

Major Broadband Issues

- Accessibility
- Affordability
- Adaptability

Cuts across urban, rural and suburban Maryland

The challenges are the same.

The solutions are different.

Access Always an Issue; COVID Highlighted it

- In Maryland, depending on the standard, somewhere between 15-20% of Maryland households lack access to high speed internet.
- Using the FCC standard, 36% of Maryland households lack broadband access
- Nationally the number is much higher, 39-40%.
- Business model for private providers falls apart due to lower population densities in rural areas.
- INTERNET IS NOT A REGULATED UTILITY

State Entities created to Solve Broadband Access Issue

- Rural Broadband Coordinating Council (Reauthorized)
- Maryland Broadband Cooperative (created in 2006)
- Office of Statewide Broadband (codified earlier this year!)
- One Maryland Broadband Network
 - A 1,324-mile fiber optic broadband network that links 1,068 government facilities and community “anchor institutions” in every county in the state, while interconnecting and extending three independent networks: networkMaryland, the statewide network operated by DoIT, the Inter-County Broadband Network (ICBN), a consortium of 9 central Maryland counties and cities and the Maryland Broadband Cooperative (MDBC), a rural non-profit carrier

State Actions Enhancing Broadband Deployment

- Allowing alternative entities to provide broadband services
- Dig Once policy
- Digital Connectivity Act
- Resource Sharing Agreements specific for rural broadband services
- Raising Procurement limits
- Significant funding since FY2019 dedicated to broadband

FY 2022 State Funding

- **\$300 million directed to broadband adoption, affordability and connectivity**
- \$45 million for monthly fee subsidies (operating)
- \$30 million for devices (operating)
- \$30 million for FY 2021 rural broadband projects (capital)
- \$15.180 million for FY2022 rural broadband projects (capital)
- \$2 million for the Digital Inclusion Fund (operating)
- \$45 million for municipal broadband (capital)
- \$5 million for Gap Networks
- \$97.6 million for broadband infrastructure (capital)
- \$4 million for UMS education program
- \$2 million for Digital Navigators
- \$23.720 million for rural broadband

The Governor allocated an additional \$100 million in ARPA dollars for broadband deployment

Affordability

- 520,000 Maryland households do not subscribe to wireline broadband service at home. That comes to 23% of homes lacking service.
- 40% of all Marylanders without wireline broadband, or 206,000 households, are African American
- 96,000 households in Baltimore (40.7%) did not have wireline internet service, such as cable, fiber, or digital subscriber line service (2018)
- 75,000 Baltimore City households, or one in three, do not have either a desktop or laptop computer.

