

WIFI AT GREENSPRING

Where we are and what it all means
to me.

WiFi at Greenspring

- What is WiFi?
- What devices use WiFi?
- How did WiFi get to where it is today?
- Where is Greenspring in all this?
- How can I improve my WiFi experience?
- Do I need to improve my WiFi experience?

What is WiFi?

A facility allowing computers, smartphones, printers, smart televisions, or other similar devices to connect to the Internet or communicate with one another wirelessly within a particular area.

What devices use WiFi?

- Computers, Laptops, iPads, Tablets
- Printers
- Smart Phones (when not using regular assigned phone network such as 3G, 4G, etc.)
- Media Bridges
- Electronic Gaming Consoles
- Smart Televisions (when not using “Bluetooth”)

How did WiFi get to where it is today?

- Initially developed for cashier systems.
- Mid 1990s – IEEE adopted 802.11 as standard.
- 1999 – 802.11(b) adopted. 11 Mbps
- 2002 – 802.11(g) adopted. 54 Mbps
- 2009 – 802.11(n) adopted. 300 Mbps
- Present Day – 802.11(ac) adopted
 - 1300 Mbps on 5GHz
 - 450 Mbps on 2.4 GHz

Where is Greenspring in all this?

- Newest 802.11(ac) technology deployed.
 - All previous technologies (b/g/n) are compatible.
 - Due to technical problems, portions of the 5GHZ (ac) has been turned off but bandwidth has been added to compensate. Erickson is working this issue.
- Download speeds with the new, wireless system have proven to be substantially greater than those realized on the old “hard wired” modem system.

What is network speed?

The rate at which data is transferred to your computer down (Download) or up (Upload) measured in Megabits per Second (Mbps).

Comparative Download Speeds

- AEITV – 5–15 Mbps (Wired Ethernet)
- ERICKSON 802.11(N) - 10–30 Mbps
- ERICKSON 802.11(AC) – 45-100 Mbps

Estimated numbers based on experience – many variables:

- Apartment configuration.
- Equipment condition and configuration.
- Distance from the access point (router in hallway).

Typical Download Requirements

- 0.5-2 Mbps: Is enough for all your basic chatting and mailing services, though it will slow down some content-heavy websites
- 4-5 Mbps: Enough for handling all websites and basic video streaming.
- 20+ Mbps: This is the minimum you need to even consider HD streaming.
- 50+ Mbps: Enough for 1080p movies and over-the-air backups

Can I improve my WiFi experience?

- Most resident devices probably use 802.11(n) technology.
- Greenspring wireless broadcasts in all older technologies in addition to 802.11(ac).
- One can utilize the 802.11(ac) by:
 - Purchasing add on equipment (adapters) with (ac)
 - Specify that you want wireless (ac) capability when purchasing new equipment (computers, printers, laptops, iPads, etc).

How can I improve my WiFi performance?

We will look at 2 devices that can improve download speed – download speed being our benchmark.

- Netgear A6200 802.11ac WiFi Adapter
- Linksys WUMC710 Wireless AC Universal Media Connector (referred to as “Media Bridge”).

Netgear A6200 *802.11ac USB WiFi Adapter*

\$59.99 at Best Buy

\$69.99 at Walmart



Netgear ac A6200 Adapter

- For use on a single device – normally a desktop or laptop.
- Easy to set up.
 - Insert included DVD.
 - Follow instructions.
 - May require log in using User Name and Password.

Linksys WUMC710 Wireless AC Media Connector

\$38.99 at NewEgg

- \$116.36 at Walmart



Linksys WUMC 710 Media Bridge

- Can be used to plug several devices via ethernet cables.
- Provides higher download speeds than adapters.
- Still susceptible to location and position problems.
- More difficult to set up.
 - Requires registering it and any attached devices in the Portal.
 - Helpers are in a learning process. At present time, might be better to contact Erickson IT.

Do I Need to Improve My WiFi Speed?

YES AND NO ANSWER – OR IT DEPENDS

- NO – If you typically only use the internet for e-mail, average web surfing (Googling), and occasional program downloads.
- YES – If you are a “power user” surfing the web extensively, transferring large files (download or upload), or do a lot of streaming of videos – watching Netflix movies on demand. Or – you may just like “messing with gadgets”.