# Phase I
# Technology Plan

# Penobscot County Broadband Consortium

# Submitted by:

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## May 8, 2019
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# Executive Summary- Phase I

The ConnectME Authority approved a grant for the Penobscot County Broadband Consortium (PCBC) that consists of two Phases. This report focuses on Phase I and is designed to help the communities understand their existing internet provider infrastructure, gather information from community members about their level of concern around Broadband connectivity, recognize any municipal ordinances or procedures that would affect broadband planning and implementation and finally, a Digital Inclusion report that catalogs and identifies existing internet resources available to citizens of the community.

Phase I helps a community build a foundation to apply for Phase II where specific internet connectivity plans for implementation will be developed.

## Surveys
The communities undertook an extensive survey across the eight communities to understand the needs and desires around better internet connectivity.  Responses were strongly supportive of the need to move forward with the strongest voices coming from Corinna, Dexter and Plymouth. Eddington determined there would not be enough community support to move forward and did not complete Phase I and will not be included in Phase II planning.

## Current Providers
The PCBC met with broadband providers to better understand their willingness to invest, upgrade or enhance their service. Meetings were held with Spectrum, Consolidated, TDS and Otelco.  Spectrum and Consolidated are the largest providers in the area.

## Assets and Municipal procedures
No community had any local ordinances or procedures that would necessary preclude expanded Broadband access.  However, it was mentioned that any new siting of communication towers would be something that would likely be a concern that would require extensive local community buy-in to proceed.

## Digital Inclusion
The Digital Inclusion Plan is a roadmap to help the community drive internet subscription rates and support local citizens with access and on-line learning that they can apply directly into their own everyday lives. The Digital Inclusion Report is provided by the National Digital Equity Center, www.digitalequitycenter.org.

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Phase I helped the communities better understand their challenges and evaluated their willingness to move forward into Phase II.  Several of the communities, as a result of meetings with their current providers are either currently receiving upgrades or expansions of service or both.  Several communities felt like the timing was not right to proceed to Phase II.  Taken together, the results of Phase I have been surprisingly mixed.

- Corinna- working with TDS to expand access and enhance overall DSL system
- Plymouth- working with Otelco to expand fiber service throughout the whole community
- **Howland- remains frustrated and would like to move to Phase II**
- Lincoln- began by working with Spectrum, but believe they are not ready to move to Phase II
- Newport- not enough support or capacity to move to Phase II
- Veazie- not enough support or capacity to move to Phase II

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- Dexter- was not able to create a Broadband Committee, or enough community support to move forward to Phase II
- Eddington- Declined to move forward with Phase I activities

## Surveys

Community Service Background:

The eight communities named in the ConnectME grant were charged with distributing and collecting surveys on their general satisfaction with the internet connectivity at their home.  Combined, seven of the eight communities received over **445 responses.**

