

FINAL AGENCY DECISION

Docket No. 19OCIO004¹

November 25, 2019

Breda Telephone Corp, Inc., d/b/a Western Iowa Networks
c/o Kevin Skinner
112 East Main St.
Breda, IA 51436

Dear Mr. Skinner:

In response to the Notice of Appeal (“**Appeal**”) filed by Breda Telephone Corp, Inc., d/b/a Western Iowa Networks (“**Appellant**”), pursuant to and in accordance with Iowa Administrative Code rules 129—20.5(1) and (2), and following the Office of the Chief Information Officer of the State of Iowa’s (“**Office**”) notification of and opportunity for input from affected persons and parties pursuant to and in accordance with Iowa Administrative Code rule 129—20.5(3), the Office has conducted an internal review of all relevant evidence and information both submitted in connection with the Appeal and otherwise available to the Office related to the United States Census Blocks (“**Census Blocks**”) forming the basis of this Appeal. *See* Iowa Admin. Code r. 129—20.5(4). Following its review of the entire record before it, the Office issues the following **FINAL AGENCY DECISION** (“**Decision**”). Iowa Admin. Code r. 129—20.5(5).

I. ISSUE(S) ON APPEAL.

Whether the Office correctly determined the Census Blocks forming the basis of this Appeal constitute “Targeted Service Areas” (“**TSAs**”)² as defined by Iowa Code section 8B.1(12).³

¹Appellant filed two separate “Affirmation, Attestation, and Certification of Service or lack of Service in Census Block Broadband Grants Program Broadband Availability Map Challenge Process” (“**Certification(s)**”) challenging the designation of a total of ten (10) Census Blocks located in Mills County, Iowa. The Office considers these Certifications to constitute proper Notices of Appeal that comport with the form and content requirements of Iowa Administrative Code rule 129—20.5(1). One of these Certifications challenged the designation of six (6) Census Blocks in Glenwood, Iowa. The other challenged the designation of four (4) Census Blocks in Malvern, Iowa. The Office will treat each of these Certifications as separate appeals and will issue a separate decision for each. This Decision in Docket No. 19OCIO004 addresses the four (4) Census Blocks located in Malvern. The Decision in Docket No. 19OCIO004 addresses the six (6) Census Blocks located in Glenwood.

²As used in this Decision, the term “non-TSA” shall refer to a Census Block that does not constitute a “Targeted Service Area” as defined by Iowa Code section 8B.1(12).

³Any references to Iowa Code chapter 8B (2019) (or any sections or subsections therein) throughout this Decision shall be understood to reference Iowa Code chapter 8B as amended by 2019 Iowa Acts, House File 772, chapter 159, Division II. In addition, capitalized terms used in this Decision but not otherwise specifically defined herein shall have the same meaning given them by Iowa Code chapter 8B.

II. BACKGROUND FACTS, LAW, AND PROCEEDINGS.

In 2015 House File 655 (“**H.F. 655**”) was signed into law. 2015 Iowa Acts, H.F. 655, ch. 120. H.F. 655 created several programs the Office was responsible for or involved in administering, including a Broadband Grants Program and a Property Tax Exemption Program. *Id.*, Div. III and IV (codified, in relevant part, at Iowa Code chapter 8B and Iowa Code section 427.1(40)). At a high level, these programs were designed to reduce or eliminate areas in the State that did not have access to Broadband service at minimally acceptable speed thresholds. *Id.* In order to identify these unserved areas and best direct the incentives available through these programs, HF 655 required the Office to make determinations of whether any Communications Service Providers already offered or facilitated Broadband service at or above twenty-five megabits per second of download speed and three megabits per second of upload speed (“**25/3**”) as of July 1, 2015, on an individual Census Block basis by reference to Broadband availability maps or data sources that are widely accepted for accuracy and available for public review and comment. *Id.* §§ 26, 31, 32, 41. These “Targeted Service Areas” were generally considered eligible to receive State incentives. *Id.* In 2016, the Office documented and communicated its Targeted Service Area determinations by publishing Version 1 (“**V1**”) of the Statewide Broadband Availability Map (“**Map**”). Iowa Admin. Code r. 129—20.3, .4 (October 26, 2016).

As required by H.F. 655, following the official publication of V1 of the Map, the Office opened and administered a process by which interested parties could “challenge[] . . . the office’s finding on whether an area meets the definition of a targeted service area” as represented on V1 of the Map. *Id.* § 31; Iowa Admin. Code r. 129—20.4, .5. As part of this process, the Office received seven (7) notices of appeal challenging the Office’s determination with respect to approximately 698 Census Blocks. *See Broadband Map Version 1 Appeals*, OCIO.IOWA.GOV (last visited Nov. 1, 2019), <https://ocio.iowa.gov/broadband-map-version-1-appeals>. In accordance with Iowa Administrative Code rule 129—20.5(5), after considering the evidence and information submitted to or otherwise available to the Office, the Office issued final decisions concerning all of the Census Blocks forming the basis of appeals received by the Office. *Broadband Map Version 1 Appeals*, *supra*. No further appeals were taken from the Office’s final decisions, rendering the V1 of the Map, in its entirety, final and no longer subject to challenge. Iowa Administrative Code rule 129—20.4, .5(5). The Office administered the Broadband Grants Program and a Property Tax Exemption Program by reference to V1 of the Map until 2019.

In 2019, House File 772 (“**H.F. 772**”), the Empower Rural Iowa Act, was signed into law. 2019 Iowa Acts, H.F. 772, ch. 159. Division II of H.F. 772 continued the Broadband Grants Program and Property Tax Exemption Programs for Broadband infrastructure installed through 2025. *Id.*, Div. II. Under H.F. 772, the core pillars of these programs remained unaltered, including, subject to several modifications described in more detail below, as it relates to the Targeted Service Area determination process and related mapping processes. *Id.* Specifically, H.F. 772 retained the “Targeted Service Area” concept and continued to require that the Office make determinations of whether any Communications Service Provider already offered or Facilitated Broadband service at or above a certain speed threshold by reference to Broadband availability maps or data sources that are widely accepted for accuracy and available for public review and comment. *Id.* §§ 3, 5, 6, 13. And the Office would continue to document and communicate these Targeted Service Area determinations by publishing a Statewide Broadband Availability Map. Iowa Admin. Code r. 129—20.3, .4 (Aug. 14, 2019). However, H.F. 772 made the

following key modifications to the Census Block eligibility process—whether a census block constitutes a Targeted Service Area and is thereby eligible for State incentives:

- First, H.F. 772 defined the previously undefined concept of “Facilitate” to mean “a communication service provider’s ability to provide broadband service at or above the download and upload speeds specified in the definition of targeted service area in this section to a home, farm, school, or business within a commercially reasonable time and at a commercially reasonable price upon request by a consumer.” 2019 Iowa Acts, H.F. 772, ch. 159 § 2 . This had the effect of establishing a standard Communications Service Providers must satisfy before reporting or claiming that they are able to Facilitate Broadband service at or above 25/3 in a Censu Block, thereby rendering a Census Block a non-TSA and ineligible to receive State incentives.
- Second, H.F. 772 tied the speed benchmark for purposes of determining whether a Census Block constitutes a Targeted Service Area—previously fixed by statute at 25/3—to “the download and upload speeds identified by the federal communications commission pursuant to section 706 of the federal Telecommunications Act of 1996, as amended.” *Id.* § 3. In practice, this did not immediately impact any programs administered by the Office, as “the FCC[s] . . . existing speed benchmark [for fixed services is] 25 Mbps download/3 Mbps upload”—the same download and upload speed previously established by state law. *2018 Broadband Deployment Report*, FCC.GOV (Feb. 2, 2018), <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>.
- Third, H.F. 772 eliminated an “as of date” that was set at a fixed point in time. Under H.F. 655, the relevant point in time for Targeted Service Area determinations was fixed at July 1, 2015. 2015 Iowa Acts, H.F. 655, ch. 120, § 26 (defining “Targeted service area” to be tied to service delivery as of the effective date of the Act—July 1, 2015). This resulted in the creation of a static Map. In contrast, H.F. 772 was silent on the issue, affording the Office greater flexibility. 2019 Iowa Acts, H.F. 772, ch. 159, § 3 (eliminating statutory “as of date” concept). In turn, the Office established an “as of date” that is tied to the “as of date of the broadband availability maps and corresponding data sources utilized by the office in determining whether a communications service provider offers or facilitates broadband service in a particular census block at or above the download and upload speeds specified in the definition of targeted service area and underlying the statewide map published and then in effect.” Iowa Admin. Code r. 129—20.1; *see also id.* r. 129—20.3, .4(1). Relatedly, H.F. 772 affirmatively required the Office to “periodically make renewed determinations of whether a communications service provider offers or facilitates broadband service at or above the download and upload speeds specified in the definition of targeted service area in section 8B.1, which shall, to the extent updated maps and data sources are available at the time, include making such determinations prior to each round of grant applications solicited by the office pursuant to section 8B.11.” 2019 Iowa Acts, H.F. 772, ch. 159, § 5. Collectively, these changes permit and require the Office to refresh the Map on a recurring basis.

Consistent with the foregoing, on September 20, 2019, the Office documented and communicated renewed Targeted Service Area determinations by publishing Version 2 (“V2”) of the Map. *See Broadband Map - Version 2*, OCIO.IOWA.GOV (last visited Nov. 1, 2019),

<https://ocio.iowa.gov/broadband-availability-map-version-2>.⁴

V2 of the Map is based on FCC Broadband Deployment data representing the status of fixed Broadband in Iowa as of June 30, 2018, and therefore represents the status of fixed Broadband service in Iowa as of June 30, 2018. Iowa Admin. Code r. 129—20.1, .3, .4(1); *see also About Broadband Availability Map V2*, OCIO.IOWA.GOV (last visited Nov. 1, 2019), https://ocio.iowa.gov/sites/default/files/about_section_-_broadband_availability_map_-_final_publication.pdf. In publishing V2 of the Map, the Office triggered a statutorily-required challenge period whereby “[w]ithin 20 days after [September 20], any person or party aggrieved or adversely affected by such determination may challenge the office’s finding by filing a notice of appeal with the office” and “provid[ing] the office with all evidence and information necessary to support the appeal.” Iowa Admin. Code r. 129—20.5(1); *see also* Iowa Code § 8B.10(2) (“The office shall establish procedures to allow challenges to the office’s finding on whether an area meets the definition of targeted service area.”). After the expiration of this initial twenty-day appeal window, the Office was to post any notices of appeal received by the Office online at ocio.iowa.gov/broadband. *Id.* r. 20.5(3). From the date of such posting, any other persons or parties affected by a challenge received by the Office would “have 20 calendar days to submit evidence and information in support of, or in opposition to, such appeal” to the Office. *Id.* After expiration of this second twenty-day submission window, the Office would “consolidate all appeals involving the same census block[s] and conduct an internal review of the evidence and information submitted by all appellants related thereto, in conjunction with any other evidence and information submitted by any affected persons or parties . . . , the maps and data sources originally utilized [by the office], and any other information deemed relevant by the office.” *Id.* r. 20.5(4). Thereafter, the Office would issue a final agency decision stating the reasons for the Office’s decision concerning the census block(s) in question.” *Id.* r. 20.5(5).

On October 9, 2019, within the initial twenty-day window, Appellant filed this Appeal. Exhibit A, p. 2. Therein, Appellant challenged the Office’s determination with respect to the following four (4) Census Blocks:

- 191290402012001
- 191290402012002
- 191290402022180
- 191290402022181

Exhibit A, pp. 1–2. Spiral Communications (“**Spiral**”) is the only Communications Services Provider identified on the Map as being capable of providing 25/3 Broadband as of June 30, 2018, in each of these Census Blocks. *See Iowa Targeted Service Areas*, OCIO.IOWA.GOV (last visited Nov. 1, 2019), <https://iowa.maps.arcgis.com/apps/webappviewer/index.html?id=6a88a5f1522b450682e6e6e6692469dd>.

With respect to each of these four (4) Census Blocks, Appellant explained:

⁴Prior to the official publication of V2 of the Map, on July 29, 2019, the Office published a preliminary draft of V2 of the Map. The Office considered this preliminary draft to be a “Pre-publication Draft,” and elicited informal feedback/comments, some of which were incorporated into this final publication of V2 of the Map. *See About Broadband Availability Map V2*, OCIO.IOWA.GOV (last visited Nov. 1, 2019), https://ocio.iowa.gov/sites/default/files/about_section_-_broadband_availability_map_-_final_publication.pdf for more information about V2 of the Map and the history of its creation.

We are challenging the validity of the broadband availability data as it is presented in version 2 of the broadband availability map, for the four Mills County, Iowa, census blocks listed above. Spiral Communications submitted broadband deployment data to the FCC in their 477 Form dated 6/30/2018, which indicated they were offering broadband speeds of 30 Mbps down and 10 Mbps up using terrestrial fixed wireless technology in the four census blocks listed above. Their submitted data further stated they were offering broadband speeds of 977 Mbps down and 977 Mbps up using optical carrier / fiber to the premise technology in two of the four census blocks which are listed above; those blocks are 191290402012001 and 191290402012002. We are disputing broadband speeds submitted in their 477 report because we believe it is not accurate. We currently have plans in place to eventually overbuild the area covered by these blocks, and we currently have 16 customers who have pre-subscribed to take our service when it is available. Each resident we have spoken with in this area has told us the wireless service is slow and unreliable, and they are not getting the speeds they are paying for. In addition, we are certain Spiral Communications does not have the facilities in place to offer service over fiber in the two census blocks identified above, where they have this reported. None of this information which they reported on the 6/30/2018 477 form, was reported on their 12/31/2017 477 form, and we are certain there has been no significant activity in this area within the last 6 months, which would warrant this change in reporting, especially in regard to the availability of fiber-to-the-home in this area. The inaccurate reporting of this 477 data has caused the above referenced blocks to be identified as non-funded TSAs for the state broadband grant. As a result, these areas which are currently either unserved or underserved are ineligible for the state broadband grant funding which is available. This makes it more costly for us to build the network necessary to provide these customers with adequate service.

Exhibit A, p. 2.

In support of its Appeal, Appellant obtained and provided letters of support from the Mills County Economic Development Foundation; the Mills County Board of Supervisors; and HR Green, a broadband consultant that completed a Broadband Study (“**Study**”) identifying and outlining broadband service limitations in the Mills County area, and outlining how current State and Federal broadband map information does not fully represent or account for those limitations. Exhibit A, pp. 3–46. Each of these letters of support indicated that each of the Census Blocks identified in this Appeal did not have access to sufficient Broadband service, notwithstanding the FCC Form 477 data to the contrary and the Map. Exhibit A, pp. 3, 45–46. This assertion was based on, in part, the Study, which generally outlines discrepancies between FCC Form 477 data and other publicly available maps and data sources—namely, BroadbandNow⁵; and, in part, discussion with Communications Service Providers in the area who have

⁵According to the Study, BroadbandNow is “public data that utilizes the Form 477 reporting, but they do a little more [validation than the FCC] . . . They are a respected source of internet coverage data for the industry.” Exhibit A, p. 12. BroadbandNow describes itself as “a website that helps consumers find and compare Internet service providers in their area. When we’re describing it to friends and family, we usually say: ‘it’s like Kayak for Internet service.’ To make sure our data is up-to-date, we crunch millions of rows of data every year from public and private datasets and manually collect tens of

indicated that FCC Form 477 data and the Map is not an accurate representation of Broadband service in certain areas, as further supported by “confirmation from home owners and businesses in the areas of Mills County that have poor or no service.” Exhibit A, pp. 3–46. Based on this evidence and information, Appellant requested that these Census Blocks be designated as TSAs. Exhibit A, p. 2.

As required by Iowa Administrative Code rule 129—20.5(3), the Office posted this Appeal online on October 11, 2019. *See Broadband Availability Map - Version 2 Challenge Process*, OCIO.IOWA.GOV (last visited Nov. 1, 2019), <https://ocio.iowa.gov/broadband-availability-map-version-2-Challenge-process>. In addition, because data underlying the Map with respect to each of the Census Blocks appealed revealed that Spiral previously reported to the FCC that it offered or Facilitated 25/3 in these Census Blocks, on October 15, during the period for input from affected persons or parties, the Office sent Spiral a letter of inquiry. Specifically, with respect to each of the Census Blocks forming the basis of this Appeal, the Office requested that Spiral, among other things:

- 1) “Confirm whether [Spiral] offered or Facilitated Broadband service at or above 25/3 . . . as of June 30, 2018; or, alternatively confirm whether [Spiral] did **NOT** offer or Facilitate 25/3 Broadband service . . . as of June 30, 2018.”
- 2) “Confirm whether [Spiral’s] prior reporting to the FCC using Form 477 was correct or in error and, if in error, explain why.”
- 3) “Submit any other evidence or information in [Spiral’s] possession . . . that supports [Spiral’s] prior representations to the FCC Examples of evidence and information the office would consider particularly probative of Broadband service at or above 25/3 as of June 30, 2018, include “Bills or invoices provided to or received by customers in the applicable census block(s) which identify the specific download and upload speeds provided or received as of [June 30, 2018].” Iowa Admin. Code r. 129—20.5(8).”

Exhibit A, pp. 48–50. If the Office did not receive any additional input from Spiral within the period for input from affected persons or parties, in accordance with Iowa Administrative Code rule 129—20.5(4) and (5), the Office informed Spiral that it would make “a final decision based on the evidence and information currently available to it.” Exhibit A, p. 50.

On October 29, within the period for input from affected person or parties, Spiral submitted an “Affirmation, Attestation, and Certification of Service or lack of Service in Census Block Broadband Grants Program Broadband Availability Map Challenge Process” (“**Certification**”). Exhibit A, pp. 55–56. Pursuant to this Certification, Spiral certified and attested under penalty of perjury that it did not offer or Facilitate Broadband service at or above 25/3 as of June 30, 2018, in each of the Census Blocks forming the basis of this Appeal. Exhibit A, p. 56. Spiral explained, in relevant part: “After referencing the FCC Broadband Map, the blocks in question near Malvern, IA are in error. We are unable to provide the 25/3 speed and do not offer fiber in that area.” Exhibit A, p. 56. Spiral submitted no additional evidence or

thousands of data points from providers. All this data allows us to build the most accurate public Internet service database online.” *About BroadbandNow’s Team*, BROADBANDNOW.COM (last visited Nov. 1, 2019), <https://broadbandnow.com/about>.

information to the Office with its Certification, and no other “affected persons or parties . . . submit[ted] evidence and information in support of, or in opposition to, [Appellant’s] appeal” during the twenty (20) day period for input from affected parties. Iowa Admin. Code r. 129—20.5(3).

