The State of Rhode Island

Rhode Island Commerce Corporation

CONNECTRI

FAST & AFFORDABLE INTERNET FOR ALL

Broadband Equity, Access, and Deployment (BEAD) Program

Initial Proposal

Volume 1

December 20, 2023

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Dear Fellow Rhode Islanders,

The Rhode Island Commerce Corporation (Corporation) is pleased to share Volume 1 of Rhode Island's Initial Proposal for the Broadband Equity, Access, and Deployment (BEAD) Program. Volume 1 articulates the Corporation's response to the third (3rd), fifth (5th), sixth (6th), and seventh (7th) requirements of the Initial Proposal, as articulated in the National Telecommunications and Information Administration's (NTIA) notice of funding opportunity. The Corporation will articulate its responses to NTIA's other Initial Proposal requirements in the forthcoming Volume 2.

The Corporation created this document as part of its ConnectRI program, which is responsible for allocating federal broadband dollars from BEAD, the Digital Equity Act (DEA, which NTIA administers), and the Capital Projects Fund (CPF, which the Department of the Treasury administers). ConnectRI aims to achieve universal service and work toward digital equity, driven by the following principles (informed by the state's needs and federal guidance): expand fiber infrastructure in the state, eliminate cost as a barrier, and foster an inclusive digital advancement ecosystem.

Should you have any questions, please contact ConnectRI via email at broadband@commerceri.com. For more information about the Corporation and ConnectRI, please visit https://commerceri.com/broadband.

Sincerely,

Brian Thorn
Director of Broadband Strategy
Rhode Island Commerce Corporation

Definitions and Abbreviations

ARPA	American Rescue Plan Act
BDC	Broadband Data Collection
BEAD	Broadband Equity, Access, And Deployment
BSL	Broadband Serviceable Location
CAIs	Community Anchor Institution
CPF	Capital Projects Fund
DEA	Digital Equity Act
DSL	Digital Subscriber Line
FCC	Federal Communications Commission
HFC	Hybrid Fiber-Coaxial
HIFLD	Homeland Infrastructure Foundation-Level Data
HUD	Housing And Urban Development
IP	Internet Protocol
IRS	Internal Revenue Service
ISBE	Independent Small Business Enterprise
ISP	Internet Service Provider
MDU	Multi-Dwelling Unit
NCES ID	National Center for Education Statistics Identification
NCOA	National Council on Aging

NHPD	National Housing Preservation Database
NTIA	National Telecommunications and Information Administration
OCR	Optical Character Recognition
ONT	Optical Network Terminal
PII	Personally Identifiable Information
PSAPs	Public Safety Answering Points
Corporation	Rhode Island Commerce Corporation
USAC	Universal Service Administrative Company

1.1 Existing Broadband Funding (Requirement 3)

1.1.1 Attachment: Existing Broadband Funding

As a required attachment, submit the file identifying sources of funding, a brief description of the broadband deployment and other broadband-related activities, the total funding, the funding amount expended, and the remaining funding amount available. Eligible Entities may copy directly from their Five-Year Action Plans.

The State is set to receive a total of $108.7 million from the National Telecommunications and Information Administration's (NTIA) Broadband Equity, Access, and Deployment (BEAD) program for investments in last-mile broadband infrastructure to bring high-speed, reliable broadband service where it is needed the most. The State has also received a Digital Equity Planning Grant from the Digital Equity Act (DEA) to plan for digital equity efforts and will receive a Digital Equity Capacity Grant to implement digital equity and inclusion initiatives. These federal funding sources complement a $25 million investment that the State has made to new broadband infrastructure from the Department of the Treasury's Capital Projects Fund (CPF), part of the American Rescue Plan Act (ARPA). The Rhode Island Commerce Corporation (Corporation) will ensure throughout that funding provided by the BEAD program will not be duplicative to other funding sources.

Details of current broadband funding available are provided in the following table, a copy of which is available for download here.

Source	Purpose	Total	Expended or obligated	Available
NTIA BEAD Program	State planning and implementation grant for BEAD, from Bipartisan Infrastructure Law	$108,718,821	$4,800,000 *(approximate total of budgeted and obligated items to date)*	Available: $200,000 Forthcoming: $103,918,821 Total:

Source	Purpose	Total	Expended or obligated	Available
				$104,118,821
NTIA DEA Program	State planning and implementation grant for Digital Equity, from Bipartisan Infrastructure Law	$506,100	$506,100 *(approximate total of budgeted and obligated items to date)*	$0
U.S. Treasury Capital Projects Fund	ARPA Capital Projects Fund for broadband infrastructure and deployment. A portion of the state's award is reserved for creating broadband infrastructure	$24,956,500	$1,798,002 *(approximate total of budgeted and obligated items to date)*	$23,158,498 *(The Corporation is committed to using these funds for 100/100 Mbps broadband infrastructure subgrants.)*
FCC Connect America Fund - Phase II	FCC Connect America Fund (CAF) for building out broadband across the United States.	$475,303	$475,303 *(Includes the Frozen High-Cost Support Funds issued by the FCC since 2013)*	$0
FCC Rural Digital Opportunity Fund (RDOF)	Funding for rural broadband development in remote or otherwise difficult to access rural areas. *Please note that RDOF*	$1,273,784	$10,205	$1,263,579

Source	Purpose	Total	Expended or obligated	Available
	Funds in Rhode Island were granted to Hughes Network, a satellite provider, which does not conflict with BEAD Priority Broadband Projects.			

1.2 Unserved and Underserved Locations (Requirement 5)

1.2.1 Attachment: Unserved Locations

As a required attachment, submit one CSV file with the location IDs of each unserved location, including unserved locations in applicable Tribal Lands.

A list of unserved locations, as defined by NTIA and FCC, is available here.

1.2.2 Attachment: Underserved Locations

As a required attachment, submit one CSV file with the location IDs of each underserved location, including underserved locations in applicable Tribal Lands.

A list of underserved locations, as defined by NTIA and FCC, is available here.

1.2.3 Date Selection

Date Selection: Identify the publication date of the National Broadband Map that was used to identify the unserved and underserved locations.

The Corporation identified unserved locations and underserved locations from V3 of the BSL Fabric and Broadband Data Collection (BDC) filings last updated on November 14, 2023.

1.3 Community Anchor Institutions (CAIs) (Requirement 6)

1.3.1 CAI Definition

Describe how the statutory definition of "community anchor institution" (e.g., schools, libraries, health clinics) was applied, how eligible CAIs were identified, and how network connectivity needs were assessed, including the types of CAIs that the Eligible Entity intends to serve.

The Corporation has included Community Anchor Institutions (CAIs) as defined by NTIA's BEAD Program, including schools (including higher educational institutions), libraries, health care facilities, public safety entities, public housing (including any public housing agency, Housing and Urban Development-assisted housing organization, or Tribal housing organization), and community support organizations. Community support organizations – examples being senior centers, community action program centers, job and education centers, and non-profits – are understood to be those institutions that facilitate broadband use for covered populations, as defined by the Digital Equity Act (DEA): (1) individuals who live in low-income households, (2) aging individuals, (3) incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility, (4) veterans, (5) individuals with disabilities, (6) individuals with a language barrier, including individuals who are English learners and have low levels of literacy, (7) racial and ethnic minorities, and (8) rural inhabitants. (See Digital Equity Act Sec. 60302(8) and 47 U.S. Code 1702 (a)(2)(E) in the definition of "Community Anchor Institution").

For each category of CAIs, the Corporation has expanded upon the definition of such category to include CAIs that serve local communities throughout Rhode Island. These expanded definitions include certain additional municipal buildings where public spaces and resources can be used and accessed by all, such as local town halls, and correctional facilities, where incarcerated individuals can utilize broadband resources to further their education, career, and other rehabilitative endeavors.

Community Anchor Institutions were identified by the Corporation through a large-scale public engagement process which began with an identification of CAIs through consultation with various state sources and databases containing lists of locations

falling into those categories, such as schools, hospitals, public safety answering points (PSAPs), and homeless shelters. This work has been continuously updated through the Corporation's Digital Equity Ecosystem Mapping Tool, linked here. This online tool enumerates all CAIs within Rhode Island, and solicits input from each CAI regarding their programs, services, and eligibility to receive support from BEAD programs.

To identify CAIs on Tribal Lands, the Corporation will seek additional input from the Narragansett Indian Tribe (Tribe), the only federally recognized tribe in Rhode Island. The Corporation's engagement with the Tribe is ongoing as of the submission of this Initial Proposal. This engagement has included a formal Dear Tribal Leader Letter (sent via certified mail on November 7, 2023) and virtual consultations with the Tribe's Director of Community Planning & Natural Resources and Program Assistant, the last of which occurred on December 6, 2023. Both the Corporation and the Tribe are enthusiastic about coordinating future broadband efforts through BEAD and other programs. As of the submission of this Initial Proposal, the Corporation awaits the results of the Tribal Council's discussions on broadband. In the interim, the Corporation identified CAIs listed on the Tribe's website and institutions found on public mapping websites (e.g., Google Maps). The Corporation will amend the list of CAIs following input from the Tribe.

To assess the connectivity needs of relevant CAIs, the Corporation used National Broadband Map data and the network maps of several ISPs to identify CAIs that lacked access to broadband infrastructure that can provide speeds of at least 1 Gbps (1000 Mbps) symmetrically. Those CAIs with available download and upload speeds of less than 1 Gbps were determined to have sufficient need for BEAD funding. CAIs that do not subscribe to 1 Gbps symmetrical service, even where it is available, are designated as "served" and therefore not included as an unserved or underserved CAI.

