

## Objective 1

# Evaluating Bandwidth and Options

## GETTING STARTED — WITH — TECHNOLOGY



### HOW THIS HELPS YOU

Being able to comprehend how the technologies in your home interact will likely help you better understand how to connect devices, optimize your home network, or buy the right equipment. Having a solid foundational understanding will also allow you to be able to communicate with various providers to ensure that the proper services are purchased.

### THINGS TO KEEP IN MIND

Internet speeds and availability of quality broadband will vary wildly across the state or even within a given county.

The quality of the network and the speed in which information is uploaded and downloaded is impacted by more than one variable. The service provider, along with the type of network connection, can greatly factor into the clarity of video or the speed a website loads. Another key contributor in home networks is the type of devices used in-home and the type of activity done on those devices.

Streaming to a device, whether it be TV, computer, printer or phone, will often move slower than a physical connection. When most devices are connected via cables or ethernet, they will communicate quicker resulting in quicker upload and download times. In many instances, devices can be connected physically to TVs, printers and computers to avoid relying on a wireless connection to send and receive information.

### TERMS TO KNOW

#### Home Network

A group of devices that connect to one another in a home.

#### Internet Service Provider

The company that provides its customers with access to the Internet.

#### Web Browser

The application or software program that allows the individual to open and visit different web pages.

#### Bandwidth

The volume of information sent across a connection in a set amount of time, measured in megabits per second (Mbps).

#### Internet Speed

How quickly information is sent and received across your connection.

#### Broadband

High speed internet access for varying technologies.

### TYPES OF INTERNET CONNECTIONS

#### Fiber

Internet service that is powered by fiber optic cables.

#### Wireless

Network that provides access to the Internet by transmitting over the air.

#### Cable

Transmits information by sending electricity over copper wires.

#### DSL

Used to transmit digital data over telephone lines.

#### Satellite

Wireless signal sent from satellites orbiting the Earth.

## NOTES

Internet providers in my area  
(Can be found using the FCC website listed below.)

---

---

How many devices do you have in your home?  
(ie: television, computer, phone, tablet)

---

---

---

---

What sort of activities will be done online?  
(ie: streaming video, listening to music, browsing  
the internet, telework)

---

---

---

---

## RESOURCES

### [Household Broadband Guide](https://www.fcc.gov/sites/default/files/household_broadband_guide.pdf)

[https://www.fcc.gov/sites/default/files/household\\_broadband\\_guide.pdf](https://www.fcc.gov/sites/default/files/household_broadband_guide.pdf)

### [The Resource Rail](https://mobroadband.org/)

<https://mobroadband.org/>

### [Speed Test](https://mobroadband.org/speed-test-2/)

<https://mobroadband.org/speed-test-2/>

### [Federal Communications Commission](https://broadband477map.fcc.gov/#/)

<https://broadband477map.fcc.gov/#/>