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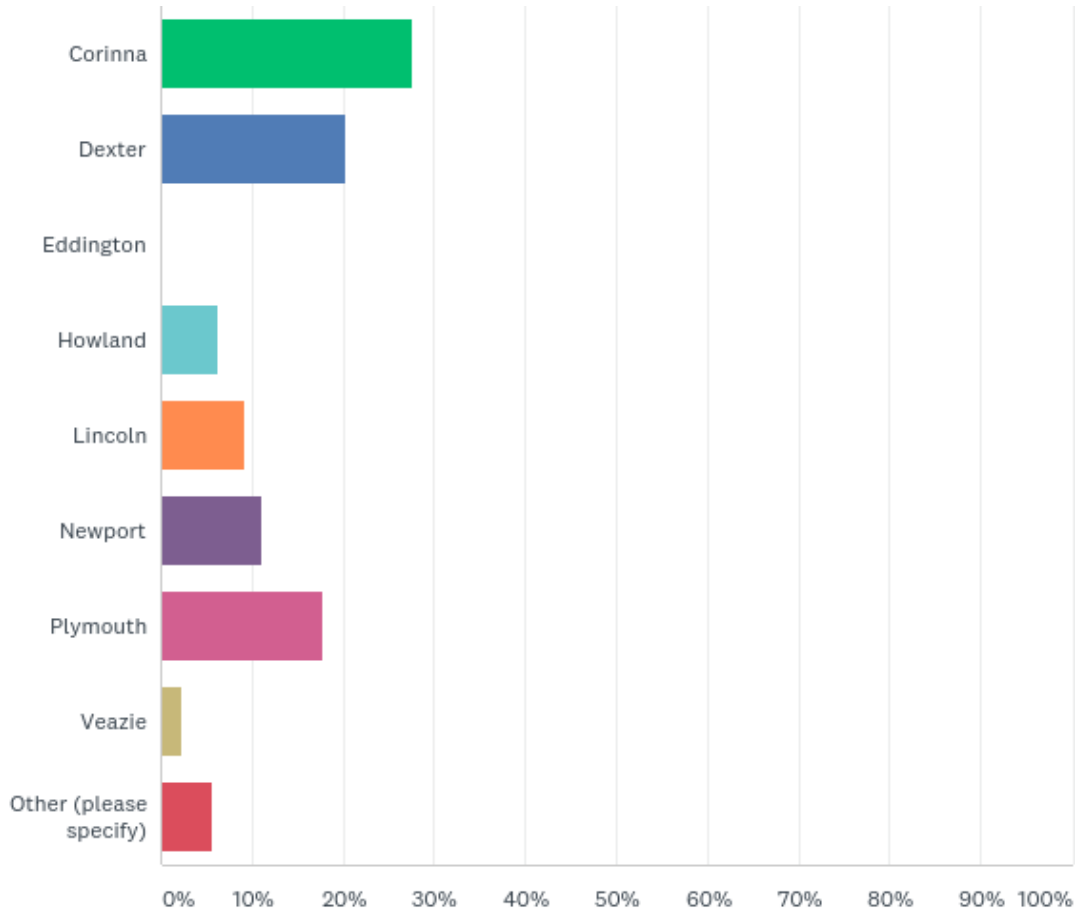
| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Corinna | 27.64% | 123 |
| Dexter | 20.22% | 90 |
| Eddington | 0.00% | 0 |
| Howland | 6.29% | 28 |
| Lincoln | 9.21% | 41 |
| Newport | 11.01% | 49 |
| Plymouth | 17.75% | 79 |
| Veazie | 2.25% | 10 |
| Other (please specify) | 5.62% | 25 |
| TOTAL | | 445 |

When asked who the provider was, there were four companies that served the bulk of the respondents:

| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Consolidated Communications (FairPoint Communications) | 15.21% | 66 |
| Spectrum (Time Warner Cable) | 28.11% | 122 |
| Cornerstone/Maine Stream Internet | 0.23% | 1 |
| GWI | 0.92% | 4 |
| Otelco (OT&T) | 17.74% | 77 |
| TDS | 22.12% | 96 |
| UniTel | 0.23% | 1 |
| Bee Line Cable | 0.00% | 0 |
| Premium Choice | 1.84% | 8 |
| Red Zone | 0.00% | 0 |
| Other (please specify) | 13.59% | 59 |
| TOTAL | | 434 |

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When asked if they were happy with their current provider, overwhelmingly the answer was "no".
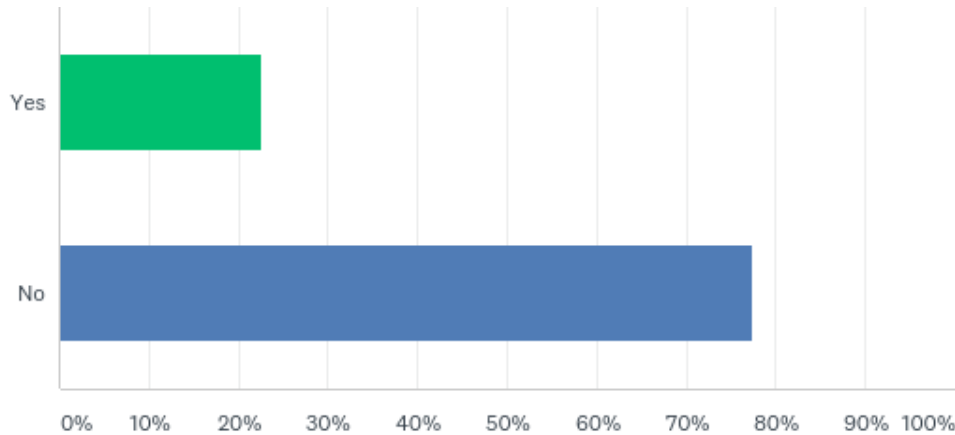