The following table enumerates all CAI categories the Corporation has identified:

Code	CAI Category	Definition	Sources
S	Schools	K-12 public or private schools with a National Center for Education Statistics (NCES) ID or primary and secondary education facilities identified by the NCES or are a part of the FCC E-Rate program.	National Center for Educational Statistics, US Department of Education, Universal Service Administrative Company (USAC) Open Data
L	Libraries	All public libraries, including those participating in the FCC E-Rate program as well as all member libraries, and their branches, of the American Library Association (ALA)	USAC Open Data
H	Health care facilities	Health clinics, health centers, hospitals, or medical providers that have a Centers for Medicare and Medicaid Services (CMS) identifier.	Homeland Infrastructure Foundation-Level Data (HIFLD), US Department of Veteran Affairs, CMS
F	Public safety entities	Public safety entities may include fire houses, emergency medical service stations, police stations, among others, as well as public safety answering points (PSAPs)	HIFLD, US Geological Survey, Department of Justice, FCC PSAP registry
U	Higher education	Any higher educational institution whose NCES ID category is “College.” Examples include: Colleges and universities, junior colleges, community	NCES

Code	CAI Category	Definition	Sources
		colleges, minority serving institutions, tribal colleges, supplemental colleges, and other higher educational institutions (The Corporation added the following examples, as they were not included by NTIA: minority serving institutions, tribal colleges, and supplemental colleges).	
P	Public housing facilities	Any public housing agency, HUD-assisted housing organization, publicly funded or non-profit funded MDU affordable housing, organization in Rhode Island that facilitates decent and safe housing for vulnerable populations, or Tribal housing organization. Homeless shelters and affordable housing common areas or community spaces are also included in this category.	US Department of Housing and Urban Development (HUD), National Housing Preservation Database (NHPD)
C	Community support organizations	Organizations which facilitate greater use of broadband service by vulnerable populations, including low-income individuals, unemployed individuals, and aged individuals. The Corporation defines the following as community support organizations: - Community action agencies, including non-profits - Government buildings where residents gather, such as town halls, courthouses, and tribal administrative buildings - Correctional facilities	Department of Labor "American Job Center" database, National Council on Aging (NCOA), Internal Revenue Service (IRS), HIFLD, RI Department of Human Resources, RI Department of Corrections, Federal Bureau of Prisons

Code	CAI Category	Definition	Sources
		- Cultural centers such as houses of worship, organizations around ethnic identity or immigration status, or other identity-based community centers - Community centers such as the Boys and Girls Club or the YMCA - Job training or workforce development centers - Senior centers - Transit centers (The Corporation added the following examples, as they were not included by NTIA: community action agencies, cultural centers, government buildings, correctional facilities, community centers, transit centers.)	

1.3.2 Attachment: CAIs

As a required attachment, submit the CSV file (named cai.csv) that lists eligible community anchor institutions that require qualifying broadband service and do not currently have access to such service, to the best of the Eligible Entity's knowledge.

For CAIs of type C, provide a brief explanation of how the institution facilitates greater broadband use and the population it serves, either as text or as a reference to a longer explanation accompanying the submission. For example, the submitter may define a set of sub-categories of CAI category C and describe how they meet the conditions.

A list of eligible community anchor institutions that require qualifying broadband service and do not currently have access to such service, to the best of the

Corporation's knowledge, is available for download as a CSV file here. Please note that the Corporation created this list on a best-efforts basis, as directed by NTIA, and that additional CAIs may be added over time.

Community support organizations (CAIs of type C) identified by the Corporation are categorized into one of eight groups: (1) Community action agencies (2) government buildings, (3) correctional facilities, (4) cultural centers, (5) community centers, (6) workforce and job training centers, (7) senior centers, or (8) transit centers. A brief description of each group and a brief explanation of how each institution facilities greater broadband use is contained within the following table:

Institution	Description	How they facilitate greater broadband use
Community action agencies	Community action agencies serve the community through providing in-person social services and resources for vulnerable populations. These agencies serve a wide range of populations, including low-income families, seniors, and people with disabilities.	Community action agencies offer clients discounted internet service. They also provide digital literacy training and other resources to help clients learn how to use broadband to access essential services and information. Community action agencies also provide public computers and internet access in community rooms or other common areas.
Government buildings	Government buildings are the local, county, state, tribal, and federal government buildings where Rhode Island residents are likely to gather, such as town halls, courthouses or tribal administrative buildings.	Rhode Islanders of all backgrounds gather regularly at town halls and tribal administration buildings; access to high-speed broadband at these locations will improve digital equity, increase civic engagement, improve transparency and accountability, and expand access to services.
Correctional	Correctional facilities include residential detention centers	Correctional facilities require high-speed connectivity so incarcerated

Institution	Description	How they facilitate greater broadband use
facilities	or juvenile detention centers which house incarcerated individuals.	individuals can utilize online resources to further their education, career, and other rehabilitative endeavors.
Cultural centers	Cultural centers provide community around race, ethnicity, religion, or immigration status, serving members of those groups at a physical location for community gathering and services or programs.	Cultural organizations are a hub for religious and ethnic communities to gather. Some organizations offer classes in digital literacy and skills trainings, or provide a location for students to study or use computers provided in common spaces.
Community centers	Community centers serve all members of the community, regardless of age, income, or education level.	Community centers offer digital literacy classes, computer workshops, and other programs to help people learn how to use broadband. They also provide public computers and internet access to residents who may not have access at home, including children in after school programs.
Workforce development and job centers	Workforce development and job centers serve people who are looking to train for new jobs or advance their careers. These facilities are often used by unemployed and/or low-income individuals.	Workforce development centers can offer digital literacy training and other resources to help participants learn how to use broadband to find jobs, research training opportunities, and complete online courses. Job training or workforce development centers also provide public computers and internet access in community rooms or other common areas.

Institution	Description	How they facilitate greater broadband use
Senior center	Senior centers serve older adults, typically those aged 60 and over.	Senior centers offer digital literacy classes, computer workshops, and other programs to help older adults learn how to use broadband. They also provide public computers and internet access to older adults who may not have access at home.
Transit centers	Transit centers serve people who use public transportation to get around.	Transit centers can provide internet access to riders while they are waiting for their bus or train. Public transportation is typically used by low-income individuals compared to other populations.

1.4 Challenge Process (Requirement 7)

1.4.1 NTIA BEAD Model Challenge Process Adoption

Select if the Eligible Entity plans to adopt NTIA Challenge Process Model for Requirement 7

The Corporation will not adopt the NTIA Challenge Process Model. The Corporation developed a Challenge Process similar to NTIA's Model but made modifications to accommodate Rhode Island's Area Speed Test Pre-Challenge Reclassification process.

1.4.2 Modifications to Reflect Data Not Present in the National Broadband Map

If applicable, describe any modifications to classification of broadband serviceable locations in the Eligible Entity's jurisdiction as "served," "underserved," or "unserved," and provide justification for each modification.

Rhode Islanders from some parts of the state and from diverse groups have reported to the Corporation that they lack access to affordable, high-speed broadband. In listening sessions, workshops, round table discussions, survey responses, speed test submissions, and other forums, some Rhode Islanders report they are unable to access broadband with download speeds greater than or equal to 100 Mbps and/or upload speeds greater than or equal to 20 Mbps and latency equal to or below 100 milliseconds. These reports appear to be inconsistent with the National Broadband Map, which classifies ~99.3 percent of locations as served (the National Broadband Map classifies only 2,500 locations in Rhode Island, ~0.7 percent of all locations, as either underserved or unserved).

To reflect the available evidence regarding the quality of broadband in Rhode Island, ensure the most accurate broadband data maps inform the ConnectRI program, and rectify the differences between the experiences of some Rhode Islanders and the

data within the National Broadband Map, the Corporation will modify the NTIA Challenge Process Model and undertake a reclassification process to create the Rhode Island Broadband Map, following NTIA's approval of Rhode Island's Initial Proposal. The Corporation makes this modification in alignment with NTIA guidance that "[a]s part of Volume 1 of the Initial Proposal, an Eligible Entity may, upon approval of the Assistant Secretary, modify the set of locations it proposes to make eligible for BEAD funding to reflect data not present in the National Broadband Map." For example, an Eligible Entity may propose to NTIA that it modify the National Broadband Map before the challenge process by "treat[ing] as 'underserved' locations that the National Broadband Map shows to be 'served' if rigorous speed test methodologies demonstrate that the 'served' locations actually receive service that is materially below 100 Mbps downstream and 20 Mbps upstream." Once NTIA has approved an Eligible Entity's proposed methodology for modifying the National Broadband Map (as well as modifying the map to reflect the deduplication process), the Eligible Entity "will complete" such modification, and "[t]he set of eligible locations established after execution of these pre-challenge process requirements will then be the subject of the challenge process." (See NTIA BEAD Challenge Process Policy Notice at 9-10, "Challenge Process Policy Notice").

The Rhode Island Broadband Map will not (a) add or remove locations from the set of broadband serviceable locations the Federal Communications Commission has identified on the National Broadband Map, nor (b) change the definitions of "unserved" and "underserved" from those set forth in the Infrastructure Act. The Rhode Island Broadband Map, however, will modify the designation of a location as served, underserved or unserved on the National Broadband Map using the following approach:

1. **National Broadband Map:** First, as required by NTIA, the Corporation's identification of unserved and underserved locations started with the latest version of the FCC's National Broadband Map. Unserved locations are defined as those locations with access to download/upload speeds less than 25/3 Mbps. Underserved locations are defined as those locations with access to download/upload speeds greater than or equal to 25/3 Mbps and less than 100/20 Mbps.