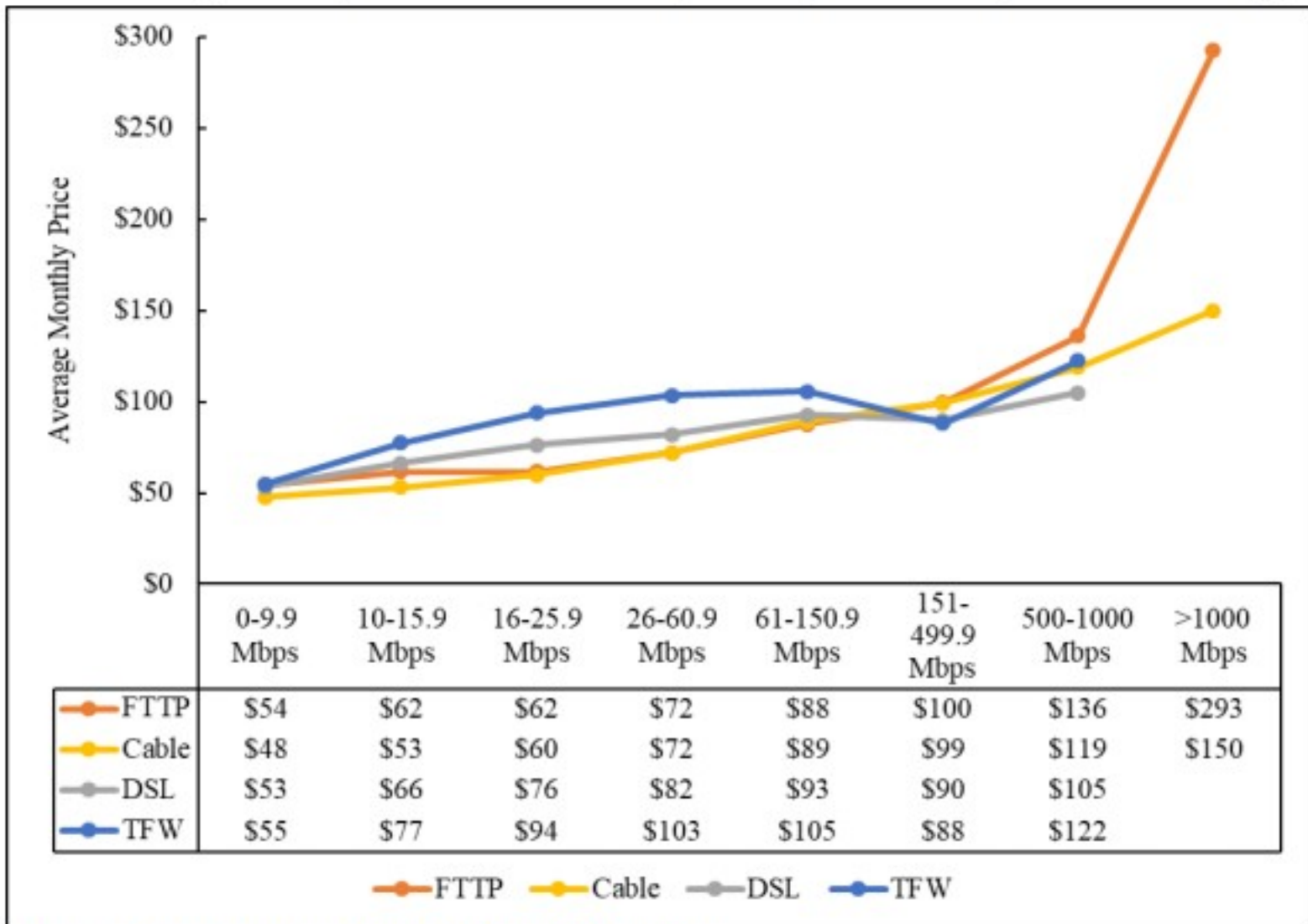
- 7% of Americans don't use the internet (Pew Research Center)
 - 25% of seniors

CDNetwork commissioned a Report on the Digital Divide with the Abell Foundation:

https://abell.org/sites/default/files/files/2020_Abell_digital%20inclusion_full%20report_FINAL-web.pdf

Pricing-Pay Attention to Speeds

Average Monthly Price for Internet-Only Plans by Download Speed and Technology



FCC Emergency Broadband Benefit

- The Emergency Broadband Benefit will provide a discount of up to \$50 per month towards broadband service for eligible households.
- Can also receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers if they contribute more than \$10 and less than \$50 toward the purchase price.
- The Emergency Broadband Benefit is limited to one monthly service discount and one device discount per household.

Who is Eligible - Emergency Broadband Benefit

- Has an income that is at or below 135% of the [Federal Poverty Guidelines](#) or participates in certain assistance programs, such as SNAP, Medicaid, or [Lifeline](#);
- Approved to receive benefits under the free and reduced-price school lunch program or the school breakfast program, including through the USDA Community Eligibility Provision in the 2019-2020 or 2020-2021 school year;
- Received a Federal Pell Grant during the current award year;
- Experienced a substantial loss of income due to job loss or furlough since February 29, 2020 and the household had a total income in 2020 at or below \$99,000 for single filers and \$198,000 for joint filers; or
- Meets the eligibility criteria for a participating provider's existing low-income or COVID-19 program.

