CONNECTMAINE

Emergency Meeting Notes

9 June 2021

11:30 A.M.

Temporary recording:

Authority Members
Nick Battista, Chair
Jasmine Bishop
Fred Brittain
Susan Corbett
Heather Johnson
Jeff Letourneau
Liz Wyman

Introductions of Members and Staff
Nick Battista, Jeff Letourneau, Fred Brittain, Jasmine Bishop, Susan Corbett, Heather Johnson, Peggy Schaffer, Stephenie MacLagan, Woodline Gedeon, Emily Atkins

Decisions on Broadband Service—Nick & Staff
- Debrief public comments included in the meeting binder

Public forum was held, and comments included in the public comments document. Lists of those who submitted comments that simply supported the designations.

- Discuss timeline and actions

The memo for today describes how next steps around designation of unserved areas and the grants program would occur. These timelines include those required by our rule. The grants program has been and can be designed to continue ensuring that those least served are competitive for awards.

Board Discussion
- Nick: If families are worrying about internet service, then we aren't doing our job right; the 100/100mpbs will help us get there.
- Heather: The designation of broadband service is separate from the designation of unserved areas?

Nick: Designation of broadband service is what we mean when we say broadband, and will likely be the build-to standard. How we do designation of unserved areas, that'll be another conversation after this first vote. The unserved areas are geographic, for the purpose of determining eligibility for grants. Designation of broadband considers the state of market, and other considerations. The designation of unserved areas considers things other than just the designation of broadband service.

Stephenie: The thought process for this separation was outlined in past memos. Today's memo focuses on how the timelines of these designations interact with one another.

- Nick: Is there understanding of the memo and use of 50/10mbps for the designation of unserved areas?

Jasmine: Yes, reading through the public comments; the 50/10mpbs seems like a good compromise; there's pros and cons for the change. If potentially altering this decision, it'd be whether 50/10 is adequate or if it should be 50/20.

Jeff: Referring to industry comments, asymmetry is determined over a length of time, versus the moment in time that symmetrical service is needed. Echoed by Jasmine.

Fred: We can't do what we do with 25/10mbps, not even considering devices connected in the background, which we shouldn't expect people to have to run around shutting them off. Echoed by Jasmine and Jeff.

- Jasmine: Referring to public comments about communities worried about too much competition in the grants program, would 50/20mbps be a happy medium?

Nick: There are process components to changing the service level could include another 30-day comment period. The purpose of using a different service level for designation of unserved areas is to help target where geographically within areas lacking broadband service (100/100mpbs) grants should be awarded. There are options besides using service levels, and all these options take time to implement.

- Jeff: What's the timeline if we choose a different service level for the designation of unserved areas?

Stephenie: The current data and maps are based on 10mbps upload, so choosing a different level than we have mapped data (10mpbs upload or 100mpbs upload) could require more time than we have ahead of the June meeting, so would result in a delay of at least 30 days to the timeline shared in the memo.

Peggy: We've built in multiple 30-day comment periods.

Nick: If we don't do anything, we already have a lot of places that are unserved based on 25/3mpbs; if we change the service level used, then that means proposed project areas can be drawn differently and be eligible for future funds.

Jeff: Instead of using grants program design to target funds, we're trying to use policy, which doesn't reflect the reality of the problem. Doesn't make sense to use 50/10mpbs when really higher speeds are still unserved in reality. Echoed by Jasmine.

- Nick: Getting the rest of the bond funds deployed and other funds can be separate decisions; performance criteria can be used to refine the areas targeted for funds?

Jeff: We shouldn't be backed into the corner; we should do what's right.

Jasmine: If we're going to revise performance criteria, then feel better using 50/10mpbs as a starting point today over 100/100mpbs due to concerns raised by potential applicants.

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- Jeff: We don't have to have separate designations or separate service levels for these designations? Can't in good conscience say that 50/10mpbs is served.

Nick: This starts the ball of improving toward the 100/100mpbs level, rather than waiting to take a larger step later this fall. The grants scoring guides will need to be revisited. Echoed by Jeff & Jasmine.

Jasmine: Whatever service level is used for unserved, it'll quickly become out-of-date. Definitely don't want to want to stick with 25/3mpbs. Echoed by Fred.

Stephenie: Correct, the timeline isn't delayed if 100mpbs upload is used.

Nick: If we don't go with 50/10mpbs, then I would feel most comfortable with 100/100mpbs and not in between. Echoed by Heather and Susan.

Approval to move forward with the designation of broadband service as 100/100mbps: Jeff motioned, Jasmine 2nd, 5:0, Heather abstained.

Approval to confirm the use of a broadband service level of 50/10mpbs to designate unserved areas: Susan motioned, Fred 2nd, 5:1

Action: Direct staff to identify unserved areas ahead of the June meeting if possible and consider the process of identifying unserved areas for the next opportunity to request review of unserved areas[1].