2. **Optional Module 2 – DSL Modifications:** Second, the Corporation will treat locations that the National Broadband Map shows to have available qualifying broadband service (i.e., a location that is "served") delivered via DSL as "underserved." This modification will better reflect the locations eligible for BEAD funding because it will facilitate the phase-out of legacy copper facilities and ensure the delivery of "future-proof" broadband service. This designation cannot be challenged or rebutted by the ISP.

3. **Area Speed Test Reclassification:** Third, the Corporation proposes to use the results of hundreds of thousands of speed tests conducted by Ookla (collected over a 12-month period, November 2022 to October 2023, as of the publication of this Proposal; the Corporation maintains a license to Ookla data, which is updated monthly. Upon NTIA approval of the Rhode Island Area Speed-Test Pre-Challenge Reclassification process, the Corporation will utilize the data set from the most recent 12-month period prior to the Challenge Process) to identify those Broadband Serviceable Locations (BSLs) in Rhode Island that are classified as "served" in the Federal Communication Commission's (FCC's) National Broadband Map, but which the available evidence shows speeds that are materially below 100/20 Mbps (download/upload) or latency that is materially above 100 milliseconds. Accordingly, Rhode Island will reclassify BSLs located in census block groups that speed tests show as lacking access to reliable, high-speed broadband service (download speeds of 100 Mbps or greater, upload speeds of 20 Mbps or greater, and latency equal to or less than 100 milliseconds) as unserved or underserved.

    a. *Notification of Speed Test Reclassifications:* Rhode Island will notify ISPs that offer broadband service in census block groups that have been reclassified of the reclassified status of the BSLs in those census block groups. ISPs will be given the opportunity to rebut the area reclassifications by submitting speed tests of their own during the state-administered challenge process. Rhode Island hopes and expects

that, by utilizing both the results of the Ookla speed tests in the pre-challenge area reclassification process and ISP-conducted speed tests during the challenge process (along with other information submitted in the state-administered challenge process), the final version of the Rhode Island broadband map will be an accurate and reliable basis for selecting and awarding last-mile broadband projects in the proposer selection process.

b. *Details regarding the Ookla Broadband Performance Dataset:* The Broadband Performance Dataset is a raw dataset that includes attributes related to the speed tests captured. These attributes include, but are not limited to, date and time, unique test ID, ISP common name, upload and download speed, latency measurements, longitude and latitude, connection type (fixed or mobile), and a GPS reading indicator flag. The speed test data does not include some of the information that is included in the Optional Speed Test Module in the Model Challenge Process. In particular, the Ookla data does not include the address of the BSLs subject to Ookla speed tests, the name of the end user associated with each BSL, or the speed tier the customer subscribes to (see National Telecommunications and Information Administration, U.S. Department of Commerce, Broadband Equity, Access and Deployment Program, BEAD Model Challenge Process at 19, "Model Challenge Process," describing information to be provided with speed tests). The absence of the address of the BSLs does not undermine the reliability or usefulness of the tests. The speed tests contain latitude and longitude location information that identifies the location of the device subject to the test within a margin for error of 110 meters (speed test data will be filtered to only include tests that have latitude and longitude data). While this margin for error means that Ookla speed tests cannot be associated with specific BSLs in many cases, the latitude and longitude information allows for checks to ensure that speed tests have been conducted in distinct geographic locations. For example, the Corporation will utilize the latitude and longitude

information to identify census block groups where there are fewer than 18 unique locations with speed tests (i.e., fewer than 18 unique 110 square meter areas with speed tests) and, as discussed below, exclude such census block groups from the analysis. This will ensure that this Area Speed Test Reclassification will not be based on a small subset of the locations within a census block group. The absence of information regarding the speed tier the customer subscribes to also does not undermine the reliability or usefulness of the tests for purposes of download speeds because it is the Corporation's understanding that all fiber and cable broadband service plans currently offered by ISPs in Rhode Island are advertised to provide download speeds of 100 Mbps or more. Finally, although ISPs offer several broadband service plans in Rhode Island with advertised upload speeds below 20 Mbps, the proposal discussed below addresses this issue by ensuring that ISPs can challenge the area reclassification results by relying solely on speed tests for BSLs where the subscriber subscribes to a broadband service plan with an advertised upload speed of 20 Mbps or more ("Qualifying Subscriptions").

i. The Corporation acknowledges that the speed test data does not contain information regarding subscribers' plans and, therefore, the maximum download and upload speed subscribers are eligible to receive. Rhode Island's Challenge Process, as described herein, accounts for the absence of subscriber plan information; see section 1.4.6.4 for further details regarding Rhode Island's Area Speed Test Challenge Process.

c. *Methodology for Area Speed Test Reclassification:* Rhode Island will follow a methodology that is consistent with, but more rigorous than, the area challenge process set forth in NTIA's model challenge process (see NTIA BEAD Model Challenge Process at 17-18, "Model Challenge Process"). The following parameters will apply:

i. Each Ookla speed test measurement will include:

1. The time and date the test was conducted,

2. The ISP-assigned internet protocol (IP) address,
3. The ISP's common name, and
4. The device type.

ii. The Corporation will only use "Fixed" speed test data, thereby removing all speed tests taken on mobile networks (the data set categorizes speed tests into "Attribute Portal Categories," which will be filtered to exclude "Mobile Broadband" and include "All Fixed" categories, which constitutes laptops or desktops). The Corporation otherwise will use all speed test data in the Broadband Performance Dataset; speed test data will not be "cherry picked" or culled in any way. Only one speed test per location is required.

iii. The Corporation will consider each technology and ISP separately. If an ISP offers broadband service utilizing multiple technologies, each technology will be treated separately.

iv. To ensure that speed tests are conducted in a variety of locations throughout a census block group, and not solely in a small area within the census block group, the Corporation will only consider speed tests in census block groups with speed tests in at least 18 unique locations (i.e., at least 18 unique 110 square meter areas with speed tests) (as discussed, the location of devices subject to Ookla speed tests can be identified with a 110-meter margin for error. A speed test is in a unique location if it is in a 110 square meter area, a so called "tile," that is different from other tiles where other speed tests are located). The number 18 was chosen to ensure the presence of speed tests in significantly more locations than NTIA suggested in other contexts (e.g., NTIA requires speed tests for six BSLs in its area speed test challenge) (see NTIA BEAD Model Challenge Process at 18: "An area challenge is triggered if six or more broadband serviceable locations using a particular technology and a single provider within a census block group are challenged").

v. The Corporation will reclassify all locations within a census block

group as unserved if eighteen (18) or more unique speed tests within that census block group experienced download speeds less than 25 Mbps and/or upload speeds less than 3 Mbps.

vi. The Corporation will reclassify all locations within a census block group as underserved if eighteen (18) or more unique speed tests within that census block group experienced download speeds greater than or equal to 25 Mbps and less than 100 Mbps and/or upload speeds greater than or equal to 3 Mbps and less than 20 Mbps.

vii. The Corporation will reclassify all locations within a census block group as underserved if eighteen (18) or more unique speed tests within the census block group experience download or upload latency above 100 milliseconds.

viii. The Corporation will follow the 80/80 rule for download and upload test results. Under that rule, if 80 percent of census block group locations or greater experienced download/upload speeds equal to or greater than 20/2.4 Mbps (i.e., 80 percent of 25/3 Mbps), the Corporation will not reclassify these locations as unserved. However, these locations remain available to be reclassified as underserved based on speed tests or based on latency test results (see NTIA BEAD Model Challenge Process at 19, “Model Challenge Process,” describing information to be provided with speed tests).

ix. Similarly, pursuant to the 80/80 rule, if 80 percent of census block group locations or greater experienced download/upload speeds equal to or greater than 80/16 Mbps (i.e., 80 percent of 100/20 Mbps), these test results will not result in the reclassification of these locations as underserved. However, these locations remain available to be reclassified as underserved based on latency test results (see NTIA BEAD Model Challenge Process at 19, “Model Challenge Process,” describing information to be provided with speed tests).

x. The Corporation will follow the 95 percent rule for latency test

results (see NTIA BEAD Notice of Funding Opportunity at 65). Under that rule, if greater than or equal to 95 percent of latency tests show download and upload latency measurements of 100 milliseconds or less, these test results will not result in the reclassification of these locations as underserved. However, these locations remain available to be reclassified as unserved or underserved based on speed test results.

xi. The Corporation will specifically note the Location IDs of the BSLs that have been reclassified due to Area Speed Test Reclassification.

