



City of Portland Broadband Planning Committee

November 5, 2021 at 8:00 AM

1. Welcome
 - a. Please click the link below to join the webinar:
<https://us02web.zoom.us/j/86282941758?pwd=Q2ZLc0pESmJDTHhjV0xsUWIGYy91dz09>
Passcode: 692854
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2. Discussion of Next Steps
3. Review / Feedback on Overview Document
 - a. Overview Document
4. Other Business
5. Next Meeting
6. Adjournment



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Introduction

In 2021, the Portland City Manager established a Broadband Planning Committee to evaluate internet service on Cushing Island, Great Diamond Island, Little Diamond Island, and Peaks Island, as well as residents' desire for and interest in investing in service improvements.

Committee members included a representative from each island community, as well as City staff. Over the course of one year, the Committee learned about how other island communities have established broadband, met with various internet service providers, and distributed a survey to all island property owners.

Please visit portlandmaine.gov/broadband for recorded Committee meetings and related documents, including survey results.

Internet Broadband Survey

This survey was conducted in June 2021 and provides a useful snapshot of service penetration and satisfaction within island communities. Results are provided for each island, as well as in aggregate. Visit portlandmaine.gov/broadband to view the final report..

Next Steps

ConnectME [has recognized](#) that a planning process such as the one undertaken by the Broadband Planning Committee can sometimes get stuck, typically “when they reach a point where they have some data on who is served and not, and have talked with the other community members on what a high quality broadband connection can mean.”

They recommend that each community works to answer three questions:



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1. Do you want universal service? (This is service that reaches everyone.)
2. Do you want a FTTP project that is going to essentially lay down the infrastructure your community will use for the next 30-50 years?
3. Do you want to own the infrastructure – or do you want to have an ISP own the infrastructure?

The questions of how services will be funded and structured are daunting, but it cannot be answered until the above decisions are made. It is strongly recommended that each community work to answer these questions.

Definitions & Concepts

Broadband: In the U.S., broadband standards are defined nationally by the Federal Communications Commission (FCC), and also sometimes by states, as is the case in Maine. The Federal Communications Commission (FCC) definition of broadband is any connection that provides 25 megabits per second (Mbps) for downloads and 3 Mbps for uploads. The State of Maine defines broadband as a symmetrical (same speed for downloads and uploads) connection of 100 Mbps. In general, “broadband” refers to high-speed internet, or the transmission of wide bandwidth data over a high speed internet connection.

Cable Internet Service: This service uses cable wires, rather than telephone wires, to deliver high-speed internet. The result is faster service.

Cable Modem: Cable modem service enables cable operators to provide broadband using the same coaxial cables that deliver pictures and sound to your TV set, though you can still watch cable TV while using a cable modem service. Transmission speeds vary depending on the type of cable modem, cable network and traffic load. Speeds are comparable to or exceed typical residential DSL.

ConnectME Authority: A public agency in Maine whose mission is to facilitate the universal availability of broadband to all Maine households and businesses. Visit maine.gov/connectme for more information.



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DSL ("Digital Subscriber Line"): This technology exclusively uses your local phone line to transfer data and connect you to the internet.

Fiber: Fiber optic technology transmits data via fiber-optic cable, with the potential to transmit it as fast as up to 70% the speed of light. The speed customers experience depends on how close to your computer the fiber is installed and how the service is configured.

Fiber to the Premises (FTTP): A network of fibers that extends all the way to the end-user premises, with equipment designed and optimized for use in residential applications. This is currently considered to be the "gold standard" in municipal network design, but is also the most expensive to build.

Measuring Connection Speeds: Connection speeds are typically measured in kilobits per second (Kbps), megabits per second (Mbps), or gigabits per second (Gbps). Measuring both upload and download speeds is important to determining the performance of a service.

Satellite: Satellite broadband, a form of wireless broadband, is useful for serving remote or sparsely populated areas. Downstream and upstream speeds for satellite broadband depend on several factors, including the provider and service package purchased, the consumer's line of sight to the orbiting satellite, and the weather. Satellite service can be disrupted in extreme weather conditions. Speeds may be slower than DSL and cable modem, but the download speed is still much faster than the download speed with dial-up internet access.

Unserved: The FCC defines those that are unserved by broadband as those with speeds of under 25 Mbps down/3 Mbps up. The State of Maine defines "unserved" as those with speeds of under 50Mbps down/10Mbps up.

Wireless: A network that provides access to the Internet by transmitting over the air. Examples of wireless internet are Wi-Fi hotspots within the home, as well as 3G/4G cellular data service from telephone carriers. In rural areas, satellites also provide wireless internet service.

Broadband Business Models

The ownership/operational structure of a broadband network can vary. Examples of various business models can be found in a 2015 study completed by Tilson for the Island Institute (see page 191 [here](#)).



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Internet Service Providers

We recommend that communities interested in learning more about broadband solutions and existing services contact internet service providers. Please contact citymanager@portlandmaine.gov if you feel an introduction would be helpful.

Those that already serve at least one of the islands represented on the Broadband Planning Committee are marked as "incumbent" - others are regional providers who have experience in working with island communities.

- [Axiom](#)
- [Consolidated](#) (incumbent)
- [GWI](#)
- [Redzone](#) (incumbent)
- [Spectrum](#) (incumbent)

The inclusion of these providers does not constitute an endorsement by the City of Portland.