Respondents were asked to tell us why they were not satisfied.  There were two main reasons:

- The service is too expensive for what they received for service
- The service was unreliable and makes it difficult to work from home

Here are some quotes:

*"Expensive"*- **Spectrum** user in Dexter

*"The service is okay, but the price is outrageous and when things go wrong, the company is nearly impossible to reach.  I hate this company, but there is no one else"*- **Spectrum** user in Newport

*"Too slow and too costly, spotty connection"*- **Consolidated** user in Dexter

*"We never have service whether is beautiful outside or not.  We both can work from home but limited access to internet makes it hard"*- **HughesNet** user in Corinna.

*"It keeps going on and off, not very good service"*- **Spectrum** user in Corinna

*"Bad at times, cuts in and out"*- **Spectrum** user in Lincoln

*"No service to my property"*- Howland

*"I am currently on the fastest plan for my area, my connection speeds are less than 10Mbps down and 1Mbps up".* **Otelco** user in Plymouth

*"Very poor-quality service.  TDS advertises high speeds however the reality is speeds are extremely slow.  I work from home and am dependent on good quality wi-fi.  And on a personal level, we cannot stream a movie"*- **TDS** user in Corinna
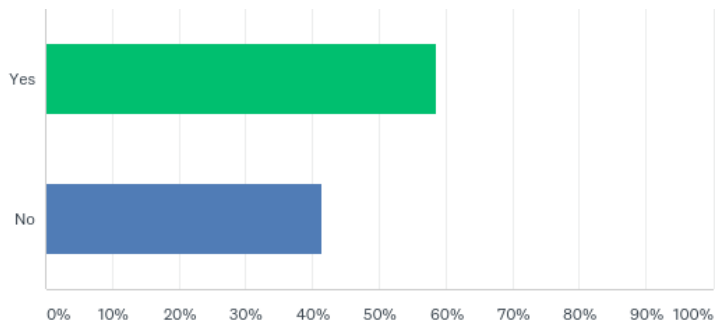
Work from home is a significant segment of your respondents: (132) 30%
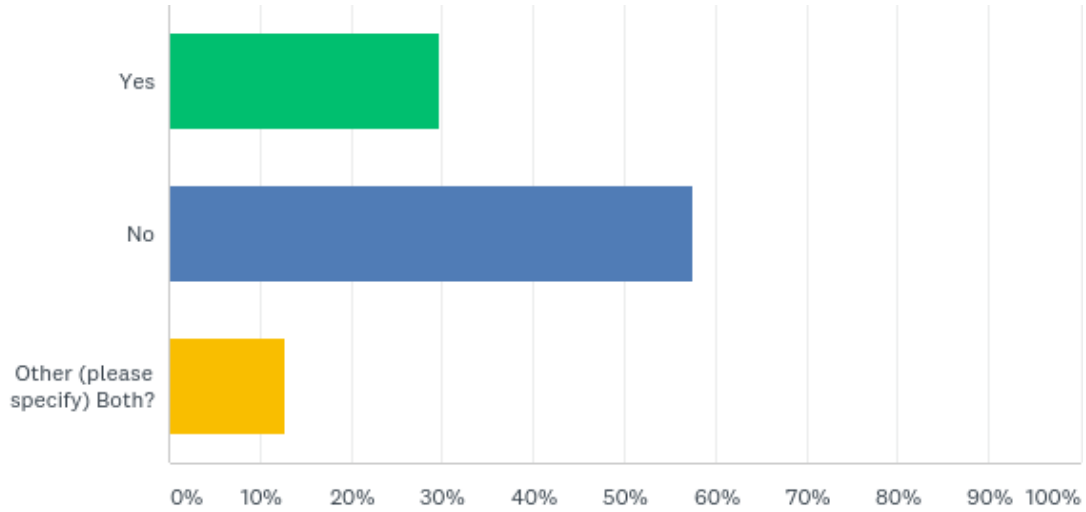