Updates on Federal Funds—Nick

- Debrief notice of funds from NTIA

Staff and grants committee are conversing with contractors about submitting a grant application. Other members interested in being involved should reach out to Peggy or Nick. ConnectMaine is seriously considering putting in this application, state as the applicant, with a number of projects underneath it with multiple providers. Staff anticipates a Request for Qualifications for providers and communities to express interest in this application. Further discussion at the June meeting.

Approval of adjournment: Jasmine motioned, Jeff 2nd, unopposed.

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[1] Current process is described in the pdf linked on the ConnectMaine website and includes the use of unserved reports published back in 2019: https://www.maine.gov/connectme/communities-resources/Broadbandmapping

ConnectMaine Authority
Public Comment on the designation of broadband service & unserved areas
<mark>Highlight</mark> indicates relevant comments for consideration

Table of Contents

Additional Research by Treasury

State of the Market

In considering the appropriate speed requirements for eligible projects, Treasury considered data usage patterns and how bandwidth needs have changed over time for U.S. households and businesses as people's use of technology in their daily lives has evolved. In the few years preceding the pandemic, market research data showed that average upload speeds in the United States surpassed over 10 Mbps in 2017, and continued to increase significantly, with the average upload speed as of November, 2019 increasing to 48.41 Mbps; attributable, in part to a shift to using broadband and the internet by individuals and businesses to create and share content using video sharing, video conferencing, and other applications. A video consultation with a healthcare provider or participation by a child in a live classroom with a teacher and fellow students requires video to be sent and received simultaneously. Broadband statistic from June 2020, the largest percentage of U.S. broadband subscribers have services providing speeds between 100 Mbps and 1 Gbps.

Service Levels Required

Treasury considered estimates of typical households demands during the pandemic. Using the Federal Communication Commission's (FCC) Broadband Speed Guide, for example, a household with two telecommuters and two to three remote learners today are estimated to need 100 Mbps download to work simultaneously. In households with more members, the demands may be greater, and in households with fewer members, the demands may be less.

As an example, some video conferencing technology platforms indicate that download and upload speeds should be roughly equal to support two-way, interactive video meetings. For both work and school, client materials or completed school assignments. This is often done by uploading materials to a collaboration site, and the upload speed available to a user can have a significant impact on the time it takes for the content to be shared with others. These activities require significant capacity from home internet connections to both download and upload data, especially when there are multiple individuals in one household engaging in these activities simultaneously.

Minimum Throughput

As OpenVault noted in recent advisories, the pandemic significantly increased the amount of data users consume. Among data users observed by OpenVault, per-subscriber average data usage for the fourth quarter of 2020 was 482.6 gigabytes per month, representing a 40 percent increase over the 344 gigabytes consumed in the fourth quarter of 2019 and a 26 percent increase over the third quarter 2020 average of 383.8 gigabytes. OpenVault also noted significant increases in upstream usage among the data users it observed, with upstream data usage growing 63 percent – from 19 gigabytes to 31 gigabytes – between December, 2019 and December, 2020. According to an OECD

Unserved Areas

That is why Treasury is requiring or strongly suggesting a 100/100mbps standard. Treasury is still using 25/3mbps for unserved, which leaves vast swaths of people with the very type of service widely acknowledge as inadequate. This is still be considered while the interim rule is out.

May Public Forum

Comments on Broadband Service

The state of the market

- Industry standard of XGS-PON—10 Gigabit Symmetrical Passive Optical Network
- No public comments on the state of the market consideration

Service level required for Common Applications and Network Service

- More commonly faster than 10/10mpbs service
- Public comments on the service level required

Ben Sanborn: 100/100mbps is good.

Maximum monthly throughput for Common Applications and Network Service

- The average household has 12 connected devices now, and that is expected to grow to 20 by 2025.
- No public comments on the data levels required

Other performance criteria for common applications and network services

- Besides capacity, speeds and bandwidth, these include latency—the lower the better—and affordability—price of service offerings.
- No public comments on other performance criteria for broadband

Comments on Unserved Areas

Consideration of broadband service in the designation of unserved areas

- For transparency on the priority for grants: 50/10mbps
- Public comments on broadband service for designation of unserved areas

Ben Sanborn: 50/10mbps unnecessarily expands the digital divide.
Josh Gerritsen: Why 50/10mbps?

- Peggy: Partly due to the capacity of cable and partly due to current data collection, analysis & visualization capabilities.

Bob O'Conner: Shouldn't have two different service levels; use 100/100mbps.

Other considerations for the designation of unserved areas

- Designation of unserved areas includes but isn't limited to consideration of the designation of broadband service.
- No public comment on the designation of unserved areas

Questions & Comments

Questions about the processes

- Ben Sanborn: Has two different service levels been run by the attorney general's office?

Peggy: ConnectMaine will run this by its assistant attorney general.

- Ben Sanborn: Are there data sources for the considerations behind the designations? Will you know how much of the state has these service levels available?

Peggy: Datasets aren't available. Proxies were used to calculate the current estimated cost of $600 million to expand broadband service availability statewide.

