Realizing the Promise of the BDC

Addressing Broadband Overreach in the National Broadband Map

What is Broadband Overreach?

- **Broadband Now Findings**
  - *"While all technologies are overstated in terms of coverage, DSL and fixed wireless were the worst offenders in the sample set, at 53% and 58%, respectively."*
  - ***https://broadbandnow.com/research/broadband-overstated-in-every-state***

- **Systemic issues undermine the promise of the BDC**
  - Limited standards (or loopholes) for reporting without sufficient documentation
  - Lack of ability to verify reported coverage

What is Broadband Overreach?

- **These systemic issues result in chronic problems**
  - Marketing claims, rather than technical specifications, tend to rule the day – and drive bad decisions as a result
  - Same fundamental "lack of upfront vetting" led to RDOF concerns – we're doomed to repeat history
  - The "can serve *anywhere* but can't serve *everywhere*" problem
- **The current regime is challenged to correct overstatement because it's built largely to capture granular marketing data**
  - "We believe that the focus of [the BDC] is to provide more granular and accurate information on where broadband service, at a *reported* maximum speed, is available, and *not* to address cases where the throughput" does not match

Background – Broadband Data Act

- **FCC shall collect data that:**
  - Documents where a provider "has actually built out" networks "such that the provider is able to provide that service" or "could provide that service" subject to "a standard broadband installation;" and
  - Includes information on speeds and latency "with respect to broadband internet access service that the provider makes available"

- **Fixed wireless providers also must submit:**
  - Propagation files that "reflect the speeds and latency of the service provided; or
  - Lists of addresses or locations "that constitute the service area of the provider"

Background – BDC Orders

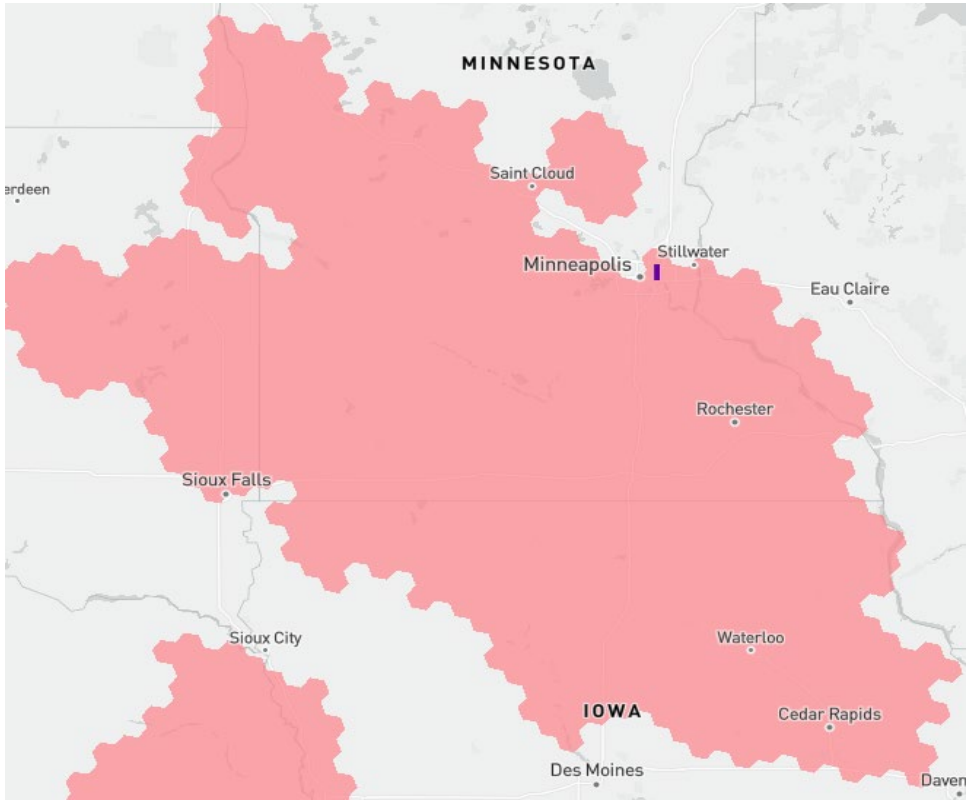
- **FCC 19-79**
  - Fixed BDC filings "must reflect the maximum download and upload speeds *actually* made available in each area" (emphasis added)
  - Service is "actually" available "if the reporting provider has a current broadband connection or it could provide such a connection within ten business days"
  - Fixed wireless providers "must have already installed enough base stations to cover and meet reasonably anticipated customer capacity demands"
- **FCC 21-20**
  - Providers must report "maximum *advertised* download and upload speeds" (emphasis added)
  - Declined to address concerns re disparities from actual performance/customer experience as beyond BDC objectives to show sheer "availability"