And frustrated…. When work from home people were asked if frustrated with connection?
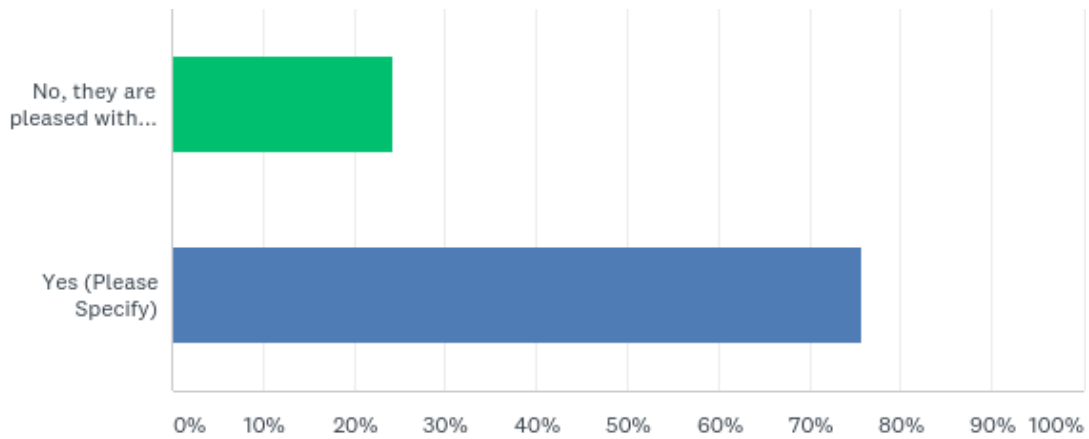


Near 60% of respondents say school age children and adults use the internet for homework or education.  (254)
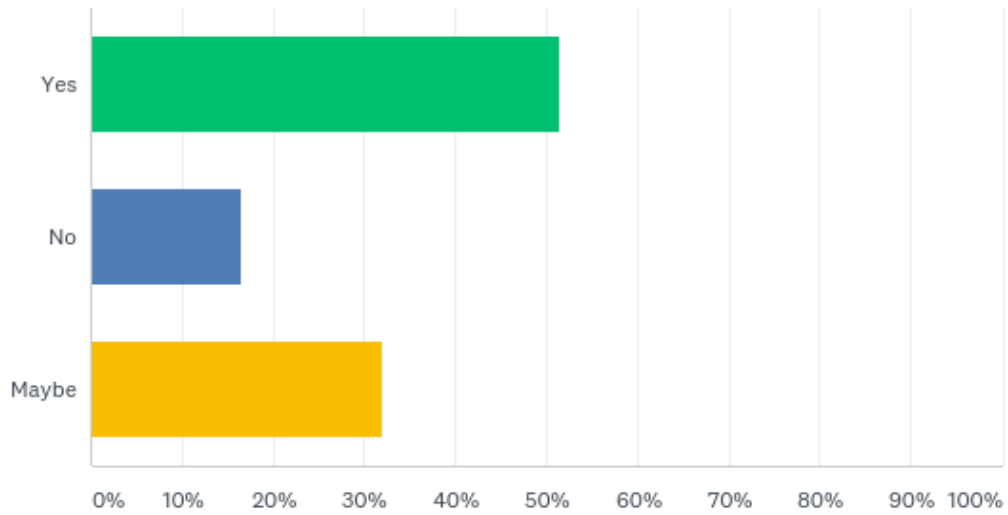