- Ben Sanborn: Are there data reporting issues?

Peggy: ConnectMaine is working with its contractor on improving broadband service availability reporting.

Additional public comments not yet raised

- No public comments

Written Comments emailed in May

Small Businesses

Zachary M. Stoler, Cribstone Communications
Cribstone Communications, LLC. would like to comment on the designation of unserved areas. We believe that a designation of 50/50 should be used for unserved areas. We do support the definition of 100/100 as broadband. We believe that ==symmetrical speeds are extremely important in this age of *working from home.*==

Cristos Lianides-Chin, Anchor-Buoy Software
As a small business owner in Maine, I'm writing to encourage the adoption of a broadband definition of "100/100 Mbps" symmetric connections. In order ==to expand our workforce, upload speeds of 100Mbps and download speeds of 100Mbps are both critical for employees and subcontractors to connect== from wherever they may be, whether at home or in an office.

Hannah Weddle, BackLot Consulting
I support the ==100x100 speed, which is essential for video conferencing, which is key for remote working opportunities==. Getting this speed is essential to get Maine competitive in the modern world and to attract new residents. Many folks might not want to live here because of the long winters, but think of the Scandinavian countries, or our neighbors to the North in Canada. They have arguably harsher winters, but yet their population thrives with the support of reliable and fast broadband connectivity. We need to attract people to Maine by providing the best broadband access that we can so that nobody should be able to say they can't work in Maine because of the lack of internet speeds!

Michelle Keyo, Michelle Keyo Design Inc.
I am an independent programmer living in a region of Maine where those speeds sound incredibly fast, but I routinely work with clients in ==other states who have connections of 300/100. Maine needs to step up efforts and to provide residents with functional connection speeds== that will allow us to work, go to school and live better, more connected lives. This is a step in the right direction.

Tim Schneider, Tilson Technology
the bandwidth needs of Maine homes and businesses will continue to grow as the internet becomes more essential to their daily activities. Upload speeds, long neglected, are especially important for ==remote work, distance education and telehealth, applications that require video upload, not just download. The proposed 100/100 standard would meet these needs==.

The proposed definition will make this funding available to a broader swath of the state, and correctly defines for state policy makers the true scope of Maine's broadband challenges. ==This standard is also technology neutral:== it can be met using fiber, modest upgrades to existing cable facilities to support DOCSIS 3.1, and current generation wireless technologies.

Maine Residents & Organizations

Tracy Scheckel, Maine resident
I disagree with the 50/10 designation as unserved, particularly if there is consideration for common applications. We are a household of 2 telecommuting adults with no smart home or telehealth devices in operation and 10 Mbps upload will not provide the bandwidth necessary for simultaneous video conferencing — which is continuous throughout our workdays. I had to purchase Spectrum Business class to get anything more than 10Mbps up and the best I could get was 350/35. It's a ridiculous amount of down bandwidth, but that was the only way to get the upload speed we need. ($114/month BTW). Pretty pricey.....
Add a student or 2 and even the 35 up might not be enough. I think the unserved designation should be 50/50 or at the very least 50/35 since we know docsis is capable of that as evidenced by my service.

Kendra Jo Grindle, Island Institute
The Island Institute is in full favor of the purposed changes to the unserved and broadband designations put forth by the staff and board. Throughout our 5+ years working on community-driven broadband in Maine, we've regularly struggled with the speeds set by the state and federal government when translating them into real world practice. The definition of 25/3, as it currently stands, is not enough to consider a household or business adequately served for the needs and demands of our digital world. Additionally, the recognition of symmetrical speeds for broadband creates an expectation that local and state taxpayer dollars will be invested in future-forward technology that grow and adapt with Mainers instead of being the anchor that holds us back. While less than 50/10 for unserved and 100/100 for designating broadband will not always be the right standard, it is an active step in the right direction for the state and the needs of residents today and into the future. Thank you for the opportunity to comment and weigh in on this critical move forward.

Kevin Woodbrey, Raymond
I am worried that the definition of broadband connectivity is being set so low. When you visit a website and stream a moderate quality video you use about 4 megabits per second. When you stream a high quality or HD video you use 10 to 20 megabits per second. If you use the current standard of 4k or ultra high quality video you use 25 to 50 megabits per second.
So what we see is that just one user accessing just one application can potential use 50 megabits per second of the internet link. Another problem with current offerings is the upstream bit-rate. Current offerings for residential service have very limited upstream bit-rates. What this means is that the current offerings in our area do not meet the demands that household or a
small business require. Most areas that are now being serviced by fiber optic transmission offer a minimum transmission rate of 1 gigabits per second in both upload and download directions. This is considered the standard for minimum high speed internet service by Information Technology professionals. In other areas of our country and around the world higher bit-rates up to 10 gigabits per
second are being offered to residential and SMB customers.