The Problems

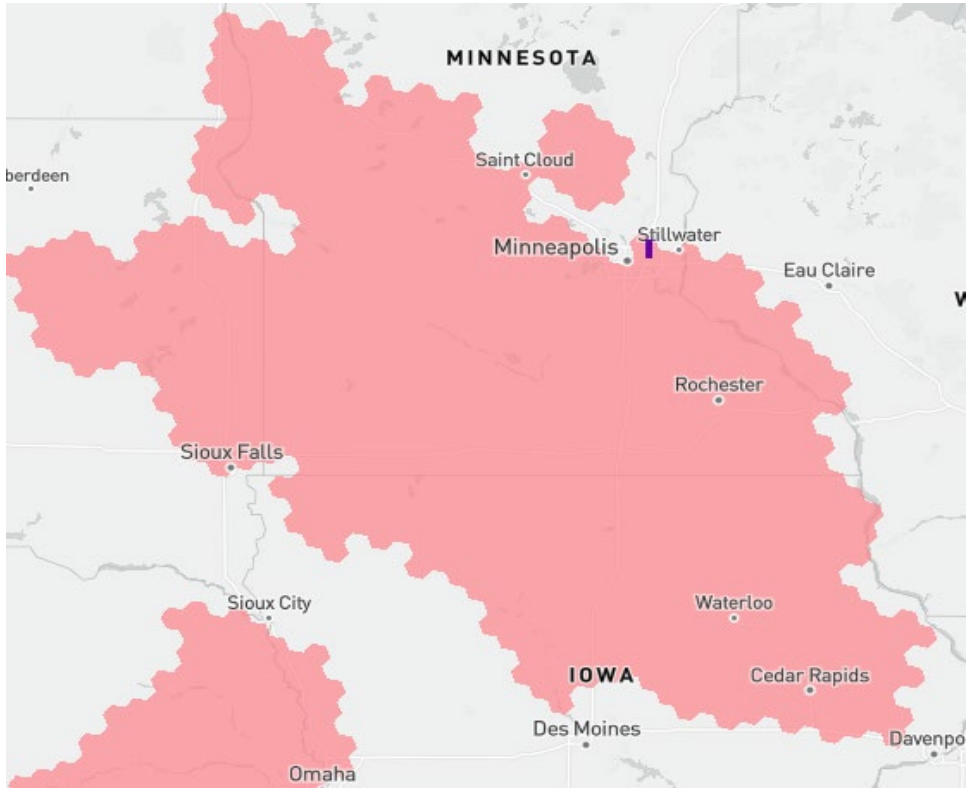
- **BDC is cited as authoritative for policy & funding decisions**
  - Enhanced ACAM Order; BEAD Funding; Section 706
- **But BDC largely captures granular marketing claims, rather than tracking real availability**
  - Advertised vs Actual
  - Lack of standards for reporting/documentation
- **Challenges aren't built to catch and fix these problems**
  - Lack of meaningful information available
  - Crowdsourcing vs challenges
- **Lack of consequence for broadband overreach**