The users are divided equally between school age children and adult learners.
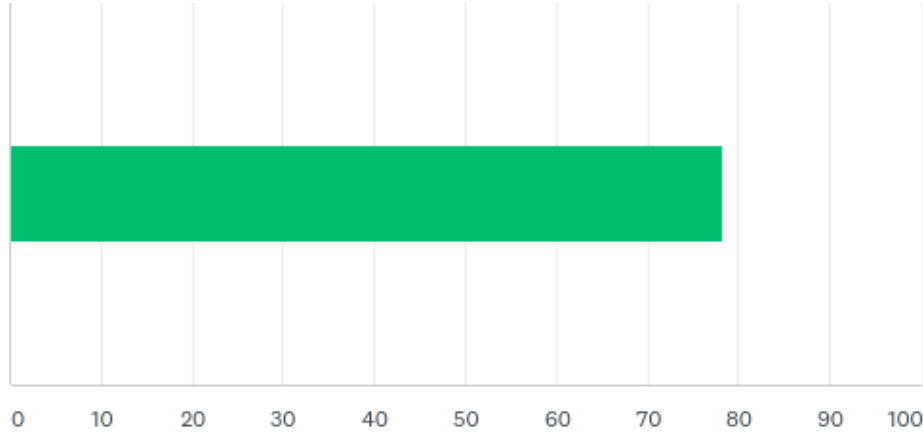
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Do you think more people would live in town if there was better internet?
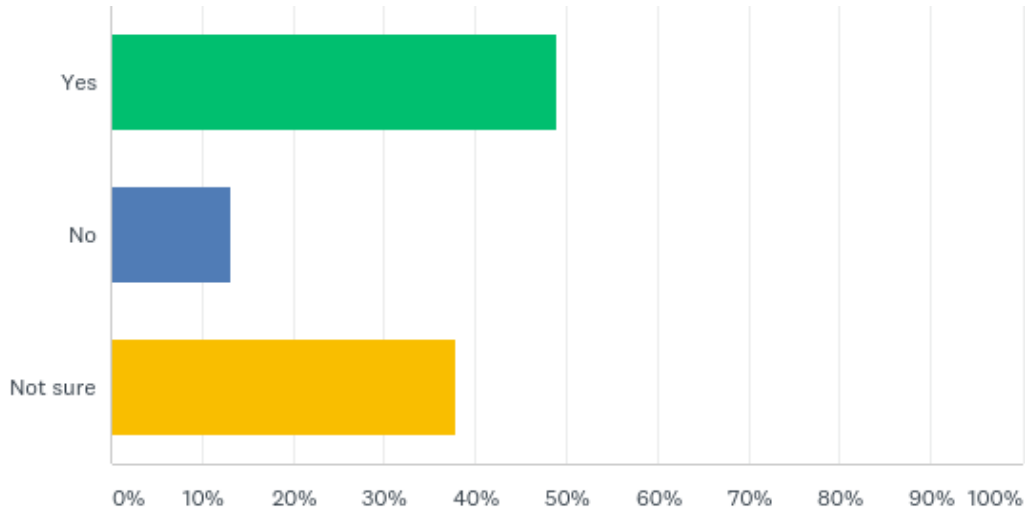


Do you think visitors would stay longer if good internet connections were available where they were staying?

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On a scale of 1 to 100 do you support efforts to assist with internet improvements.



Take aways:

- Strongest voices from Corinna, Dexter and Plymouth
- Spectrum is expensive, DSL service is unreliable
- Significant pockets of no options for service, meaning satellite or cellular HotSpots
- Some communities are significantly worse off than others
- Residential service is a priority, given the number of people who work from home

## Business Surveys

Business Survey Background:

The eight communities named in the ConnectME grant were charged with distributing and collecting surveys on their general satisfaction with the internet connectivity at selected businesses. Combined, seven of the eight communities received **50 responses. The majority from Lincoln (15), Dexter (11) and Corinna (9).**

| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Corinna | 18.00% | 9 |
| Dexter | 22.00% | 11 |
| Eddington | 0.00% | 0 |
| Howland | 14.00% | 7 |
| Lincoln | 30.00% | 15 |
| Newport | 4.00% | 2 |
| Plymouth | 8.00% | 4 |
| Veazie | 2.00% | 1 |
| Other (please specify) | 2.00% | 1 |
| TOTAL | | 50 |