Ray Soucy, Orono
Please consider eliminating the language of "and the use of 50/10mbps for the designation of unserved areas" and keep a single definition of broadband as 100/100.
Alternatively, please consider making the minimum upload at least 20 Mbps.
Many aspects of the Internet, especially video streaming, are not reliable at 10 Mbps and calling 10 Mbps broadband will leave people behind as applications assume more bandwidth is available.

Reuben Mahar, Waldoboro
I'm the Chair of the Waldoboro Communications and Technology Committee. I'm writing today to show my support for an updated Broadband definition of 100 x 100 Mbps. The current definition is simply too low to meet modern use cases, let alone future growth. In a world where Telemedicine, AR, and Even VR are available to those with the right amount of bandwidth, this change is critical. An upload of 100 Mbps would mean a family of four, all working over a single shared broadband connection, would be able to pull high value from the experience.

My wife and I both often work from home. I'm the Endpoint Architect for MaineHealth, and She is a workflow coordinator for a local call center. We pay nearly 100.00 a month for a 400 x 20 Mbps internet connection. We're fortunate, our careers allow us the resources to afford a "high end" internet connection. Two of us working at the same time push our 20 Mbps upload to its limit. To further show my point, I've attached a photo of my home network. The change to 100 x 100 will make the opportunities we enjoy available to more people. Most people can't afford to do what we're doing and that needs to change

Al Kelly, Lincoln
Internet speeds need to be 100 Mbps or better in order to properly work as a stable platform on a consistent basis. Any less is just old school tech. I have battled with crap internet since it started in Maine. I now have Starlink and the future is here and on my roof right now. Please don't spend exorbitant amounts of money to extend wires to every remote area of Maine. More towers and wire is not the way to handle this problem when the newer tech is now at our door. I have cancelled all my other forms of internet and my Dish TV. I can run 6 TVs if I want to and still use my office machines. And this is in BETA! It is getting better all the time as Starlink adds additional satellites. This is not at all like other satellite systems, such as Hughsnet. Starlink works, both up and down. It is extremely easy to install. You just need a clear view of the sky.

Jeff Boulet, Saint George
I fully endorse changing the definition of broadband to 100/100 mbps. Changing this definition infers that all new infrastructure will be fiber - essentially saying that Maine is open for business and wants you to relocate here. As a web developer and designer, I create content for the internet all day long. I currently have Spectrum with speeds around 400/35 mb/s. Downloads are fine but upload speeds are slow and limiting. In 5 years it'll be worse.

Dean Tyler, Hancock

I fully endorse changing the definition of broadband to 100/100 mps. My spouse tele-commutes and requires a VPN connection, video conferencing and large document upload\download. I am a professional photographer who uses about 90 gb in upload per month to deliver projects to clients. Raising the bar would greatly improve our ability to work. The only provider on our street offers 1.5 mbps, so we use our phones and hotspots for data. It is terrible and restricts our ability to work. If you want higher income, low impact jobs in Maine and what young people to stay, this issue must improve.

William T. Frysinger, Northport

As a homeowner who has struggled to find adequate internet access I want to weigh in on the proposed changes to the designation of broadband service: I agree with the designation of broadband service as at least 100/100mbps. I do not agree with the proposed designation for underserved. To allow effective work from home I argue the designation should require AT LEAST 20mips upload, and preferably symmetrical 50/50.

Mary Becker, Springfield

I'm hoping Maine catches up with the rest of the world in internet communication. I'm "lucky" enough to have DSL (currently not much better than the old dial up with the amount of information on internet pages now) .. and I am hoping to increase from my measly 4 mb / 1 mb which is slow as a turtle and drops to 2 mb at tims.. to something more out of the stone age. I see a push to make 100 mb a standard for minimum.. I would love that. I see so many friends in other states who are flaunting gigs for their internet speed. But please.. with this speed.. also consider cost to user. Right now to increase my 4mb to 12 mb, I'd be paying something like $25 more a month or so! My phone / internet combined bill is already over $110 / month and they keep upping the cost every few months!!

Amy McDonald, Charlotte

Most of the infrastructure improvement projects I'm seeing as well as the infrastructure minimums that many providers are installing (Consolidated, Premium Choice, Pioneer, etc.) are now gigabit service with 100/100 as a bare minimum. We recently rejected Spectrum as an option for our community because they didn't offer 100 upload. In that way, we're already using 100/100 as our baseline for decision-making.

That said, our community is operating on DSL now, and is largely unserved even by the 25/3 standard. My concern with redefining "unserved" as 50/10 is that grant guidelines have just this year been adapted to level the playing field for small communities like Charlotte that frankly don't stand a chance of getting an ISP to invest here because of our small population density. Increasing the definition potentially brings a lot more competition for public funding, potentially keeping us at the bottom of the list for funding, and we can't build our infrastructure without it unless we leave our fate in the hands of the federal RDOF program, which effectively sold us without our knowledge or permission to an ISP that has consistently underserved us from Day 1. Perhaps there's some grant scoring mechanism to consider that awards more points to a community starting from a lower current service baseline?