The Office subsequently conducted an internal review of all relevant evidence and information submitted by Appellant and otherwise available to the Office in connection with the Census Blocks forming the basis of this Appeal. *Id.* r. 20.5(4). This included reviewing the BroadbandNow service maps generally cited in the Study to compare the service representations shown on those maps against the representations on the Office’s Map as it relates to the Census Blocks forming the basis of this Appeal as described in more detail below. Based on its review, the Office now issues the following Decision. *Id.* r. 20.5(5).

III. DECISION(S) AND REASONING.

- **BLOCK IDs: 191290402012001; 191290402012002; 191290402022180; 191290402022181.**

- **SUMMARY: APPEAL GRANTED.** The Office will designate the four (4) Census Blocks forming the basis of this Appeal as TSAs based on Spiral’s Certification that it did not offer or Facilitate 25/3 Broadband in these Census Blocks as of June 30, 2018, and the evidence submitted by Appellant, including the letters of support and the HR Green Study, which are consistent with Spiral’s Certification as it relates to the Census Blocks forming the basis of this Appeal.
- **DETAILED RESPONSE:** With respect to the four (4) Census Blocks forming the basis of this Appeal, the Office has reviewed the evidence and information submitted by Appellant related thereto, in conjunction with the maps and data sources originally utilized in determining whether these Census Blocks are or are not TSAs, the Certification provided by Spiral, and the BroadbandNow maps cited in the Study provided by Appellant. Iowa Admin. Code r. 129—20.5(4). In reviewing this evidence and information, the Office’s specific objective is to determine whether it should change its original determination of “whether a communications service provider offers or facilitates broadband service [at or above 25/3]” in the Census Blocks forming the basis of this Appeal as of June 30, 2018, based on the additional evidence and information now available to it, or whether its original determination based on the “fixed broadband availability maps and corresponding data sources made available by the Federal Communications Commission (FCC)” should stand. Iowa Code §§ 8B.1(12), .10(1)—(2); Iowa Admin. Code r. 129—20.1, .3, .4, .5.

Here, the FCC Broadband Deployment data representing the status of fixed Broadband in Iowa as of June 30, 2018, and originally relied on by the Office in generating V2 of the Map indicates that Spiral previously reported to the FCC that it is capable of providing 25/3 Broadband as of June 30, 2018, in each of these Census Blocks. However, Spiral has now certified and attested under penalty of perjury that it was **NOT** able to offer or Facilitate 25/3 Broadband service in these four (4) Census Blocks as of June 30, 2018, and that its prior representations to the FCC were in error. In considering Spiral’s

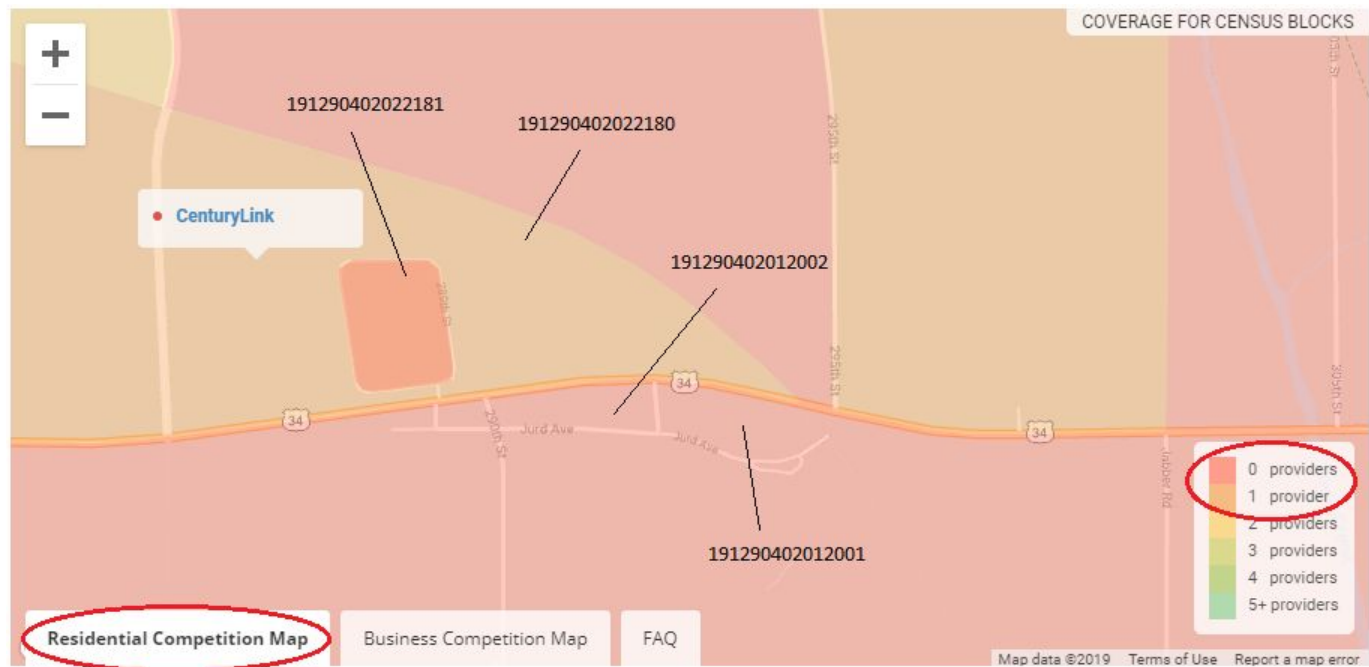
Certification, the Office looks to Iowa Administrative Code rule 129—20.5(8), which provides in relevant part:

Examples of evidence and information the office would consider particularly probative of broadband service at or above the download and upload speeds specified in the definition of targeted service area as of the as of date for purposes of adjudicating an appeal of the office's determination of whether a particular census block constitutes a targeted service area include . . . [s]igned attestations submitted to the office under penalty of perjury on forms provided by the office that the applicable census block(s) was or was not served as of the as of date with broadband service at or above the download and upload speeds specified in the definition of targeted service area.

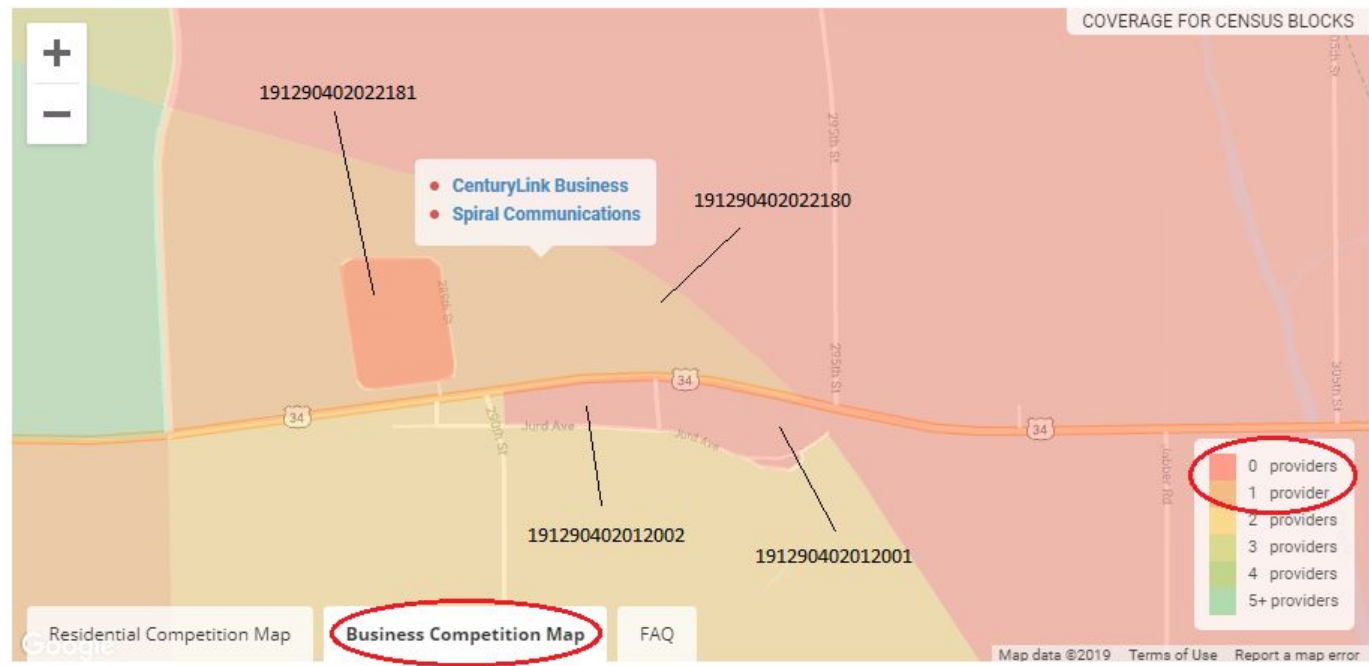
Thus, in accordance with Iowa Administrative Code rule 129—20.5(8), Spiral's Certification that it was **NOT** able to offer or Facilitate 25/3 Broadband service in these four (4) Census Blocks as of June 30, 2018, is particularly probative. In addition, consistent with past decisions of the Office, "[t]he Office considers [a Communications Service Provider's] intimate knowledge of its own networks and service capabilities to be strong evidence." *See Hospers Tel. Exch., Inc.*, Docket No. 17OCIO004, p. 8 (May 11, 2017), https://ocio.iowa.gov/sites/default/files/documents/2017/05/case_no._17ocio004_-_htc_communications_final_agency_decision.pdf.

The Office issued a related decision today in *Breda Telephone Corp., Inc.*, (*Glenwood*), Docket No. 19OCIO003 (Nov. 5, 2019) in connection with six (6) other Census Blocks challenged by Appellant in the Mills County area (the "**Glenwood Decision**"). The Glenwood Decision reached a different result than the result in this case, and the Office felt it incumbent to take a moment to articulate why. First, and critically, unlike in the Glenwood Decision where Spiral did not certify that its prior reporting to the FCC was in error, but instead confirmed that its prior reporting was correct and that it did in fact offer or Facilitate 25/3 Broadband in the Glenwood Census Blocks, here Spiral has certified it was **NOT** able to offer or Facilitate 25/3 Broadband service in these four (4) Census Blocks as of June 30, 2018. Accordingly, unlike in the Glenwood Decision where two competing Communications Service Providers disagreed about one of the Communications Service Provider's service capabilities, requiring the Office to engage in an in-depth assessment of and weigh conflicting evidence, here, the positions of the interested parties are aligned. Further, unlike in the Glenwood Decision where the BroadbandNow map relied on by the Study forwarded by Appellant in support of its claim in fact undercut Appellant's own claim by confirming that Spiral was capable of providing Broadband service to businesses in each of the six (6) Census Blocks forming the basis that appeal, here, with the exception of one (1) Census Block, the BroadbandNow data (both residential and business) generally supports the conclusion that Broadband service is not available in these Census Blocks.

BroadbandNow—Malvern Census Blocks (Residential):



BroadbandNow—Malvern Census Blocks (Business):



Accordingly, unlike in the Glenwood Decision, here the weight of the evidence supports the conclusion that Spiral did not offer or Facilitate 25/3 Broadband in these Census Blocks as of June 30, 2018. These Census Blocks will be designated as TSAs.

IV. APPEALING FURTHER.

If you wish to appeal this Decision further, you must, within thirty (30) days of the posting of this Decision at ocio.iowa.gov/broadband, notify us in writing by mailing a written request for a contested case proceeding to:

Office of the Chief Information Officer
c/o Matt Behrens
Hoover State Office Building, Level B
1305 East Walnut Street
Des Moines, Iowa 50319

In so doing, please state the reason(s) you are appealing this Decision, specifically identifying the particular aspects of the decision with which you disagree and the reasons why, whether factual or legal in nature. The request for a contested case proceeding should state the name and address of the requester; identify the specific Office action which is disputed; and, where the requester is represented by a lawyer, identify the provisions of law or precedent requiring or authorizing the holding of a contested case proceeding in the particular circumstances involved, and include a short and plain statement of the issues of material fact in dispute. Iowa Admin. Code r. 129—6.4.

Upon receiving your appeal, we will forward it to the Department of Inspections and Appeals where an Administrative Law Judge (“ALJ”) will perform an independent review. Iowa Admin. Code r. 129—20.6(1); Iowa Admin. Code r. 129—6.6. At that time, you will have an opportunity to make a presentation, in person or over the telephone, to an ALJ regarding the nature of your concerns. If you do not exercise your appeal right within thirty (30) days of the posting of this Decision at ocio.iowa.gov/broadband, this Decision shall become final and no longer subject to challenge. Iowa Admin. Code r. 129—20.5(5).

Sincerely,



Matt Behrens
Deputy Chief Information Officer
State of Iowa

Exhibit A—Agency Record

KIM REYNOLDS, GOVERNOR
ADAM GREGG, LT. GOVERNOR

ANNETTE DUNN
CHIEF INFORMATION OFFICER

**Affirmation, Attestation, and Certification of Service or lack of Service in Census Blocks
Broadband Grants Program Broadband Availability Map Challenge Process**

A. COMPANY INFORMATION (if submitted on behalf of an entity)

| | | | |
|----------------------|-------------------|---------------|----------------------|
| Company Name: | BTC, Inc. | | |
| Address: | 112 East Main St. | | |
| City: | Breda | State: | IA Zip: 51436 |

B. DESIGNATED CONTACT INFORMATION (if submitted on behalf of an entity or individual)

| | | | | | |
|---------------------|---------------|----------------|------------------|---------------|------------------------|
| Contact Name | Kevin Skinner | Phone # | (712) 673 - 2311 | Email: | kskinner@westianet.com |
|---------------------|---------------|----------------|------------------|---------------|------------------------|

C. CERTIFICATION/ATTESTATION/AFFIRMATION

In signing and submitting this form, the above-identified company, and its duly authorized representative signing on behalf thereof, or you as an individual if you are not submitting this form on behalf of an entity, hereby affirms, attests, and certifies under penalty of perjury that, as represented in the table below:

1. If submitted on behalf of a Communications Service Provider, that the above-identified company, consistent with the representations in the table below, either:
 - a. Offered or Facilitated Broadband service at or above twenty-five (25) megabits per second of download speed and three (3) megabits per second of upload speed ("**25/3 Broadband**") in the below-identified census blocks as of June 30, 2018; or
 - b. Did **NOT** offer or Facilitate 25/3 Broadband in the below-identified census blocks as of June 30, 2018.

Whether your company's prior reporting to the FCC was correct or in error.

2. If submitted by or on behalf of a person other than a Communications Service Provider (e.g., consumer, business, farm), the above-identified entity or individual, consistent with the representations in the table below, either:
 - a. Did or could receive 25/3 Broadband in the below-identified census blocks as of June 30, 2018; or
 - b. Did **NOT** and could **NOT** (within a reasonable time upon request, at a reasonable price) receive 25/3 Broadband in the below-identified census blocks as of June 30, 2018.

| CENSUS BLOCK ID IN WHICH 25/3 BROADBAND OFFERED OR FACILITATED (OR NOT) (please attach additional pages if necessary) | PRIOR REPORTING TO FCC (only use this column if you are submitting this form on behalf of a Communications Service Provider) | | | 25/3 Broadband OFFERED OR FACILITATED AS OF June 30, 2018 | | |
|--|---|----------------------------------|--------------------------------------|---|-----------------------------|--------------------------------------|
| | | | | | | |
| 191290402012001 | <input type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> No Response |
| 191290402012002 | <input type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> No Response |

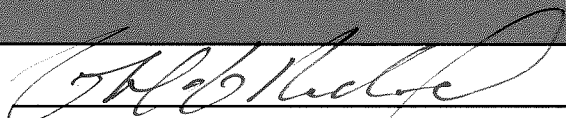
| | | | | |
|-----------------|-----------------------------------|----------------------------------|--------------------------------------|---|
| 191290402022180 | <input type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402022181 | <input type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| | <input type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| | <input type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |

D. ADDITIONAL EXPLANATION (To the extent you believe additional explanation is required to ensure that you are communicating full and accurate information, please use the below space to further explain, qualify, or substantiate your above certification/attestation/affirmation. To the extent necessary, please feel free to attach additional pages and supporting documentation. If you are a Communications Service Provider and indicated "In Error" or "No Response" in the "Prior Reporting to FCC" column for any census blocks above, please elaborate.)

We are challenging the validity of the broadband availability data as it is presented in version 2 of the broadband availability map, for the four Mills County, Iowa, census blocks listed above. Spiral Communications submitted broadband deployment data to the FCC in their 477 Form dated 6/30/2018, which indicated they were offering broadband speeds of 30 Mbps down and 10 Mbps up using terrestrial fixed wireless technology in the four census blocks listed above. Their submitted data further stated they were offering broadband speeds of 977 Mbps down and 977 Mbps up using optical carrier / fiber to the premise technology in two of the four census blocks which are listed above; those blocks are 191290402012001 and 191290402012002. We are disputing broadband speeds submitted in their 477 report because we believe it is not accurate. We currently have plans in place to eventually overbuild the area covered by these blocks, and we currently have 16 customers who have pre-subscribed to take our service when it is available. Each resident we have spoken with in this area has told us the wireless service is slow and unreliable, and they are not getting the speeds they are paying for. In addition, we are certain Spiral Communications does not have the facilities in place to offer service over fiber in the two census blocks identified above, where they have this reported. None of this information which they reported on the 6/30/2018 477 form, was reported on their 12/31/2017 477 form, and we are certain there has been no significant activity in this area within the last 6 months, which would warrant this change in reporting, especially in regard to the availability of fiber-to-the-home in this area. The inaccurate reporting of this 477 data has caused the above referenced blocks to be identified as non-funded TSAs for the state broadband grant. As a result, these areas which are currently either unserved or underserved are ineligible for the state broadband grant funding which is available. This makes it more costly for us to build the network necessary to provide these customers with adequate service.

E. SIGNATURE*

Authorized Signature:



Date: 10/09/2019

Printed Name: Jeff Roiland

Title: CEO

***PLEASE READ BEFORE SIGNING:** By affixing my signature above, I, on my own behalf or as a representative of the company identified above, as applicable, expressly represent that I am authorized to make the above factual representation on behalf of said company and/or myself, as applicable, and under penalty of perjury as authorized by Iowa Code section 622.1 and pursuant to the laws of the state of Iowa, certify the following with respect to this form submitted on behalf of said company and/or myself: any statements, representations, warranties, certifications, or attestations made in this form, including any attachments or enclosures associated therewith, are true and accurate; I, on behalf of said company and/or myself, have not knowingly made any false statements or representations in this form. In addition to any criminal penalties authorized by Iowa Code section 720.2 that may result from any false statements of material fact made herein or any other remedies available at law, equity, or otherwise, if it is subsequently determined that I have made a statement, representation, warranty, certification, or attestation in this form, or any attachments or enclosures associated herewith, that is later proven untrue in any material respect, the company on which I submitted this form on behalf of may be disqualified from current incentive programs administered by the Office or may be ordered to repay the Office the entire amount of any funds previously distributed by the Office to said company in connection with any current incentive programs administered by the Office. OCIO makes no guarantees as to whether the information supplied by you will result in any change to the Broadband Availability Map or the way any incentive decisions are reviewed, scored, or decided. This form, as completed, any attachments hereto, and any other information or materials submitted to the Office in connection with this form or related inquiry, shall be considered public records and shall be made available for public examination and/or disseminated upon request by third parties as required by Iowa Code chapter 22. The Office reserves the right to reject this form and relatedly consider any information communicated through this form as neither credible nor probative if this form is not fully and properly filled out.