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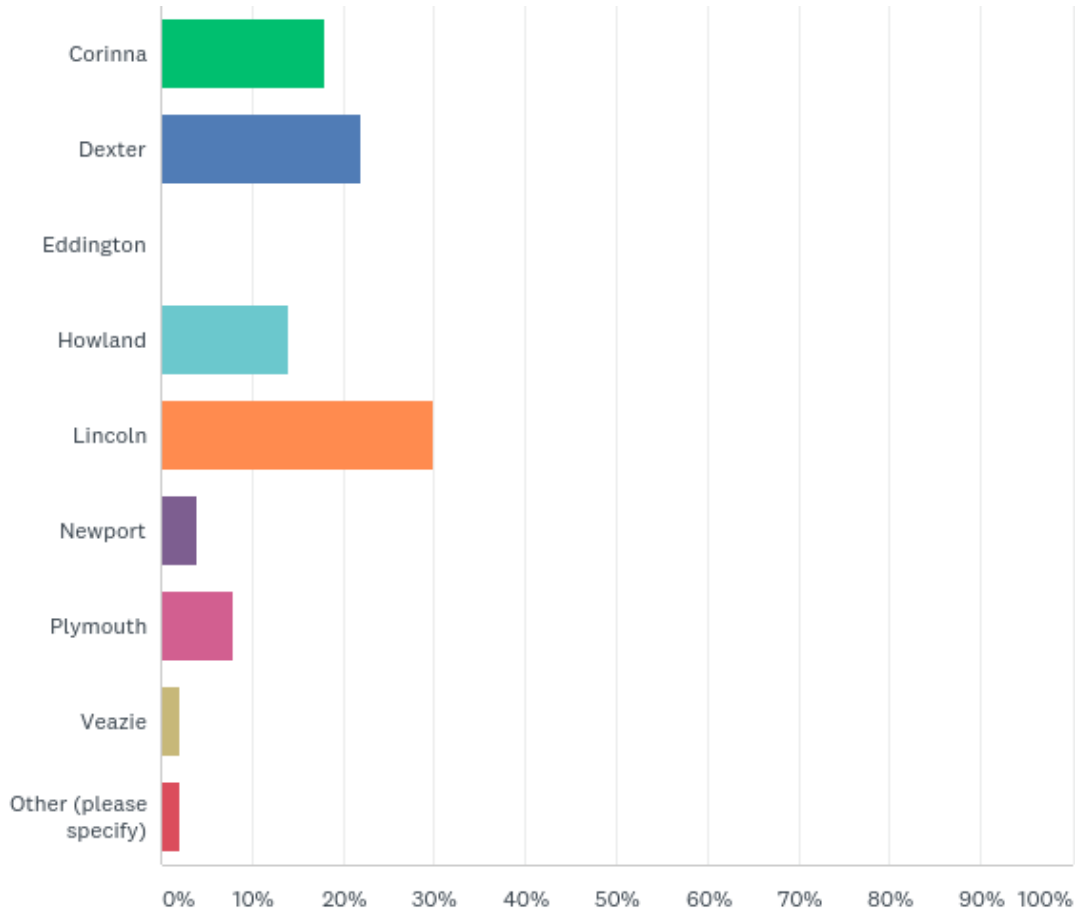
How important is the internet to your business?  Not surprising:

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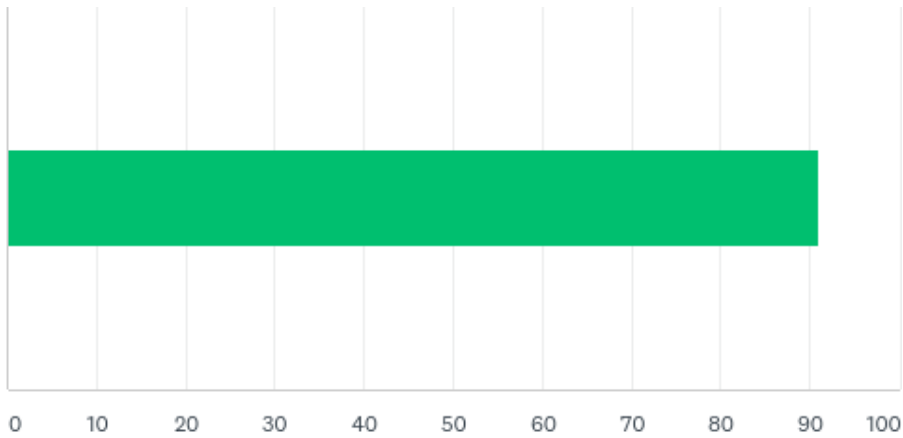
Over the past few years, has internet speeds kept up with your business needs?
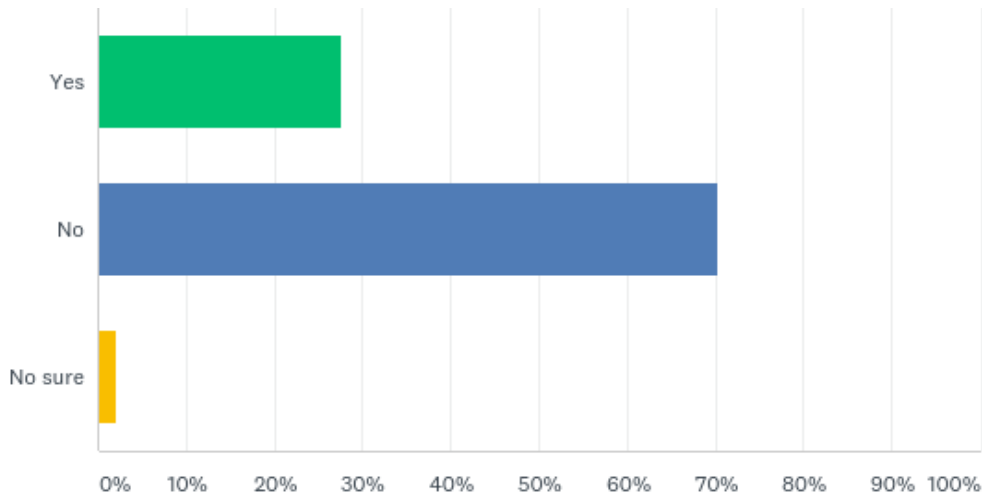