Liz Trice, Portland

I'm writing to support raising the minimum broadband speed to 100/100.

I've owned a Coworking space in Portland for over ten years, and have met thousands of remote workers who live in Maine. What's great is that people moving to Maine are doing so for great reasons: they want to be closer to their families, have more time in nature, and live a slower lifestyle. They typically bring good incomes and education, and want to belong to, and participate in, their local communities. Higher internet speeds will allow people with good jobs to live close to the people and communities that they love, and share their resources with the community around them. The bare minimum needed per person zoom calls is 10x10, so really a family needs 50x50, and I expect over time the basic standard of what's needed will only increase. Obviously specialized work and businesses can require much more.

Also, I urge you to ensure that any networks built belong to the public. The need for broadband networks is that of a public utility, so we should not be handing out this infrastructure for free without long term public ownership.

Julian Sheffield, Northport

I whole heatedly endorse changing the definition of broadband to 100/100. Collaborative business and education places heavy demand on upload as much as on download speeds. Providers who advertise broadband must be required to deliver broadband that actually supports these activities. Underserved areas that are effectively unserved need to be so classified.

Charlene Hamiwka, Camden

25/3 is not enough for true remote work. For properties that I sell, the first question a buyer asks is what the internet access speed is. These are typically higher end customers looking for a home that will allow them to work remotely. We have seen several sales fall through because the internet speed has been too slow to support the streaming and uploads they need. If someone is looking to relocate their business to Maine, they need the higher speeds, which eliminates many areas from benefiting from internet based businesses. Anything below 50/10 is definitely underserved in my opinion.

Communications Service Providers

Michael Forcillo, Redzone
Abridged: Current applications do not require symmetrical speeds. While the actual use of upload bandwidth is growing, download traffic is growing too. It is highly unlikely actual use of networks will ever approach symmetry.

State allocation of public broadband subsidies should be structured in a way that accounts for the ability to scale up network speeds. Legislators should preserve flexibility for different technologies that can best serve different areas of the state.

Extreme changes to the broadband standard may even increase the digital divide, as many providers would likely spend subsidies in relatively low-cost areas already covered under the previous definition of broadband, simply using funding to upgrade networks where economic return is easier, rather than deploying new networks to truly unserved areas.

Symmetrical requirements would ultimately mean fewer high-cost locations are served or less money is available to address affordability, digital literacy, and other impediments to adoption. However, the definition of "broadband" should be updated to reflect reasonable expectations of future demand, which likely means increasing baseline upload speeds from 3 Mbps, even though doing so would make coordinating with existing subsidy programs more difficult.

In a hypothetical example of a typical family, four
people are surfing the Internet: Two of them are simultaneously making video calls (Zoom and Skype), one is watching an HD movie on Netflix, and the fourth person is playing games on Xbox. There is also a family nest camera outside continuously streaming footage. In this scenario, the family would leverage 18 Mbps for downstream traffic and 7.8 Mbps for upstream traffic, demonstrating a clear demand for download bandwidth over upload bandwidth, even with multiple, concurrent video calls.

Mark Radabaugh, Amplex Internet
Abridged: A recent independent industry body – BITAG – noted, "Even with the growth in the use of upstream intensive applications such as video conferencing, the downstream-to-upstream traffic ratio is still highly asymmetrical and illustrates that asymmetrical broadband fulfills the requirements for most residential broadband users." Most all communications networks are asymmetric, because that is how we deliver the best experience for customers who largely prefer to watch Netflix and play video games over uploading terabytes of data to the cloud. (Hint: no one needs to upload terabytes of data to the cloud.)

Ben Sanborn, Telecommunications Association of Maine
Abridged: Everyone acknowledges that there are places in Maine that continue to lack even the current
baseline of service at 25/3 Mbps. Before the State starts to fund areas that exceed this baseline, we must first bring everyone in the State up to this minimum level of broadband service. Even if the scoring is tilted to
rank a bid higher if it is going from below 25/3 Mbps to some higher tier of service, there are many other factors that still impact score, including most importantly the price per home passed… communities with service
would get more service, and communities without would be left behind. Thus the digital divide in Maine would grow…

… backhaul capacity, which is not a function of the
"minimum performance" of broadband service. To accurately reflect the "state of the market" the Authority must be clear about what market is being addressed. In this instance, for purposes of the Statute and Rule, the market is the end user broadband service market. This reality is clearly reflected in the "common applications and network services", all of which reflect end user uses.

Audio and
Video streaming do not require 10 Mbps upload speed, or even 1 Mbps upload speed. Nor indeed do they require 10 Mbps download speed. The FCC's Broadband Speed Guide indicates that streaming HD video requires 5 – 8 Mbps download speed, while HD video conferencing requires 6 Mbps download, and multiplayer online gaming requires 4 Mbps download speed. The upload speeds required are even less, Zoom indicates that for 720p HD group video calling you need 2.6 Mbps, or 2 Mbps for gallery view with 25 participants on screen.

