SUPPORTING STATEMENT
U.S. Department of Commerce
National Telecommunications and Information Administration
Broadband Availability Data
OMB Control No. XX

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

In the Consolidated Appropriations Act of 2018, Congress directed NTIA to update the national broadband availability map in coordination with the FCC and the states.[1] Specifically, Congress directed NTIA to acquire and display available third-party data sets to the extent it is able to negotiate inclusion to augment data from the FCC, other federal government agencies, state government, and the private sector.[2] The objective of these updates is to identify regions of the country with insufficient broadband capacity, particularly in rural areas.

Presently, the only source of nationwide broadband availability data is that collected from broadband service provider responses to the FCC Form 477 Fixed Broadband Deployment data process. Form 477 data are submitted by voice and broadband telecommunications service providers semi-annually and include information on services each provider offers, at the Census block level. While the Census block system provides a very high level of geographic granularity overall – the United States is divided into over 11 million blocks, 95 percent of which do not exceed 1 square mile in land area – it is possible that broadband availability may vary within a single block, which is most common in rural areas. Additionally, service providers who wish to share more granular data on broadband availability with the federal government – including regulated and non-regulated entities – have no mechanism to do so.

Further, a service provider offering service to any homes or businesses in a Census block is instructed to report that block as served in its Form 477 filing, even though it may not offer broadband services in most of the block. This can lead to overstatements in the level of broadband availability, especially in rural areas where Census blocks are large.

As a result of these constraints, NTIA is seeking to partner with broadband service providers to collect broadband availability data at a more granular level than that available via the FCC Form 477 process. This data will be used to better assess broadband availability across the country and particularly in rural areas. This clearance request covers the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Island Areas of American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the United States Virgin Islands.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

[1] Consolidated Appropriations Act of 2018, Public Law 115-141, Division B, Title I, 132 Stat. 348.
[2] Joint Explanatory Statement, 164 Cong. Rec. No. 50—Book II, at H2084-85 (Mar. 22, 2018).

To address the issues understanding broadband availability described in Section 1, NTIA is seeking voluntary submissions of information from owners and operators of broadband networks and industry associations, data aggregators, and researchers that study or analyze broadband availability – including private companies, for-profit companies, not-for-profits, cooperatives, educational institutions, tribal governments, and local, state, and municipal governments – that will provide additional insight into broadband availability. Specifically, NTIA is seeking sub-Census block geographic information on service availability, such as address, address range, road centerline, land-parcel identification, or latitude/longitude and corresponding broadband availability data (such as service type, upload and download speed, etc.) NTIA is seeking this information across the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Island Areas of American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the United States Virgin Islands.

This is a voluntary data collection. To further reduce the burden on respondents, NTIA expects respondents to provide information in their current format, with little to no modification, save that necessary to remove Personally Identifiable Information (PII). Information will be submitted to NTIA bi-annually to permit a regularly-updated, nationwide understanding of broadband availability that can be used to develop effective policies to expand broadband access while informing decision-making by policymakers, particularly those associated with the location and type of public investments necessary to expand access.

Information will be collected bi-annually via an online system for data upload and processing. This approach deviates from the annual collection originally proposed in the 60-Day Notice. That change is based on feedback from service providers and industry associations (who predominantly recommended closer alignment between NTIA and FCC data collection efforts) and state governments (who expressed a strong desire for more timely access to data). NTIA expects that many respondents will be broadband service providers that are regulated by the FCC and subject to reporting requirements under the FCC Form 477 process. While the data to be collected under this information collection is more detailed than that captured through FCC Form 477, NTIA believes that there are synergies between the efforts. To submit Form 477 data to FCC, broadband service providers must: (i) evaluate their data on service location and broadband service type; (ii) validate it for accuracy and make corrections where necessary; (iii) aggregate the data by census block for reporting; (iv) validate the aggregation and make corrections where necessary; and (v) submit the aggregate data to the FCC. The first two steps of that process are applicable to the NTIA data collection and will ensure that the more granular data requested here is accurate. Therefore, NTIA has aligned the due dates for this information collection to trail the bi-annual FCC Form 477 reporting submitted by service providers. Data should be submitted to NTIA on November 1 and May 1 of each year. While NTIA intends to collect information twice a year on these dates, NTIA's online system will not foreclose an entity from submitting information at any other time during the year or more than twice a year if the entity voluntarily chooses to do so.