Who is your Broadband Provider?

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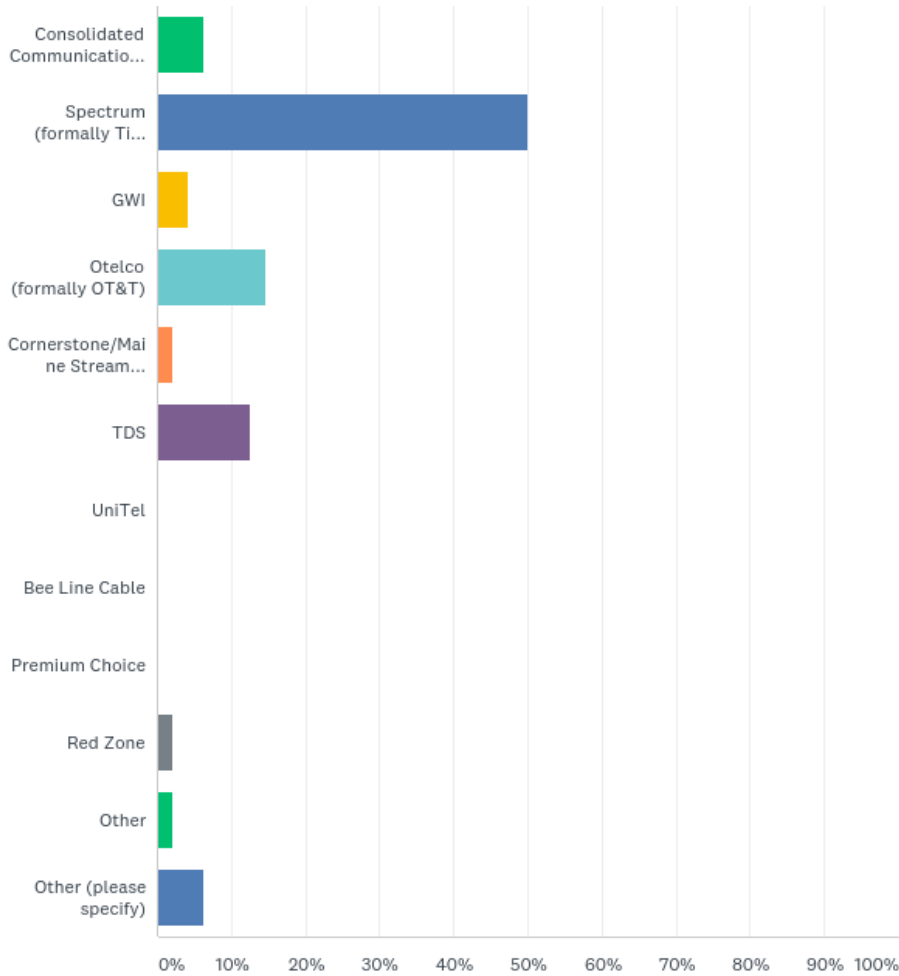
| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Consolidated Communications (formerly FairPoint) | 6.25% | 3 |
| Spectrum (formally Time Warner Cable) | 50.00% | 24 |
| GWI | 4.17% | 2 |
| Otelco (formally OT&T) | 14.58% | 7 |
| Cornerstone/Maine Stream Internet | 2.08% | 1 |
| TDS | 12.50% | 6 |
| UniTel | 0.00% | 0 |
| Bee Line Cable | 0.00% | 0 |
| Premium Choice | 0.00% | 0 |
| Red Zone | 2.08% | 1 |
| Other | 2.08% | 1 |
| Other (please specify) | 6.25% | 3 |
| TOTAL | | 48 |