How to apply

- As of May 12, 2021, eligible households will be able to enroll in the program to receive a monthly discount off the cost of broadband service from an approved provider. Eligible households can enroll through an approved provider or by visiting [GetEmergencyBroadband.org](https://www.getemergencybroadband.org).
- The State is using ARPP funds to enhance the EBB benefit with an additional \$10-\$15 monthly subsidy.

Adaptability

- Access and affordability don't matter if people don't have a device to connect with the internet
- 391,000 Maryland homes do not have a desktop or laptop computer or 18% of all households.
- 290,000 Maryland households have neither a desktop, laptop nor tablet computing device in their homes or 13% of households without digital access tools.
- Montgomery County, Office of Statewide Broadband and the University of Maryland Extension hosted a Digital Inclusion Education Summit on June 2021.

Digital Inclusion Fund

A competitive grant program to support capacity building for local governments and nonprofit organizations seeking to close the digital divide in Maryland by furthering access to high-speed internet and to implement programs to expand digital literacy

Will receive \$2 million in FY 2022.

No funding source identified.

The fund may be used only to distribute grants not to exceed \$500,000 to local governments and nonprofit corporations that are working to further the goals of the office, including:

- (i) providing training to residents in the use of digital tools;
- (ii) enhancing the capacity of communities to access government services, participate in civic matters, and pursue educational opportunities;
- (iii) researching populations with low adoption rates for home internet and computers; and
- (iv) other digital inclusion or equity goals identified in the statewide plan.

Federal Funding Opportunities

- USDA Rural Utility Service – ReConnect
- FCC – Rural Digital Opportunities Fund
 - \$49 million awarded to Talkie Communications to cover unserved areas in MD and DE
 - Starlink big awardee nationally
- American Rescue Plan Act
 - Biden Administration released guidance that funding used for broadband can only be used for unserved areas
- NTIA - \$288 million available for broadband infrastructure.
Applications were due Aug 17, 2021
 - Eligible entities are partnerships with state entities, one or more political subdivisions of a state and a provider of fixed broadband service.
 - Awards are expected between \$5 million and \$30 million
- Infrastructure Package in the Fall

Mapping

- The State will update its own maps for broadband
- FCC is updating its maps
- NTIA also awarded funds from federal government for mapping

Future Issues and Current Legislation

- Request federal funds be distributed as a block grant to States
 - Federal agencies won't invest in areas with current investments or in areas that have service
- Joint use of facilities and assets/OVERBUILD
 - Better utilize existing facilities
 - Manage inventory of assets with a vertical assets manager
- Deployment Issues
 - Access to rights-of-way and easements
 - Pole attachments and make ready
- Funds for affordability are OPERATING dollars while accessibility is a CAPITAL EXPENDITURE

Issues

- Municipal broadband – can't utilize funds for areas that have services
- Only one year of appropriations to cover operating subsidies – how to fund into the future?
- Net neutrality – unclear of direction of new Administration
- Infrastructure planning and capacity improvement: Internet of Things/unmanned delivery systems/automated vehicles/increased demand for telecommunications

Contact Information

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Deploying broadband to rural areas is a complex three-part problem.

Long-Haul – Nationwide/Worldwide

Current Speeds Up To: Speeds 1 Gbps

Upgrading Up To: 100 Gbps

Backbone – Statewide and Regional

Current Speeds Up To: Speeds 1 Gbps

Upgrading Up To: 100 Gbps

Middle Mile – Statewide and County

Current Speeds: 50 Mbps - 200 Mbps

Upgrading Up To: 1 Gbps - 10 Gbps

Last Mile – County, City, Neighborhood to Home/End User

Current Speeds: Upload 10 Mbps / 75 Mbps, Download 25 Mbps / 300Mbps

Upgrading Up To: Upload 25Mbps - 100Mbps, Download 100Mbps - 1Gbps

Four different groups of companies are working on one or more of these four areas.

Mapping Problem

Where are the unserved and underserved areas for Internet in the State of Maryland?
Federal and State wants to fill in the spots without paying for “Over Build”.

Federal Government Maps are at the census block level.

My house is in a block that is 2 miles wide and 4 miles long.