4. **Optional Module 3 – Location Speed Test Modifications:** Fourth, the Corporation will treat as "underserved" locations that the National Broadband Map shows to be "served" if rigorous speed test methodologies (i.e., methodologies aligned to the BEAD Model Challenge Process Speed Test Module) demonstrate that the "served" locations actually receive service that is materially below 100 Mbps downstream, 20 Mbps upstream, or latency materially above 100 milliseconds. This modification will better reflect the locations eligible for BEAD funding because it will consider the actual speeds and latency at these locations. As described below, such speed tests can be challenged by the ISP during the Challenge Process.

    a. *Notification of Speed Test Reclassifications:* Like the Area Speed Test Reclassification, Rhode Island will notify ISPs that offer broadband service in census block groups that have been reclassified of the reclassified status of the BSLs in those census block groups. ISPs will be given the opportunity to rebut the area reclassifications by submitting speed tests of their own during the state-administered challenge process.

    b. *Speed Tests Used:* Like the Area Speed Test Reclassification, the Corporation will use the Ookla Broadband Performance Dataset to perform speed test modifications under Optional Module 3: Please refer

to discussion above regarding the Ookla Broadband Performance Dataset for further information.

c. *Methodology for Speed Test Reclassification:* Rhode Island will follow a methodology that is consistent with NTIA's model challenge process (see NTIA BEAD Model Challenge Process at 17-18, "Model Challenge Process"). The following parameters will apply:
    i. Each Ookla speed test measurement will include:
        1. The time and date the test was conducted,
        2. The ISP-assigned internet protocol (IP) address,
        3. The ISP's common name, and
        4. The device type.
    ii. The Corporation will only use "Fixed" speed test data, thereby removing all speed tests taken on mobile networks (the data set categorizes speed tests into "Attribute Portal Categories," which will be filtered to exclude "Mobile Broadband" and include "All Fixed" categories, which constitutes laptops or desktops). The Corporation otherwise will use all speed test data in the Broadband Performance Dataset; speed test data will not be "cherry picked" or culled in any way. Only one speed test per location is required.
    iii. The Corporation will consider each technology and ISP separately. If an ISP offers broadband service utilizing multiple technologies, each technology will be treated separately.
    iv. The Corporation will only consider speed tests for Optional Module 3 that it can confidently associate with a single BSL. As speed tests from Ookla may occur anywhere within a 110 square meter area, the Corporation will only consider speed tests in areas with a single BSL, as these speed tests can be attributable to no other location (as discussed, the location of devices subject to Ookla speed tests can be identified with a 110-meter margin for error. A speed test is in a unique location if it is in a 110 square meter area, a so called "tile," that is different from other

tiles where other speed tests are located). If there are more than one BSL within the 110 square meter area of a speed test, the Corporation will not consider this speed test and will not attempt to reclassify these BSLs.

v. The Corporation will reclassify a BSL as unserved if the median of three or more unique speed tests demonstrates download speeds less than 25 Mbps and/or upload speeds less than 3 Mbps.
vi. The Corporation will reclassify a BSL as unserved if the median of three or more unique speed tests demonstrates download speeds greater than or equal to 25 Mbps and less than 100 Mbps and/or upload speeds greater than or equal to 3 Mbps and less than 20 Mbps.
vii. The Corporation will reclassify a BSL as underserved if the median of three or more unique speed tests demonstrates download or upload latency above 100 milliseconds.
viii. The Corporation will specifically note the Location IDs of the BSLs that have been reclassified due to Optional Module 3.

1.4.3 Deduplication of Funding – BEAD Eligible Entity Planning Toolkit

Select if the Eligible Entity plans to use the BEAD Eligible Entity Planning Toolkit to identify existing federal enforceable commitments.

Yes, the Corporation plans to use the BEAD Eligible Entity Planning Toolkit to identify existing federal enforceable commitments.

1.4.4 Deduplication of Funding – Process

Describe the process that will be used to identify and remove locations subject to enforceable commitments.

Where applicable, the Corporation will enumerate locations subject to enforceable

commitments by leveraging the BEAD Eligible Entity Planning Toolkit, and plans to refer to at least the following data sources:

1. The Broadband Funding Map published by the FCC pursuant to IIJA § 60105.8
2. Data sets from state broadband deployment programs that rely on funds from the Capital Projects Fund and the State and Local Fiscal Recovery Funds administered by the U.S. Treasury.
3. Data sets from state broadband deployment programs that rely on funds from the Connect America Fund (CAF), Frozen High-Cost Support Fund, and Rural Digital Opportunity Fund (RDOF) administered by the Federal Communications Commission.
4. Data sets from state broadband deployment programs that rely on funds from the Tribal Broadband Connectivity Program and Digital Equity Act, administered by NTIA.
5. Rhode Island and local data collections of existing enforceable commitments.

The Corporation will make a best effort to create a list of BSLs subject to enforceable commitments based on state/territory or local grants or loans. If necessary, the Corporation will translate polygons or other geographic designations (e.g., a county or utility district) describing the area to a list of Fabric locations. The Corporation will submit this list, in the format specified by the FCC Broadband Funding Map, to NTIA.

The Corporation will review its repository of existing state and local broadband grant programs to validate the upload and download speeds of existing binding agreements to deploy broadband infrastructure. In cases where the broadband speed requirements were not clearly delineated by the State or Corporation, or when there was reason to believe an ISP deployed higher broadband speeds than required, the Corporation will reach out to the ISP to verify the deployment speeds of the binding commitment. The Corporation will document this process by requiring ISPs to sign a binding agreement certifying the actual broadband deployment speeds deployed.

The Corporation will draw on these ISP agreements, along with its existing database on state and local broadband funding programs' binding agreements, to determine the set of state and local enforceable commitments.

1.4.5 Attachment: Deduplication of Funding

As a required attachment, submit the list of the federal, state/territorial, and local programs that will be analyzed to remove enforceable commitments from the set of locations eligible for BEAD funding.

The Corporation has assembled a list of the federal, state/territorial, and local programs that will be analyzed to remove enforceable commitments from the set of locations eligible for BEAD funding, which are also outlined in Section 1.1 Existing Broadband Funding, or Requirement 3 of the Initial Proposal. The file is available here.

1.4.6 Plan to Conduct an Evidence-Based, Fair, Transparent, and Expeditious Challenge Process.

Describe the plan to conduct an evidence-based, fair, transparent, and expeditious challenge process.

Based on NTIA BEAD Challenge Process Policy Notice, as well as the Corporation's understanding of the goals of the BEAD program, the Corporation's Volume 1 proposal represents a transparent, fair, expeditious and evidence-based challenge process.

1.4.6.1 Permissible Challenges

The Corporation will only allow challenges on the following grounds:

- The identification of eligible community anchor institutions, as defined by the Corporation,
- Community anchor institution BEAD eligibility determinations,
- BEAD eligibility determinations for existing BSLs (including evidence contradicting the Corporation's Area Speed Test Reclassifications),
- Enforceable commitments, and

- Planned service.

1.4.6.2 Permissible Challengers

During the BEAD Challenge Process, the Corporation will only allow challenges from nonprofit organizations (that is, organizations with a designated nonprofit tax status), units of local and tribal governments, and ISPs.

1.4.6.3 Challenge Process Overview

The challenge process conducted by the Corporation will include four phases over 90 days or less, as required by NTIA. As noted below, the timeline for each phase is tentative, as the Challenge Process will not begin until Rhode Island receives approval from NTIA.

The Corporation proposes that Rhode Island's Challenge Process contains the following phases:

1. **Publication of Eligible Locations:** Prior to beginning the Challenge Phases, the Corporation will publish the set of locations eligible for BEAD funding, which consists of the locations resulting from the activities outlined in Sections 5 and 6 of NTIA BEAD Challenge Process Policy Notice (e.g., administering the deduplication of funding process). The Corporation will also publish locations considered served, as they may be challenged. At the time of publication of eligible locations, the Corporation will notify ISPs of locations they provide service to that are impacted by Speed Test reclassifications. The Corporation will provide an explanation as to how an ISP may utilize its own speed tests to submit a challenge during the next phase of the Rhode Island Challenge Process.
    a. *Timeline:* The Corporation intends to have eligible locations published 7 to 14 calendar days following NTIA's approval of this document (Rhode Island's Volume 1 of the Initial Proposal). The exact dates for the

Challenge Process are dependent on NTIA's approval of this document. However, as the Corporation expects NTIA to approve the Initial Proposal on approximately March 4, 2024, the Corporation anticipates it will publish Eligible Locations by March 18, 2024.

2. **Challenge Phase:** A challenger (a non-profit organization, a unit of local and tribal governments, or an ISP) will submit a challenge through the Corporation's challenge portal. This challenge will be visible to all permissible challengers and to the ISP whose service availability and performance is being contested via the challenge portal. The portal will notify the ISP of the challenge through an automated email, which will include related information about timing for the ISP's response. After this stage, the location will enter the "challenged" state.
    a. During this phase, ISPs that provide service to locations reclassified because of the Corporation's Area Speed Test Pre-Challenge Reclassification may present evidence using the Corporation's challenge portal to rebut the Corporation's reclassifications based on the speed test modification. For details regarding permissible challenges to the Corporation's Area Speed Test Pre-Challenge Reclassification, see "Evidence & Review Approach – Reclassification Challenges" below.
    b. In this phase, permissible challengers may submit challenges – based either on speed tests or another permissible challenge approach – to further support the Corporation's reclassification of locations because of the Area Speed Test Pre-Challenge Reclassification or the Location Speed Test Reclassification (Optional Module 3).
    c. Permissible challengers may submit area or Multi-Dwelling Unit (MDU) challenges during this phase, as described below (see "General Area Challenge and General MDU Challenge" below).
    d. The Corporation will support non-profit organizations and units of local and tribal governments in aggregating individual challenges via the Corporation's challenge process portal. This portal will allow individuals to draft challenges and share such challenges with non-profit organizations and units of local and tribal governments. Via the portal,

non-profit organizations and units of local and tribal governments will be able to easily review, aggregate, and submit these challenges on behalf of such individuals. Prior to the start of the Challenge Process, the Corporation will provide technical assistance to non-profit organizations and units of local and tribal governments on this element of the portal.

e. *Timeline:* Challengers will have thirty (30) calendar days to submit a challenge from the time the initial list of unserved and underserved locations, community anchor institutions, and existing enforceable commitments are posted by the Corporation. The exact dates for the Challenge Process are dependent on NTIA's approval of this document. However, the Corporation anticipates the Challenge Phase will take place between March 18, 2024, and April 17, 2024.