TAM does not oppose a build to
standard of 100/100 Mbps.

Melinda Kinney, Charter Communications and Comcast
The Authority's recommended designation of broadband eligible for funding as 100/100 Mbps, however, would do precisely that in failing to account for scalable technology that can incrementally deliver the speeds that align with the way consumers will use broadband, including scaling up to 100/100 Mbps, but that is already widely available throughout areas served by Charter and Comcast. It is also important to note that consumers' broadband usage remains highly asymmetrical – with downstream bandwidth usage nearly 16 times higher than upstream usage, even while accounting for the shift to increased teleconferencing associated with working and learning from home due to COVID-19.

Mark Ouellette, Axiom Technologies
I am writing to fully endorse and enthusiastically support the ConnectMaine Board efforts to
increase the speed standard definition of broadband to 100/100Mbps and definition of unserved as
50/10Mbps.

Frankly, the public is already demanding this level of service. Axiom has already adjusted our
Broadband speeds to be symmetrical across the board and has begun to increase our minimum
package for internet broadband to 50/50Mbps. Increasingly we are seeing our mix of customers
who take higher speeds requesting even higher speeds. And we are seeing a change in the mix of
customers at the bottom tier who are now taking higher level speeds.

With the stay-at-home demands of work and school, and multiple people working at the same time
AND the increase use of cloud-based services such as Microsoft teams, Zoom and Dropbox
bandwidth usage at an individual home has never been higher. We do not see this demand dropping
even as kids return to in-person learning and employees begin to return to the office. We are
beginning to have demand for speeds of 200/200Mbps up to a 1/1Gig. In our minds the proposed
increased standards perfectly reflect the marketplace demand that we are seeing.

Fletcher Kittredge, GWI
According to a highl□ regarded Ookla speed test site, Speedtest, in April of 2021, the average
broadband speed in the US is 192/68mb/sec. In that conte□ t, setting the minimum speed to be
considered as
broadband to 100/100mb/sec and the definition of unserved as less than 50/10mb/sec is
reasonable.

In the market toda□ , there are a variet□ of technologies that are capable of delivering
100/100mb/sec
service: fiber optic networks are a leading source, but under the right circumstances h□ brid
fiber/coa□ and
Fi□ ed Wireless Access (FWA) are both potential solutions.
Fiber networks are being built out ver□ rapidl□ . One provider, AT&T, has promised to connect up
an
additional 3 million customers this □ ear. A projection made b□ the research fiber RVA LLC is that
$60 billion
will be spent building fiber in the US over the ne□ t five □ ears. In this case, a significant majorit□ of
residences and businesses would be served b□ fiber.

□ Users'
[internet] bandwidth grows b□ 50% per □ ear.□ While Nielsen□ s law is just an observational rule of
thumb, it
was first formulated in 1998 based on data between 1983 and 1998, it has a phenomenal track record
having accuratel□ predicted the growth of internet speeds through 2021. I have seen no credible
evidence
that the slope of the curve will change in the ne□ t five □ ears.

Alan Hinsey, Lincolnville Communications, Inc.
In the spirit of "don't let the perfect become the enemy of the good," LCI/Tidewater strongly supports the 50 x 10 Unserved standard and the 100 x 100 "build to" requirement. This is clearly a step in the right direction. While this evolution is a welcome change, we also encourage the ConnectME Authority (and the soon-to-be Maine Connectivity Authority) to consider ways to incentivize the upgrading of older technology to support a 100 x 100 minimum standard, sooner rather than later We realize that incentivizing the overbuilding of existing older technology is an issue that will require much discussion among the public, end users, policy-makers, local units of government and private providers. But we also realize that ==Maine will not truly reach its full economic, social and humanitarian potential until a robust symmetrical upload and download broadband standard is applied== at every address in the state. LCI/Tidewater is happy to continue to be a part of that ongoing important policy discussion for Maine. Onward.

Unknown Affiliations

Chuck Staples
Maine needs broadband improvements, period.
Expanding the definition of unserved and underserved with respect to broadband access highlights the need but doesn't solve the problem. Even before this change in definition, rural Maine areas have been unserved or underserved for years with minimal improvements there. Don't let the argument over what areas are now considered "underserved" detract from the fact that many areas effectively have NO service. ==Improving speeds for concentrated urban areas is an easy win but doesn't help those rural areas which have poor service and little hope for improvement.==
Broadband improvement statewide is a critical need for sustained growth in Maine.