October 10, 2019

State of Iowa, Office of the Chief Information Officer
Attn: Iowa Broadband Grant Program-Review Committee
Hoover State Office B
1305 E. Walnut
Des Moines, IA 50319

RE: Letter of Support for Grant Application and Challenge Process

Dear Grant Program Review Committee,

We are writing to express our support for Western Iowa Network's challenge of the availability of broadband in certain census blocks within Mills County, Iowa.

Mills County leadership and citizens are united in seeing the need for and taking steps for better broadband in our County. Western Iowa Networks has been a very good partner in helping this happen. Mills County completed a Broadband Study in October of 2018. A copy of this study is included with this letter. In the study, the County discovered there are serious broadband service limitations in the County, and the current State and Federal broadband map information does not adequately show those needs. Those areas of need include, but are not limited to, the census blocks which Western Iowa Networks challenges are not being served today, in spite of what was reported on the most recent version of the broadband availability map. Here is a list of those census blocks:

| | | | |
|-----------------|-----------------|-----------------|-----------------|
| 191290402011088 | 191290402011089 | 191290402011090 | 191290402011091 |
| 191290402012001 | 191290402012002 | 191290402022180 | 191290402022181 |
| 191290402011092 | 191290402011093 | | |

The County has taken important steps to make improvements for the citizens of Mills County. Economic Development efforts have been strong and focused on bringing significant investment and business partners to the County. Particularly with the struggles the County has had with flooding, this is an important time to look forward and make Mills County stronger. We see this access to broadband grants as a significant factor in making this happen.

We ask you to seriously consider Western Iowa Network's challenge for these census blocks. We look forward to Western Iowa Networks continuing to make broadband more accessible in Mills County. Additionally, we support their grant request and ask you to approve it.

Thank you,
Ken Demlow
Project Manager
HR Green Fiber and Broadband
Kdemlow@hrgreen.com
(765)366-8370

Mills County, IA

Broadband Study Final Report

October 1, 2018

HR Green Project No: 180107

Prepared For:

Mills County, IA



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Executive Summary

We want to thank the Mills County Board of Supervisors and the Mills County Economic Development Foundation for engaging HR Green to perform this study. Moreover, we want to point out the excellence in leadership and the foresight that is represented in the decision to undertake this study.

Good broadband has become a critically important part of life today. Working to try to find solutions to broadband shortcomings in Mills County is good leadership and could have a direct positive impact on the lives of its residents, organizations and businesses.

As an example of how important good broadband has become, in working on the next steps to improve broadband in their community, the City of Boulder Colorado wrote: "Broadband connectivity is a critical infrastructure service for quality of modern life, as is the case with roads, water, sewer and electricity."ⁱ

In discussing the importance of good broadband, the Maine Broadband Coalition pointed out these statistics:

"The world is changing faster than many of us really can begin to understand. Like it or not, the need for speed and bandwidth is growing at an exponential rate. Just look at these statistics:

1. In 1984, there were 1,000 internet devices in the world.
2. By 1992, that number had risen to one million.
3. In 2008 that number had risen to 1 billion.
4. And 6 years later in 2014, the number had risen to 10 billion!
5. There are 5.9 billion searches on Google every day, 100 times more than 2000.
6. The number of text messages sent every day is double the population of the planet.
7. The amount of new technical information is doubling every two years
8. 95% of all of the data in the world has been created in the last two years!
9. In the time it took me to type this ... all those numbers have all changed."ⁱⁱ

What is represented in these statistics can have very real impacts on our lives and on our communities. These devices and communications are in many very important areas of our lives: Economic development, employment, housing, education, health, safety, entertainment, etc.

Examining roles of broadband in economic development in more rural areas, the Hudson Institute performed a study, "The Economic Impact of Rural Broadband". Their study looked at aggregate numbers that can be attributed to broadband:

Rural broadband supported over \$100 billion in e-commerce in 2015.

- The largest share was in manufacturing, where a majority of transactions now involve electronic data exchange over broadband networks.
- Nearly \$10 billion involved retail sales; if broadband had the same reach in rural areas as it does in urban areas, sales would have been at least \$1 billion higher.

One of their conclusions is important for all more rural areas: “The economic impact would be greater if broadband was more widespread and as available in rural areas as it is in urban areas. Another economic impact is economic activity foregone because telecommunications capability in some rural areas is below that in urban areas.”ⁱⁱⁱ

The last part of their statement is particularly important in economic development “...economic activity is forgone...” because the broadband is problematic. That can mean that a business leaves or chooses to locate somewhere else. It can also mean that people who have an idea to start a business don’t, because they don’t have the connectivity to make it work.

As will be shown in greater detail later in this study, many of the businesses and institutions in Mills County are operating on an average of 10 Mbps. And, their typical responses were that they are making it work but know that it might be holding them back. That is an actual number from responses from businesses and institutions in Mills County. As we will see later, that is a very low speed. Many areas of the County have little or unreliable access to broadband. Is there “...economic activity forgone...”?

As mentioned earlier, a lack of good broadband can affect several areas of our lives. Good broadband is being utilized in many ways in education. It can be an important component in medicine in transferring large files and in telemedicine. Good broadband can allow people to work from home or maybe start a home based business that they have been dreaming of.

And, as is becoming more and more apparent and studied, the level of broadband at a house can impact the value of real estate. According to a Fiber Broadband Association headline^{iv}:



Press Releases

Study Shows Home Values Up 3.1% with Access to Fiber

Contact: Ellen Satterwhite, esatterwhite@glenechoagroup.com

June 29, 2015

DEFINITION OF GOOD BROADBAND

There are different ways to measure what is good broadband. The FCC has defined minimum broadband speeds as:

The FCC retains the existing speed benchmark of 25 Mbps download/3 Mbps upload (25 Mbps/3 Mbps) for fixed services and examines the deployment of mobile services with minimum advertised speeds of 5 Mbps/1 Mbps, and those with a median speed of 10 Mbps/3 Mbps or higher.^v

We think that there are important measures in defining good broadband. It must be:

- Fast enough to be able to do what is needed – a minimum of 25 Mbps download can be good in some circumstances, but that is a fairly average speed in many parts of the country. 3 Mbps upload will probably be problematic in many uses.
- Reliable – for broadband to be good, it must be reliable. In our experience most businesses, medical facilities and institutions regard reliability as one of the most important measures of broadband.
- Cost effective – it must be affordable.

GOALS

The Mills County Board of Supervisors and the Director and Board of the Mills County Economic Development Foundation authorized this study in an effort to develop strategies to work towards the best broadband that can be deployed in all of the County.

The specific goals of this study were to:

- Understand what broadband infrastructure is in place
- What is generally planned by providers
- What gaps are left between what is needed and what is available
- Exploring options to fill those gaps

PROCESS

The process that we followed was to:

- Send a questionnaire to certain businesses, anchor institutions and leaders in the County – see Attachment A for the questionnaire form
- Research publicly available data
- Have the providers review the publicly available data
- Discuss with the providers their expansion plans
- Review existing public policy for any recommendations of policy that could further the broadband goals of the County
- Discuss options of possible ways to improve broadband in the County

Our hope is that the findings and ideas in this study can help improve broadband throughout the County.

Again, we thank the Mills County Board of Supervisors and the Director and Board of the Mills County Economic Development Foundation for engaging the HR Green team and for their leadership in this significant step for the County.

Current Broadband Landscape

Basic Coverage in Mills County

There are several sources of data for broadband coverage information.

THE FCC

A majority of the publicly available data comes from what is reported to the FCC on Form 477 that providers submit. According to the FCC website^{vi}:

Who Files What?

- **All** facilities-based broadband providers are required to file data with the FCC twice a year (Form 477) on where they offer Internet access service at speeds exceeding 200 kbps in at least one direction.
- **Fixed** providers file lists of census blocks in which they can or do offer service to at least one location, with additional information about the service.*
- **Mobile** providers file maps of their coverage areas for each broadband technology (e.g., EV-DO, HSPA, LTE). See [Mobile Deployment Data](#).

Within the FCC data, it is possible to compare national level data with Mills County. Below shows what is contained in their Form 477 data in certain categories^{vii}.

Percentage of population with broadband providers

United States (National)

| Area | no providers | 1 or more providers | 2 or more providers | 3 or more providers |
|------------|--------------|---------------------|---------------------|---------------------|
| Nationwide | 0.10 | 99.90 | 94.12 | 72.57 |

County

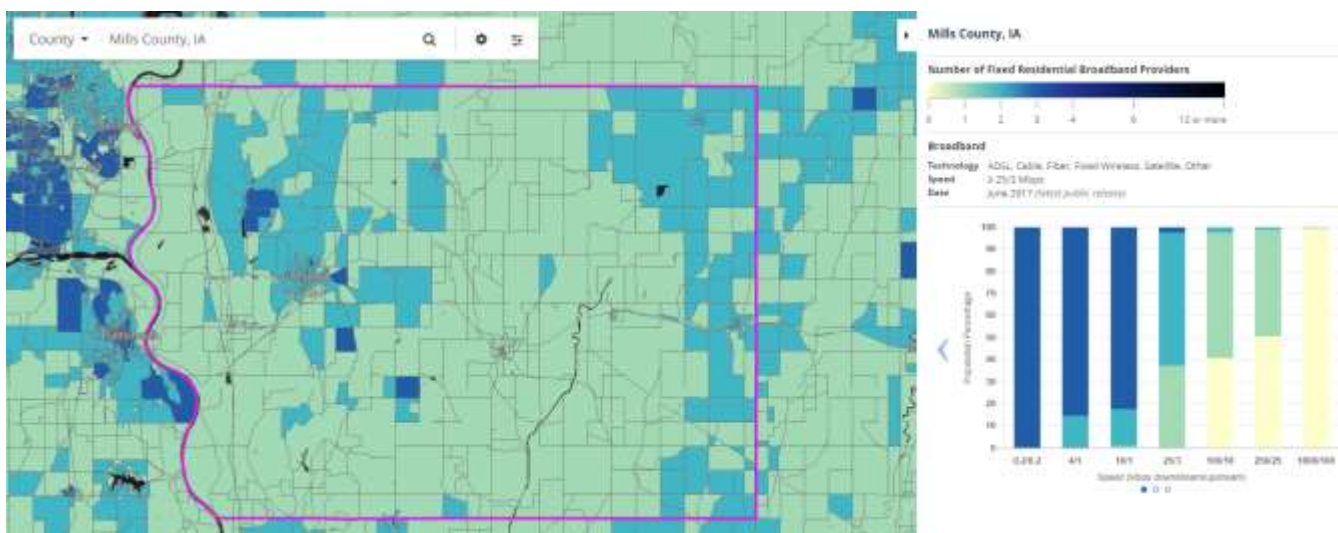
mills County, ia

| Area | no providers | 1 or more providers | 2 or more providers | 3 or more providers |
|------------------|--------------|---------------------|---------------------|---------------------|
| Mills County, IA | 0.00 | 100.00 | 62.57 | 2.41 |

As a note of clarification, this data is for fixed infrastructure – broadband that is provided by either an underground line to the customer, an overhead line or with wireless that has fixed equipment to receive at the customer's location. So, this would include wireline and fixed wireless companies (not mobile).

It would appear that the County is slightly above the national average in having the entire County covered for broadband, while there is .1 percent of the national footprint that doesn't have any availability of fixed connection to broadband.

Their corresponding map shows the below coverage^{viii}.



FCC Map of Mills County Broadband Coverage

The telling information on the FCC comparison chart and the FCC coverage map is that in the areas that show only one provider and speeds up to 25 Mbps, in the vast majority of those areas, the only provider is satellite.

The information from the FCC is a little bit difficult to interpret. In comparing the map and the chart to the right, it would appear that the 100% coverage contains some very slow speeds (the left column in the bar chart). And, it also appears that there is only a very small percent of the population that has access to a Gig (1,000 Mbps – the column on the far right).

What is most questionable are the columns in the center that appear to show that 100% of the County has access to 25 Mbps from either one or two providers. Among other concerns, that isn't consistent with other maps or from respondents to the questionnaire.

To begin in considering these findings, to report consistent and reliable speeds of 25 Mbps via satellite doesn't address the limitations of the technology.

In an article in Business Computing World, Robert Kleymore wrote of the concerns with satellite broadband. He summarized the problems with this technology as:

- Rush Hours – "...when it (usage) gets crowded, speed drop is major."
- Fair Access Policy – "...regulates the bandwidth that every user gets. In order to allow multiple users to stay connected, each provider will limit the individual bandwidth allowance."
- Latency – "Latency is one of the major drawbacks of this technology. It is due to the simple fact that data signals need to travel on a long distance, through the atmosphere. So, there is a sometimes bothering delay." This can be particularly problematic in anything that involved synchronization (conferencing, voice over internet telephone, gaming, movies, etc.).
- Interference – "...the issue is that data-carrying electromagnetic waves need to pass through the atmosphere, and several bad things can occur there."
- Pricing – "When comparing different Internet access technologies, satellite-based ones are, by far, the most expensive."^{ix}

There are two concerns in this representation of coverage. First, in the definition of good broadband, fast, reliable and cost effectiveness are key issues (reliability is of special concern for some businesses and institutions). As is pointed out in Mr. Kleymore's article, all three of these are problematic in this technology.

The other significant concern in this FCC map is defining this as adequate broadband. In their definition of broadband, 25 Mbps is considered adequate. How often is satellite connectivity 25 Mbps? How often is it unreliable and completely out? Is it affordable?

As we will see in below information, this reporting to the FCC should be in question. Other maps show other coverage – not 100% coverage and not 25 Mbps. Why is this important? If the FCC is receiving information that the County has minimum coverage that is acceptable (25 Mbps), then that could affect grant eligibility. There is a

significant difference between 25 Mbps through fiber and 25 Mbps in satellite. Again, as will be shown in other maps, it seems that even the claim of 25 Mbps for 100% of the County is flawed.

OTHER SOURCES OF INFORMATION

The FCC collects reported information from Form 477 as reported by the carriers. If there is much review of the data before it is posted, then that is not publicly discussed. And, some carriers can have reasons to report their data in certain ways or with certain biases in the information reported.

Another source of coverage information is BroadbandNow. This is also public data that utilizes the Form 477 reporting, but they do a little more review and research. According to their website:

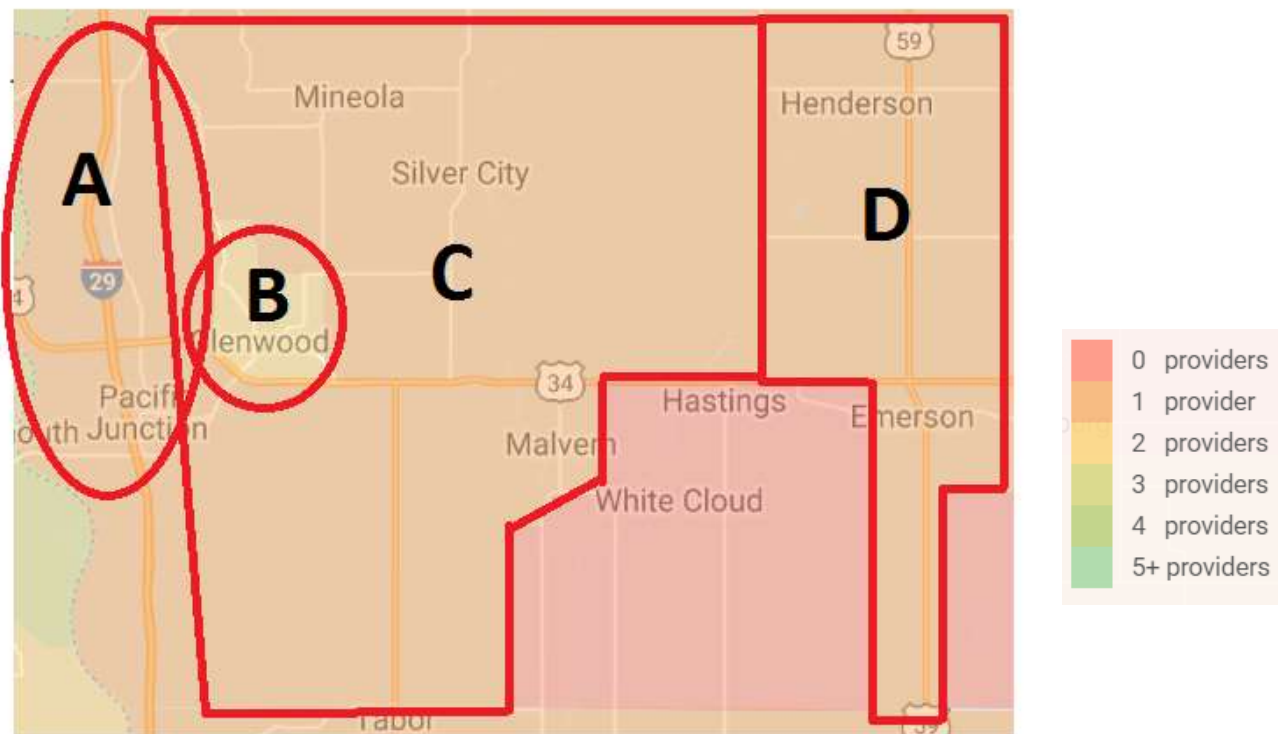
BroadbandNow is a website that helps consumers find and compare Internet service providers in their area. When we're describing it to friends and family, we usually say: "it's like Kayak for Internet service."

To make sure our data is up-to-date, we crunch millions of rows of data every year from public and private datasets and manually collect tens of thousands of data points from providers. All this data allows us to build the most accurate public Internet service database online.^x

They are a respected source of internet coverage data for the industry. The following charts and information are from their data. It is interesting to see some differences from the FCC data. However, this information still heavily relies on the data that the FCC also receives, so it provides some insights, but there are still cautions.

In an attempt to provide the best information possible for this study, we provided the Broadbandnow data to the local providers for verification. Their responses were that the below charts are roughly accurate.