Case Study 1

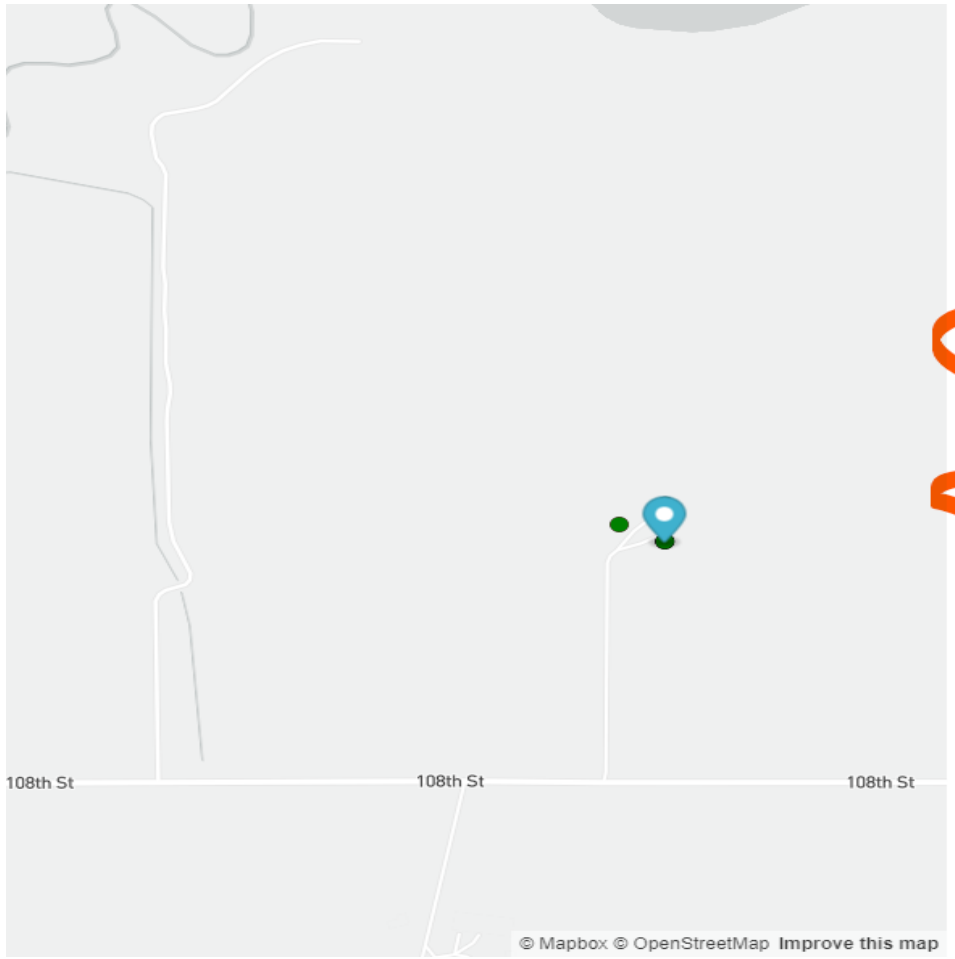
LTD Broadband



Gigfire, LLC



Case Study 1



Selected Location Location Challenge

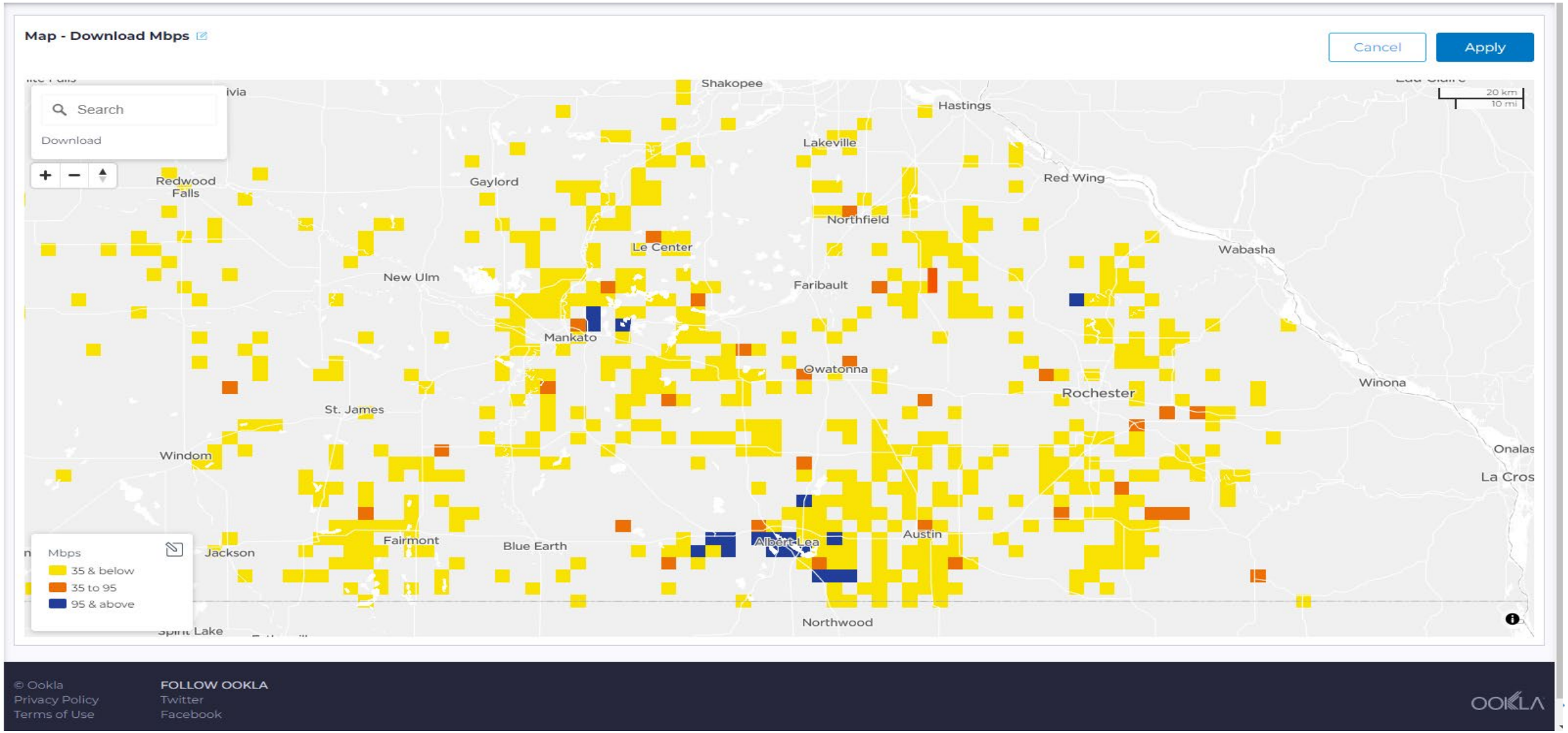
62925 TOWNSHIP HWY
MINNESOTA LAKE, MN 56068

Status: Served | Business and Residential | Unit Count: 2

Broadband Availability Availability Challenge 2

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
GigFire, LLC	Unlicensed Fixed Wireless	150	50	1
Hughes Network Systems, LLC	GSO Satellite	25	3	
LTD Broadband LLC	Unlicensed Fixed Wireless	150	50	1
Rural Communications Holding Corporation	Copper	10	1	
Space Exploration Technologies Corp.	NGSO Satellite	220	25	
Viasat, Inc.	GSO Satellite	30	3	
Business-only Service				
Verizon Communications Inc.	Licensed Fixed Wireless	10	1	
Viasat, Inc.	GSO Satellite	35	4	