The information collected will not be disseminated to the public in the format received. That data will be used only by NTIA, other federal agencies, and state agencies that participate in the program and agree to the associated restrictions on its use. Any information made publicly available or published to support new policies or public decision-making will be released only in an aggregate format. Additionally, NTIA will abide by the Information Quality Guidelines that it

has adopted to implement the Section 515 standards (Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-554), the OMB guidelines and the Department of Commerce guidelines to ensure and maximize the quality, objectivity, utility, and integrity of any information it disseminates to the public.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

NTIA expects to collect this information completely electronically. Respondents generally keep this information in databases (not in hard copy). However, a small amount of respondents may need to convert hard copy data to electronic copies (see ACA Comments in the attachments). NTIA expects respondents to export the information, remove PII, and provide NTIA with a copy. This is the most efficient approach and minimizes the burden on respondents.

4. Describe efforts to identify duplication.

NTIA has thoroughly evaluated existing broadband availability data. Its efforts to inventory existing data to avoid duplication have included: (i) the publication of a Request for Comment (RFC) in July 2018 (*Improving the Quality and Accuracy of Broadband Availability Data*), which received more than 50 comments from government, broadband industry, and not-for-profit broadband stakeholders; (ii) approximately 40 meetings with representatives of state and municipal governments, broadband service providers and industry associations, tribal governments, and not-for-profit organizations active in the broadband ecosystem; and (iii) market research to analyze providers offering data sets that can be used to assess broadband availability.

That research indicated that the only nationwide collection of broadband availability data is performed under the FCC Form 477 process. That process requires broadband service providers to submit information on service availability aggregated at the Census block level. Although there are some cases where more granular broadband availability data is collected at the sub-Census block level – such as that reported under the High Cost Universal Broadband (HUBB) program and in response to Universal Service Administrative Company (USAC) requirements – those collections are program-specific and narrow in geographic scope.

In addition, the scope of those programs are limited to regulated broadband service providers (FCC) or entities accepting public investments with program-specific (E-Rate and others) reporting requirements. Therefore, some non-regulated and non-subsidized broadband providers do not submit similar information to other programs. This data collection would accept data from those entities and thus enrich the nationwide understanding of broadband availability.

As a result, NTIA is proposing this voluntary collection of geographically granular broadband availability data. Such data will permit more detailed assessments of nationwide broadband availability and particularly in rural areas, as mandated in the Consolidated Appropriations Act of 2018.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize the burden.

Although some broadband service providers are generally companies of scale with significant IT operations, some may qualify as small businesses. By requesting copies of existing information in the format held by the respondent, save for the need to remove PII, NTIA believes it is minimizing the burden on respondents. In addition, participation in the information collection is not mandatory, so only organizations willing to take on the burden will participate; respondents that cannot meet the burden are not required to respond.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If NTIA is unable to conduct this information collection, it will significantly reduce the agency's ability to expand nationwide understanding of broadband availability. Since the Census-block level data reported via the FCC Form 477 process limits insight into true broadband availability in rural, geographically larger Census blocks, NTIA believes that this information collection is necessary to develop a fuller understanding that can support modern policy-making and decision-making, particularly regarding public investments in broadband infrastructure.[3] That opinion is reinforced by numerous comments the FCC has received regarding the Form 477 process and comments that NTIA received in response to its July 2018 Request for Comment (RFC) *Improving the Quality and Accuracy of Broadband Availability Data*.[4]

For example, in its response to the RFC, the Centre County (Pennsylvania) Planning and Community Development Office noted that "[a] concern among broadband researchers is that the service coverage submitted by telecommunications providers overestimates the areas served. Even if we make the assumption that broadband is highly demanded, the supply side is grossly misrepresented."[5] Similarly, in its comments, Microsoft states that, "[o]ver the past twenty-two years, as broadband has proliferated and tools to measure it have become more sophisticated, Congress, the NTIA, and the FCC have each contributed to improving accuracy and granularity of mapping data to assist policymakers in measuring progress, as well as identifying areas that require improvement and the investment of public resources… And yet, we do not have accurate maps of where broadband is available, at what speeds, prices, and quality."[6]

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[3] See NTIA Comments on Modernizing the FCC Form 477 Data Program (Jan. 3, 2018), https://www.ntia.doc.gov/fcc-filing/2018/ntia-comments-modernizing-fcc-form-477-data-program.

[4] See Comments on Improving the Quality and Accuracy of Broadband Availability Data (July 19, 2018), https://www.ntia.doc.gov/federal-register-notice/2018/comments-improving-quality-and-accuracy-broadband-availability-data.