Maps need to be at the parcel / lot level.

Minimum service standards always are changing as we speak.

Need three items at the parcel lot level.

Does the lot have internet service and what type of internet service?

Wired? Above ground? Underground?

Fiber? Above ground? Underground?

Wireless? Point to Point? Geosynchronous Orbit Satellite?


Low Earth Orbit Satellite? Cell service, 3G, 4G, LTE, 5G.

Upload speed. Measured?

Download speed Measured?



**Choptank Electric
Cooperative**

A Touchstone Energy[®]
Cooperative 

Broadband through Choptank Fiber

Presented by

Matthew Tefteau
Manager of Government Affairs

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Choptank Electric Cooperative

By the Numbers

99.98%

Average System Availability Index in 2020

1.04

Average Number of Outages Experienced per Member per Year

49,747

Calls Made to Call Center

152

Full-time Employees

6,328

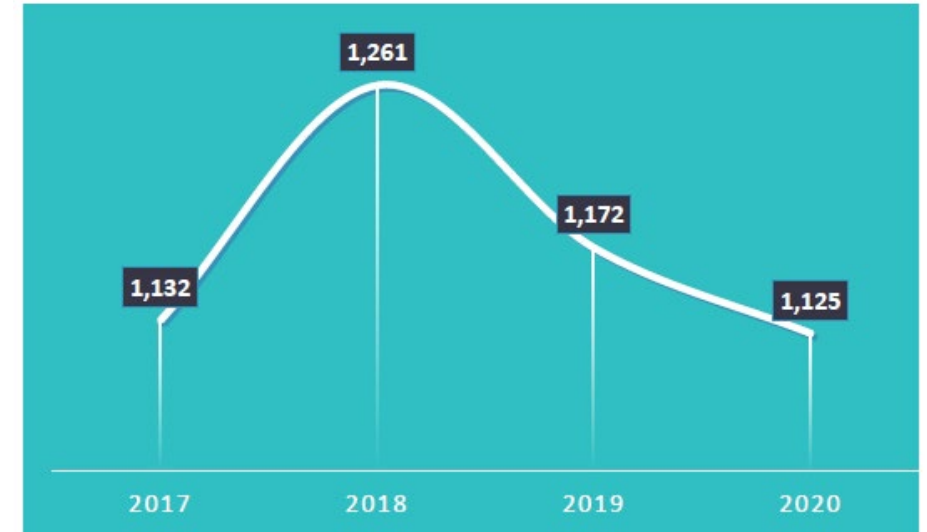
Miles of Line

8.72

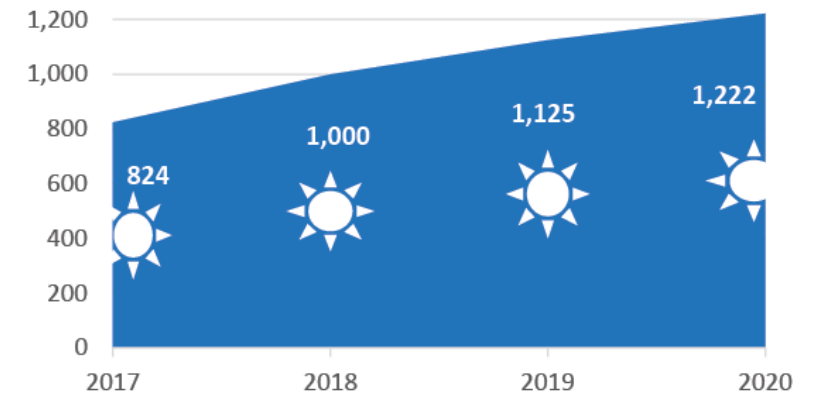
Meters per Mile

- **55,188 Membership Accounts**
(as of 2020)

- **Average kWh Residential (Monthly)**



- **Number of Net Metering Accounts**





The Path to Broadband for our Cooperative

- In 2019, SB 634 allowed an electric cooperative to use its existing easements for broadband (middle mile fiber leasing)
- In 2020, HB 999 allowed CEC to vote to become Member Regulated (to achieve economies-of-scale necessary for rural fiber deployment)
- On Aug 13, 2020, CEC members voted for Broadband through Member Regulation
- On April 15, 2021, Choptank Fiber connected our first customer





Choptank *Fiber*





Ribbon Cutting Celebration – April 15, 2021



Moving Forward

Initial buildout and connections in the Summer of 2021.

