Norvado

WELCOME TO YOUR FAST
Internet Guide.

How to get the most from your Internet.

Norvado Fiber Internet takes you far beyond the limitations of traditional, copper cable Internet. Fiber relies on light rather than electricity to transmit data, which facilitates much faster Internet connections. Despite the lightning fast speeds we offer, there are a number of factors that can reduce the end speed of your Internet.

Wired Connection

You will get the highest connection speed possible when you connect your device with an Ethernet cable to your router or modem. Wired connections operate with less environmental interference than wireless connections and therefore yield higher speeds overall.

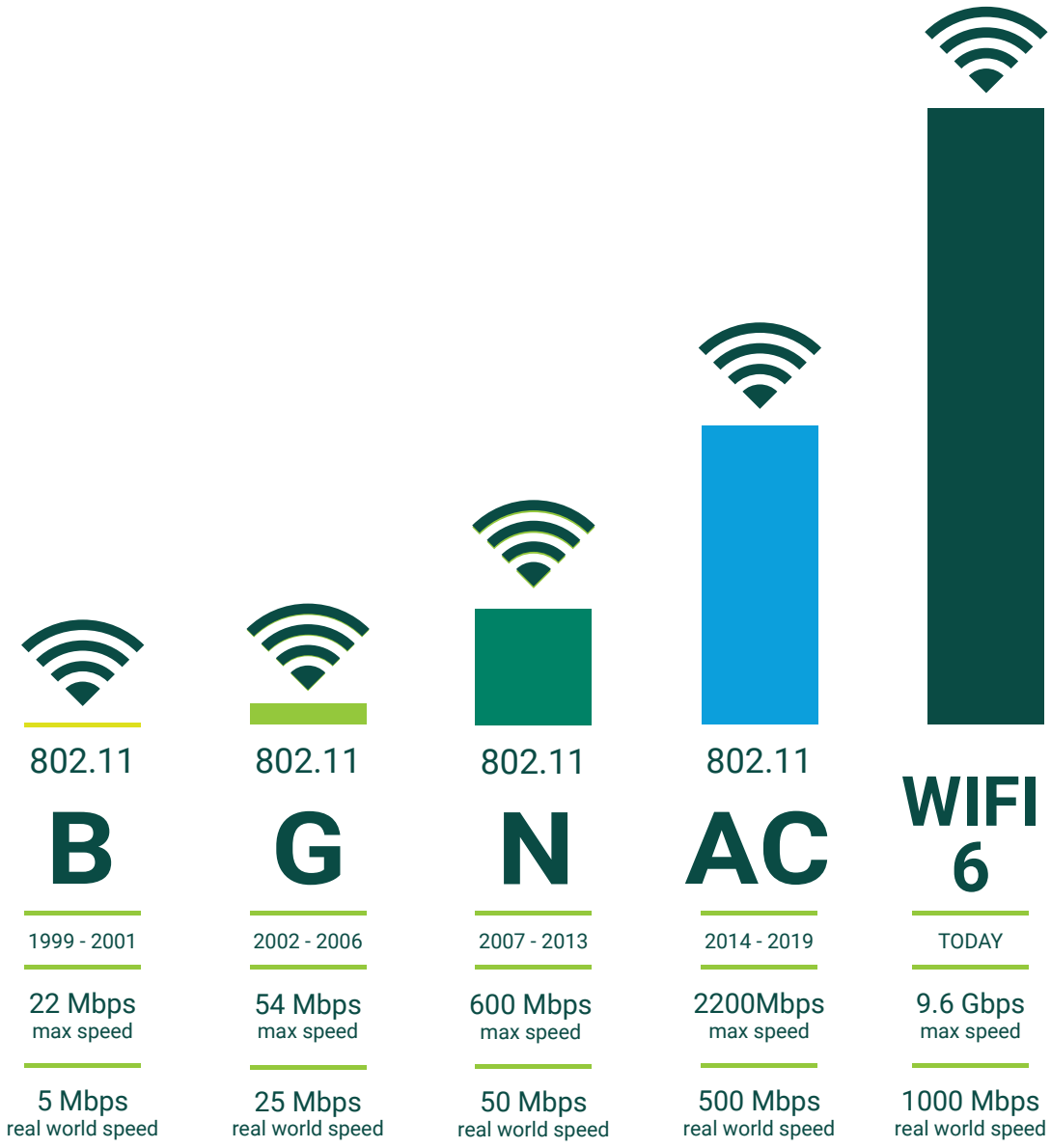
Wireless Connection (WIFI)

Wireless connections will never reach the full Internet speed provided. There are many factors that play into real-world wireless performance. The latest wireless standards can theoretically give you gigabit speeds, but in actual practice, they are usually well below 300 Mbps. Keep reading to find out how to optimize your wireless Internet connection.

Pssst! Your router can be wireless (any WIFI) or wired to your devices. For wired networks, you'll also need an Ethernet cable (not included).

Check your router.