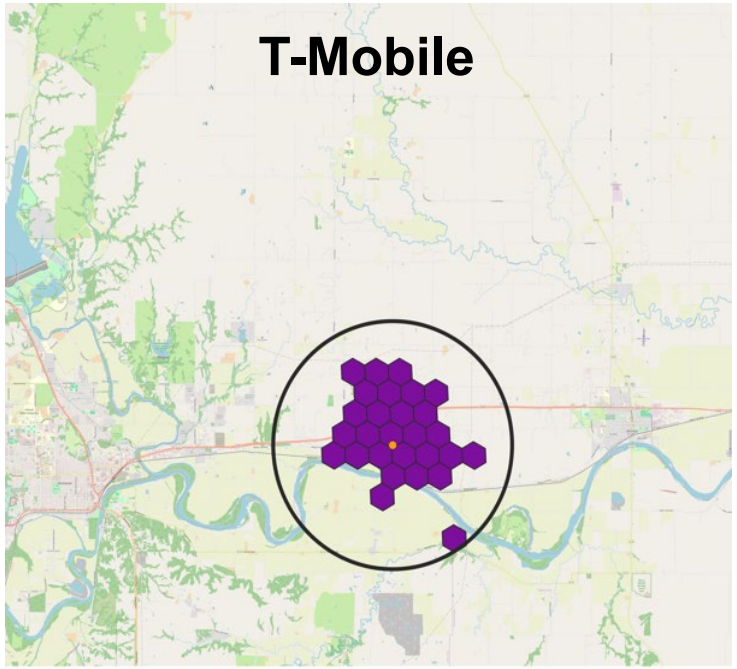
Speed test data from June 30th-December 31st



Case Study 1

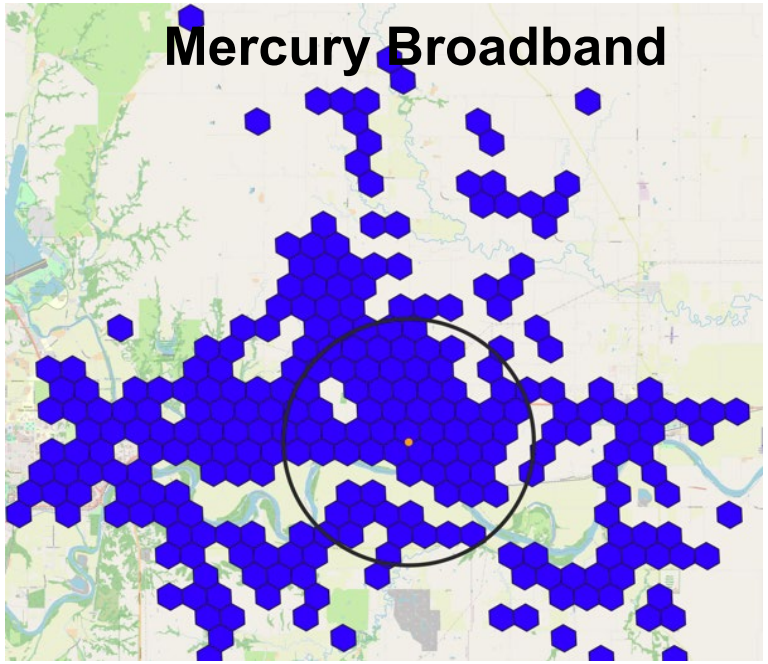
- ITC, Nuvera, WCTA, Bevcomm, and others have filed availability challenges against LTD Broadband (LTD) locations where there was overlap. (At one time there were over 40,000 LTD locations under challenge.)
- The initial challenges were upheld; however, while the last challenges were in process, LTD refiled all of its locations under a new entity called Gigfire. Recently Bevcomm and ITC have filed new challenges against Gigfire and LTD collectively. We expect more providers will be filing challenges soon.
- Most locations included in the latest challenges against Gigfire/LTD have been challenged at least once already. In ITC's case, 10% of the locations ITC is challenging are on their third challenge.
- Bevcomm's latest challenge included as evidence a certified copy of the Minnesota Secretary of State Certificate of Authorization to Gigfire. This showed Gigfire had not even filed to do business in the state of Minnesota or South Dakota until September 2023, despite Gigfire reporting provision of service as of June 30, 2023 in the BDC.

Case Study 2



BDC Service Availability Data (6/30/23)

Same Tower St. George, KS



- Every purple tile includes a location claimed as served by T-Mobile.
- Locations claimed as served are less than 3 miles from the tower.
- 705 locations claimed.

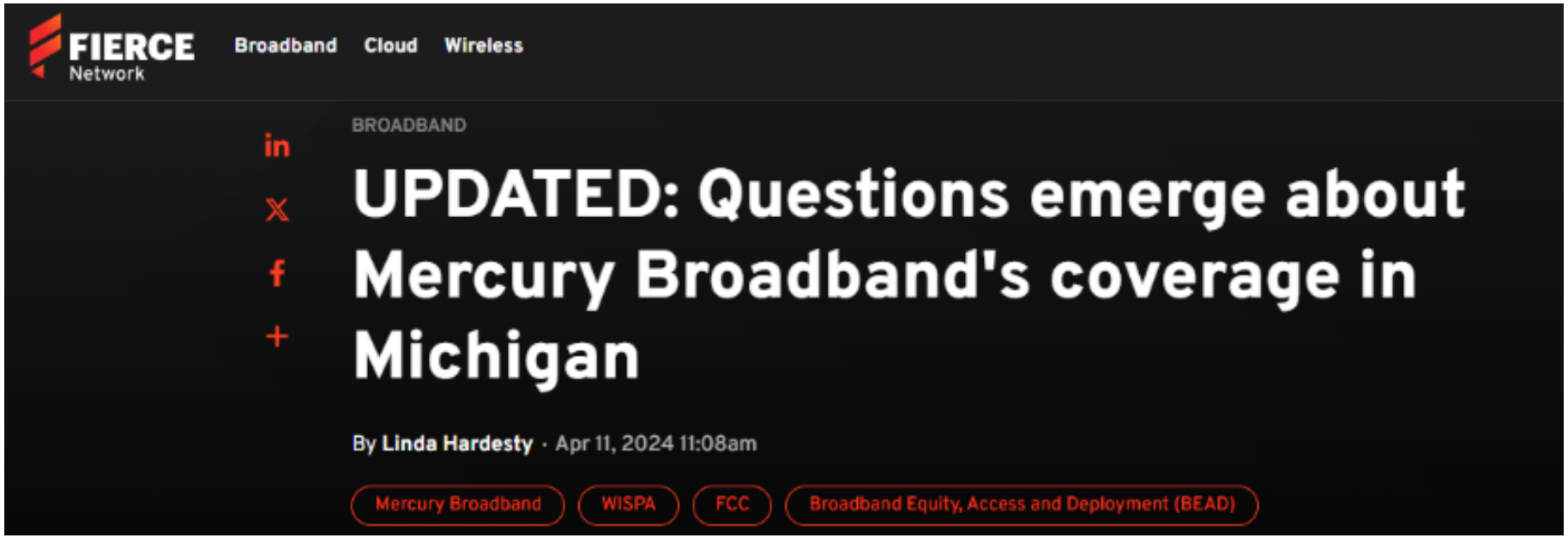
- Every blue tile includes a location claimed as served by Mercury.
- Locations claimed as served are as much as 12 miles from the tower.
- 3,799 locations claimed.