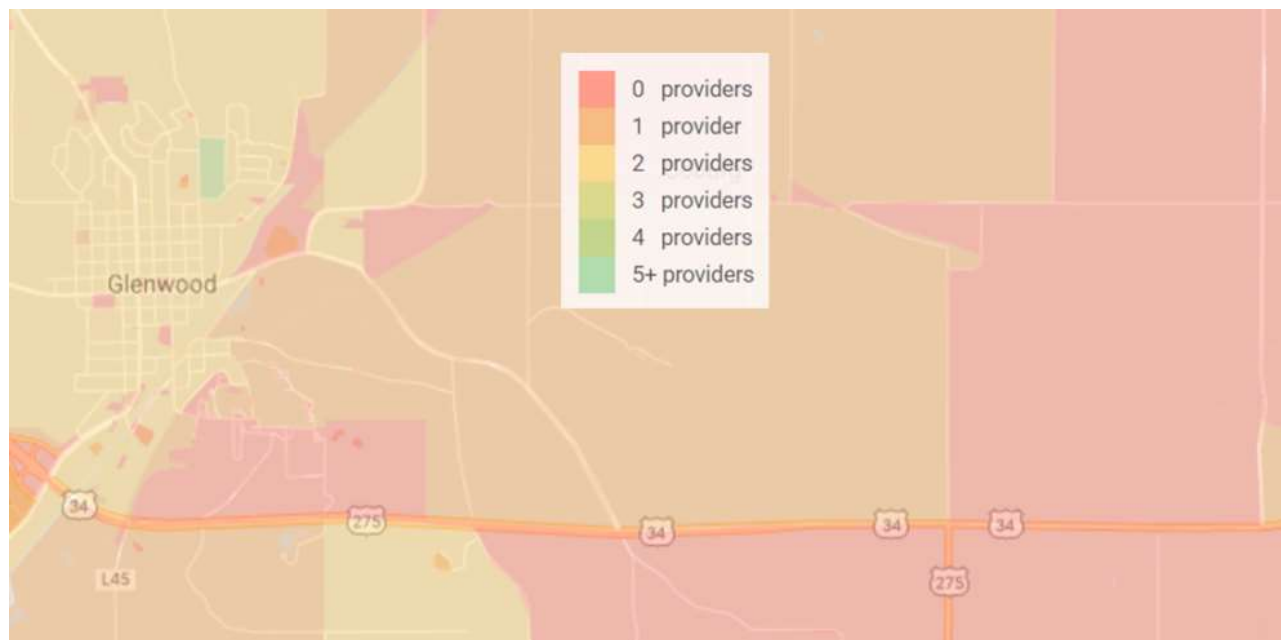
This first chart is an overview of Mills County by number of providers^{xi}.



BroadbandNow Chart - Number of Providers

At this level, it appears to confirm the FCC data in the sections that are lettered. However, even at this level, there is a significant discrepancy with the FCC map. South of Hastings, between Sections C and D, there is a significant area that shows no coverage.

When we zoom in on this map, the below picture shows hidden information that is particularly important



BroadbandNow Chart – Number of Providers Detail

Notice that within the boundaries in the previous picture (that appears to show decent coverage by at least one provider), there are pockets (some of them very large) that don't have coverage.

This is significant in pointing out two things. First, on the aggregate level, the FCC map appears to show continuity. But, as the information is looked at on a more detailed level, there are areas that have no provider. If there is no provider, then there can't be minimum coverages.

Second, it points out that the information can't be taken on an aggregate level. It is important to check the aggregate data with other sources of information. Several sources of information that we received during this study contradict the aggregate FCC information (questionnaire responses, real estate information, EMS information, etc.).

Published Statistics

Broadbandnow also published statistical data that they have received from the Form 477 data and from their other sources and research. Below are some of the findings^{xii}:

The average download speed in Glenwood is 21.80 Mbps. This is 11.7% slower than the average in Iowa and **79.1%** slower than the national average.

- There are 15 internet providers in Glenwood with 9 of those offering residential service.
- Glenwood is the 530th most connected city in Iowa and the close surrounding region.
- 30% of Glenwood residents are still severely limited in wired broadband choices.
- Iowa is the 38th most connected state in the U.S.
- Approximately 2,000 people in Mills County don't have access to any wired internet.
- 78.6% of Iowans have access to 100mbps or faster broadband.
- Fiber optic internet is available to just 8% of Mills County residents.

Published Provider Information for Glenwood^{xiii}

| Location | Provider | Service Type | Location Coverage | Customer Rating | Fastest Speed | Published Pricing |
|---|---------------------|----------------|-------------------|-----------------|---------------|----------------------|
| Glenwood | CentruryLink | DSL | 91.8% | 2 of 5 | 40 Mbps | 10 Mbps from \$45.00 |
| Glenwood | Mediacom | Cable | 69.3% | 2.5 of 5 | 1000 Mbps | 60Mbps from \$39.99 |
| Glenwood | Spiral | Fixed Wireless | 97.4% | 3.5 of 5 | 10 Mbps | 10 Mbps from \$60.99 |
| Glenwood | Howards | Fixed Wireless | 17.6% | None Given | 20 Mbps | 10 Mbps from \$65.95 |
| Glenwood | Future Technologies | Fixed Wireless | 15.0% | 3.5 of 5 | 20 Mbps | 12 Mbps from \$59.99 |
| Glenwood | HugesNet | Satellite | 100.0% | 1.5 of 5 | 15 Mbps | 25 Mbps from \$49.99 |
| Glenwood | Excede | Satellite | 100.0% | 2 of 5 | 25 Mbps | 12 Mbps from \$30.00 |
| Two other providers in Glenwood had too low of coverage to list | | | | | | |

Published Provider Information for Pacific Junction^{xiv}

| Location | Provider | Service Type | Location Coverage | Customer Rating | Fastest Speed | Published Pricing |
|---|---------------------|----------------|-------------------|-----------------|---------------|--|
| PJ | Western Iowa Net. | Fiber | 100.0% | None Given | 1000 Mbps | 100 Mbps \$39.99 1000 Mbps \$149.99 |
| PJ | CenturyLink | DSL | 45.4% | 2 of 5 | 12 Mbps | 10 Mbps from \$45.00 |
| PJ | Windstream | DSL | 2.3% | 2 of 5 | 12 Mbps | 25 Mbps from \$50.00 |
| PJ | Spiral | Fixed Wireless | 98.2% | 3.5 of 5 | 10 Mbps | 10 Mbps from \$60.99 |
| PJ | Future Technologies | Fixed Wireless | 22.7% | 3.5 of 5 | 20 Mbps | 12 Mbps from \$59.99 |
| PJ | HugesNet | Satellite | 100.0% | 1.5 of 5 | 15 Mbps | 25 Mbps from \$49.99 |
| PJ | Excede | Satellite | 100.0% | 2 of 5 | 25 Mbps | 12 Mbps from \$30.00 |
| Two other providers in Glenwood had too low of coverage to list | | | | | | |

Customer rating information wasn't available for Western Iowa Networks, but the discussions I have had were very favorable.

Published Provider Information for Malvern^{xv}

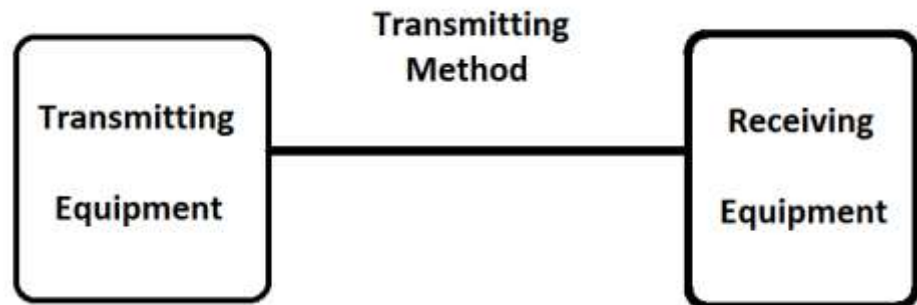
| Location | Provider | Service Type | Location Coverage | Customer Rating | Fastest Speed | Published Pricing |
|---|---------------------|----------------|-------------------|-----------------|---------------|----------------------|
| Malvern | CenturyLink | DSL | 71.8 | 2 of 5 | 20 Mbps | 10 Mbps from \$45.00 |
| Malvern | Windstream | DSL | 2.4% | 2 of 5 | 10 Mbps | 25 Mbps from \$50.00 |
| Malvern | Spiral | Fixed Wireless | 31.5% | 3.5 of 5 | 10 Mbps | 10 Mbps from \$60.99 |
| Malvern | Future Technologies | Fixed Wireless | 14.9 | 3.5 of 5 | 20 Mbps | 12 Mbps from \$59.99 |
| Malvern | HugesNet | Satellite | 100.0% | 1.5 of 5 | 15 Mbps | 25 Mbps from \$49.99 |
| Malvern | Excede | Satellite | 100.0% | 2 of 5 | 25 Mbps | 12 Mbps from \$30.00 |
| 99.6% of consumers in Malvern only have access to 1 or fewer wired internet providers | | | | | | |

Discussions we have had with citizens, the library and farmers, about OmniTel east of Malvern (mainly around Emerson) have been very favorable.

These tables show some important data.

One finding is the service type. At its most basic level, telecommunications network architecture can be understood in the diagram below.

Each of the “Service Types” in the charts above are based on this path, but they utilize different components for transmitting, the path and receiving. In very general terms, the method or path of fiber is the most direct and clearest. DSL is next, yet it has limitations based on the phone line and the distance. The next is fixed wireless, which utilizes a wave from point to point. Last is satellite.



There are factors in each method that can have significant impact on the speed, latency, reliability and cost.

For Mills County’s purposes, having satellite being a main method of distribution means that the County is relying on one of the least reliable forms of broadband delivery. And, the equipment and amount of fiber used in the DSL services will also determine their speed capability.

Evaluating Published Data

A highly respected broadband industry think tank, not-for-profit, did an in-depth study on published data. They found:

“Our results confirm what a bipartisan group of U.S. Senators has expressed concern over: federal broadband data is deeply flawed. The following maps suffer from a bias that overstates coverage and competition. Even if they were accurate, the level of competition would still be woefully inadequate for a community trying to thrive in the digital age.”^{xvi}

This is an extremely important study. Given their methodology, they clearly show that the data that the telecommunications industry relies on has significant flaws. As mentioned above, this could be very important in understanding Mills County connectivity, and potentially very significant in what grants the County might be eligible to receive.

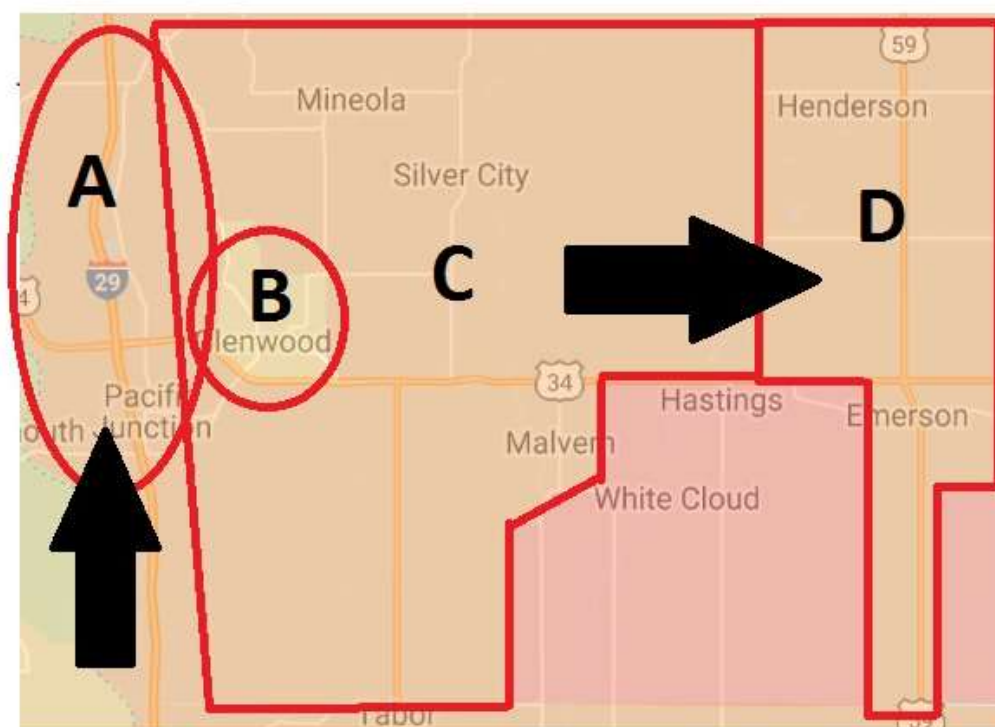
In an effort to clarify Mills County information, we worked with local stakeholders to see their “real world” connectivity.

Farm Bureau Farmer Connectivity

One of the groups that is often overlooked in studies of rural broadband is the farming community. They are home-based businesses that rely on internet connectivity in different ways. As part of our study, we talked with Farm Bureau to check County connectivity.

In talking with the Farm Bureau Board, they mentioned that they have equipment that relies on good broadband and that they do significant reporting that is often done online.

Also, safety in the field is a concern. If there are issues that arise in the fields, being able to communicate with those who can respond is important – and, all too often, difficult to do.



Farmer Service Satisfaction by Area

Farm Bureau leadership commented that if they are in the areas highlighted above (area labeled A and area labeled D), then they have a reasonable chance of having good service. Outside of these two areas, connectivity is VERY spotty and can affect farming business (equipment, electronic filings, etc.). These two areas represent coverage by Western Iowa Networks (in the “A” area on the West) and OmniTel (in the area “B” on the East). These are both fiber based providers.

Emergency Management

The Mills County Emergency Management organizations currently use pagers, texting, cellular and radios. So, they have redundancy and redundant procedures.

Their current communication infrastructure includes:

- Two towers
- Building three more

None of the current or planned communications towers are fiber fed.

There is a national level emergency management network that is being coordinated at the State level named FirstNet. It will be discussed more under the “What We Can Expect” section. At this point, there is a coverage map that the FirstNet representatives told us is a general rendering and they don’t have a current timeline for buildout. As deployment continues, they plan to discuss service packages with local officials throughout the State, but they didn’t have a timeline for those discussions. Again, this will be discussed in more detail below.

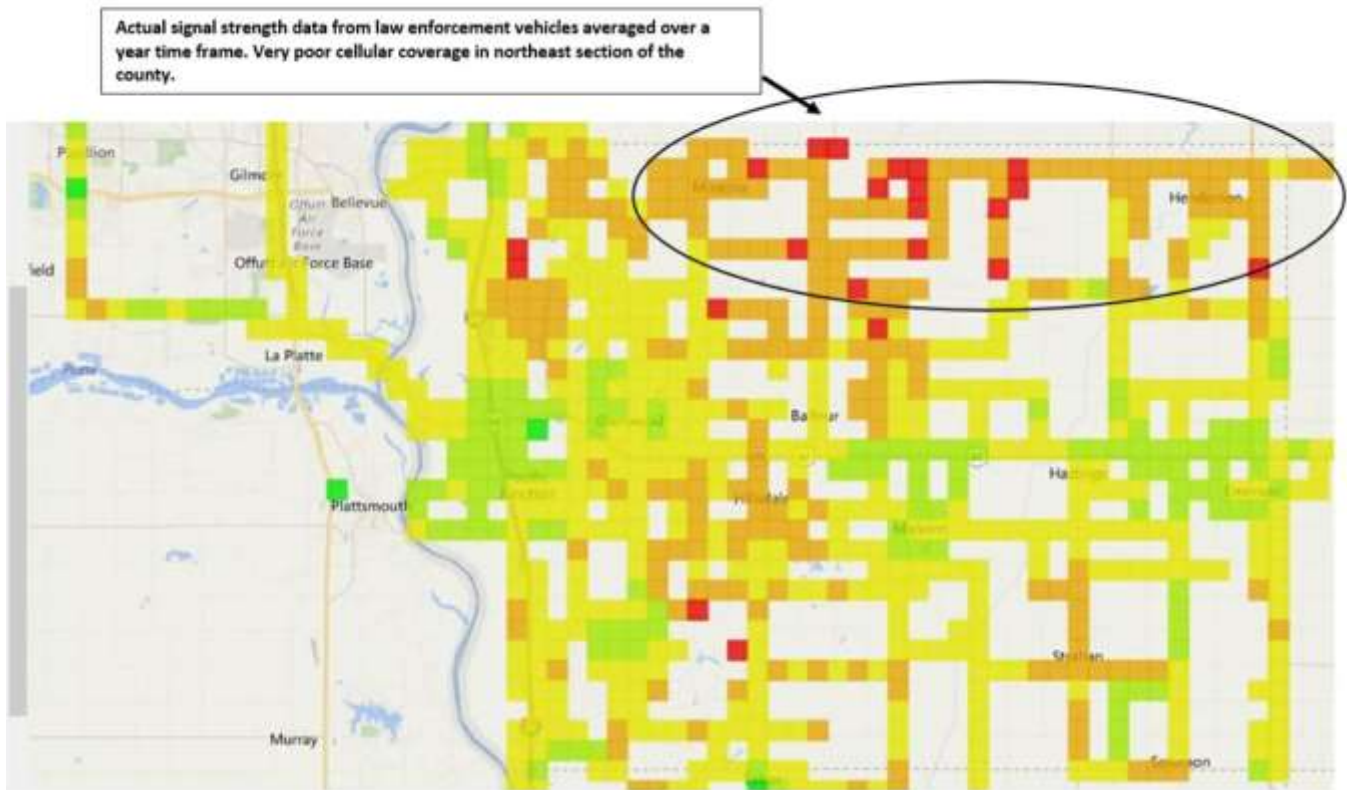
Mills County is fortunate to have a very good Information Technology team led by Patrick Binns. They have recorded data that provides depth to the understanding of emergency management communications in Mills County.

Mr. Binns described the data that his department was able to provide, “The data is derived from diagnostic software which monitors cellular usage and performance in all Mills County law enforcement vehicles. This data from all vehicles is aggregated together from a years’ worth of diagnostic information and averaged so the signal strength values are an average of the signal strength in a given area over a year time frame. None of our values are taken from cellular carrier coverage maps which are approximations of service coverage and often times best-case-scenarios.”

Below are two examples of the maps that the Mills County IT Department was able to build from this data. They show where signal is good (represented in green) and the progression of where it becomes worse (brown) and where calls are frequently lost (red).