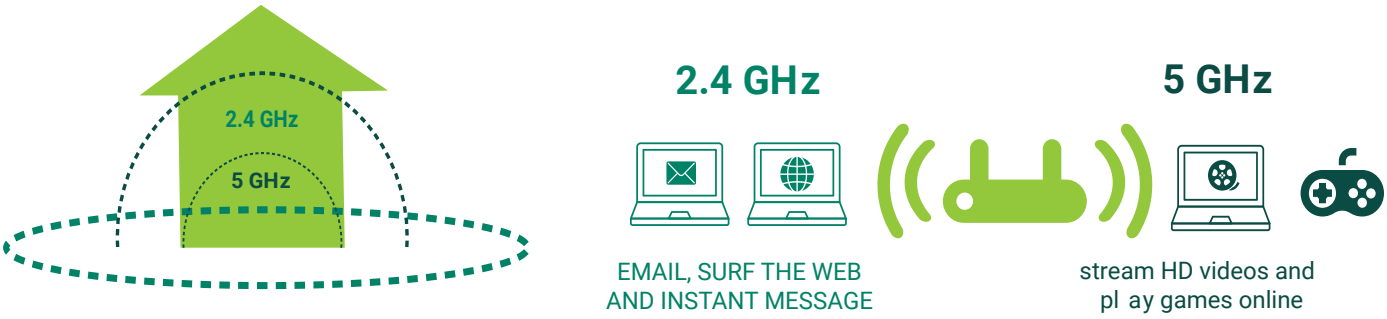
Don’t let your old router slow you down any longer. What worked well a year or two ago could actually be suppressing your speed and coverage. Router technology is changing as rapidly as the devices you connect to them. Maximize the bandwidth speed you are currently paying for by upgrading your router to the most current technology to match your devices. You’ll get a better, faster and more reliable connection.



Did you know your router will prioritize wireless speeds based on the slowest device it has connected to it? Your old laptop could be slowing down the WIFI speed on your other devices.

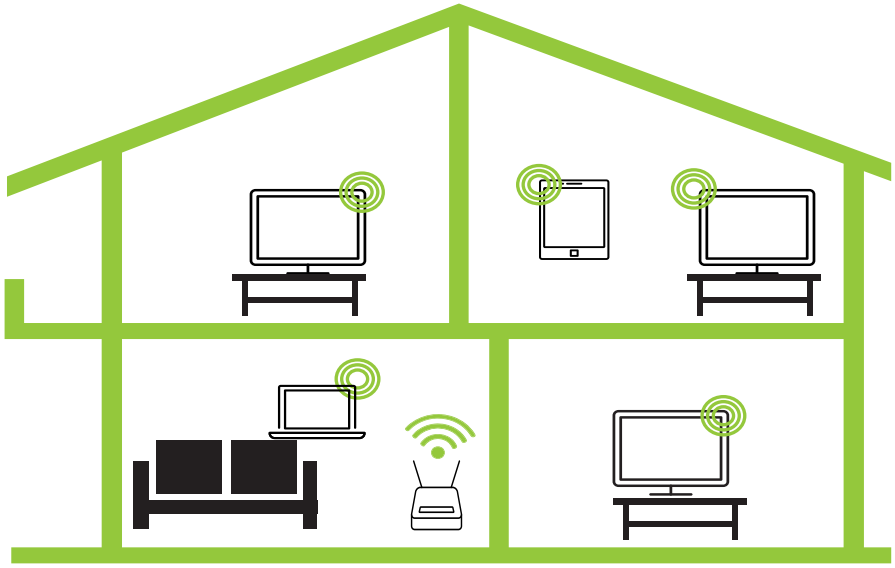
Dual Band Makes a Difference

Have the best Internet experience by setting up the correct band for your device. Dual Band Routers feature two Internet bands. The 2.4 GHz band uses longer waves and is better suited for longer ranges and transmission through walls and solid objects. The 2.4 GHz band supports a lower transmission speed than 5 GHz band. The 5 GHz band offers more stable connection and higher speeds. However, the shorter waves used by this band make it less able to penetrate walls and solid objects.



Router Placement

Ideally the router should be centrally located at an elevated spot on the main level of the home. It should never be placed in an enclosed cabinet or shelving unit and should always be in an upright position. Improper placement of the router can greatly reduce the connection speed you receive on any wireless device. The farther away your device is from the router, the weaker the signal will be, which will slow the connection speed.



Eliminate interference from other wireless networks or devices.

If your router's wireless signal is competing with other networks or devices, your speeds could be affected as well. Typical household devices that cause interference to wireless networks are: microwaves, cordless phones, baby monitors, Bluetooth devices, wireless mice, fluorescent lights and wireless surveillance cameras. To reduce interference from other wireless networks or devices, distance your router from the sources as much as possible and turn any source of interference off whenever possible.

Speed (Download/Upload)

The speed of your Internet is broken down into units of Download (DL) and Upload (UL) speed.