Case Study 2

Where are Mercury Broadband's Subscribers?

- **Mercury claims thousands of locations have service available near this tower**
- **FCC could confirm by comparing subscribers vs availability data at the census tract level**

Case Study 2

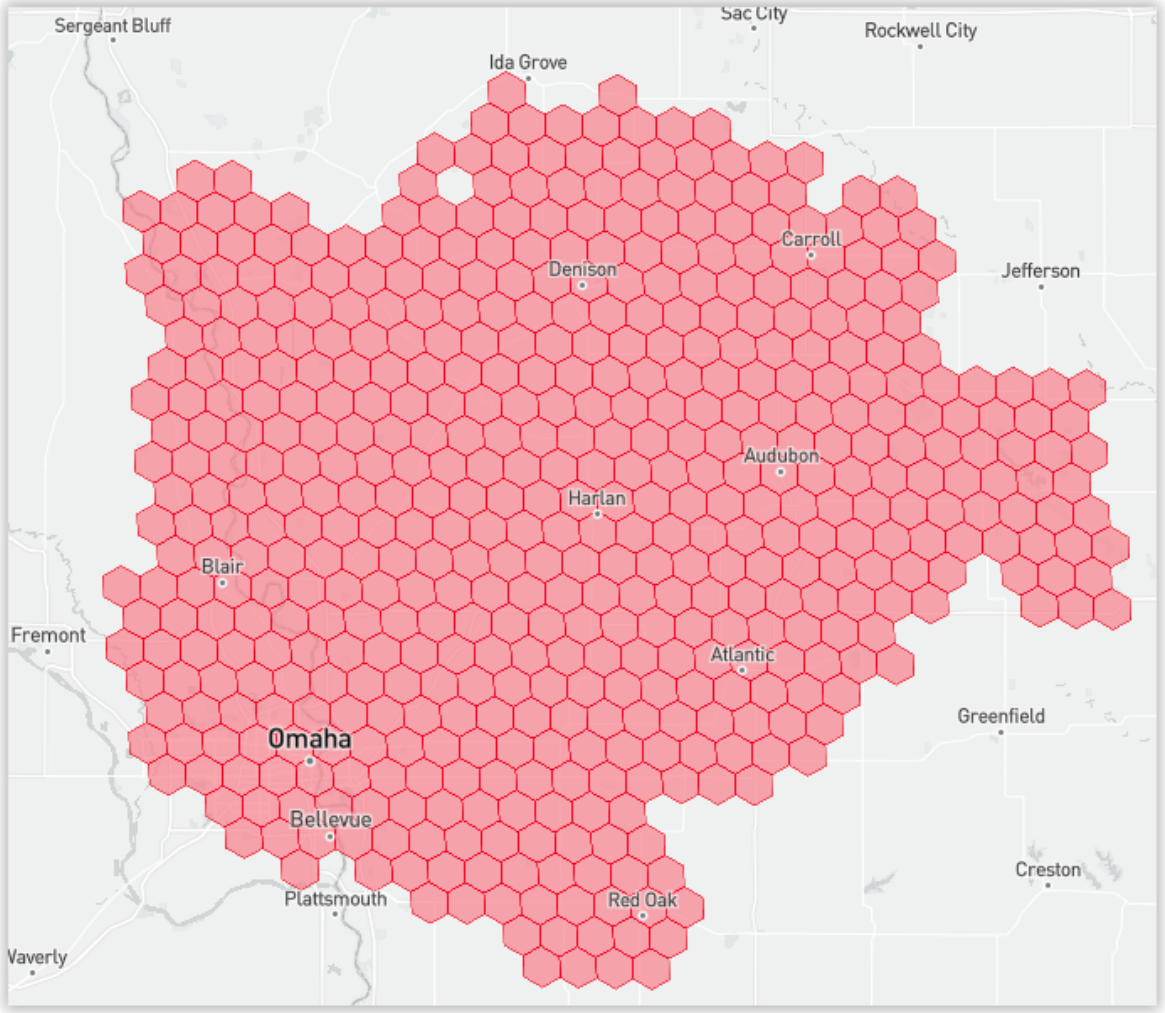


- **Mercury Broadband is claiming almost ubiquitous coverage in 12 Michigan counties**
- **But when local governments try to find Mercury subscribers, they have a hard time finding any**

https://www.fierce-network.com/broadband/questions-emerge-about-mercury-broadbands-coverage-michigan