3. **Rebuttal Phase:** Any permissible challenger may rebut a Challenge with evidence, causing the location or locations to enter the "disputed" state. If a Challenge that meets the minimum level of evidence is not rebutted, the challenge is sustained, and the area or location will be updated to the "sustained" state. A permissible challenger may also agree with the challenge and thus transition the location to the "sustained" state. Permissible challengers must regularly check the challenge portal for notifications of submitted challenges.
    a. *Timeline:* Permissible challengers will have thirty (30) calendar days from the submission of a challenge to provide rebuttal information to the Corporation. The rebuttal period begins once the ISP is notified of the challenge, and thus may occur concurrently with the challenge phase. The exact dates for the Challenge Process are dependent on NTIA's approval of this document. However, the Corporation anticipates the Rebuttal Phase will take place between April 18, 2024, and May 18, 2024.

4. **Final Determination Phase:** During the Final Determination phase, the Corporation will make the final determination of the classification of the location, either declaring the challenge "sustained" or "rejected."
    a. *Timeline: Following intake of challenge rebuttals, the Corporation will make a final challenge determination within thirty (30) calendar days of the challenge rebuttal. Reviews will occur on a rolling basis, as challenges and rebuttals are received.* The exact dates for the Challenge Process are dependent on NTIA's approval of this document. However, the Corporation anticipates the Final Determination Phase will take place between May 19, 2024, and June 18, 2024.

1.4.6.4 Evidence & Review Approach – Challenges to Area Speed Test Reclassification

As described in section 1.4.2 ("Modifications to Reflect Data Not Present in the National Broadband Map"), the Corporation proposes to modify NTIA Challenge Process Model to accommodate Rhode Island's Area Speed Test Pre-Challenge Reclassification process. This modification is primarily in the form of the inclusion of the Area Speed Test Reclassification (see 1.4.2, list item 4). An ISP is eligible to challenge a BSL or a group of BSLs modified by the Corporation because of its Area Speed Test Reclassification via one of the following approaches:

Latency and Download Speed Reclassification Area Challenge: If the ISP currently provides service to 75 or more BSLs in a census block group that was reclassified due to download latency in excess of 100ms, upload latency in excess of 100ms, or insufficient download speeds (i.e., download speeds less than 100 Mbps), the ISP may seek to reclassify all locations within the census block group by providing speed tests that demonstrate download latency less than or equal to 100ms, upload latency less than or equal to 100ms, and/or sufficient download speeds (i.e., 100 Mbps or greater) for either 10 percent or more of the BSLs that are currently ISP customers or 18 or more BSLs that are currently ISP customers, whichever is greater (see *Approach*

Rationale below for details explaining why the Corporation adopted this approach). If a census block group was reclassified on more than one basis (e.g., download latency, upload latency, download speed), the ISP must provide evidence to challenge each basis individually.

Requirements of a Latency Download Speed Reclassification Area Challenge:

1. The ISP must provide the total number of BSLs in the census block that they currently serve and the total number of BSLs in the census block that currently subscribe to service.
2. The BSLs subject to the speed tests must be randomly chosen by the ISP (i.e., ISP may not "cherry pick" or cull speed test data in any way).
3. For latency, ISPs must follow the same 95 percent rule that applies to the area reclassification methodology, as described in section 1.4.2.
4. For download speed, ISPs must follow the same 80/80 rule that applies to the area reclassification methodology, as described in section 1.4.2.
5. All speed tests must meet the requirements set forth below (see section 1.4.6.7 Speed Test Requirements").
6. If the Corporation also reclassified a location due to insufficient upload speeds, an ISP must submit also submit an Upload Speed Reclassification Area Challenge.

An ISP that submits a Download Reclassification Area Challenge must provide an Affidavit from an authorized officer, certifying under oath, that it has complied with each of the enumerated 6 criteria.

Approach Rationale: In the Model Challenge Process, NTIA recommends that census block group-based area speed test challenges permit ISPs to rebut an area speed test challenge by submitting speed tests for ten percent of the BSLs in a census block group (See Model Challenge Process at 19: "A service provider may rebut an area speed test challenge by providing speed tests, in the manner described above, for at least 10% of the customers in the challenged area.") The Corporation has largely adopted this approach, but, at a minimum, requires ISPs to provide as much evidence as the Corporation used to reclassify a Census Block Group.

Additionally, by requiring that the ISP have at least 75 customers in the census block group, this test will ensure that the ISP submitting the challenge has meaningful presence in the Census Block Group and provides at least some form of internet access service to customers throughout the census block group. As the median census block group in Rhode Island has 379 BSLs, the Corporation requires an ISP to provide internet service to at least 19.8 percent of the BSLs in the median census block group.

Latency and Download Speed Reclassification Location Challenge: If an ISP serves fewer than the minimum number of BSLs described in the Latency and Download Speed Reclassification Area Challenge (75 BSLs with current subscriptions in a census block group), an ISP may challenge the classification of individual BSLs that the Corporation reclassified using speed test. To challenge an individual reclassified BSL, an ISP must provide speed tests that demonstrate download latency less than or equal to 100ms, upload latency less than or equal to 100ms, and/or sufficient download speeds (i.e., 100 Mbps or greater). All speed tests must meet the requirements set forth below (see Section 1.4.6.7 Speed Test Requirements). If a census block group was reclassified on more than one basis (e.g., download latency, upload latency, download speed), the ISP must provide evidence to challenge each basis individually. If the Corporation also reclassified a location due to insufficient upload speeds, an ISP must also submit an Upload Speed Reclassification Area Challenge.

Upload Speed Reclassification Area Challenge: An ISP may challenge the upload reclassification of all locations in a census block group via this challenge method if, based on ISP data, at least 75 BSLs in the census block group are current customers of the ISP and at least 30 percent of those customers subscribe to “Qualifying Subscriptions” (the “75/30 test”) (a "Qualifying Subscription” is a subscription in which the subscriber has purchased a broadband service with download speeds equal to 100 Mbps or greater and upload speeds equal to or greater than 20 Mbps) (see *Approach Rationale* below for details explaining why the Corporation adopted

this approach). If an ISP meets these qualifications, the ISP may seek to reclassify all locations within the census block group by providing speed tests that demonstrate sufficient upload speeds for at least 75 percent of the BSLs that the ISP currently provides qualifying service to in the census block group (some ISPs in Rhode Island offer broadband service plans that include upload speeds of less than 20 Mbps; these plans are not Qualifying Subscriptions. As a result, there are likely many fewer BSLs with Qualifying Subscriptions than total BSLs with subscriptions). Requirements of an Upload Speed Reclassification Area Challenge include:

1. The ISP must provide (1) a list of all broadband service plans to which its customers in the census block group subscribe, identifying those plans currently offered to new customers and those that are not currently offered to new customers, and (2) the total number of BSLs in the census block group that subscribe to each broadband service plan reported in (1).
2. The BSLs with Qualifying Subscriptions subject to the speed tests must be randomly chosen.
3. ISPs must follow the same 80/80 rule that applies to the area speed test reclassification methodology, as described in section 1.2.
4. All speed tests must meet the requirements set forth below (see section 1.4.6.7 Speed Test Requirements).
5. If the Corporation also reclassified a location due to either excessive download latency, excessive upload latency, and/or insufficient download speeds, an ISP must also submit both a Latency and Download Spped Reclassification Area or Location Challenge for each basis of reclassification.

An ISP that submits an Upload Reclassification Area Challenge must provide an Affidavit from an authorized officer, certifying under oath, that it has complied with each of the enumerated 5 criteria.

If an ISP cannot demonstrate that it can meet the 75/30 test in a census block group, as described above, the ISP may not challenge the classification of the BSLs within that census block group. This is because consumers “lack[] access” to an ISP’s broadband service where the ISP’s Qualifying Subscriptions are purchased by fewer than 20 percent of the subset of consumers it serves in the census block group (see

NTIA BEAD NOFO at 16-17, defining "underserved location" and "unserved location" as "lacking access" to broadband of the specified speeds).

Approach Rationale: The methodology for challenging Ookla speed test results showing insufficient upload speeds is complicated by the fact that, as mentioned, some ISPs offer broadband service plans that include upload speeds of less than 20 Mbps in Rhode Island (i.e., they are not Qualifying Subscriptions). ISP challenges to Ookla speed tests showing insufficient upload speeds must be based on ISP speed tests conducted solely on BSLs with Qualifying Subscriptions. Rhode Island proposes to use the 75/30 test to ensure that the ISP submitting an upload reclassification area challenge offers internet access service in a meaningful way throughout the census block group, that it has more than a *de minimis* number of customers with Qualifying Subscriptions in the census block group, and that its test results will be sufficiently reliable.

1. By requiring that the ISP have at least 75 customers in the census block group, this test will ensure that the ISP submitting the challenge provides at least some form of internet access service to customers throughout the census block group. The median census block group in Rhode Island has 379 BSLs. An ISP with 75 or more customers in such census block groups provides internet service to at least 19.8 percent of the BSLs in the census block group. This means that the ISP has at least a meaningful presence as a provider of internet access in the census block group.
2. By requiring that at least 30 percent of the ISP's customers in the census block group have Qualifying Subscriptions, the test ensures that the ISP's qualifying service is sufficiently robust to attract more than a *de minimis* number of customers in the census block group. Again, the median census block group in Rhode Island has 379 BSLs. An ISP with at least 75 customers in the census block group of whom at least 30 percent have Qualifying Subscriptions has at least 23 customers with qualifying service, or approximately six (6) percent of the BSLs in census block group. Rhode Island believes that this is a bare minimum threshold for Qualifying Subscriptions in a

census block group to show that the ISP makes available high-speed broadband internet service with 100/20 speed in the census block group.