[5] NTIA, RIN-0660-XC042, Docket No. 180427421-8421-01, *Improving the Quality and Accuracy of Broadband Availability Data*, 83 FR 24747 (May 30, 2018), Comments of Centre County (Pennsylvania) Planning and Community Development Office at 5, *available at* https://www.ntia.doc.gov/files/ntia/publications/centrecounty_pennsylvania_2018-06-25.pdf.

[6] NTIA, RIN-0660-XC042, Docket No. 180427421-8421-01, *Improving the Quality and Accuracy of Broadband Availability Data*, 83 FR 24747 (May 30, 2018), Comments of Microsoft Corporation at 2, *available at* https://www.ntia.doc.gov/files/ntia/publications/microsoft_2018_0716_ntia_comments_final.pdf.

Further, the FCC Form 477 process only collects data from service providers that meet its definition. In many cases, non-regulated entities provide broadband service and thus do not submit similar information. This data collection would address both of those issues and enrich the nationwide understanding of broadband availability. For example, the National Rural Electric Cooperative Association ("NRECA") "estimates at least 6.3 million households in electric co-op service areas lack high-speed internet access."[7]

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

No special circumstances require the collection of information to be conducted in a manner inconsistent with OMB guidelines. This information collection is consistent with OMB guidelines.

8. Provide a copy of the PRA Federal Register notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A copy of the 60-Day PRA Federal Register notice (83 FR 53852) that solicited public comments on this information collection can be found in Attachment 1.[8] Attachment 2 summarizes the comments received in response to the Federal Register notice and the actions taken by NTIA in response to those comments. Attachments 3-11 are copies of the comments received by NTIA.

In addition to those efforts, NTIA has held numerous meetings and conference calls with stakeholders in the broadband industry, since NTIA was directed to undertake this program following passage of the Consolidated Appropriations Act of 2018. Those stakeholders include various state and local governments, federally-recognized tribes, broadband service providers, private companies, industry associations, and not-for-profit organizations. A summary of those activities, with the initial consultation date, can be found in Table 1. Please note that NTIA has met with many of these stakeholders on more than one occasion.

Table 1: Examples of NTIA Consultations on Broadband Data Collection and Mapping

[7] NTIA, *Proposed Information Collection*, 83 FR 53852 (Oct. 25, 2018), Comments of National Rural Electric Cooperative Association Comments at 2 (comment attached to information collection request).

[8] NTIA, *Proposed Information Collection*, 83 FR 53852 (Oct. 25, 2018), *available at* https://www.federalregister.gov/documents/2018/10/25/2018-23296/agency-information-collection-activities-proposed-information-collection-comment-request-broadband.

Organization	Organization Type	Initial Consultation Date
Federal Communications Commission (FCC)	Federal Government	April 17, 2018
U.S. General Services Administration (GSA)	Federal Government	April 19, 2018
Mosaik Solutions	Private Company	April 25, 2018
U.S. Department of Agriculture (USDA)	Federal Government	May 3, 2018
Minnesota	State Government	May 8, 2018
US Telecom	Industry Association	May 8, 2018
California	State Government	May 14, 2018
Massachusetts	State Government	May 14, 2018
Iowa	State Government	May 18, 2018
Satellite Industry Associations (SIA)	Industry Association	May 24, 2018
Pew Charitable Trusts	Not-for-profit	May 24, 2018
CostQuest Associates	Private Company	May 31, 2018
Utah	State Government	June 8, 2018
Maine	State Government	June 11, 2018
North Carolina	State Government	June 11, 2018
Washington	State Government	June 12, 2018
New Mexico	State Government	June 14, 2018
National Geospatial Platform	Federal Government	June 18, 2018
Wisconsin	State Government	June 20, 2018
CTIA	Industry Association	July 18, 2018
Competitive Carriers Association (CCA)	Industry Association	July 19, 2018
Wireless Infrastructure Association's (WIA)	Industry Association	July 23, 2018
National Telecommunications Cooperative Association (NTCA)	Industry Association	July 24, 2018
Wireless Internet Service Providers Association (WISPA)	Industry Association	July 25, 2018
NCTA	Industry Association	July 25, 2018
National Tribal Telecom Association (NTTA)	Industry Association	July 26, 2018
Georgia	State Government	July 27, 2018
Education Superhighway	Not-for-profit	July 30, 2018
U.S. Department of Transportation (DOT)	Federal Government	August 7.2018
National Rural Electric Cooperative Association (NRECA)	Industry Association	August 7, 2018
Facebook	Private Company	August 21, 2018
National Oceanographic and Atmospheric Association (NOAA_	Federal Government	August 27, 2018
Funds for Learning	Not-for-profit	September 18, 2018
West Virginia	State Government	September 28, 2018
Apple	Private Company	October 2, 2018