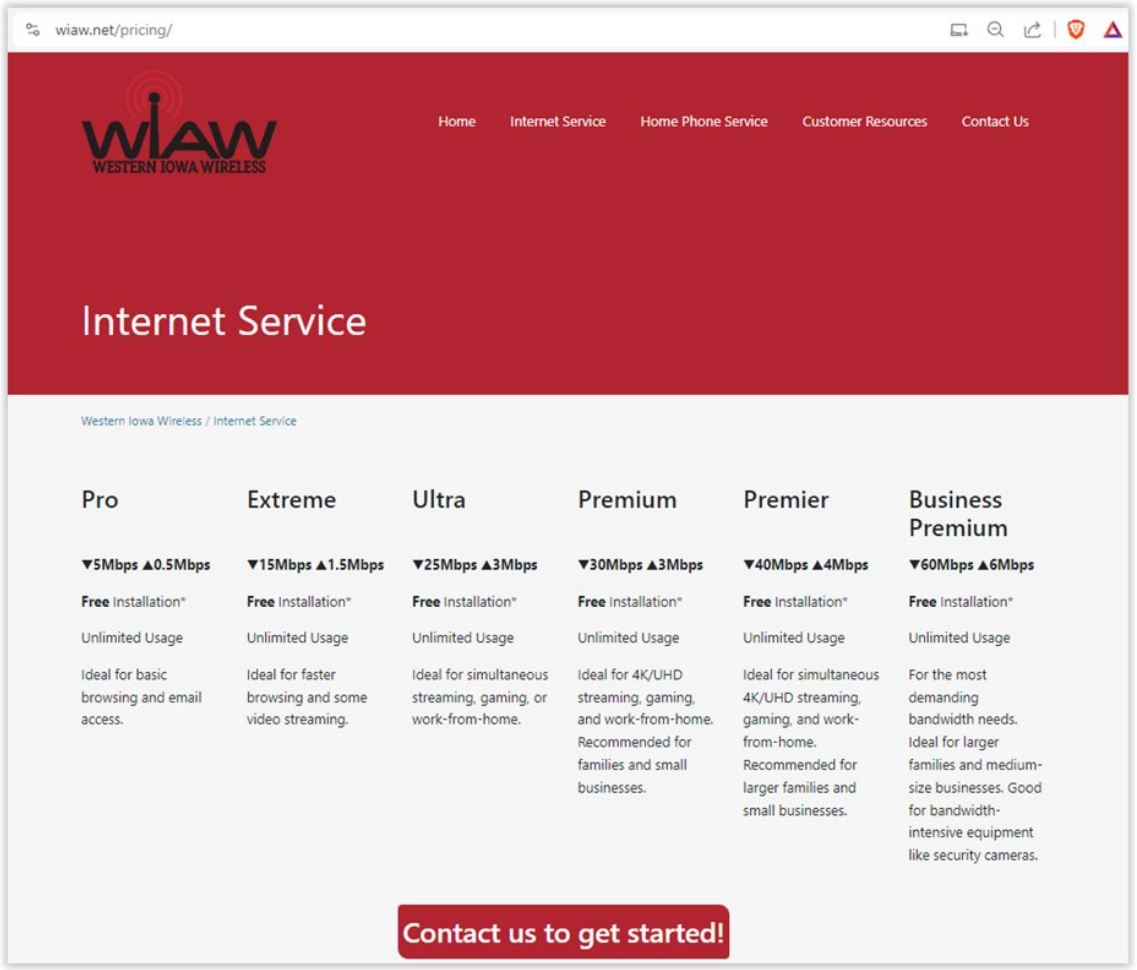
Case Study 3

Map of Western Iowa Wireless 100/20 service coverage in Iowa (80,403 locations) and Nebraska (77,957 locations), based on the FCC's National Broadband Map.