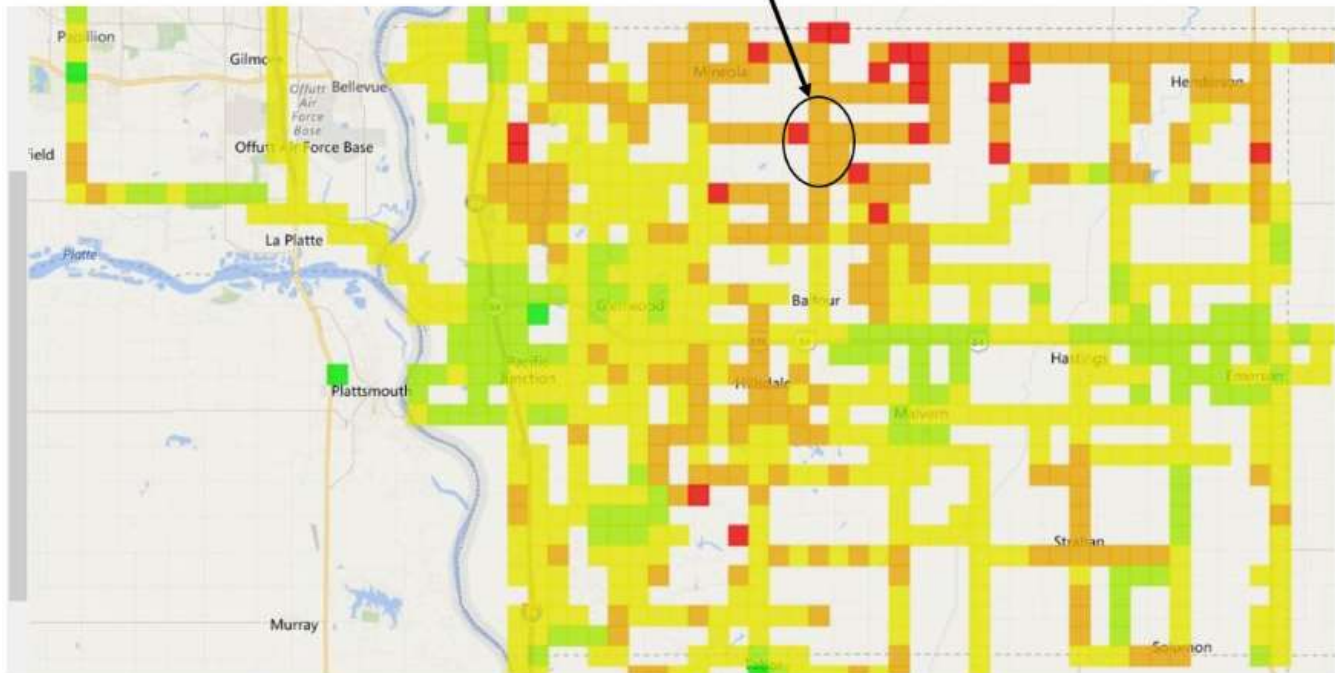
To highlight something that Mr. Binns said, the primary form of communication is cellular as provided by cellular carriers. It is reasonable to expect that this coverage, from the existing carriers, won’t change unless there are more towers added.

There could be other cellular networks available, but, as Mr. Binns stated, it isn’t possible to really know the coverage by provider maps. That is information that has to be collected over time, as they have done with these maps.



Mills County IT Service Coverage Map

Silver City is a good candidate for WiFi via fiber because of poor law enforcement data coverage, poor data coverage for county home health workers, and poor coverage for poll workers during elections. Real time voice and data communication for mobile users is a significant challenge in this area.



Mills County IT Coverage – Highlight Area

This is a topic that we encourage the County to continue to explore. Having said that, it is also important to consider that jumping to a simple solution might not be the best long term answer. There are options to consider:

- Will FirstNet provide any better coverage (discussed later in this study)?
- Could there be avenues to work with providers on some East/West coverage that could include a mix of fiber, Wi-Fi and/or cellular?
- Could there be grants for EMS coverage (or are those reserved for FirstNet)?

In talking with Silver City, they have two connectivity concerns. They have CenturyLink for internet, but City leadership expressed concerns about reliability, speed and cost. And, as is shown in the graphic above, there is problematic cellular coverage in and around the City.

Questionnaire Results

Another avenue that we utilized in validating broadband data was a questionnaire. This was not sent to everyone, it was more of a tool to spot check and to gain feedback from a variety of stakeholders in the County. As was mentioned earlier, please refer to Attachment A for the actual questionnaire that was sent. Below are summaries of the results by industry.

Healthcare: The responses that we received are that local medical facilities are not connected to corporate fiber – they utilized plans with providers. Surprisingly, in their responses, the average of the speed of the plans that of those who responded was 5Mbps. As noted earlier, the definition of broadband is 25 Mbps – so these speeds are 1/5 of what the FCC says is adequate speed. This is particularly surprising given the sizes of some medical files.

In general, the medical facilities responded that they are satisfied with their service, but do feel like they will need greater capacity and that they could do more with greater capacity (but averaging what they can get vs the price has determined their current service selection).

Education: The Glenwood Community School District has a fiber ring with redundancy in the City of Glenwood. They have a combination of their own infrastructure and utilizing a provider to help operate and maintain their fiber.

East Mills purchases services that are usually reliable and for the most part meets their needs. Increased capacity could enable them to do more. East Mills does own 12 fibers running from the high school to the old elementary. It is not currently in use, but might have potential value because it already crosses the railroad.

Libraries:

Glenwood – Glenwood Library's current service is provided by a local fixed wireless provider. The amount they pay is offset by Erate. They expressed that they are glad that they have the connectivity that they have, but they give their current arrangement a 4 of 10 rating.

In their response, the library leadership discussed the different needs that libraries have for good connectivity. For example, card catalogues now are most typically in the cloud. And, many services that libraries provide rely on internet.

As an example of patron services that are internet based and the impact that connectivity can have: "Recently, a patron took an online safety exam that should have taken him 4 hours. Because it was video driven (with quizzes following each video) and the videos took a long time to download, it actually took him over 6 hours...A staff person had to stay after closing to allow him to finish."

This is a significant enough issue that the Library Director, Tara Anderson Painter, has been involved in this process and has made preparations for someone to speak about library connectivity in the study presentation.

For libraries, connectivity is a combination of internet provider options and cost.

There are steps they would like to take and things they would like to offer, but they need better broadband.

Emerson – Has good connectivity – OmniTel is providing fiber connected service and they are very happy with it.

Silver City – The Silver City library rated their service 2-3 of 10, but they don't see other viable options for service. Library leadership communicated clearly that their connectivity limits the use that patrons can have. And, they are considering more on-line services, but don't know how those would work with their current connectivity.

Malvern – To provide internet for the library and the patrons, they have chosen a more expensive plan. They are happy with it.

Businesses:

Bunge: They have speed problems and are currently upgrading their service. They have some redundancy, but are working on that, also. Their current speed is 10 Mbps. As mentioned earlier, according to the FCC, the minimum speed that qualifies as broadband is 25 Mbps. Having made that work for quite a while, they are undertaking and paying for what has to happen to upgrade.

They are upgrading to 100 Mbps but would like 150 Mbps, but that isn't currently available. They are not sure when the upgrades will happen and are still working through pricing.

Banks: Those who responded have redundancy and some capacity (averaging 10 Mbps), but feel like they could do more with better connectivity.

One bank has had a fiber connection, but is changing to a proprietary system because of their operations.

We don't disclose what is being paid in this study, but it is relevant to point out that the banks in the County regard their connectivity and redundancy important enough that they are paying the highest rates in our findings for their internet.

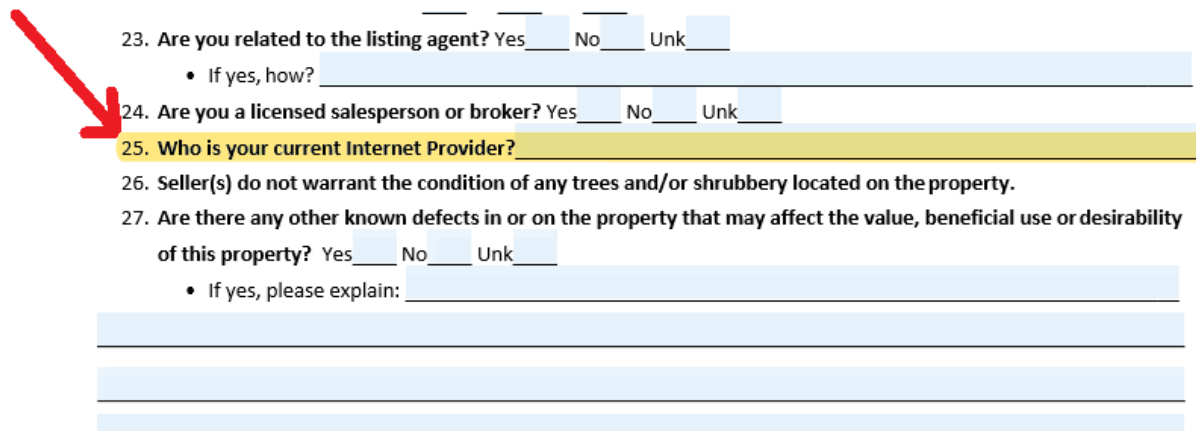
Real Estate:

To analyze how the current broadband connectivity in Mills County is perceived and the impacts that it has, we talked with the largest real estate agency in the County, Jim Hughes Real Estate.

As noted in the Executive Summary, national research has been done that shows that the value of houses can increase 3.1% when there is good broadband.

As an example, one of the authors of this study lives in Mills County. Some friends were purchasing a house not far from him. The first question those friends asked were, can you get good internet there?

This has become such an important criteria in home purchases that Jim Hughes Reality took the step of adding a question about internet to their disclosure statement.^{xvii}



23. Are you related to the listing agent? Yes ☐ No ☐ Unk ☐

• If yes, how?

24. Are you a licensed salesperson or broker? Yes ☐ No ☐ Unk ☐

25. Who is your current Internet Provider?

26. Seller(s) do not warrant the condition of any trees and/or shrubbery located on the property.

27. Are there any other known defects in or on the property that may affect the value, beneficial use or desirability of this property? Yes ☐ No ☐ Unk ☐

• If yes, please explain:

From their experience in Mills County, Anne Steele of Jim Hughes Realty Estate also identified several subdivisions that struggle with broadband connectivity. It might seem surprising that subdivisions would have internet speed and options issues, but Mrs. Steele has pointed out that there are quite a few and some of the main problem areas (because of their density) are:

- Cedar Hills
- Western Hills
- Lake Ohana
- Willow Park Acres / Estates

Mrs. Steele also pointed out another common issue that can develop in broadband. The providers available in Hickory Ridge subdivision are CenturyLink, Spiral and High Powered Howard. Thus, they have a DSL option and two fixed wireless. It appears that because of the broadband architecture used in that subdivision or that led to that subdivision, all of the capacity was taken before the last few homeowners were able to connect. There were possibilities that could provide more broadband options, but, in the past, providers said that investment was needed to bring those to the subdivision (including cable – which is not available to any residents now except by satellite).

Significant Observations from Mills County Current Broadband Landscape

OBSERVATION 1: Comparing Published Data to Real Information

In looking particularly at the FCC published data as compared to the information that we have been given from the stakeholders in the County, it seems fairly clear that there are disparities. The data reported to the FCC that shows that there is a service level of 25 Mbps across the County doesn't seem accurate for many parts of the County.

This is important in knowing how to respond to actual broadband shortcomings and in what to present in any grant opportunities.

As we have talked with stakeholders in the County, another important observation has developed.

OBSERVATION 2: Making The Best of the Circumstances

The stakeholders who responded to our questions, when asked what their broadband plan provided, responded on average that they were being provided 10 Mbps.

As has been pointed out, the minimum that the FCC regards as qualifying as adequate broadband is 25 Mbps. Mills County entities are making work, less than half of what the FCC states even qualifies as broadband. Referring back to the published statistics that were mentioned earlier: 78.6% of Iowans have access to 100 Mbps or faster broadband. 100 Mbps compared to 10. Our experience is that there can be a lot of creative power unleashed when there is that type of expansion of capacity.

One of the things that we often find is that people don't know what they don't know. If the citizens, business, organizations and other stakeholders of Mills County had greater speeds and capacity, what could they do?

The people of Mills County have probably gotten used to making what they have work. That is commendable, but it would be exciting to see what they could do with more speed and capacity.

What Can Mills County Expect?

Providers

CenturyLink

In talking with CenturyLink representatives, they do not currently have plans to make significant expansions or upgrades to their facilities.

However, they actively look at any growth and needs (business, residential, economic development) to see what makes sense to deploy to. Those would either include a business case that makes sense and/or outside investment to make the business case make sense.

It is important to note that there is an issue between the County and CenturyLink. In the recent past, CenturyLink contractors were deploying telecommunications infrastructure without receiving permits.

Because that work was being done without permits, there also weren't inspections. It was the view of the County that there was remediation that wasn't done and without inspections, those instances of needed remediation weren't addressed by CenturyLink.

As it was told to us, the County approached CenturyLink to do the needed remediation, but it was not done. After waiting for it to be done, the County went ahead and did the work – in several places. The County presented the costs for that remediation work and, to date, CenturyLink has not reimbursed the County. There were enough areas that needed remediation and there was enough remediation work that the costs were fairly substantial.

Because of this situation, there are two consequences that are the most significant. One is that this issue needs to be addressed by CenturyLink for there to be open collaboration between the County and CenturyLink if there are any projects in which the two entities could work together.

Second, this situation has led the County to adapt its focus on some issues related to broadband policy, which will be discussed further in the Public Policy section of this study.

Mediacom

From conversations with Mediacom regional leaders, they do upgrades and expansions as is possible. Currently, they are looking at what makes business sense to upgrade.

They have a worksheet and calculation that they use for each possibility. They are willing to discuss any need and share their worksheet and calculations.

At present, they don't have a system upgrade planned but do want to discuss needs.

Regional Providers

Mills County has several regional providers who have been actively involved in upgrades and deployments. The most involved have been: Western Iowa Networks, OmniTel, Spiral Communications and Chat Mobility.

Western Iowa Networks has deployed fiber to the homes on the Western side of the County. That relates directly to the Section A in the graphic on page 12.

OmniTel has deployed fiber to the homes on the Eastern side. That relates directly to the Section D on the graphic on page 13.

Spiral has installed fiber mainly to feed their point to point system.

Chat Mobility has fiber in the County, but that is used to provide backhaul for their mobile network. If they have excess capacity or if there are ways that their network could be part of solutions to solve gaps in broadband in the County will have to be discussed in next steps after this study.

The local providers, have been active in working with the Mills County Economic Development Foundation to meet needs for the potential projects that have arisen so far. And, particularly the fiber providers, Western Iowa Networks and OmniTel, have discussed options, plans and infrastructure with us as we have conducted this study.

ICN

According to their website, “The Iowa Communications Network (ICN) is the country’s premier distance learning and state government broadband carrier network. The ICN provides high-speed flexible broadband internet, data, video conferencing, and voice (phone) services to authorized users, under Code of Iowa, which includes: K-12 schools, higher education, hospitals and clinics, state and federal government, National Guard armories, and libraries. ICN makes it possible for Iowan’s, physically separated by location, to interact in an efficient, creative, and cost-effective manner.”^{xviii}

When the ICN was first built, it was planned that each county would have a Point of Presence located in the County seat. Mills County does have one in Glenwood, in proximity to the Middle School.

As was mentioned in their description above, by law, there are only certain authorized users who can connect. There are eligible institutions in Mills County – schools, medical clinics, and libraries. From our research, it does not appear that any of those eligible institutions are connected.

Reasons some eligible clients have not chosen to connect are:

- They charge for what they provide – some potential clients have found those costs to be prohibitive.
- ICN cannot own the connection from the Client's building to the POP (Point of Presence). So, the Client has to pay the cost of getting from their building to ICN's connection point. In Mills County, that is likely the site by the Middle School.

These laws that govern who is an eligible user and that eligible users have to pay for connection to ICN's connection point most likely limit how (or if) ICN could help in solving any broadband deficiencies in Mills County. We are exploring if any eligible institutions could benefit by connecting to the ICN. If they can, that would be good results in this study, but those would be isolated positives and not part of solving the greater issues of broadband deficiencies across the County.

AMG Technology Investment Group

This year, the FCC did what they termed a "reverse auction" to distribute money left over from money that has been collected mainly from phone bills that is intended for broadband expansion.

The process was for providers to get approval from the FCC. Then, those providers would choose certain areas and bid by telling the FCC what they could provide in those areas. Those "bids" were then evaluated and the FCC told the bidding providers what areas they won and how much money they would receive to deploy in the areas they won.

The terms are that they have to provide a certain level to an entire "census block" within so many years to receive the money. If they don't accomplish the buildout of the entire census block they were awarded in the allotted time, they don't receive the money that has been "awarded" to them.

There was one bidder for census blocks in Mills County: AMG Technology Investment Group from Texas. They are a fixed wireless company like the others we have in the County already. The below chart shows the census blocks they were awarded and the map below that shows where those are in Mills County.

It is important to note that AMG Technology Investment Group was awarded \$55 Million over several states. As part of this study, we attempted to contact them by phone and by email and they have not responded.

They will have some options. They could not build and not take the money. Or, they could build themselves and be another fixed wireless provider. Or, they could partner with another company either in the County or that plans to come to the County. We know of two providers who have some interest in talking with them.

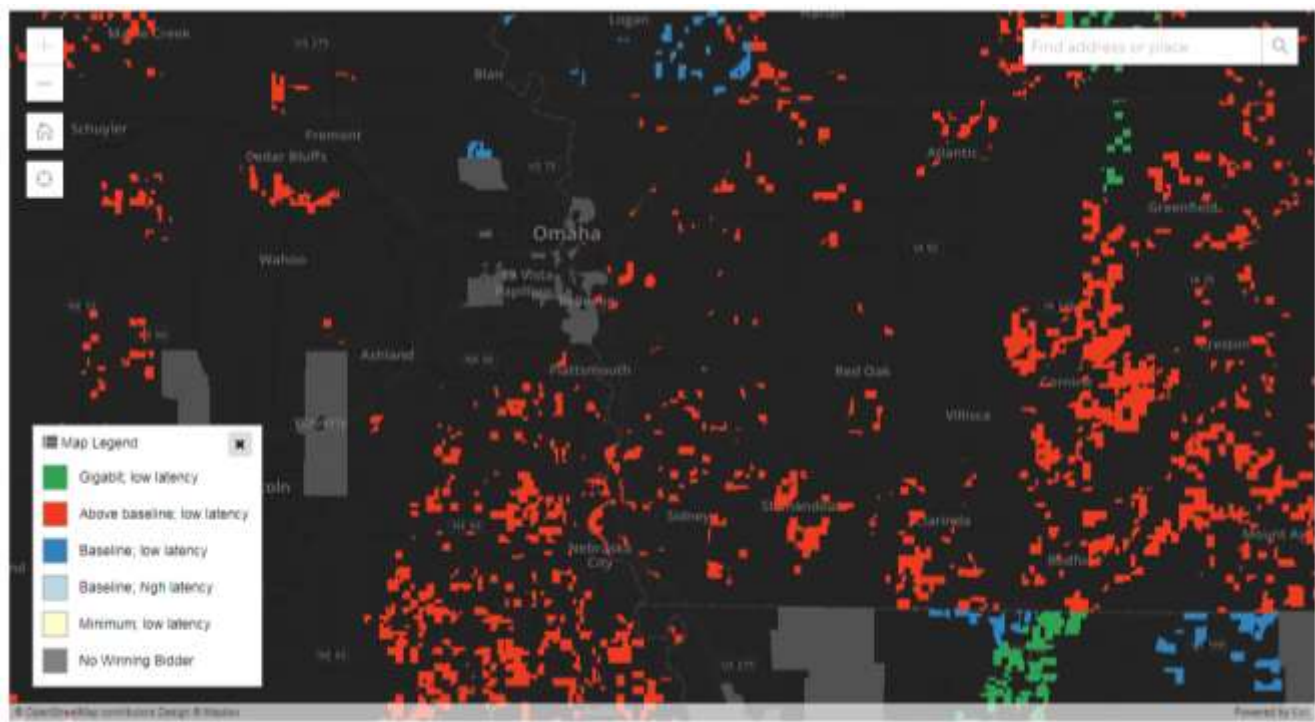
Connect America Fund Phase II: Auction 903 Results

CAF II Reverse Auction Winners in Mills County by Census Block^{xix}

| ST | County | Bidder | block_id | item |
|----|--------|-------------------------------------|------------|----------------|
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401001 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401001 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401001 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401001 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401001 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401003 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401004 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0401004 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402011 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402011 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402011 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402021 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402021 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402021 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402021 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402021 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402022 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402022 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0402022 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0403012 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0403022 |
| IA | Mills | AMG Technology Investment Group LLC | 1.9129E+14 | IA-129-0403022 |

The below chart shows those census blocks highlighted in red on the map of Mills County.^{xx}

Connect America Fund Phase II: Auction 903 Results



Communicating with this company and with companies who might want to partner with them (if that is an avenue that both decide to explore) could lead to a source of funding to expand either fixed wireless (with the fiber that would be required to do that) or other infrastructure for other broadband services.