- To speed up the process – We have partnered with Queen Anne’s, Caroline & Somerset Counties to leverage funds from the Office of Statewide Broadband for FY21. We will partner with remaining counties in FY22 and FY23.

We expect to pass **500-1000 homes** in the remainder of this year. In future years, our goal is to pass up to **2000** locations annually. Grant funding can increase those numbers.

Governor Hogan and the MD General Assembly budgeted \$299,500,000 for FY ‘21 & ‘22 for broadband infrastructure development, subscription subsidies, Digital Navigators and more.....



Details

Pricing

Up to 100 Mbps \$84.95/month

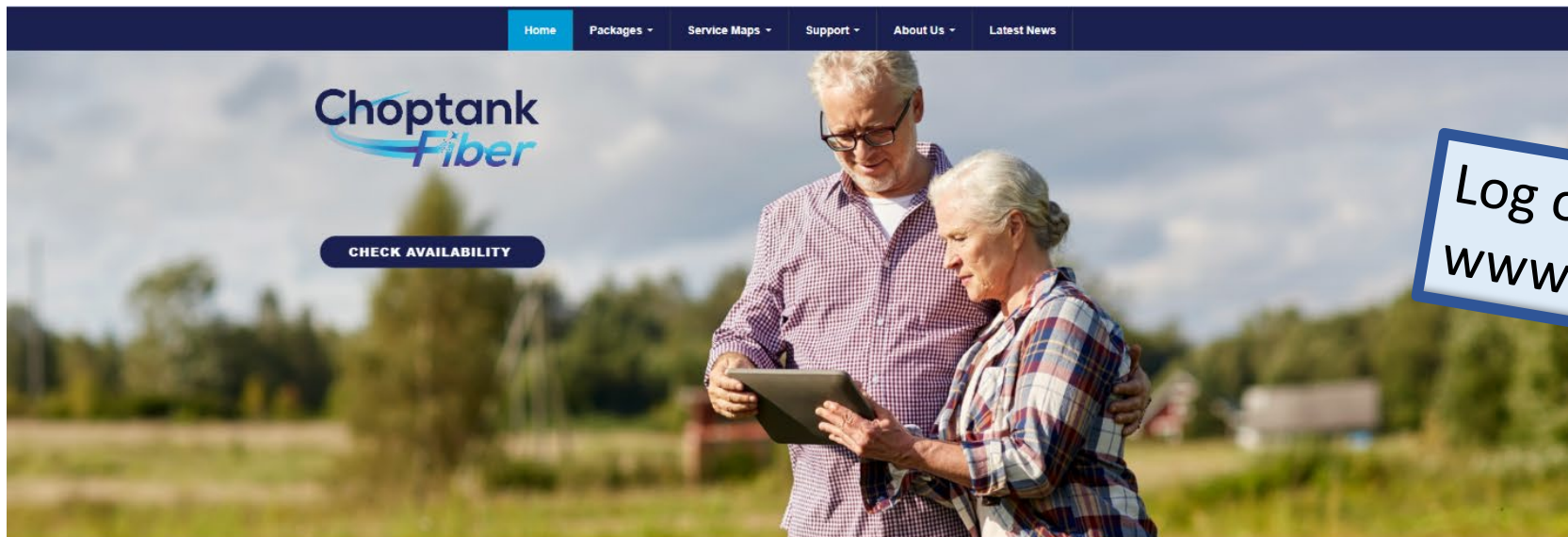
Up to 250 Mbps \$99.95/month

Up to 1,000 Mbps (1 Gig) \$139.95/month

No data caps. Same speed upload & download.

Visit www.choptankfiber.com for more information.