Organization	Organization Type	Initial Consultation Date
Microsoft	Private Company	October 15, 2018
Western Telecommunications Alliance (WTA)	Industry Association	November 1, 2018
AT&T	Private Company	November 13, 2018
ITTA	Industry Association	November 15, 2018

In addition NTIA solicited input on broadband data and mapping through its July 2018 Request for Comment (RFC) *Improving the Quality and Accuracy of Broadband Availability Data*.[9] More than 50 organizations across the government, broadband industry, and not-for-profit sectors submitted comments in response to the RFC, many of which were used in the development of this information collection

The RFC invited comments on the following topics.

- Identifying additional broadband availability data;
- Technology type, service areas, and bandwidth details of such data;
- Identifying new approaches, tools, technologies, or methodologies that could be used to capture broadband availability data, particularly in rural areas;
- Validating broadband availability data; and
- Identifying gaps in broadband availability.

NTIA identified the following common themes and factored them into the program planning process that led to this information collection:

- Acquire broadband data that is more granular than the Census-block level. Specifically, consider data that is address, land parcel, road centerline, road segment, and "zip-code plus 4" approaches;
- Consider leveraging crowd-sourced speed test, quality, and location data;
- Evaluate multiple data sources and layer them comparatively with FCC Form 477 data; and
- Acquire multiple pieces of information about the connection at each granular location, including:
    - Service Provider
    - Connection Type
    - Connection Speed (Download and Upload)
    - Latency

In addition to the RFC, NTIA is collaborating with eight states on improvements to the broadband availability map. The eight states – California, Maine, Massachusetts, Minnesota, North Carolina, Tennessee, Utah, and West Virginia – will contribute data and other inputs to the map. NTIA selected the initial eight state partners because they reflect geographic diversity, participate in NTIA's State Broadband Leaders Network, have active state broadband plans or

[9] NTIA, RIN-0660-XC042, Docket No. 180427421-8421-01, *Improving the Quality and Accuracy of Broadband Availability Data*, 83 FR 24747 (May 30, 2018), *available at* https://www.ntia.doc.gov/federal-register-notice/2018/comments-improving-quality-and-accuracy-broadband-availability-data.

programs, and were willing to contribute data that can be combined with nationwide data sources to give policymakers and deeper understanding of broadband availability.[10]

Collectively, NTIA considered numerous factors during the development of this voluntary information request: (i) the legislative direction; (ii) input from state, federal and municipal governments; (iii) consultations with private and not-for-profit broadband stakeholders; and (iv) responses to its 2018 Request for Comment. The information collection was further refined based on comments received from the 60-Day PRA Public Notice (see the comment summary at Attachment 2 and copies of the comments at Attachments 3-11).

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

NTIA will not be providing any payments, gifts, or remuneration to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

NTIA will protect confidential and proprietary information from public disclosure to the fullest extent authorized by applicable law, including the Freedom of Information Act, as amended (5 U.S.C. 552 *et seq*.), the Trade Secrets Act, as amended (18 U.S.C. 1905 *et seq*.), and the Economic Espionage Act of 1996, as amended (18 U.S.C 1831 *et seq*.).

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

NTIA is not seeking sensitive information of this nature during the proposed information collection.

12. Provide an estimate in hours of the burden of the collection of information.

Based on NTIA's understanding of the typical Operational Support Systems (OSS) used by broadband service providers, as well as feedback received from the PRA Federal Register notice and public comments received prior to this submission, NTIA has developed the following estimate of the activities and time required for each respondent to supply the information requested is shown in Table 2.

Table 2: Estimated Burden for Information Collection per Response

Activity	Estimate (hours)	BLS Occupation
Database Copy	20	Database Administrator
Remove PII	10	Database Administrator
Validate	20	Computer and Information Research Scientist

[10] NTIA Partners with 8 States on Improvements to Broadband Availability Map (Feb. 12, 2019), https://www.ntia.doc.gov/press-release/2019/ntia-partners-8-states-improvements-broadband-availability-map.

Transmit to NTIA	3	Network and Computer Systems Administrators
Total	**53**	

NTIA estimates the total burden hours per response would be 53 hours (equivalent to 3,180 minutes). To estimate reasonable staff expenses to respond to this proposed information collection, NTIA reviewed the Bureau of Labor and Statistics (BLS) Occupational Handbook.[11] NTIA determined that three occupations (refer to Table 3) closely align with the positions of staff responsible for completing this information collection.