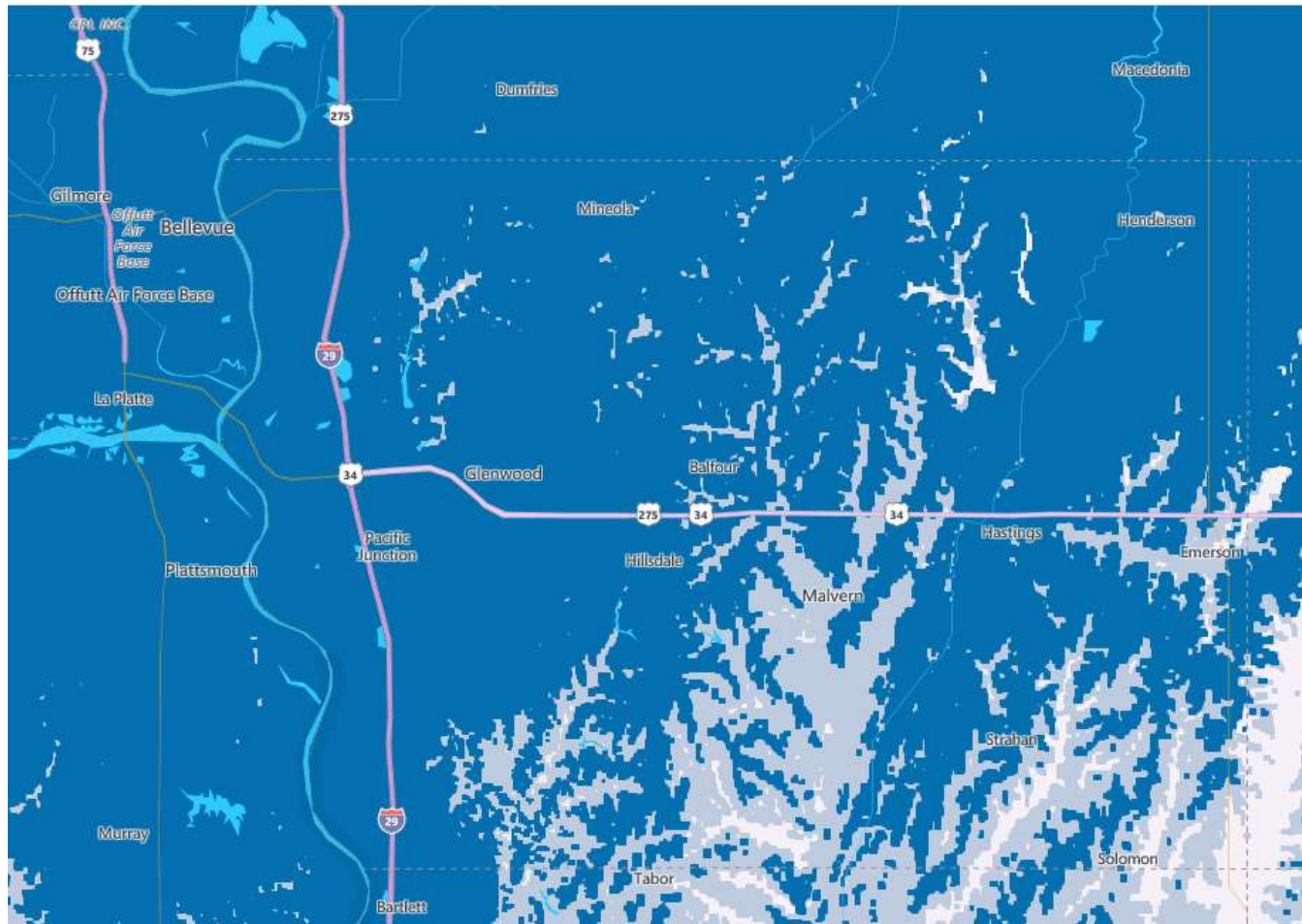
These maps are not easy to read, but it does appear that there are census blocks in the central and north central parts of the County. We are not sure how they would serve those areas. If that could be part of a wider plan to expand infrastructure to meet those areas, that infrastructure might be helpful for those census blocks, but also as part of a plan to reach other areas.

In talking with our contacts who know the leaders of AMG as part of this study, we were told that AMG is still formulating their plans for how to use the money they have been allotted. If that proves to be the case, it might be productive to see if the County's plans could fit with them to help the County's broadband goals and to help them develop their plan for the County.

It is also important to bear in mind that the money that would go to these census blocks over six years may not total a lot.

FirstNet

FirstNet representatives said that this is (roughly) the coverage that is currently available.^{xxi}



FirstNet Coverage in Mills County

The FirstNet representative also said that there will be further buildout, but the timing and scope of that is not currently known.

FirstNet is a national emergency management network that is organized by state level committees. It is currently being deployed, but timeframes are still being developed. According to their page on the State of Iowa website, FirstNet is:

“Built to the specifications provided by the First Responder Network Authority, which were developed through years of consultation with first responders in every state/territory and at all

levels of government, the FirstNet core is the network foundation for the delivery of advanced public safety features unique to FirstNet.”^{xxii}

- The FirstNet infrastructure/services contract is with AT&T
- At this point it isn’t known how much the end users will be charged
- At this point it is also not clear what specifically will be provided to all participants
- It is also not known if there will be excess capacity available in the infrastructure
- There is an Iowa Statewide Interoperable Communications System Board - <https://isicsb.iowa.gov/committees/firstnet-broadband-subcommittee>

In our research, we have heard end use agencies express concerns. Those concerns have broken down into the following categories:

- Coverage – will it be, truly, complete coverage – the above map isn’t clear about that
- Map accuracy – emergency management agencies use maps to check locations of incidents. Depending on what base map is used and how that is delivered to responders can determine if the maps are accurate. As one responder told us – if the map isn’t accurate all of the time (or at least the VAST majority of the time), it is not useable any of the time
- Limits on technology they can deploy – there are many good technologies that have been and are being developed. The method of deployment often determines whether those technologies can be used. Until the system is in place or until they are told the parameters of the system, agencies don’t know what technologies can be used.
- Price and Caps – emergency management agencies are charged for this connectivity. And there can be data caps. The agencies that we have talked with have expressed concerns about whether FirstNet will be affordable and how data will be regulated.

These are very real concerns in the emergency management efforts. This was highlighted by an incredible problem that the firefighters in the recent California wildfires encountered – not with FirstNet, but with another carrier. As was reported in the New York Times:

As the largest fire on record in California continued to carve its destructive path through the northern part of the state, firefighters sent a mobile command center to the scene. With thousands of personnel, multiple aircraft and hundreds of fire engines battling the blaze, officials needed the “incident support unit” to help them track and organize all those resources.

But in the midst of the response efforts, fire officials discovered a problem: The data connection for their support unit had been slowed to about one two-hundredth of the speed it had previously enjoyed. Like a teenager who streamed too many YouTube videos and pushed his family’s usage above the limits of its data plan, the Santa Clara County Central Fire Protection District was being throttled by its internet service provider, Verizon. But in this case, officials have emphasized, homes and even lives were at stake.

The county fire district had no choice but to use other agencies' internet, rely on personal devices to transfer data and ultimately subscribe to a new, more expensive data plan, as Verizon officials urged them to do, according to court documents filed this week.

"In light of our experience, County Fire believes it is likely that Verizon will continue to use the exigent nature of public safety emergencies and catastrophic events to coerce public agencies into higher-cost plans ultimately paying significantly more for mission critical service — even if that means risking harm to public safety during negotiations," Chief Anthony Bowden said in a sworn declaration.^{xxiii}

This points out the challenging nature of the communications of emergency management and tying that to private providers. Given that FirstNet is run by AT&T and there are packages that will be offered, it is unclear if the concerns in the California wildfires will be applicable. FirstNet does have oversight from federal and state committees, but there is confusion over how this will be deployed, priced and administered.

Mills County Railroads

Railroads can be important broadband resources because of the broadband assets they need to operate their systems. For example, Union Pacific started Breeze – an Internet Service Provider – to utilize their excess capacity to provide Wi-Fi to rural areas. Unfortunately, UP recently discontinued that program, which makes discussions with others less clear.

In talking with BNSF, they don't currently have any programs like that, but it may be something to work with them to do or to see if there are ways their broadband assets could help.

In the map^{xxiv} below, BNSF has a potentially important path – particularly the east/west route that goes through the middle of the County.



If BNSF has excess capacity in their fiber, could the County use that to mesh together parts of a network? Interestingly, this line connects Glenwood and Malvern and goes through areas that are underserved.

Railroad representatives said that it doesn't hurt to ask about excess capacity, especially if it furthered County goals. They suggested being specific about how much would be needed, why and how it would be used.

BNSF Route in Mills County

Possible Next Steps and Strategy Starters

In this study we have examined the broadband service that exists in Mills County and looked at what we can expect from the providers. That leads us to beginning the discussions of what next steps that can be taken towards developing a strategy for how to improve Mills County broadband.

These potential next steps fall into three categories: 1) Coordination; 2) Public Policy; 3) Grants.

Here are some coordination suggestions:

- Business coordination – through County level organizations (the Economic Development Foundation, the Chamber, etc.), it would be good to have frequent and pointed conversations with the business community about their broadband needs, plans and County needs.
- Aggregation and coordination are the keys. If there is someone making arrangements for broadband upgrades or fiber, then it would be very helpful to see how that might fit into others' and the County's plans. For example, arrangements were made with a provider to run fiber through Malvern. Could that have been part of working with the school's excess fiber? Could that have been aggregated with others' needs, so as to expand broadband and perhaps save the expense that were paid? Another example is Bunge's broadband upgrades. Our expectation is that that will be fed from north or west of Mills County. But, depending on how that is done, could that feed broadband expansion in the northern or western parts of the County (either by the planned provider or by another who would take that view)?
- Work with the Glenwood Library to see if there could be grants to extend fiber to the library (possibly ICN if their numbers work).
- East Mills has excess fiber from the High School to the old Elementary School – could it be helpful to a provider in a way that could be mutually beneficial? Combining that with fiber that BNSF has that crosses that school owned fiber – is there a route that can be utilized for little expense to connect the middle of the County? If so, could that be used as an expansion point?
- Real Estate – Mrs. Steele has identified several subdivisions in the County that are underserved for broadband. We will highlight those in GIS. If the realtors and Mills County Planning and Zoning can also point out any new developments that either are approved and not yet under construction or are likely to be approved, it would be a good idea to see if there are ways to aggregate that demand and work with providers to meet those needs.
- A key with this approach is to see if there are other County broadband goals that could be met while during deployment to them.
- Talk with the farmers.
 - Farm Bureau is active in state and national lobbying and has built relationships with government leaders. And, one of Farm Bureau's stated goals is to help

- improve rural broadband. It would be worth working with them to try to bring some of the results of that to Mills County.
- Farmers have helped arrange financing for and coordinated rural broadband in different parts of the United States. They are organized, they see the need for rural broadband and they want to make farms and communities in which their children will stay. We are not sure of their role at this point (it will depend on what strategies are developed), but their help might be important.
 - Local area providers are running some fiber. We would suggest talking with them about ways that their fiber could be used for improving broadband in the County. Could there be a Wi-Fi network that extended from their fiber for at least some parts of the County? That could be a way of them generating extra income and having at least somewhat better broadband. This may not be in their typical business model (or it might be), but it is worth exploring.
 - Talk with AMG and local providers who might want to partner with them to see if there could be a collaboration between AMG and the County or AMG, the County and local providers to help AMG develop their plans and also to further the County's broadband goals.
 - Follow up with FirstNet to see what coverage they might have and if they will have excess capacity that could be used for extending broadband. It will be important to know where their towers and what fiber they might deploy (and where). If there is fiber and it has excess capacity they would be willing to use to further County broadband goals, it is worth seeing what that is and the costs.
 - Work with BNSF to see if they might let the County utilize excess capacity to further County broadband goals.
 - Work with EMS
 - Could any of what they are spending now in service costs and in tower construction help in furthering mutually beneficial broadband goals?
 - Could that help in securing grants or is that money committed to FirstNet?
 - Could their towers be used for fiber connected Wi-Fi?

Public Policy

There are important things that can be done through public policy. We recommend working with local providers to make sure that any policy changes are fair, mutually beneficial (or at least not having a negative impact on the providers) and equally applied.

In talking with Kevin Mayberry, County Engineer and Darin Whatcott, County Building and Zoning Official, we have received public policy information that we have evaluated to see if we have any recommendations that could help the County best use public right-of-way and further broadband goals.

Our Policy expert, Steve Prideaux, has reviewed the documents that we received and the appropriate permit documents on the internet and has offered a few suggestions.

From this review, we recommend consideration of the following policies:

Recommendation #1 – Adopt a Dig Once Policy

Dig Once Policies ensure an underground fiber link is established in conjunction with all infrastructure improvements. The policy requires excavators to coordinate with local government on the installation of extra fiber or conduit prior to a proposed project breaking ground in the public right-of-way (ROW).

This includes any installations, maintenance, or repairs made to local streets/sidewalks, underground utilities, etc. The level of participation can vary from simply requiring permit applicants to notify relevant entities about the excavation and invite their participation to necessitating that a shadow conduit be installed for future use. Scenarios exist where the excavator or the jurisdiction then rent the excess capacity.

A critical advantage to this approach focuses on lowering broadband expansion costs for providers. Installation of fiber optic cables and conduit represent a small percentage of the overall per mile expenses. Deployment often becomes cost prohibitive due to expenses related to labor, permitting, and engineering. Economies of scale can be achieved by multiple parties (e.g. joint trenches) through this suggested coordination process. The applicant often serves as the lead agency and shares total costs with other participating entities.

The County may also consider executing a moratorium to further encourage cooperation amongst the key stakeholders. Dig Once Policies can explicitly prohibit excavation of recently constructed/reconstructed streets within a defined time period (e.g. five years) unless restoration is completed from curb to curb.

We can provide more detail and/or language about different options of how this could be done.

Recommendation #2 – Enact a Right-of-Way Pavement Degradation Policy

The County has an inspection and remediation policy, but we did not see a degradation policy.

Cuts to pavement, regardless of how well they are restored, have an adverse impact on integrity. Any newly-created seam allows water to permeate below the pavement weakening both it and the underlying soil. A pavement degradation surcharge is typically leveraged against any entity seeking to disturb pavement within 36-60 months of its installation (provided the County does not seek to institute a moratorium as outlined in Recommendation #1).

As mentioned above, the Mills County Utility Permit Application does require “areas within the ROW damaged by the installation shall be repaired to at least their former condition by the applicant or the cost of the repair work caused to be performed by the County will be assessed against the applicant”; however, deterioration studies demonstrate that any cut and associated excavation severely shortens the life of pavement.

Implementation of this recommendation can help the County achieve several benefits as it works to expand broadband infrastructure within its communities.

As with Recommendation #1, we can provide more detail and/or language about different options of how this could be done.

On Page 21 in the section discussing what we can expect from providers, we mentioned that we have been alerted to an issue between CenturyLink and the County. Because this provider did not follow permitting, inspection and remediation policy and typical County practices, the County has had to do remediation that has cost the County a significant amount of money and the provider has not, to date, reimbursed the County.

This situation has had an important impact related to broadband policy. The County has felt the need to strengthen their policies and practices in ways that could affect the industry. It seems as if the providers have understood this situation and have not responded that the new system is onerous. We recommend keeping that dialogue open with the providers to ensure that policies and procedures are not discouraging broadband deployment.

FUNDING AND GRANTS

There are several potential sources of funds for broadband and related projects.

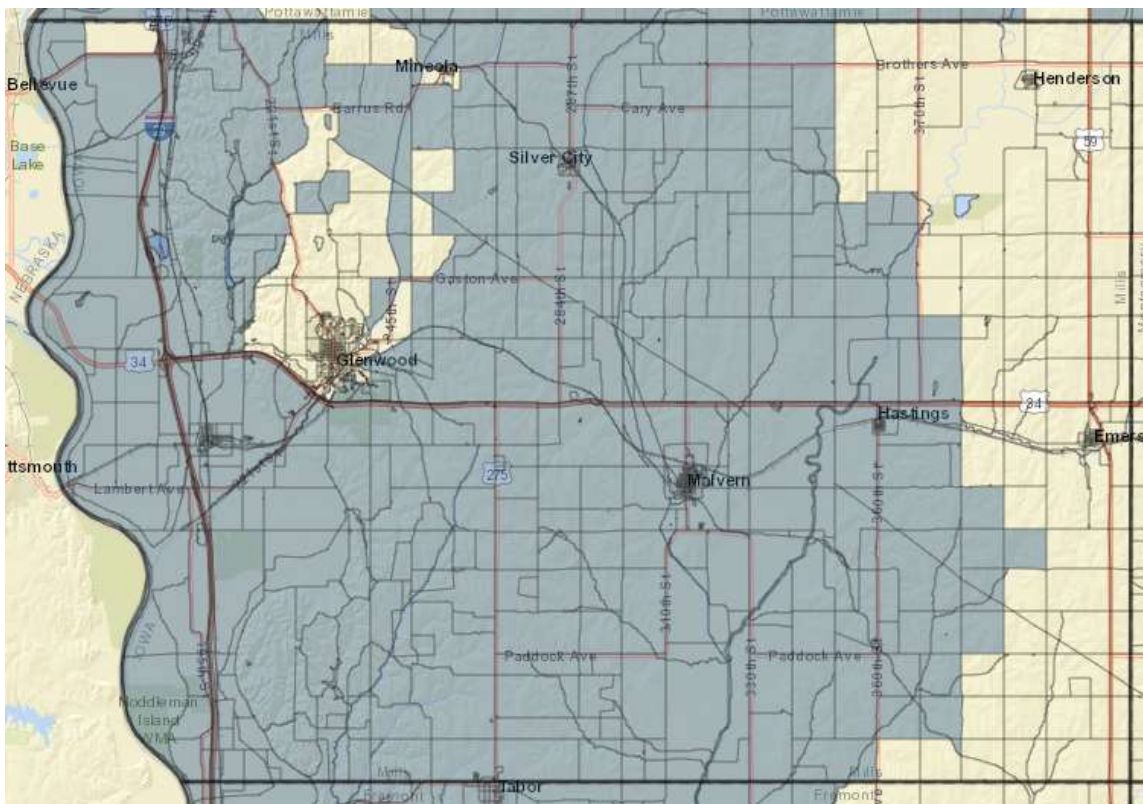
The State of Iowa Targeted Service Area program

One that the providers probably already know is The State of Iowa Targeted Service Area program. The State determined areas that they wanted to target with a program to try to spur broadband expansion.