Available Now!



Log onto
www.choptankfiber.com

True Gigabit broadband has arrived on the Eastern Shore!

Legislation passed the Maryland General Assembly in March 2020 allowing Choptank Electric Cooperative to become Member Regulated to start our broadband business. On August 13, 2020, the membership voted overwhelmingly in favor of broadband and Member Regulation. Since then, Choptank has created a separate business, a wholly-owned subsidiary of the Cooperative, to operate the broadband business. We are working on the business plan, reviewing our existing fiber infrastructure (smart grid), and developing the technical specs necessary to begin broadband service for members. We are also putting together financing – considering investments, loans, and grants from local, state, and federal government sources.

Check for service. Register for more information.



When will broadband be available?

We expect to begin connecting customers in the Summer of 2021. This is a 10-year project that we hope to accelerate with grant funding.





Frequently Asked Questions



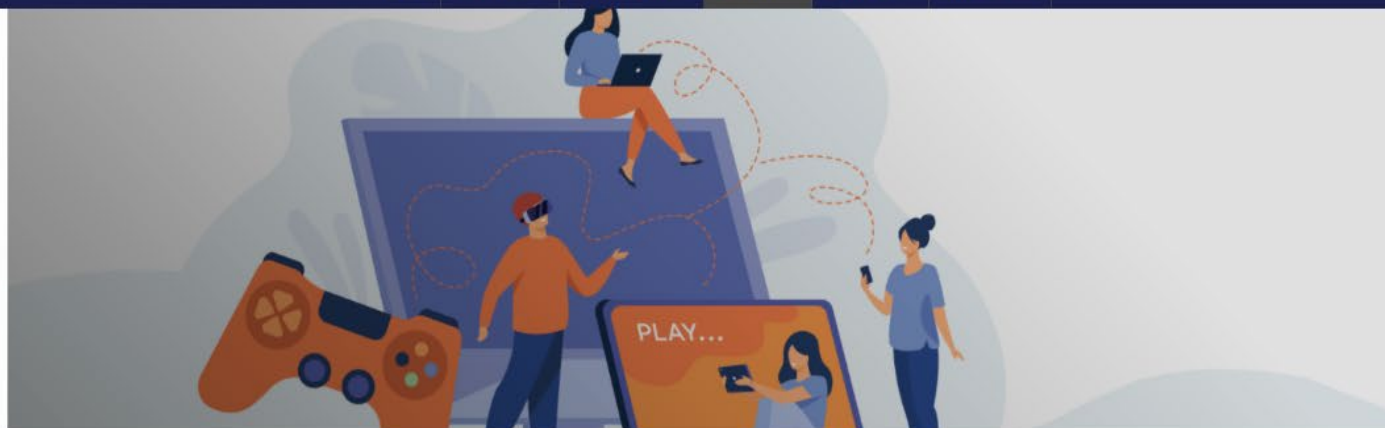
Learn more about Choptank Fiber, LLC business practices by visiting the [Terms and Conditions](#) page.

Learn more about the buildout process, start to finish, by viewing our [Interactive Map](#).

- When will broadband be available? +
- How much will it cost? +
- What is Fiber to the home? +
- What is different about fiber optic internet compared to other traditional internet services? +
- What areas will Choptank Fiber be serving? +
- I've been waiting a long time for fiber. When will it be in my area? +
- I am not a Choptank Electric Member; will Choptank Fiber be coming to my area? +
- What are the priorities for Choptank Fiber internet rollout? +
- Why does it take so long to build? +



Equipment FAQs



Equipment Instructions

Click on any section to view instructions on how to adjust your Choptank Fiber equipment.

Download [printable instructions](#)

Logging in to Your Gateway +


Changing Your Wi-Fi SSID and Password +

Adding Guest Wi-Fi Permission +

Changing the Gateway Username and Password +

Connecting Devices to Your Network +

Choptank Fiber Connection Process

Click on the circle icon  to learn more about each step of the Choptank Fiber connection process.

Download a printable version of the map [here](#).



Thank you!