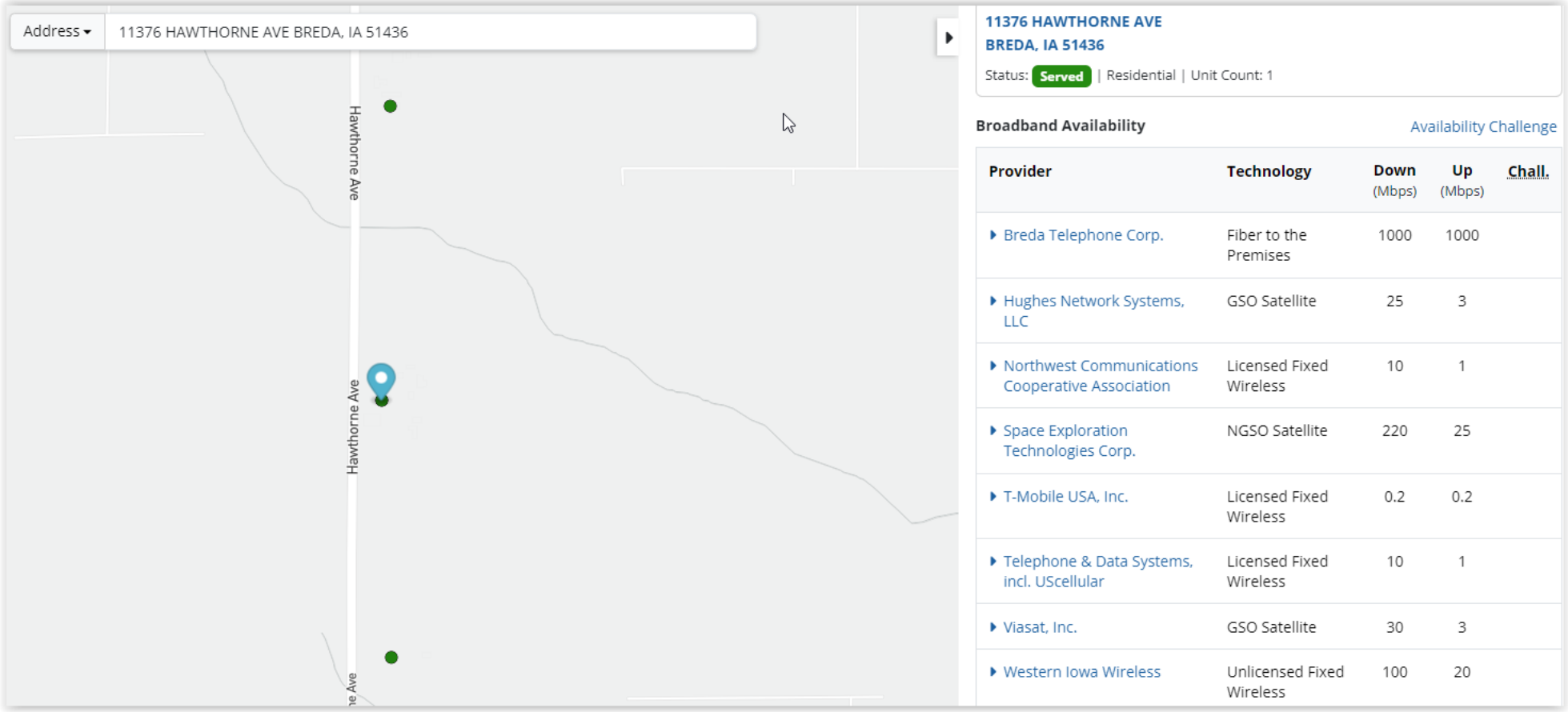
Case Study 3

As of April 26, 2024, available advertising information for Western Iowa Wireless does not match BDC reporting claims.