The State of Iowa Chief Information Officer's website describes this program:

House File 655 provides a property tax exemption for installation of broadband infrastructure that facilitates broadband service at or above 25 megabits per second of download speed and 3 megabits per second of upload speed within a targeted service area, which installation is commenced and completed on or after July 1, 2015, and prior to July 1, 2020, and which is used to deliver Internet services to the public. The exemption is a 100 percent exemption from taxation for a period of 10 years based on the actual value added by the installation of the broadband infrastructure.^{xxv}

The below map shows in blue the areas that are targeted for this exemption.^{xxvi}



This program is geared mainly towards providers, but is important to know exists.

Public Policy

Working with providers and having mutually beneficial policies and practices can be very effective in helping further broadband goals. Coordination, communication and standard operating procedures clarified in policy can yield tremendous results.

The key is to have a coordinated effort that is clear and communicated effectively and often.

Grant Possibilities

STATE

State Rural Broadband Grants

"The Iowa Broadband Together initiative focuses on program development between the Iowa Community Assessment and Partnership program and state broadband grant programs. The FY 2019 report listed a recommended \$2.6 million in broadband grants appropriated to the Office of the Chief Information Officer. The governor and lieutenant governor report the state is ready to partner up to meet the needs."^{xxvii}

The State Committee that is developing the policies and procedures has just had their second meeting this week. At this point, it is difficult to know how the funds will be divided. We have a partner on the committee, so we will keep the County apprised of developments. This person is also willing to have a teleconference to give us updates, so we will schedule those with the Director of the Economic Development Foundation.

As mentioned earlier, it is also a good idea to coordinate with the Farm Bureau to see how they are working on the above grants and to see if there are other broadband applicable grants that they are informed about.

FEDERAL

The main federal government agency that deals with job creation is the EDA. They have open grant opportunities. The key is showing how jobs will be created.

Broadband can apply to those grants.



Currently, the federal agency that probably has the most grant programs that apply to broadband is the Department of Agriculture. Below is a list of grant programs that in some way might include broadband.

United States Department of Agriculture

| USDA Programs & Services for Communities & Nonprofits |
|---|
| Community Connect Grants |
| Community Facilities Direct Loan & Grant Program |
| Community Facilities Guaranteed Loan Program |
| Community Facilities Relending Program |
| Community Facilities Technical Assistance and Training Grant |
| Delta Health Care Services Grant |
| Economic Impact Initiative Grants |
| Rural Broadband Access Loan and Loan Guarantee |
| Rural Business Development Grants |
| Rural Community Development Initiative Grants |
| Rural Cooperative Development Grant Program |
| Rural Microentrepreneur Assistance Program |
| SEARCH - Special Evaluation Assistance for Rural Communities and Households |
| Strategic Economic and Community Development |
| Telecommunications Infrastructure Loans & Loan Guarantees |

The Community Facilities programs are geared towards populations under 20,000. There is some debate about whether “facilities” can include broadband infrastructure, but there is some discussion that it could.

Some of these like the Health Care grants would need to be coordinated with the appropriate County stakeholders.

Some of these grants having funding cycles in which the deadline has passed. The question in those programs is whether they will be funded again, thus having a new deadline.

One significant question is what will happen with the federal infrastructure bill. There is supposed to be money for rural broadband, but we haven’t been told when that will be available and through which department it will be administered.

We also recommend the following possible grants in:

- Public Works grants
- Department of Energy grants
- Telemedicine
- Education

ATTACHMENT A - Questionnaire

PROJECT INFORMATION

Project: Mills County Broadband Strategy

Project #: 180107

Date: August 15, 2018

From: Ken Demlow, Project Manager

Subject: Request for Information Regarding Broadband Needs

Dear Mills County Stakeholder,

The Mills County Economic Development Foundation and the Mills County Supervisors have engaged HR Green to do a study of the broadband needs in the County. You have been identified as an important stakeholder in that process. If you could provide us with the following information, it would be very helpful. We are trying to determine where the broadband services are lacking so that we can formulate ideas of how to make improvements where they are needed. Our efforts will only be as good as the information we receive, so please help us by returning this information by Tuesday, August 21.

If you would prefer that your organization name not be used, please indicate that.

Questions:

CURRENT SERVICES:

1. Who is your current provider?
2. What is your current plan?
 - a. What services are you purchasing?
 - b. How much internet capacity/speed are you purchasing?
3. How much do you pay?
4. Is your service(s) reliable?
5. Do you feel like you are getting your money's worth?
6. On a scale from 1 to 10 with one being worst, how would you rate your service(s)?
7. Do you have other options for service?
8. Do you require a lot of internet capacity? If so, why?
9. Do you feel that your current broadband is holding your organization back?
 - a. If so, how?

FUTURE NEEDS:

1. Do you expect that your broadband needs will increase?
 - a. If so, how?
 - b. If so, do you have any idea how much?
2. If you had better broadband, could that help you expand?

-
- ⁱ City of Boulder, CO RFP 58-2018 dated August 22, 2018 for fiber Engineering; P. 2, Project Background section
 - ⁱⁱ Maine Broadband Coalition “9 Stats That Prove the Internet is as Important as Any Utility”; Peggy Schaffer; September 15, 2015
 - ⁱⁱⁱ The Hudson Institute “The Economic Impact of Rural Broadband”; Hanns Kuttner, Editor; 2016; pages 4-5
 - ^{iv} <https://www.fiberbroadband.org/blog/study-shows-home-values-up-3.1-with-access-to-fiber>
 - ^v <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>
 - ^{vi} <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>
 - ^{vii} https://broadbandmap.fcc.gov/#/area-comparison?version=jun2017&tech=acfosw&speed=25_3&searchtype=county&searched=y
 - ^{viii} https://broadbandmap.fcc.gov/#/area-summary?version=jun2017&type=county&geoid=19129&tech=acfosw&speed=25_3
 - ^{ix} Robert Klyemore; Business Computing World; “What Are The Limitations Of Satellite Internet Technology”; March 27, 2014
 - ^x <https://broadbandnow.com/about>
 - ^{xi} <https://broadbandnow.com/zoom-in-by-area>
 - ^{xii} <https://broadbandnow.com/iowa/Glenwood?zip=51534>
 - ^{xiii} <https://broadbandnow.com/iowa/Glenwood?zip=51534>
 - ^{xiv} <https://broadbandnow.com/iowa/Pacific-Junction?zip=51561>
 - ^{xv} <https://broadbandnow.com/iowa/Malvern?zip=51551>
 - ^{xvi} muninetworks.org – Rochester, MN policy brief
 - ^{xvii} Provided by Jim Hughes Real Estate from their internally developed disclosure form
 - ^{xviii} From their website: icn.iowa.gov
 - ^{xix} https://auctiondata.fcc.gov/public/projects/auction903/reports/all_assigned_census_blocks
 - ^{xx} <https://www.fcc.gov/reports-research/maps/caf2-auction903-results/>
 - ^{xxi} From the FirstNet website: www.firstnet.com
 - ^{xxii} From the ICN website: <https://www.icn.iowa.gov/broadband-news-interest-%E2%80%93-september>
 - ^{xxiii} Matt Stevens; New York Times article, “Verizon Throttled California Firefighters’ Internet Speeds Amid Blaze (They Were Out of Data); August 22, 2018
 - ^{xxiv} iowadot.maps.arcgis.com
 - ^{xxv} <https://ocio.iowa.gov/broadband-background>
 - ^{xxvi} <https://iowa.maps.arcgis.com/apps/webappviewer/index.html?id=ffd0eb7c17314454ad6f122147b563e6>
 - ^{xxvii} The Clinton Herald online story by Jacqueline Covey, January 26, 2018:
http://www.clintonherald.com/news/local_news/making-a-connection-iowa-eyeing-rural-broadband-initiative/article_6f111609-dea0-52ea-b28f-185d473ec6b0.html



MILLS COUNTY ECONOMIC DEVELOPMENT

MISSION: "To improve the long-term economic sustainability of Mills County through an economic development agenda focused on job creation, job retention, and tax base enhancements enriching the quality of life for all citizens of the County."

October 10, 2019

To whom it may concern:

As the Mills County Economic Development Executive Director, I have led an effort involving the Mills County Board of Supervisors, the Mills County Economic Development Foundation, key service providers, and end users to address the broadband needs in Mills County. Over the past two years MCEDF has held several public meetings encouraging citizen engagement and one-on-one meetings with existing businesses as part of our business retention & expansion program, as well as collaboration with broadband providers as part of a professional comprehensive broadband study completed by HR Green. The Mills County Broadband Study is the means for fully understanding our needs while putting actual project into play meeting the needs of our citizens, local businesses, agricultural producers, and new homeowners and businesses. The Mills County Broadband Study completion was the first step.

Our next steps include applying for state and federal funding to assist in the construction of high-quality fiber. Working with our infrastructure task force we learned the FCC maps drastically changed in the past six months. The new maps illustrate false data and present a challenge. Our consultant and members of our task force have met with providers who acknowledge the maps are incorrect. This has also been confirmed by meeting with home owners and businesses in the areas of Mills County that have very poor service or no fiber access at all. The Mills County emergency management personnel recognize and deal with large areas of Mills County that are poorly served; thus, adding risk to public safety personnel and negatively impacting public health and safety.

Mills County has been declared a national disaster area as a result of the March 2019 flooding. Unfortunately, much of Mills County and Southwest Iowa remain flooded today nearly seven months later. We ask that you please consider this request for funding and feel free to contact us with any questions. We stand committed to partner and see that the citizens and businesses of Mills County have the opportunity for high quality broadband. The fact some providers submitted false data should not impact Mills County's access to grant funding. Rural Iowa needs broadband and this flooding in Mills County has created an opportunity for us to begin addressing this vital need.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick L. Allely".

Rick L. Allely, CEcd MCRP

Mills County Economic Development Foundation
403 Railroad Avenue
Glenwood, IA 51534
712-310-7010
millscountydevelopment@gmail.com
www.millscountyiowa.com

OCIO--43

Mills County Board of Supervisors

Richard Crouch • Carol Vinton • Lonnie Mayberry

Mills County Courthouse • 418 Sharp Street • Glenwood, IA 51534

Phone: (712) 527-4729 • Fax: (712) 527-1579 • Website: www.millscoia.us

October 10, 2019

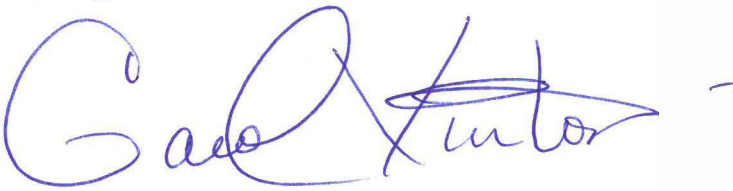
To whom it may concern:

The Mills County Board of Supervisors and the Mills County Economic Development Foundation have diligently been working to address the broadband deficiencies in Mills County. Over the past two years numerous public meetings, citizen input events, business retention & expansion visits, collaboration with providers, and broadband specific studies have been completed so that Mills County can fully understand our needs and begin implementing projects meeting the needs of our citizens, existing businesses, farmers, and new residents.

The completion of the Mills County Broadband Study in the Fall of 2018 began the initial implementation plan as a result of the extreme lack of and availability of quality broadband services. Now that we are ready to make application for various state and federal funding to assist in the deployment of high-quality fiber, we have learned the FCC maps have drastically changed showing a very untrue and different picture than that of our findings and daily experiences. In fact, we have visited with providers who acknowledge the maps are incorrect and backed that up with confirmation from home owners and businesses in the areas of Mills County that have poor or no service. Our public safety and emergency management personnel also recognize areas that are poorly served impacting public health and safety. This has become an even higher issue due to the recent nationally declared flood disaster that began in March 2019 and is continuing today.

We ask that you please consider this request for funding so that the citizens and businesses of Mills County can be offered the opportunity for high quality broadband. Mills County has lost numerous homes and residents as a result of the floods. The incorrect data submitted by providers trying to keep competitors out of the market should not warrant our County's grant eligibility being hurt. Mills County simply needs these funds now more than ever to address this critical infrastructure need.

Sincerely,


Board of Supervisor
Chairman



MILLS COUNTY ECONOMIC DEVELOPMENT

MISSION: "To improve the long-term economic sustainability of Mills County through an economic development agenda focused on job creation, job retention, and tax base enhancements enriching the quality of life for all citizens of the County."

October 10, 2019

State of Iowa, Office of the Chief Information Officer
Attn: Iowa Broadband Grant Program-Review Committee
Hoover State Office B
1305 E. Walnut
Des Moines, IA 50319

RE: Letter of Support for Grant Application and Challenge Process

Dear Review Committee:

I am sending this letter in support for Western Iowa Network's challenge of the availability of broadband in certain census blocks within Mills County, Iowa. The Mills County Board of Supervisors and the Mills County Economic Development Foundation have diligently been working to address the broadband deficiencies in Mills County. Over the past two years numerous public meetings, citizen input events, business retention & expansion visits, collaboration with providers, and broadband specific studies have been completed so that Mills County can fully understand our needs and begin implementing projects meeting the needs of our citizens and businesses. We are united in seeing that high quality broadband is availability throughout our County. Western Iowa Networks is a key partner in making this happen.

We hired HR Green and completed a Broadband Study in October of 2018 which identified the following areas of need, but are not limited to, the census blocks below. The areas Western Iowa Networks challenges are not being served today. We have confirmed this with businesses and residential owners within these areas despite the reporting on the most recent version of the broadband availability map. Here is a list of those census blocks:

191290402011088 191290402011089 191290402011090 191290402011091 191290402012001 191290402012002
191290402022180 191290402022181 191290402011092 191290402011093

The Mills County Board of Supervisors and the Mills County Economic Development Foundation have taken important steps to make improvements for the citizens of Mills County. Access to broadband funding is a significant factor in our ability to retain population and creating opportunity for new development. We ask you to seriously consider Western Iowa Network's challenge for the above US Census blocks. We look forward to Western Iowa Networks partnering with us in implementing high quality broadband in Mills County.

Thank you,

A handwritten signature in black ink, appearing to read "Rick L. Allely".

Rick L. Allely, CECD MCRP

Mills County Economic Development Foundation
403 Railroad Avenue
Glenwood, IA 51534
712-310-7010
millscountydevelopment@gmail.com
www.millscountyiowa.com

OCIO--45

Mills County Board of Supervisors

Richard Crouch • Carol Vinton • Lonnie Mayberry

Mills County Courthouse • 418 Sharp Street • Glenwood, IA 51534

October 19, 2019 Phone: (712) 527-4729 • Fax: (712) 527-1579 • Website: www.millscoia.us

State of Iowa, Office of the Chief Information Officer

Attn: Iowa Broadband Grant Program-Review Committee

Hoover State Office B

1305 E. Walnut

Des Moines, IA 50319

RE: Letter of Support for Grant Application and Challenge Process

Dear

We are writing to express our support for Western Iowa Network's challenge of the availability of broadband in certain census blocks within Mills County, Iowa.

Mills County leadership and citizens are united in seeing the need for and taking steps for better broadband in our County. Western Iowa Networks has been a very good partner in helping this happen. Mills County completed a Broadband Study in October of 2018. A copy of this study is included with this letter. In the study, the County discovered there are serious broadband service limitations in the County, and the current State and Federal broadband map information does not adequately show those needs. Those areas of need include, but are not limited to, the census blocks which Western Iowa Networks challenges are not being served today, in spite of what was reported on the most recent version of the broadband availability map. Here is a list of those census blocks:

| | | | |
|-----------------|-----------------|-----------------|-----------------|
| 191290402011088 | 191290402011089 | 191290402011090 | 191290402011091 |
| 191290402012001 | 191290402012002 | 191290402022180 | 191290402022181 |
| 191290402011092 | 191290402011093 | | |

The County has taken important steps to make improvements for the citizens of Mills County. Economic Development efforts have been strong and focused on bringing significant investment and business partners to the County. Particularly with the struggles the County has had with flooding, this is an important time to look forward and make Mills County stronger. We see this access to broadband grants as a significant factor in making this happen.

We ask you to seriously consider Western Iowa Network's challenge for these census blocks. We look forward to Western Iowa Networks continuing to make broadband more accessible in Mills County.

Thank you,



Mills Co. B.O.S. Vice-Chair

From: matt.behrens@iowa.gov on behalf of [Grants, OCIO <ociogrants@iowa.gov>](mailto:Grants_OCIO_ociogrants@iowa.gov)
To: craig.hagenau@spiral-communications.com; support@spiral-communications.com
Subject: State of Iowa - Inquiry Concerning Broadband Map Appeal
Date: Tuesday, October 15, 2019 11:29:01 AM
Attachments: [Letter to Spiral Communicatsions - Docket Nos. 19OCIO003 and 004 \(West Liberty Telephone Co.\).pdf](#)
[Spiral Communications-Affirmation Of Service Form Broadband Map V2 .docx](#)

October 15, 2019

To Whom It May Concern,

Attached please find a letter of inquiry and accompanying attestation form concerning two appeals received by the Office of the Chief Information Officer of the State of Iowa regarding the broadband map of the State of Iowa.

The appeals in question may be located at <https://ocio.iowa.gov/broadband-availability-map-version-2-challenge-process> (refer to Docket #19OCIO003 and #19OCIO004 submitted by BTC, Inc.).

The appeals name United States Census Blocks within which Spiral Communications reported to the Federal Communications Commission it is providing broadband service as of June 30, 2018.