3. The requirement that an ISP provide a qualifying service to 30 percent of the ISP's customers in a census block group and share speed tests test for 75 percent of these BSLs is also necessary to ensure that the ISP's tests are sufficiently reliable. This will result in the ISP needing to provide at least 18 speed tests demonstrating speeds in excess of 100/20 Mbps in a census block group (e.g., in a census block group where the ISP has 75 customers, the minimum required for this challenge type, 30 percent of which is 23 [the number of customers that must have qualifying subscriptions], 75 percent of which is 18 [the number of required speed tests demonstrating sufficient speeds]), the same standard Rhode Island requires itself to meet in its pre-challenge reclassification process.

1.4.6.5 Evidence & Review Approach – Other Challenges

To ensure that each challenge is reviewed and adjudicated based on fairness for all participants and relevant stakeholders, the Corporation will review all applicable challenge and rebuttal information in detail without bias, before deciding to sustain or reject a challenge. The Corporation will document the standards of review to be applied in a Standard Operating Procedure and will require reviewers to document their justification for each determination. The Corporation plans to ensure reviewers have sufficient training to apply the standards of review uniformly to all challenges submitted. The Corporation will also require that all reviewers submit affidavits to ensure that there is no conflict of interest in making challenge determinations.

*Minimum Level of Evidence Sufficient to Establish a Challenge***:** The challenge portal will verify that the address provided can be found in the Fabric and is a BSL. The challenge portal will confirm that the challenged service is listed in the Rhode Island Broadband Map and meets the definition of reliable broadband service. The challenge will confirm that the email address is reachable by sending a confirmation message to the listed contact email. For scanned images, the challenge portal will determine whether the quality is sufficient to enable optical character recognition (OCR). For

availability challenges, the Corporation will manually verify that the evidence submitted falls within the categories stated in NTIA BEAD Challenge Process Policy Notice and the document is unredacted and dated.

The following table details permissible challenge types and permissible rebuttals:

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
A	Availability	The broadband service identified is not offered at the location, including a unit of a multiple dwelling unit (MDU).	• Time-stamped screenshot of ISP webpage. • A service request was refused within the last 180 days (e.g., an email or letter from ISP). • Lack of suitable infrastructure (e.g., no fiber on pole as evidenced, for example, by network diagrams or recent photos). • A letter or email dated within the last 180 days that an ISP failed to schedule a service installation, offer an installation date within 10 business days of a request, or required an installation fee above normal rate.	• ISP shows that the location subscribes to or has subscribed within the last 12 months, e.g., with a copy of a customer bill. • If the evidence was a screenshot and believed to be in error, a time-stamped screenshot that shows service availability. • The ISP submits evidence that service is now available as a standard installation, e.g., network design diagrams.

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
			(the standard broadband installation is defined in the Broadband DATA Act, 47 U.S.C. § 641(14)). • A letter or email dated within the last 180 days indicating that an ISP requested more than the standard installation fee to connect this location or that an ISP quoted an amount in excess of the ISP's standard installation charge in order to connect service at the location.	
S	Speed	The actual speed of the service tier falls below the unserved or underserved thresholds, for either download or upload. (Only locations with a	• Speed test by subscriber, showing the insufficient speed and meeting the requirements for speed tests, as detailed below.	• ISP has countervailing speed test evidence showing sufficient speed, e.g., from their own network management system. (As described in the

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
		subscribed-to service of 100/20 Mbps or above can challenge locations as underserved, while only locations with a service of 25/3 Mbps or above can challenge locations as unserved.)		NOFO, a provider's countervailing speed test should show that 80 percent of a provider's download and upload measurements are at or above 80 percent of the required speed).
L	Latency	The download or upload latency of the broadband service exceeds 100 milliseconds.	• Speed test by subscriber, showing the excessive latency.	• ISP has countervailing speed test evidence showing latency at or below 100 milliseconds, e.g., from their own network management system or the CAF performance measurements.
D	Data cap	The only service plans marketed to consumers impose an unreasonable capacity allowance ("data cap") on the consumer. An unreasonable	• Time-stamped screenshot of ISP webpage. • Service description provided to consumer.	• ISP has terms of service showing that it does not impose an unreasonable data cap or offers another plan at the location without an

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
		capacity allowance is defined as a data cap that falls below the monthly capacity allowance of 600 GB		unreasonable cap.
T	Technology	The technology indicated for this location is incorrect.	• Manufacturer and model number of residential gateway (Customer Premise(s) Equipment) that demonstrates the service is delivered via a specific technology.	• ISP has countervailing evidence from their network management system showing an appropriate residential gateway that matches the provided service.
B	Business service only	The location is residential, but the service offered is marketed or available only to businesses.	• Time-stamped screenshot of ISP webpage.	• ISP documentation that the service listed in the BDC is available at the location and is marketed to consumers.
E	Enforceable Commitment	The challenger has knowledge that broadband will be deployed at this location by the date established in the deployment	• Enforceable commitment by ISP (e.g., authorization letter). In the case of Tribal Lands, the challenger must submit the	• Documentation that the ISP has defaulted on the commitment or is otherwise unable to meet the commitment (e.g., is

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
		obligation.	requisite legally binding agreement between the relevant Tribal Government and the ISP for the location(s) at issue (see Section 6.2 above).	no longer a going concern).
P	Planned service	The challenger has knowledge that broadband will be deployed at this location by June 30, 2024, without an enforceable commitment or an ISP is building out broadband offering performance beyond the requirements of an enforceable commitment. This is only considered an acceptable challenge if there is a binding and enforceable commitment from the challenger.	• Construction contracts, specific pole attachment license, or similar evidence of on-going, binding deployment, along with evidence that all necessary permits have been applied for or obtained. • Contracts or a similar binding agreement between the Corporation and the provider committing that planned service will meet the BEAD definition and requirements of reliable and	• Documentation showing that the ISP is no longer able to meet the commitment (e.g., is no longer a going concern) or that the planned deployment does not meet the required technology or performance requirements.

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
			qualifying broadband even if not required by its funding source (i.e., a separate federal grant program), including the expected date deployment will be completed, which must be on or before June 30, 2024.	
N	Not part of enforceable commitment.	This location is in an area that is subject to an enforceable commitment to less than 100 percent of locations and the location is not covered by that commitment. (See BEAD NOFO at 36, n. 52.)	• Declaration by ISP subject to the enforceable commitment.	
C	Location is a CAI	The location should be classified as a CAI.	• Evidence that the location falls within the definitions of CAIs set by the Corporation (for	• Evidence that the location does not fall within the definitions of CAIs set by the Corporation or is no

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
			example, eligibility for FCC e-Rate or Rural Health Care program funding or registration with an appropriate regulatory agency may constitute such evidence, but the Corporation may rely on other reliable evidence that is verifiable by a third party).	longer in operation.
R	Location is not a CAI	The location is currently labeled as a CAI but is a residence, a non-CAI business, or is no longer in operation.	• Evidence that the location does not fall within the definitions of CAIs set by the Corporation or is no longer in operation.	• Evidence that the location falls within the definitions of CAIs set by the Corporation or is still operational.

The information contained within the above table may also be found here.

1.4.6.6 Area Challenge and MDU Challenge

This section does not apply to ISPs seeking to present a challenge to locations reclassified during the Corporation's Area Speed Test Pre-Challenge Reclassification. ISPs seeking to present a challenge to locations reclassified during the Corporation's Area Speed Test Pre-Challenge Reclassification should refer to Section 1.4.6.4 Evidence

& Review Approach – Reclassification Challenges above.

The Corporation will administer area and MDU challenges for challenge types A, S, L, D, and T. An area challenge reverses the burden of proof for availability, speed, latency, data caps and technology if a defined number of challenges for a particular category, across all challengers, have been submitted for an ISP. Thus, the ISP receiving an area challenge or MDU must demonstrate that they are indeed meeting the availability, speed, latency, data cap and technology requirement, respectively, for all (served) locations within the area or all units within an MDU. The ISP can use any of the permissible rebuttals listed above.

An **Area Challenge** (different from a challenge to Area Speed Test Reclassification, which are described in Section 1.4.6.4) is triggered if six (6) or more broadband serviceable locations using a particular technology and a single ISP within a census block group are challenged during the Challenge Phase.

An **MDU Challenge** will reclassify an entire MDU based on challenges from individual units. For MDUs having fewer than 15 units, one unit must challenge; for MDUs of between 16 and 24 units, two units must challenge; and for larger MDUs (24 units or more), at least three units must challenge. Here, the MDU is defined as one broadband serviceable location listed in the Fabric with more than one housing unit contained therein. An MDU challenge counts towards an area challenge (i.e., six successful MDU challenges in a census block group may trigger an area challenge).

Each type of challenge and each technology and ISP is considered separately. For instance, an availability challenge does not count towards reaching the area threshold for a speed challenge. If an ISP offers multiple technologies, such as DSL and fiber, each is treated separately since they are likely to have different availability and performance.