Support Designations

JoAnne Taylor, Sandy River Plantation
Linda Jones, Dallas Plantation
Dwayne Young, Town of Weston
Ann S. Roberts, Whitefield
Robert Butler, Waldoboro
Tom Ploch, Swan's Island
Brian deLutio, Rangeley Lakes Regional
School Board
Marybeth Allen, Orland
Gerry Nelson, Greenwood
Doug Cowan, Brooksville
Renee Fox, Jackson
Joan Cook, Fayette
Jason A. Kates, Westport Island
Frances Gendreau, Madawaska
Robin George, Rangeley
Rick Palazola, Trenton
Josh M. Portland
Jeff Packard, UVEC
Jeff Willmann, Blue Hill
Carl Rogers, Mount Vernon
Morrison Webb, Portland & Chebeague
Island
Sukey Heard, Arrowsic
Mark Tully, Madison
Larry Wright, Lambert Lake Township
Anne Mommers, Brownfield
Piotr Urbanski, Portland
John Carpenter, York
David R. Hill, Chebeague Island
Irene Schell, Fryeburg
Ann Rittenberg, Sedgwick
Tim MacLeod, Auburn
Joanne and Jonathan Bacharach, Gorham
Rick Alexander, Blue Hill
Brian Withers, Bremen
Henry Goldberg, Bremen
Robert Publicover, Sedgwick
John Hough, Edmunds Township
Gary Vincent, Harpswell
Frederick Elliot, Brooksville
Sharon Darling, Millinocket
Robert G. Bing-You, Blue Hill

Stan Moody, Topsham
Peter Suber, Brooksville
Doreen Culcasi, Harrison
Chris Johnson, Somerville
John Flaherty-Stanford, Portland
Josh Raymond, Franklin
Lisa Saffer, Brownfield
Margaret and August Schau, Buckfield
Shirley and Lynn Hayward, Northport
Lawrence Goldfarb, Northeast Harbor
Charlene Marshall, Mount Desert
Jennifer Richardson, Mount Desert
Rick Wheeler, Tremont
Bill Skocpol, Mount Desert
Judy and Ron Benson, Northeast Harbor
Carol Boden, Bethel
Christine Benken, Jefferson
John Covell, Augusta
Jerry Wetterskog, Sedgwick
Deirdre Good, Northport
Timothy B. Clark, Northeast Harbor
Kathy Woolgar, Bridgton
Judyth S. Herrick, Sedgwick
Audrey Farber, North Yarmouth
Todd Keene, Brunswick
Scot Casey, Owls Head
Blake Foote, Owls Head
Louis Carrier, National Digital Equity Center
Janann Sherman, Vinalhaven
John Gibbons, Union
Debra Hall, Midcoast Internet Coalition
Donna Beninati, Peninsula Broadband
Coalition
Bill Hahn, Thomaston
Diane Giese, Thomaston
Michael Sheahan, Sedgwick
Ann Frenning Kossuth, Northport
Brady Brim-DeForest, Northport
Marshall J. Kaiser, Deer Isle
Zoe Tenney, Sedgwick
Pat Field, Deer Isle
Mary Penfold, Deer Isle
Anne Schroth, Sedgwick

René Colson Hudson, Stonington
Eric Marshall, Deer Isle
Cheryl and Steve Curtis, Deer Isle
Sarah O'Malley, Sedgwick
Clifford C. Dacso, South Thomaston
Elaine Hewes, Sedgwick
John & Maureen O'Reilly, Sedgwick
Carol Bischoff, Deer Isle
Charlotte Podolsky, Deer Isle
Richard Davis, Deer Isle
Karen Farber, Falmouth
Catherine R. McCullough, Owls Head
Rod Greenwood, Deer Isle
Acacia Springsteen, Sedgwick
Jenna Billings, Stonington
Marcia Hart-Quinby, Sedgwick
Beverly Hawkins, Sedgwick
Doug Drown, Sedgwick
Kimberly Grindle, Union
Sandy Moore, Thomaston
Linda Milton, South Thomaston
Judy and Peter Robbins, Sedgwick
Julie Wilson, Sedgwick
Heather Davis, Deer Isle
Alissa Wagner, Sedgwick
Damian Bebell, Sedgwick

James Fisher, Deer Isle
Les Weed, Stonington
Julie Wilson, Brooklin
Jennifer Larrabee, Sedgwick
Jennifer Mayo, Deer Isle
Kathleen Kazmierczak, Brooklin
Dawn Nault, Deer Isle
Marti Brill, Sedgwick
Kathleen Gielarowski, Brooklin
Vanessa Gray, Sedgwick
Joanne Parker, Sedgwick
Cassie Gross, Sedgwick
Vanessa Carter, Sedgwick
Matthew Larsen, Deer Isle
Lynne Witham, Sullivan
Faith Chapman, Brooklin
Elizabeth Moss, Sedgwick
Chris Elkington, Sedgwick
Tracie Morey, Stonington
Tara McKechnie, Sedgwick
Dolphin Thalhauser, Sedgwick
Jil Blake, Brooklin
Sarah Doremus, Sedgwick
Amy Billings, Sedgwick
Zel Bowman-Laberge, Thomaston
Matthew Watkins, Deer Isle