Table 3: BLS Occupations Supporting the Information Collection

BLS Occupation	BLS Job Summary	BLS 2018 Median Hourly Pay
Database Administrator	Database administrators (DBAs) use specialized software to store and organize data, such as financial information and customer shipping records. They make sure that data are available to users and secure from unauthorized access.	$43.31
Computer and Information Research Scientist	Computer and information research scientists invent and design new approaches to computing technology and find innovative uses for existing technology. They study and solve complex problems in computing for business, medicine, science, and other fields.	$56.91
Network and Computer Systems Administrator	Computer networks are critical parts of almost every organization. Network and computer systems administrators are responsible for the day-to-day operation of these networks.	$39.45

Using the BLS median salaries for each position (see Table 3), NTIA estimates the total cost for completing this information collection would be $2,555.85 per response:

30 hours Database Administrator x $43.31 per hour = $1,299.30
20 hours Computer and Information Research Scientist x $56.91 per hour = $1,138.20
3 hours Network and Computer Systems Administrators x $39.45 per hour = $118.35.

The total burden for one response for each respondent would be $1,533,510.00:

600 respondents[12] x $2,555.85 per respondent = $1,533,510.00.

[11] See Bureau of Labor Statistics, Occupational Outlook Handbook, https://www.bls.gov/ooh/.

[12] The Wireless Internet Service Providers Association (WISPA) comments that NTIA may have underestimated or incorrectly assumed the number of providers that would respond to the proposed information collection, noting that the "PRA RFC estimates the number of respondents to be 600, a number that stands in stark contrast to the FCC's estimate that there are more than 3,000 broadband providers. WISPA alone has more than 800 members." NTIA clarifies that this is a voluntary data collection, and that figure of 600 represents NTIA's estimate for the number of broadband providers that would elect to participate and voluntarily submit data. NTIA, *Proposed Information Collection*, 83 FR 53852 (Oct. 25, 2018), Comments of WISPA at 9 (comments attached to information collection

Because NTIA intends to collect the information twice a year, the total burden per year would be $3,067,020.

13. Provide an estimate of the total annual cost burden to the respondents or recordkeepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

NTIA is not aware of any annual cost burden, exclusive of the hours described in Question 12, that are not consistent with standard service provider activities (such as maintaining existing Operational Support Systems and responding to regulatory requirements).

14. Provide estimates of annualized cost to the Federal government.

NTIA expects to spend several hours evaluating and processing each response to this information collection, as shown in Table 4. Since NTIA is phasing its deployment of the national broadband availability map, with new states participating each year, NTIA expects the number of respondents to increase over time, leading to a variable but increasing annual cost to the Federal government to evaluate responses, as explained in Table 5.

Table 4: Estimated Cost for Federal Evaluation of Information Collection per Respondent

Resource	Estimated Hours	Estimated Hourly Cost	Subtotal
Project Lead / Management	2	$160	$320
Data Analyst	1	$150	$150
GIS Specialist	1	$150	$150
Contractor Support - Data	2	$249	$498
Total Estimate Cost			**$1,118**

Table 5: Estimated Annual Cost of Federal Evaluation of Information Collection by Fiscal Year

	FY19	FY20	FY21	FY22
Respondents Participating	8	20	38	56
Estimated Respondents	85	215	410	600
Estimated Annual Cost	**$95,030**	**$240,370**	**$458,380**	**$670,800**

15. Explain the reasons for any program changes or adjustments.

NTIA is proposing a new information collection.

16. For collections whose results will be published, outline the plans for tabulation and publication.

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request).

NTIA intends to utilize the information it collects as part of the national broadband availability map and related programs that inform broadband availability analysis, broadband policy, and public investments. The national broadband availability map will be available to users at NTIA, other Federal agencies, and state agencies, subject to a user agreement.

NTIA does not plan to publicly publish or distribute granular data (e.g. individual addresses or geo-located points). Any data released publicly will be in an aggregate format (e.g. including data from multiple respondents, evaluated at a higher level of geographic analysis, etc.) Aggregated publication may include white papers and other research reports published by NTIA and website content, such as articles and blogs. NTIA acknowledges that it may also need to support the publication of summary analyses from the national broadband availability map, as part of the justification of public investment decisions made using the map.

If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

NTIA will display the expiration date for OMB approval on the associated information collection documentation, which may include a data collection template or online system for data upload and processing.

17. Explain each exception to the certification statement.

There are no exceptions to the certification statement.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

The collection of information will not employ statistical methods.