect the next time you are in their area. Eliminate the ones you won't use again or don't use often, and make sure that Carthage-Open and/or Carthage-Secure are at the top of your list.

**Check Settings on Wireless Adapter:** On Windows devices, you can go into the "Network and Sharing Center" to adjust the properties of your wireless adapter. Each wireless adapter model had different options, but here are some common ones:

- Option to turn off your wireless adapter to save power if your battery is running low. Turn that off or uncheck it.
- Settings for "Roaming Aggressiveness," "Transmit Power," or anything else that looks like signal strength can be set to "Maximum."

**Microwaves and Game Controllers:** Be mindful of devices that use 2.4GHz frequencies, as they will interfere with wifi. This includes microwave ovens and

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some remote controls (Xbox One). If you have a wireless access point (AP) on the jack in your room, keep these devices as far away from the AP as you can.

**External Wiredless Adapter:** Try installing an external wireless adapter. These can usually be more powerful than the standard stock adapter your computer came with.

**Carthage-Open vs. Carthage-Secure:** Understand that the ONLY appreciable difference between Carthage-Open and Carthage-Secure is that Secure has an extra layer of encryption that you may not need. If your device has a hard time connecting to Carthage-Secure, use Carthage-Open. There is no speed difference or difference in priority.

**Problems with Google:** If you are having issues with Google services, check <http://www.google.com/appsstatus#hl=en&v=status> to see if there is a known Google issue that has been reported. Always test various apps and destinations; just because one service is unavailable may not mean your wireless isn't working.

**Check DNS Settings:** If you are having issues with connecting to Carthage-based pages, such as my.carthage, check your DNS settings to make sure they are set to "automatic." If that doesn't work, try changing your Carthage password by going to <https://password.carthage.edu/>.

**Check Your Connection Speed:** You can check your connection speed by going to <http://www.speedtest.net/> to see if there is an issue with your Carthage connection, or the problem is with a particular site or service you are using. Speeds above 10 mbps are considered acceptable.

**Traveling from Building to Building:** As you travel from one building to another, your device is attempting to connect to different networks, which may require you to turn your WiFi off and on (this can be particularly problematic for the Hedberg/JAC and Clausen/Straz exchanges since the buildings are connected).

**Number of Devices Allowed on Network:** There is a limit as to how many devices you can register on the Carthage network. Check to see what devices you have registered under your account at <https://connect.carthage.edu/status> and delete anything you no longer use.

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