Unknown Affiliations

Ray Myers
Steve Hoad
Lee Schilling
Joe Aloisio Jr.
Richard Imbrogna
Jody Norton
Owen Fetzer
Andrew K Kimball
Emily Frawley
Nancy Leonard
Colin Vettier
Scott Powers
Barbara Grandolfo
Josh H.
Albert Boardman

Nancy Goodspeed
James Hathaway
David Bartlett
Jared Donisvitch
Granville Toogood
Judy Leadley
Branden K.
Scott F.
Jim Lyons
Sydney Winthrop
Letitia Roberts
Cheryl Willette
Phil Moriarty
Heather R Evans
Carol Welsh

Christine Larson
Bob Knight
Thomas Kreilkamp
Judy Pelletier
Fred Farber
Don & Linda Powell
Neal Kennerk
Jonathan Doolan
Autumn Stupca
Kyle Hardy
Kassie Dammier
Jeannie Hatch
Darlene Allen
Benjamin Moss

Two additional unidentified emailers

CONNECTMAINE

Possible Timelines

9 June 2021

Authority Members
Nick Battista, Chair
Jasmine Bishop
Fred Brittain
Susan Corbett
Heather Johnson
Jeff Letourneau
Liz Wyman

The ConnectMaine statute and rule requirements around these activities involve timelines, which are often triggered by the vote of the ConnectMaine Authority. These timelines intertwine, one often affecting the timeline of another. The timelines also consider reality of staff capacity, board availability for special meetings and burdens on our constituents.

For example, there should be enough time provided between announcing an opportunity to review areas and when such areas are submitted for review, and the time for staff to review and publicly post such areas, all before the required 30-day comment period occurs; after which, the ConnectMaine Authority often desires to confirm decisions or changes at one of the following monthly meetings.

This memorandum outlines the possible timelines following this emergency meeting; this memo isn't intended to repeat statute and rule requirements behind these activities[1].

Designation of Broadband Service

On 4.28 the ConnectMaine Authority voted on the designation of broadband service.
On 5.28 the required 30-day public comment period ended.
Today, 6.9 the ConnectMaine Authority may confirm that decision and direct staff to identify unserved areas, or substantially change that decision likely triggering another 30-day comment period and potentially another confirmation.

Designation of Unserved Areas

On 4.28 the ConnectMaine Authority voted to use a broadband service level of 50/10mpbs to designate unserved areas.
Today, 6.9 the ConnectMaine Authority may confirm that decision and direct staff to determine the boundaries of unserved areas ahead of the June meeting, or substantially change that decision and potentially wait until the June meeting for confirmation.
A 30-day public comment period begins when the ConnectMaine Authority votes to designate geographic areas as unserved.

Filing of Data

Today, 6.9 the ConnectMaine Authority may decide when and how to request data filing and grant tracking reports. Staff would need time to coordinate with contractors to plan these requests and the management of incoming data.

At the July meeting, the ConnectMaine Authority may decide to request data filing and grant tracking reports. Filing of data is required to be eligible for the next round of infrastructure grants, and any grant tracking reports are required to be in good standing.

Three months later is the deadline to receive all data and reports. Then staff and contractors would need some time to process data to affect the Broadband Availability Map.

Opportunity to Review Areas

March 2021, rulemaking became effective, including when and how the opportunity to request review of areas would occur.

Today, 6.9 the ConnectMaine Authority may direct staff to consider the process of identifying unserved areas[2] for the next such opportunity, for discussion at the June meeting.

At the July meeting, the ConnectMaine Authority may decide or even announce how to implement said process ahead of the next round of infrastructure grants.

Either a similar process is used, including 14 days for submitting areas, some days for review and publicly posting them, and the required 30-day comment period; or a different process within the infrastructure grants application process is used, including the 30-day comment period after the announcement of the next round.

Announce Infrastructure Grants Window

For the July meeting, staff recommend reviewing the performance & applications criteria, including drafted scoring guide and other materials, especially if the ConnectMaine Authority would like to engage stakeholders on these before announcing the next round. The applications, including scoring and performance criteria for projects, can't be changed once a grants window is opened.

At the August meeting, the ConnectMaine Authority opens the application window, if possible based on the designation of unserved areas and any process around the opportunity to review areas.

About two weeks from opening the application window, ConnectMaine staff would host a workshop for potential applicants.

Within 30 days of the application window opening, applicants must conduct provider outreach. Any responses from providers must be emailed within 14 days of outreach.

About 14 days later, the application window is closed after applicants can revise their proposed project areas based on any responses from providers. Any revisions of project areas would have to avoid triggering the opportunity to review areas.

About 28 days are needed between closing the window and meeting to vote on committee recommendations, which would follow any public comment period still open and the time any responses from providers is required.

At the November, the ConnectMaine Authority awards infrastructure grants.

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[1] Some of these requirements were covered in a previous memorandum available on the ConnectMaine website: https://www.maine.gov/connectme/about/statutes-rulemaking

[2] Current process is described in the pdf linked on the ConnectMaine website: https://www.maine.gov/connectme/communities-resources/Broadbandmapping