Area challenges for availability need to be rebutted with evidence that service is available for all BSL within the census block group (e.g., by network diagrams that show fiber or Hybrid Fiber-Coaxial (HFC) infrastructure or customer subscribers). For fixed wireless service, the challenge system will offer representative random, sample of the area in contention, but no fewer than 10, where the ISP has to demonstrate

service availability and speed (e.g., with a mobile test unit, which is a testing apparatus that can be easily moved, which simulates the equipment and installation (antenna, antenna mast, subscriber equipment, etc.) that would be used in a typical deployment of fixed wireless access service by the provider).

1.4.6.7 Speed Test Requirements

The Corporation will accept speed tests as evidence for substantiating challenges and/or rebuttals. Each speed test consists of three measurements, taken on different days. Speed tests cannot predate the beginning of the challenge period by more than 60 calendar days.

Speed tests can take any of the following forms:

1. A reading of the physical line speed provided by the residential gateway, (e.g., DSL modem, cable modem [for HFC]).
2. A reading of the physical line speed provided by the Optical Network Terminal (ONT) (for Fiber-to-the-Home), or fixed wireless subscriber module.
3. A reading of the speed test available from within the residential gateway web interface.
4. A reading of the speed test found on the ISP's web page.
5. A speed test performed on a laptop or desktop computer within immediate proximity of the residential gateway, using a commonly used speed test application to be specified by the Corporation.

Each speed test measurement must include:

- The time and date the speed test was conducted.
    - ISPs that submit speed tests must conduct speed tests between the hours of 7pm and 11pm local time.
- The ISP-assigned internet protocol (IP) address, either version 4 or version 6, identifying the residential gateway conducting the test.

Each group of three speed tests must include:

- The name and street address of the customer conducting the speed test.
- A certification of the speed tier the customer subscribes to (e.g., a copy of the customer's last invoice).
- An agreement, using an online form provided by the Corporation that grants access to these information elements to the Corporation, any contractors supporting the challenge process, and the ISP.

The IP address and the subscriber's name and street address are considered personally identifiable information (PII) and thus are not disclosed to the public (e.g., as part of a challenge dashboard or open data portal).

Each location must conduct three speed tests on three different days; the days do not have to be adjacent. The median of the three tests (i.e., the second highest (or lowest) speed) is used to trigger a challenge, for either upload or download. For example, if a location claims a broadband speed of 100 Mbps/25 Mbps and the three speed tests result in download speed measurements of 105, 102 and 98 Mbps, and three upload speed measurements of 18, 26 and 17 Mbps, the speed tests used in the challenge will be 102 Mbps for download and 18 Mbps for upload.

Speed tests may be conducted by subscribers, but speed test challenges must be gathered and submitted by units of local government, nonprofit organizations, or an ISP. Subscribers submitting a speed test must indicate the speed tier they are subscribing to. Since speed tests can only be used to change the status of locations from "served" to "underserved", only speed tests of subscribers that subscribe to tiers at 100/20 Mbps and above are considered. If the household subscribes to a speed tier of 100/20 Mbps or higher and the speed test yields a speed below 100/20 Mbps, this service offering will not count towards the location being considered served. However, even if a particular service offering is not meeting the speed threshold, the eligibility status of the location may not change. For example, if a location is served by 100 Mbps licensed fixed wireless and 500 Mbps fiber, conducting a speed test on the fixed wireless network that shows an effective speed of 70 Mbps does not change the status of the location from served to underserved.

An ISP may rebut an Area Challenge lodged with speed tests as evidence by providing speed tests, in the manner described above, for at least 75 percent of the customers

in the challenged area (see section 1.4.6.4 for justification of the 75 percent threshold). The customers must be randomly selected. ISPs must apply the 80/80 rule, i.e., 80 percent of these locations must experience a speed that equals or exceeds 80 percent of the speed threshold (the 80/80 threshold is drawn from the requirements in the CAF-II and RDOF measurements. *See* BEAD NOFO at 65, n. 80, Section IV.C.2.a). For example, 80 percent of these locations must have a download speed of at least 20 Mbps (that is, 80 percent of 25 Mbps) and an upload speed of at least 2.4 Mbps to meet the 25/3 Mbps threshold and must have a download speed of at least 80 Mbps and an upload speed of 16 Mbps to meet the 100/20 Mbps speed tier.

1.4.6.8 Transparency Plan

To ensure that the challenge process is transparent and open to public and stakeholder scrutiny, the Corporation will, upon approval from NTIA, publicly post an overview of the challenge process phases, challenge timelines, and instructions on how to submit and rebut a challenge. This documentation will be posted publicly for at least a week prior to opening the challenge submission window.

The Corporation also plans to actively inform non-profits, units of local and tribal governments, and ISPs of its challenge process and set up regular touchpoints to address any comments, questions, or concerns. The Corporation will take the following approach to ensure it has the appropriate contact information for eligible challengers:

- *Non-Profits:* As noted in section 1.3, the Corporation has developed a list of CAIs in Rhode Island. The Corporation will make reasonable efforts via email (based on information posted online) to contact each CAI to inform them of the challenge process. For CAIs without an online presence, the Corporation will make a reasonable effort to make contact either via mail or phone.
- *Units of local and tribal governments:* The Corporation maintains a list of local governmental stakeholders and will inform them via email and newsletter of the Challenge Process. Additionally, the Corporation will advertise the

Challenge Process via the Rhode Island League of Cities and Towns and the monthly municipal leaders call hosted by the Governor's office. The Corporation will also make every reasonable effort to engage with the Narragansett Indian Tribe, the only federally recognized tribe in Rhode Island.

- *ISPs:* The Corporation has an existing working relationship with each ISP currently operating in the state; the Corporation will work through these relationships to ensure each an appropriate email address is on file for each ISP for challenge notifications.
- Stakeholders can sign up on the Corporation's website https://commerceri.com/broadband for challenge process updates/newsletters and will be eligible to apply there for access to the Challenge Process Portal.
- Stakeholders can also engage with the Corporation via email at broadband@commerceri.com to request to be notified of the Challenge Process.

The Corporation will notify ISPs that offer broadband service in census blocks that have been reclassified as a result of the Corporation's Area Speed Test Pre-Challenge Reclassification. The Corporation will notify ISPs of Challenges to locations they service both via email and via the Corporation's challenge portal. The Corporation will provide further information regarding the challenge portal prior to the start of the Challenge Process.

Beyond actively engaging relevant stakeholders, the Corporation will also post all submitted challenges and rebuttals before final challenge determinations are made, including:

- the ISP, nonprofit, or unit of local government that submitted the challenge,
- the census block group containing the challenged broadband serviceable location,
- the ISP being challenged,
- the type of challenge (e.g., availability or speed), and
- a summary of the challenge, including whether an ISP submitted a rebuttal.

The Corporation will not publicly post any personally identifiable information (PII) or proprietary information, including subscriber names, street addresses and customer

IP addresses. To ensure all PII is protected, the Corporation will review the basis and summary of all challenges and rebuttals to ensure PII is removed prior to posting them on the website. Additionally, guidance will be provided to all challengers as to which information they submit may be posted publicly.

The Corporation will treat information submitted by an ISP and expressly designated as proprietary and/or confidential as confidential information, consistent with applicable federal law and state law, including Rhode Island's Access to Public Records law, R.I. Gen. Laws section 38-2-2, which provides an exemption for "[t]rade secrets and commercial or financial information obtained from a person, firm or corporation that is of a privileged or confidential nature." Therefore, Proposers should label any information that is a trade secrets or commercial or financial information that is of a privileged or confidential nature.

The Corporation is committed to protecting PII and preserving the confidentiality of data proprietary to challengers. To this end, the Corporation will adhere with all applicable state and federal laws and regulations pertaining to the protection of PII and proprietary information. The approach to safeguarding challenge-related data involves multiple layers of security protocols and measures. This ensures that data is protected from various angles, making it significantly more difficult for unauthorized individuals to gain access. Beginning from a data access standpoint, any individuals who are accessing evidence submitted as part of a challenge must be authenticated. Authenticated accounts are created or approved by a state broadband office. Any action taken on a challenge (i.e., accepting or rejecting evidence) is logged. The specific credentials used to access the dashboard are encrypted. Additionally, all traffic to/from the system is encrypted via HTTPS protocol. Challenge-related data and credentials are also encrypted at rest. This comprehensive strategy ensures that challenge-related data always remains confidential and secure, meeting best practices for data protection and privacy.

1.4.7: Optional Attachment: Challenge Process

As a required attachment only if the Eligible Entity is not using NTIA BEAD Model Challenge Process, outline the proposed sources and requirements that will be

considered acceptable evidence.

Details regarding the proposed sources and requirements of the Corporation's Challenge Process are described above. The Corporation will share Ookla data directly with the NTIA if required and permissible under the terms of its license with Ookla.

1.5 Volume 1 Public Comment

1.5.1: Public Comment

Describe the public comment period and provide a high-level summary of the comments received during the Volume I public comment period and how they were addressed by the Eligible Entity. The response must demonstrate:

a. *The public comment period was no less than 30 days; and*
b. *Outreach and engagement activities were conducted to encourage feedback during the public comment period.*

The Corporation solicited input and comments regarding this document from all Rhode Islanders and other stakeholders. The Corporation posted the Proposal to its website, https://commerceri.com/broadband, and announced its release through a press release, its newsletter (700+ contacts), and social media channels. Additionally, the Corporation verbally informed key stakeholders of the public comment period for the Initial Proposal through meetings with the Broadband Advisory Council, ISPs operating in the state, and municipal government representatives; feedback was solicited and encouraged in communications about the Initial Proposal. Feedback was provided during the public comment period, beginning November 3, 2023, and ending December 4, 2023. The Corporation carefully reviewed and considered all feedback submitted through the online comment form previously available on the Corporation's website.