Questions concerning this inquiry and the response may be submitted to this e-mail address (ociogrants@iowa.gov) on or before October 31, 2019. Please note that you are under no legal obligation to respond to this request for information.

Sincerely,

Office of the Chief Information Officer
State of Iowa

October 15, 2019

Office of the Chief Information Officer of the State of Iowa
c/o Matt Behrens
1305 E. Walnut Street, Level B
Des Moines, IA 50309

Spiral Communications
800 Central Avenue
Nebraska City, NE 68410

To whom it may concern:

This is a letter of inquiry concerning your firm's prior reporting to the FCC on Form 477 concerning the availability of Broadband service in certain United States Census Blocks within the State of Iowa. The State of Iowa Office of the Chief Information Officer ("OCIO" or "Office") recently received a formal notice of appeal that names Census Blocks within which your firm, Spiral Communications, disclosed to the FCC that it provided Broadband service at or above 25 mbps of download speed and 3 mbps of upload speed ("25/3") as of June 30, 2018. The appeal claims that your reporting to the FCC was inaccurate. This appeal and accompanying evidence can be found at <https://ocio.iowa.gov/broadband-availability-map-version-2-challenge-process> (navigate to BTC, Inc. Malvern (Docket #19OCIO004) and BTC, Inc Glenwood (Docket #19OCIO003) to see BTC, Inc.'s appeals and click the corresponding "ZIP" links to obtain the supporting evidence and information submitted by BTC, Inc. in support of its appeals). **To resolve this matter, the Office requests that your firm provide certain information concerning your service in the affected United States Census Blocks as further identified and described below.**

The Office is charged with issuing an updated map of locations across the State of Iowa where Broadband service was offered or Facilitated at or above 25/3 as of June 30, 2018.¹ On September 20, 2019, the Office officially published the final version of Version 2 ("V2") of the Statewide Broadband Availability Map. V2 of the State of Iowa Broadband Map is based primarily on data submitted to the FCC by Communications Service Providers concerning service in the State of Iowa.² V2 of

¹See Iowa Code §§ 8B.1(12) (defining "Targeted Service Areas"), 8B.10 (requiring OCIO to designate Targeted Service Areas within the State of Iowa). *See also* Iowa Admin. Code r. 129—20.1 (defining "As of Date"), .3 (designating data sources for Broadband Availability Map), .4 (outlining Targeted Service Area determination process)

Please note that any references to Iowa Code chapter 8B (2019) (or any sections or subsections therein) throughout this communication shall be understood to reference [Iowa Code chapter 8B](#) as amended by [2019 Iowa Acts, ch. 159, Div. II](#). In addition, capitalized terms used in this communication but not otherwise specifically defined herein shall have the same meaning given them by Iowa Code chapter 8B as amended by 2019 Iowa Acts, ch. 159, Div. II.

²See Iowa Admin. Code r. 129—20.3 ("To determine whether a communications service provider offers or facilitates broadband service in a particular census block at or above the download and upload speeds specified in the definition of targeted service area as of the as of date, the office utilizes fixed broadband availability maps and corresponding data sources made available by the Federal Communications Commission (FCC) online, which as of September 18, 2019, was available at www.fcc.gov/general/broadband-deployment-data-fcc-form-477.").

the Statewide Broadband Availability Map, and a more detailed background of the same, can be found at: <https://ocio.iowa.gov/broadband-availability-map-version-2>.

Through the official publication of V2 of the Statewide Broadband Availability Map, the Office triggered the challenge process it is required by law to administer.³ Pursuant to applicable administrative rules, within 20 days after the Office's official publication of V2 of the Statewide Broadband Availability Map, "any person or party aggrieved or adversely affected by such determination [was able to] challenge the office's finding by filing a notice of appeal with the office" along with all evidence or information supporting their appeal. Iowa Admin. Code r. 129—20.5(1). Specifically, interested parties were permitted to provide the Office with evidence and information either that a Census Block that is **NOT** currently designated as a Targeted Service Area should be a Targeted Service Area because 25/3 Broadband was **NOT** available within that Census Block **as of June 30, 2018**; or, conversely that a Census Block that is currently designated as a Targeted Service Area should **NOT** be a Targeted Service Area because 25/3 Broadband **WAS** available within that Census Block as of **June 30, 2018**.

As part of the above-outlined process, OCIO received a formal notice of appeal and supporting evidence or information from BTC, Inc. ("BTC"), claiming that Broadband service is **NOT** offered or Facilitated at or above 25/3 Broadband within the following United States Census Blocks:

- 191290402012001
- 191290402012002
- 191290402022180
- 191290402022181
- 191290402011088
- 191290402011089
- 191290402011090
- 191290402011091
- 191290402011092
- 191290402011093

See <https://ocio.iowa.gov/broadband-availability-map-version-2-challenge-process> (navigate to BTC, Inc. Malvern (Docket #19OCIO004) and BTC, Inc Glenwood (Docket #19OCIO003) to see BTC's appeals and click the corresponding "ZIP" links to obtain the supporting evidence and information submitted by BTC, Inc. in support of its appeals). Contrary to BTC's claim, with respect to each of the Census Blocks forming the basis of BTC's appeal, your firm's prior reporting to the FCC on form 477 indicates that your firm offered or Facilitated 25/3 Broadband service as of June 30, 2018.

At this time, the Office requests your assistance in making an accurate determination as to whether any Communications Services Provider offered or Facilitated 25/3 Broadband as of June 30, 2018, to the US Census Blocks identified above. To that end, the Office requests that you complete and return the Affirmation, Attestation, and Certification of Service or lack of Service in Census Blocks Broadband Grants Program Broadband Availability Map Challenge Process Form attached to this message **by no later than October 31, 2019**. For your convenience, this form has been pre-populated with the U.S. Census Block IDs identified above. Pursuant to this form, OCIO requests that a representative with legal authority to bind your company:

- 1) Confirm whether your company offered or Facilitated Broadband service at or above 25/3 in the above-identified Census Blocks as of June 30, 2018; or, alternatively confirm whether you company did **NOT** offer or Facilitate 25/3 Broadband service in the above-identified Census Blocks as of June 30, 2018.
- 2) Confirm whether your company's prior reporting to the FCC using Form 477 was correct or in error and, if in error, explain why.
- 3) Fully complete all other sections of the Form.
 - For example, to affirm that you offered or Facilitated Broadband service at or above 25/3 to the U.S. Census Block in question on or before June 30, 2018, check the box labeled "Correct" under the column labeled "PRIOR REPORTING TO FCC," check the box labeled "Yes" under the column labeled "25/3 Broadband Offered or Facilitated as of June 30, 2018," and fill out all other applicable sections of the Form.

³ See Iowa Code §§ 8B.10(2) ("The office shall establish procedures to allow challenges to the office's finding on whether an area meets the definition of targeted service area."); Iowa Admin. Code r. 129—20.5 (outlining appeal process).

In addition to the form, please also submit any other evidence or information in your possession to the Office that supports your prior representations to the FCC regarding the above-identified Census Blocks. Examples of evidence and information the office would consider particularly probative of Broadband service at or above 25/3 as of June 30, 2018, include “Bills or invoices provided to or received by customers in the applicable census block(s) which identify the specific download and upload speeds provided or received as of [June 30, 2018].” Iowa Admin. Code r. 129—20.5(8). Please return the fully completed form and any other supporting evidence or information to ociogrants@iowa.gov.

Please note that you are under no legal obligation to respond to this request for information. Generally, pursuant to applicable administrative rules, any affected persons or party is free to submit evidence or information to the Office in support of or in opposition to BTC’s appeal (or any other appeal) until **October 31, 2019**, Iowa Admin. Code r. 129—20.5(3). However, because BTC’s claim contradicted your firm’s prior reporting to the FCC, the Office is affirmatively reaching out to notify you of this fact, of the circumstances surrounding BTC’s appeal, and to solicit your feedback and position. Consistent with the period for input from affected persons or parties, if we do not receive any additional input from you by **October 31, 2019**, the Office will make a final decision based on the evidence and information currently available to it. Iowa Admin. Code r. 129—20.5(4), (5).

OCIO strives at all times to produce and disseminate accurate information. We appreciate your assistance in helping us achieve our statutory mandate.

Sincerely,

Office of the Chief Information Officer,
State of Iowa

From: [Spiral Communications](#) on behalf of [Spiral Communications <support@spiral-communications.com>](#)
To: ociogrants@iowa.gov
Subject: Response to your ticket [TicketID:54422]
Date: Tuesday, October 15, 2019 11:31:38 AM
Attachments: [utf-8""5da5f40dcd7f5_letter_to_spiral_communications_docket_nos_19ocio003_and_004_west_liberty_telephone_co_.pdf](#)
[utf-8""5da5f40dcd7f5_spiral_communications_affirmation_of_service_form_broadband_map_v2.docx](#)

----- Please reply above this line -----

A ticket you opened or was opened on your behalf has been updated with the following:

October 15, 2019

To Whom It May Concern,

Attached please find a letter of inquiry and accompanying attestation form concerning two appeals received by the Office of the Chief Information Officer of the State of Iowa regarding the broadband map of the State of Iowa.Â

The appeals in question may be located atÂ <https://ocio.iowa.gov/broadband-availability-map-version-2-challenge-process>Â (refer to Docket #19OCIO003 and #19OCIO004 submitted by BTC, Inc.).

The appeals name United States Census Blocks within which Spiral Communications reported to the Federal Communications Commission it is providing broadband service as of June 30, 2018.

Questions concerning this inquiry and the response may be submitted to this e-mail address (ociogrants@iowa.gov) on or before October 31, 2019. Please note that you are under no legal obligation to respond to this request for information.

Sincerely,

Office of the Chief Information Officer
State of Iowa

Please reply to this email to respond.

Thank you,

--

Spiral Communications

From: [Grants, OCIO](#) on behalf of [Grants, OCIO <ociogrants@iowa.gov>](#)
To: support@spiral-communications.com
Subject: Broadband Grant Questions Re: Response to your ticket [TicketID:54422]
Date: Tuesday, October 15, 2019 11:31:42 AM

Thank you for your comment or question concerning the State of Iowa Broadband Program.

Your question concerning the new Broadband Grant Opportunity, Broadband Map, and/or Map Challenge Process will be reviewed by a representative of the Office of the Chief Information Officer. A response to your question will be provided promptly.

Sincerely,

Office of the Chief Information Officer
State of Iowa

From: matt.behrens@iowa.gov on behalf of [Grants, OCIO <ociogrants@iowa.gov>](mailto:Grants_OCIO_ociogrants@iowa.gov)
To: [Annette Dunn](#)
Subject: Fwd: State of Iowa - Inquiry Concerning Broadband Map Appeal
Date: Tuesday, October 15, 2019 4:03:49 PM
Attachments: [Letter to Spiral Communicatsions - Docket Nos. 19OCIO003 and 004 \(West Liberty Telephone Co.\).pdf](#)
[Spiral Communications-Affirmation Of Service Form Broadband Map V2 .docx](#)

This is the second follow up to a map challenge. The challenge in question was filed by BTC, Inc. -matt

----- Forwarded message -----

From: **Grants, OCIO** <ociogrants@iowa.gov>
Date: Tue, Oct 15, 2019 at 11:29 AM
Subject: State of Iowa - Inquiry Concerning Broadband Map Appeal
To: <craig.hagenau@spiral-communications.com>, <support@spiral-communications.com>

October 15, 2019

To Whom It May Concern,

Attached please find a letter of inquiry and accompanying attestation form concerning two appeals received by the Office of the Chief Information Officer of the State of Iowa regarding the broadband map of the State of Iowa.

The appeals in question may be located at <https://ocio.iowa.gov/broadband-availability-map-version-2-challenge-process> (refer to Docket #19OCIO003 and #19OCIO004 submitted by BTC, Inc.).

The appeals name United States Census Blocks within which Spiral Communications reported to the Federal Communications Commission it is providing broadband service as of June 30, 2018.

Questions concerning this inquiry and the response may be submitted to this e-mail address (ociogrants@iowa.gov) on or before **October 31, 2019**. Please note that you are under no legal obligation to respond to this request for information.

Sincerely,

Office of the Chief Information Officer
State of Iowa

From: [Mike Gress](#) on behalf of [Mike Gress <mike.gress@spiral-communications.com>](#)
To: ociogrants@iowa.gov
Subject: Availability Challenge Form
Date: Tuesday, October 29, 2019 8:57:18 AM
Attachments: [5da5f40dcdfb2_spiral_communications_affirmation_of_service_form_broadband_map_v2_.pdf](#)

I have attached the completed form. If you have any further questions, please let me know.

--

Mike Gress
Operations Manager

Spiral Communications
800 Central Avenue
Nebraska City, NE 68410
402-713-0063

**Affirmation, Attestation, and Certification of Service or lack of Service in Census Blocks
Broadband Grants Program Broadband Availability Map Challenge Process**

| A. COMPANY INFORMATION (if submitted on behalf of an entity) | | | | |
|--|-----------|------------|--|--|
| Company Name: Spiral Communications | | | | |
| Address: 800 Central Avenue | | | | |
| City: Nebraska City | State: NE | Zip: 68410 | | |

| B. DESIGNATED CONTACT INFORMATION (if submitted on behalf of an entity or individual) | | | |
|---|--------------------------------------|---------|--------------|
| Contact Name | Michael Gress | Phone # | 712-560-3373 |
| Email: | mike.gress@spiral-communications.com | | |

| C. CERTIFICATION/ATTESTATION/AFFIRMATION |
|--|
|--|

In signing and submitting this form, the above-identified company, and its duly authorized representative signing on behalf thereof, or you as an individual if you are not submitting this form on behalf of an entity, hereby affirms, attests, and certifies under penalty of perjury that, as represented in the table below:

1. If submitted on behalf of a Communications Service Provider, that the above-identified company, consistent with the representations in the table below, either:
 - a. Offered or Facilitated Broadband service at or above twenty-five (25) megabits per second of download speed and three (3) megabits per second of upload speed ("25/3 Broadband") in the below-identified census blocks as of June 30, 2018; or
 - b. Did **NOT** offer or Facilitate 25/3 Broadband in the below-identified census blocks as of June 30, 2018.

Whether your company's prior reporting to the FCC was correct or in error.

2. If submitted by or on behalf of a person other than a Communication's Service Provider (e.g., consumer, business, farm), the above-identified entity or individual, consistent with the representations in the table below, either:
 - a. Did or could receive 25/3 Broadband in the below-identified census blocks as of June 30, 2018; or
 - b. Did **NOT** and could **NOT** (within a reasonable time upon request, at a reasonable price) receive 25/3 Broadband in the below-identified census blocks as of June 30, 2018.

| CENSUS BLOCK ID IN WHICH 25/3 BROADBAND OFFERED OR FACILITATED (OR NOT) (please attach additional pages if necessary) | PRIOR REPORTING TO FCC (only use this column if you are submitting this form on behalf of a Communications Service Provider) | | | 25/3 Broadband OFFERED OR FACILITATED AS OF June 30, 2018 |
|--|---|-------------|-----------------|---|
| | [x] In Error | [] Correct | [] No Response | |
| 191290402012001 | | | | [] Yes [x] No [] No Response |

| | | | | |
|-----------------|--|----------------------------------|--------------------------------------|--|
| 191290402012002 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402022180 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402022181 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402011088 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402011089 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402011090 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402011091 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402011092 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |
| 191290402011093 | <input checked="" type="checkbox"/> In Error | <input type="checkbox"/> Correct | <input type="checkbox"/> No Response | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Response |


D. ADDITIONAL EXPLANATION (To the extent you believe additional explanation is required to ensure that you are communicating full and accurate information, please use the below space to further explain, qualify, or substantiate your above certification/attestation/affirmation. To the extent necessary, please feel free to attach additional pages and supporting documentation. If you are a Communications Service Provider and indicated "In Error" or "No Response" in the "Prior Reporting to FCC" column for any census blocks above, please elaborate.)

After referencing the FCC Broadband Map, the blocks in question near Malvern, IA are in error. We are unable to provide the 25/3 speed and do not offer fiber in that area.

The blocks in Glenwood are in error only due to the report stating we have fiber in those blocks. As of June 2018 there was no fiber available from Spiral (fiber will be available November 2019). However, our fixed wireless is available to these blocks at a greater speed than 25/3. We have current customers in the vicinity with higher speed plans. The Glenwood blocks do not have residential customers within them, only two businesses that have line of sight to our tower that does provide the service greater than 25/3.

The issues with reporting were discovered after our latest FCC filing in 2019. Our company is currently working to resolve the errors and provide a more accurate listing in the next FCC filing.

E. SIGNATURE*

| | |
|---|----------------|
| Authorized Signature:  | Date: 10/28/19 |
| Printed Name: Michael Gress | |
| Title: Operations Manager | |

***PLEASE READ BEFORE SIGNING:** By affixing my signature above, I, on my own behalf or as a representative of the company identified above, as applicable, expressly represent that I am authorized to make the above factual representation on behalf of said company and/or myself, as applicable, and under penalty of perjury as authorized by Iowa Code section 622.1 and pursuant to the laws of the state of Iowa, certify the

following with respect to this form submitted on behalf of said company and/or myself: any statements, representations, warranties, certifications, or attestations made in this form, including any attachments or enclosures associated therewith, are true and accurate; I, on behalf of said company and/or myself, have not knowingly made any false statements or representations in this form. In addition to any criminal penalties authorized by Iowa Code section 720.2 that may result from any false statements of material fact made herein or any other remedies available at law, equity, or otherwise, if it is subsequently determined that I have made a statement, representation, warranty, certification, or attestation in this form, or any attachments or enclosures associated herewith, that is later proven untrue in any material respect, the company on which I submitted this form on behalf of may be disqualified from current incentive programs administered by the Office or may be ordered to repay the Office the entire amount of any funds previously distributed by the Office to said company in connection with any current incentive programs administered by the Office. OCIO makes no guarantees as to whether the information supplied by you will result in any change to the Broadband Availability Map or the way any incentive decisions are reviewed, scored, or decided. This form, as completed, any attachments hereto, and any other information or materials submitted to the Office in connection with this form or related inquiry, shall be considered public records and shall be made available for public examination and/or disseminated upon request by third parties as required by Iowa Code chapter 22. The Office reserves the right to reject this form and relatedly consider any information communicated through this form as neither credible nor probative if this form is not fully and properly filled out.

From: [Grants, OCIO](#) on behalf of [Grants, OCIO <ociogrants@iowa.gov>](#)
To: mike.gress@spiral-communications.com
Subject: Broadband Grant Questions Re: Availability Challenge Form
Date: Tuesday, October 29, 2019 8:57:24 AM

Thank you for your comment or question concerning the State of Iowa Broadband Program.

Your question concerning the new Broadband Grant Opportunity, Broadband Map, and/or Map Challenge Process will be reviewed by a representative of the Office of the Chief Information Officer. A response to your question will be provided promptly.

Sincerely,

Office of the Chief Information Officer
State of Iowa