Download speed is how fast you can pull data from the server to your device. Most connections are designed to download much faster than they upload, as the majority of online activity, like loading web pages or streaming videos, consists of downloads. Download speed is measured in megabits per second (Mbps) or gigabits per second (Gbps).

Upload speed is how fast you send data from yourself to others. Uploading is necessary for sending large files via email or when using video-chat (i.e. Skype, Facetime, Hangouts, etc.) to talk with someone online. Upload speed is measured in megabits per second (Mbps).

The Internet speed you experience can vary greatly depending on how you are connecting to your network and the device you are using. If your laptop or desktop computer is hardwired into your router via an Ethernet cable, your Internet speeds will be significantly faster than if you are connected to your network via WIFI.

Test Time! Visit norvado.speedtestcustom.com to see how fast your internet speeds are.

Fiber Equipment Notice

All Norvado telephone, television and internet subscribers connected via the fiber optic facilities have an Optical Network Terminal (ONT) with Battery Backup System (BBS) and an Uninterruptible Power Supply (UPS) on or in the premise. The ONT provides telephone, television, and/or internet service(s) throughout the structure, and the BBS and UPS keep these services functioning at the ONT during an electrical power outage. The ONT and UPS will typically be located in close proximity to one another. In rare cases, customers use self-supplied alternative energy methods to power the 12VDC ONT instead of a BBS and UPS provided by Norvado.

Many of the Battery Backup Systems (BBS) and Uninterruptible Power Supplies (UPS) installed by Norvado have an eight (8) hour minimum battery backup capacity, but some do have a 24 hour battery backup capacity. The frequency and duration of services in use (i.e. phone calls made or received, and internet/television usage) during an electrical power outage will significantly impact the length of time that the BBS and UPS can support service(s). Charge and discharge cycles, battery condition and age, temperature, and load can all reduce the battery backup capacity.

Norvado subscribers on fiber facilities reliant on 911 services must keep the Battery Backup System (BBS) and Uninterruptible Power Supply (UPS) in mind during electrical power outages. In order to contact emergency services during an electrical power outage, the BBS and UPS must be functioning and powering the Optical Network Terminal (ONT), and a hardwired, non-cordless telephone or Wi-Fi router that doesn't require power, must be used. If you do not need to keep communication lines open during a power outage or do not own a non-cordless telephone or router as previously mentioned, then a BBS may not be needed in your situation.

Norvado internet subscribers using Voice Over Internet Protocol (VOIP), Hosted Voice Over Internet Protocol (HVOIP), or Hosted PBX (i.e. Norvado SmartLink PBX, Vonage, Magic Jack, etc.) services will need to speak with a Norvado Sales Representative or Network Technician to determine your network requirements in regards to Battery Backup Systems and Uninterruptible Power Supplies. It is likely that there are other network elements (i.e. telephones, local area network switches, routers, etc.) that will require a battery backup to function during an electrical power outage and need to be taken into consideration.

Norvado sells and will install replacement batteries, along with larger capacity Battery Backup Systems and/or Uninterruptible Power Supplies (UPS), at the customer's request and expense. Battery testing and replacement are the subscriber's responsibility should they wish to

continue to have the battery backup feature functioning and powering the telephone, television and/or internet service(s) in the event of an electrical power failure. Additional or replacement batteries can be purchased from a battery outlet (i.e. Batteries Plus) and replaced by the subscriber if desired. To do so, the battery type and size will need to be determined by locating the UPS, usually where the fiber line enters the premise and near a power breaker box, and noting the battery specifications that is currently in use. To test the battery in the UPS, unplug the UPS from the A/C outlet. The battery should begin supporting hardwired, non-cordless phones, and television and internet service(s), if applicable. The UPS may have visual and/or audible alarms to indicate the status and condition of the unit.

The Uninterruptible Power Supplies (UPS) and Battery Backup Systems (BBS) provided by Norvado come with manufacturer warranties. The most common manufacturers of Norvado equipment are:

CyberPower

- Typically a 3 year warranty
- Support: 877-297-6937 (press 1) Monday — Friday (7am — 6pm CST)
- Website: www.cyberpowersystems.com

PSI
PowerTec Solutions International

- Typically a 1 year warranty
- Support: 615-879-3326
- Website: www.powertecsolutions.net

Subscribers are encouraged to contact our support line should they have questions regarding warranties. Norvado shall not be liable for any warranty or assisting in warranty processing if the subscriber independently procures and installs their own UPS/BBS and/or replacement battery.

For more details regarding fiber facilities, please call 800-250-8927.

Sincerely,

Rob Lombard
Chief Operating Officer

Norvado

LOCATION

Headquarters
43705 US HWY 63
PO Box 67
Cable, WI 54821

Phillips Office
105 N Avon Ave
PO Box 108
Phillips, WI 54555

BUSINESS HOURS

Monday - Friday
8:00am - 4:30pm
Saturday Closed
Sunday Closed

PHONE

800-250-8927
Fax 715-798-3044
Diggers Hotline 800-242-8511

GET CONNECTED

@norvado | www.norvado.com | #discoverthepossibilities