Following the public comment period, the Corporation updated this document prior to its submission to NTIA. This updated document includes a high-level summary of the comments received and details regarding how the Corporation addressed these comments below.

Summary of Public Comments

Section	Comment	Suggested Response
1.1	Consider using CPF funds as the basis of a block grant program. CPF funds can be put to work more swiftly, not subject to the challenge process, and are less constrained than BEAD funds therefore, we recommend CPF funds be freed up for innovative initial and model deployment models, such as what the Massachusetts Broadband Institute is proposing for its $145 million Gap Networks Grant Program. Additionally, through the CPF, ConnectRI can "seed smaller and more agile pilot FTTP concepts that will ensure home-grown broadband success stories."	The Corporation will administer a separate CPF program, which is separate but complementary to BEAD.
1.2	Reserve funds for non-deployment activities	Rhode Island intends to use funds for non-deployment activities, should monies remain after all deployment projects have been awarded.
1.2	Narragansett Indian Tribe requests additional engagement	The Corporation has engaged directly with the Tribe via the contact information provided
1.3	[Redacted] requests to be classified as a CAI	The Corporation will include [Redacted], a public housing organization, in the list of eligible CAIs, if it does not currently have access to 1/1 Gbps service.
1.3	Clarify that HUD-assisted housing organization includes any long-term deed-restricted affordable housing development, publicly- or privately-owned, that has constructed in part	The Corporation does not want to limit the definition of public housing unintentionally

Section	Comment	Suggested Response
	through the utilization of any type of HUD capital tools	
1.3	Clarify that Public Housing Organization includes not only public housing (owned by public housing agencies), but any HUD-assisted housing organization (including private owners of Section 8-assisted housing like POAH).	The Initial Proposal already includes HUD-assisted housing organization within CAI definition
1.3	Public housing units and project-based Section 8 units should be eligible as CAIs.	Per NTIA, public housing units themselves are classified as BSLs, not CAIs
1.3	Expand definition of to include public housing facilities to include - Publicly-funded or non-profit funded MDU affordable housing - Organizations in Rhode Island that facilitate decent and safe housing for vulnerable populations	The Corporation has adopted this recommendation.
1.3	Support of inclusion of correctional institutions as CAIs	*No response or action required*
1.4	Use the most recent version of BDC data (June 2023) to inform the Rhode Island Broadband Map	The Corporation will rely upon the latest version of the National Broadband Map; as of publication, the most recent version was published on November 17, 2023.
1.4	Challenge Process should be 120 days, 45 days for both the Challenge Phase and the Rebuttal Phase instead of 30 days each. This timeline is expedited vs. NTIA guidance.	The Corporation is required to administer the Challenge Process and the Subgrantee Selection Process in 365 days. Given this extremely limited timeline, no additional time can be allocated to the Challenge Process.

Section	Comment	Suggested Response
1.4	Remove Affordability as a Challenge	The Corporation has adopted this recommendation
1.4	Modify evidence required for Availability challenges to limit to within the last 6 months, before which could be "too stale to be credible"	The Corporation has adopted NTIA's guidance on the recency of data required.
1.4	Modify evidence required for availability challenge rebuttals to clarify that providers: (1) are not required to disclose customers' bills to rebut availability challenges; and (2) are able to provide additional, satisfactory forms of rebuttal evidence that service is available as a standard installation at a certain location	The Corporation does not require IPSs to provide customers' bills to rebut availability challenges; customer bills are listed only as an example.
1.4	Reclassify locations on licensed fixed wireless as "unserved"	The Corporation will classify any BSL not served by speeds of at least 100/20 Mbps and with latency greater than 100ms, regardless of technology, as unserved or underserved.
1.4	Endorses the Optional Area Challenge Module as detailed in NTIA's BEAD Model Challenge Process.	*No response or action required*
1.4	Adopt Missouri's proposed FCC Area Modifications, which would classify as unserved/underserved locations in census block group or census tract that are subject to successful availability challenges through the FCC's challenge process. See Missouri's BEAD IPV1 – FCC Area Modifications (p. 12-13).	The Corporation's proposed Pre-Challenge Area Speed Test Reclassification will likely address similar concerns but to a greater degree, as there have been limited FCC availability challenges to locations in Rhode Island to date.
1.4	Include a Statewide Terms of Service Challenge about data caps imposed by a provider—the statewide terms of service	The Corporation does not believe that existing providers in Rhode Island currently

Section	Comment	Suggested Response
	challenge reverses the burden of proof for all BSLs associated with the state provider, technology and broadband upload/download speeds. May be rebutted with evidence that a specific set of BSLs can subscribe to service without an unreasonable capacity allowance.	impose unreasonable data caps.
1.4	Remove MDU Challenge as it adds complexity and is not sufficiently defined	The Corporation adopted NTIA's recommended MDU Challenge as it believes the additional complexity is a worthwhile tradeoff to ensure the most accurate list of Eligible Locations.
1.4	Remove Area Challenge as it adds complexity and is not sufficiently defined	The Corporation adopted NTIA's recommended Area Challenge as it believes the additional complexity is a worthwhile tradeoff to ensure the most accurate list of Eligible Locations.
1.4	Update MDU challenge module to conform to NTIA guidance released last month: "An MDU challenge requires challenges for one unit for MDUs having fewer than 15 units, for two units for MDUs of between 16 and 24 units, and at least three units for larger MDUs. Here, the MDU is defined as one broadband serviceable location listed in the Fabric. An MDU challenge counts towards an area challenge (i.e., six successful MDU challenges in a census block group may trigger an area challenge)."	The Corporation has adopted this recommendation.
1.4	Planned service should not be an	The Corporation has adopted

Section	Comment	Suggested Response
	acceptable challenge unless there is a binding and enforceable commitment from the challenger, or additional requirements about the progress of construction.	this recommendation.
1.4	Evidence for planned service challenges may be satisfied with evidence of a construction contract, pole attachment license, franchise agreement or similar evidence of deployment, is sufficient to demonstrate that broadband will be deployed to a location.	The Corporation has partially adopted this recommendation as it relates to binding pole attachment licenses.
1.4	Speed tests from Ookla may not be reliable and should be subject to prior verification of the ISP's then-current network topology instead of relying on third party guesswork	Speed tests from Ookla are the best source of data available to the Corporation, given its lack of access to ISP data. ISPs should participate in the Challenge Process to assist the Corporation in developing an accurate map of eligible locations.
1.4	Removing speed test challenges as they are optional for challenges and including reliable speed tests would require significant effort on the part of the State and the entity that needs to compile all of them. Additionally, FCC states that most households experience advertised speeds, so the Corporation shouldn't have to rely on speed tests.	Speed tests from Ookla are the best source of data available to the Corporation, given its lack of access to ISP data. The Corporation is willing to understand the associated effort to produce the most accurate list of eligible locations. ISPs should participate in the Challenge Process to assist the Corporation in developing an accurate map of eligible locations.

Section	Comment	Suggested Response
		The absence of information regarding the speed tier the customer subscribes to does not undermine the reliability or usefulness of the tests for because fiber and cable broadband service plans currently offered by ISPs in Rhode Island are advertised to provide download speeds of 100 Mbps or more. Although ISPs offer service plans with advertised upload speeds below 20 Mbps, ISPs can challenge the reclassification as described in the IPV1.
1.4	If using speed tests, it should be a part of the Challenge Process, not a pre-Challenge modification	Speed Tests are included as part of the Challenge Process. The Corporation will use speed tests prior to the Challenge Process to develop the most accurate list of eligible locations as possible. Speed tests are the best source of data available to the Corporation, given its lack of access to ISP data.
1.4	Speed tiers are an important consideration of speed test data. Substantiating speed tiers (e.g. through a customer invoice) should be required to sustain reclassification.	The absence of information regarding the speed tier the customer subscribes to does not undermine the reliability or usefulness of the tests for because fiber and cable broadband service plans

Section	Comment	Suggested Response
		currently offered by ISPs in Rhode Island are advertised to provide download speeds of 100 Mbps or more. Although ISPs offer service plans with advertised upload speeds below 20 Mbps, ISPs can challenge the reclassification as described in the IPV1.
1.4	Provide definitions for Eligible Challengers, namely CAIs and non-profits	The Corporation adopted NTIA's recommended for Eligible Challengers.
1.4	Change 200/20 test to 400 / 20 to verify claimed FWA/"5G at home" coverage speeds on FCC maps. We recommend doubling the threshold to 400 (market share of at least roughly 43% of the BSLs in the census block group), to be in alignment with the download challenge process market share (45%). That would mean with "at least 20 percent have Qualifying Subscriptions has at least" 80 customers "with qualifying service, or just over" eight (8) "percent of the BSLs in a census block group."	The Corporation has studied this recommendation but could not determine a compelling rationale for adopting.
1.4	More robust standards for operational availability are needed. Latency requirement of <100 ms is easily achievable by all technologies except high-earth satellite.	100 ms is the standard set by NTIA. The Corporation is not permitted to modify this definition.

1.5.2: Optional Attachment: Supplemental Materials

As an optional attachment, submit supplemental materials to the Volume I submission and provide references to the relevant requirements. Note that only content submitted via text boxes, certifications, and file uploads in sections aligned to Initial Proposal requirements in NTIA Grants Portal will be reviewed, and supplemental materials submitted here are for reference only.

Not applicable