A series of questions was also included and point to a need for assistance in getting training that relates to computer or cloud-based computing. The largest need was with how to use **social media for business**. Perhaps a regional training around this topic would draw business participation. Please see the Appendix "Penobscot County Broadband Consortium Digital Equity and Digital Inclusion Plan for more information on developing a strategy to assist regional businesses.

Also, 19 of the 50 respondents indicated they do not have a web site. This is important to consider given the way consumers locate businesses today.

Takeaways:

- Survey indicates internet speeds and reliability are not keeping up with needs of businesses
- Spectrum was the dominant carrier (25 responses)
- Training is a need and Committee might consider Digital Literacy training across a number of key core competencies: Social Media, Microsoft Office Products (Word, Excel) and website design
    - A Digital Equity and Digital Inclusion Plan that includes Digital Literacy is included with this report.

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# Current Provider Meetings

## Consolidated Communications (CCI)

Communities: Veazie, Dexter, Newport and Lincoln

Consolidated met with these communities in Bangor to go over current service levels and percentage of subscribers at each level of service available.  Each of the communities seemed satisfied with current levels of service and no glaring areas of unserved were discussed.

## Spectrum

Communities: Corinna, Dexter, Howland, Newport, Veazie, Lincoln (separately)

Spectrum met with interested communities and discussed their coverage area, recent upgrades to residential Gigabit speeds, and provided maps for each of the communities.  Also provided was a Spectrum Internet Assist Program information that provides a lower cost option for qualifying families.  Maps were enlightening to many on the call and highlighted some communities with more extensive coverage and others with only a very small area of total Spectrum coverage.

Discussion around how Spectrum can work with communities to expand service or work with Spectrum's Government Affairs team on updating franchise agreements was also discussed.

In a separate meeting with Lincoln, Lincoln and Spectrum expressed an interest to work together to expand service.  Lincoln is in ongoing discussion on cost and timeline to do so, but other priorities have stalled these discussions.

## TDS

Community: Corinna

TDS is the DSL provider in Corinna and recently met with the Town Manager and Axiom.  There was very encouraging news that TDS was planning on enhancing service levels in the community by the end of the year.  Corinna has been one of the communities that hassuffered with poor service in many areas served by TDS.  Enhanced service is expected to meet the federal standard of 25/3Mbps, and they are no longer needing to move to Phase II.

## Otelco

Community: Plymouth, Howland

Axiom and the PCBC did not meet with Otelco, but Otelco has conveyed to Plymouth that they with using A-CAM federal money to upgrade eligible areas of Plymouth with Fiber to the Home.  (A-CAM stands for Alternative Connect America Cost Model). In a follow up interview with Axiom, Otelco conveyed that all of Plymouth would be receiving fiber service and no areas will be left behind. Plymouth was very concerned about their connectivity but Otelco's announcements now mean they do not need to move to Phase II.

Howland remains frustrated with the lack of support in some of the more remote areas of the community where they are reporting that service is not available.  Howland does have part of its downtown core covered by Spectrum service and Otelco covers areas outside of the Spectrum and

has been told that there are no plans for enhanced or expanded service by Otelco this year.  They would like a construction plan to obtain coverage in the areas not being served by Spectrum.

## Assets and Municipal Procedures

This category will only apply to the one community moving forward to Phase II, Howland.  Current thinking is that no local ordinances are precluding a Broadband Connectivity Plan from proceeding.

## Next Steps

We believe there is sufficient support to move forward with Howland into Phase II.  All of the other communities have either declined to move forward for various reasons or are in the midst of working with their current provider to upgrade service.

### Phase II

Phase II will be an important milestone to understand the technology choices and the cost of a new service.  The committee and Axiom are ready to begin Phase II work as soon as this final report is accepted by the ConnectME Authority and a portion of Phase II funding is released to support our efforts with Howland.

For more information or questions for the documents authors, please contact Mark Ouellette at mark@connectwithaxiom.com or Susan Corbett at susan@digitalequitycenter.org.

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