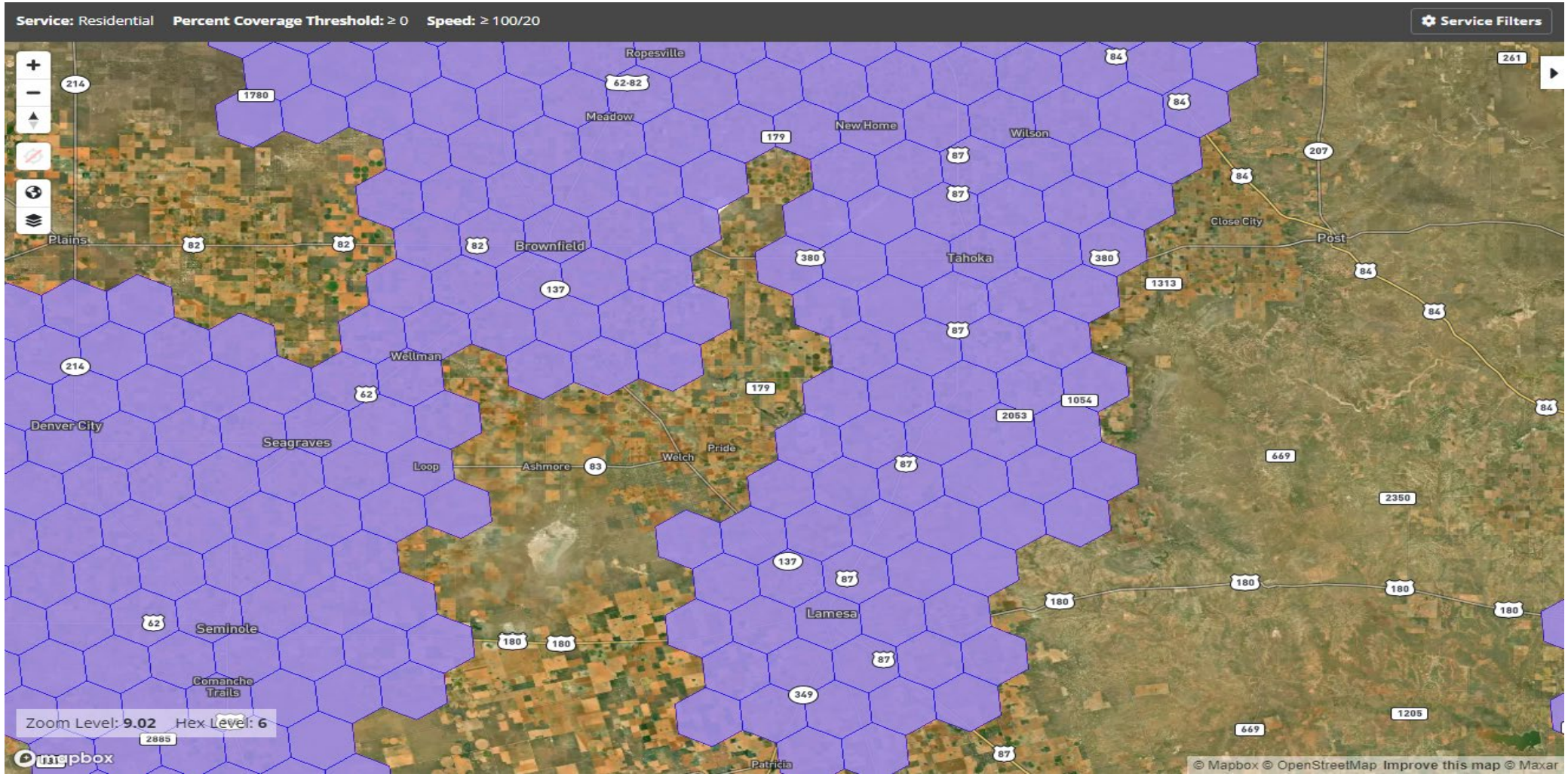


Case Study 3

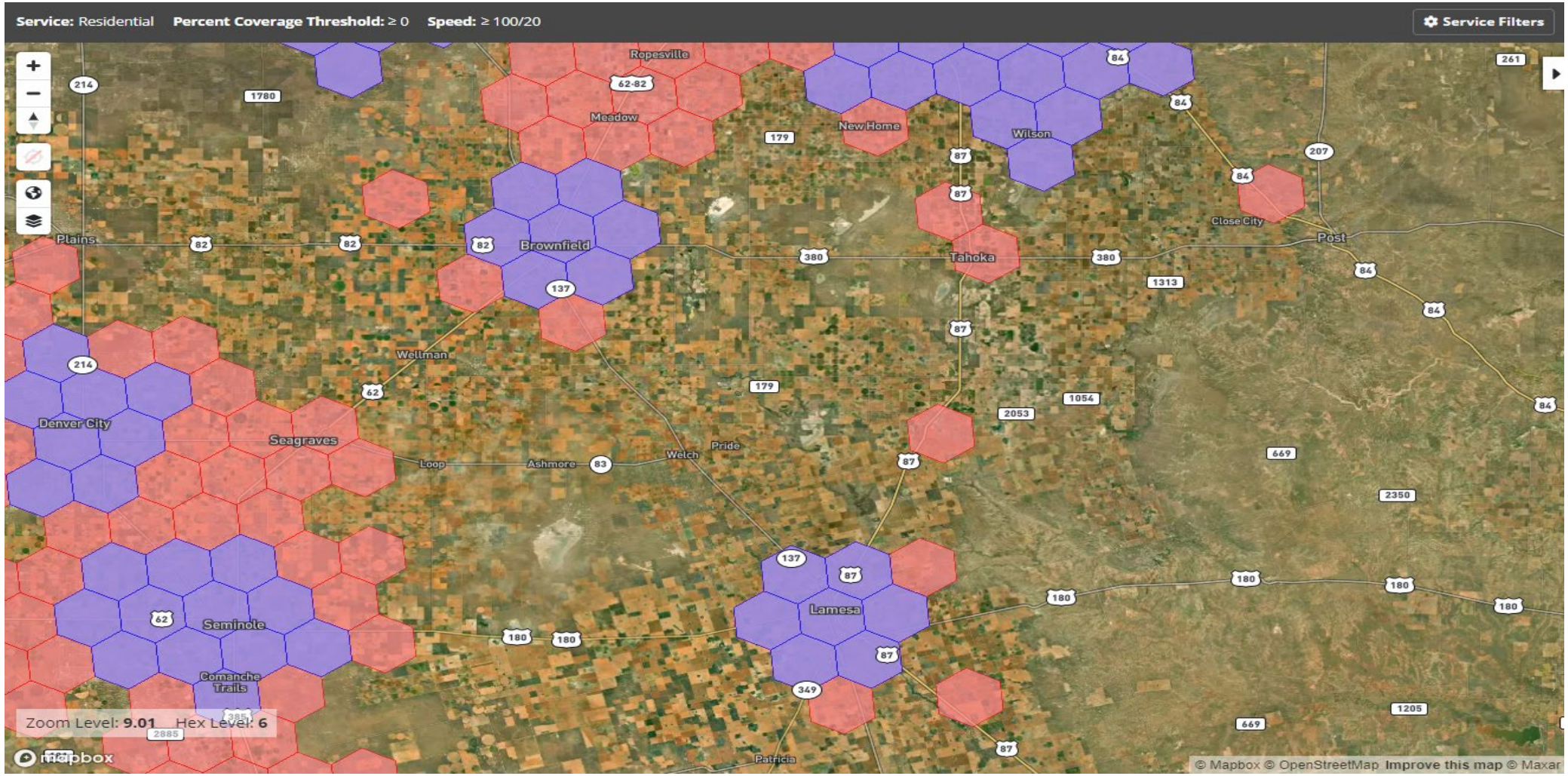
Example of a Western Iowa Wireless 100/20 location overlap in one of Breda's study areas, where we are seeing approximately 60% overlap of our E-ACAM funded locations across 5 of Breda's 7 ILEC study areas. The mismatch between Western Iowa Wireless reported and advertised speed data has resulted in a substantial reduction in Breda's enhanced ACAM offer. Breda is currently preparing to file an availability challenge for the overlapping locations.



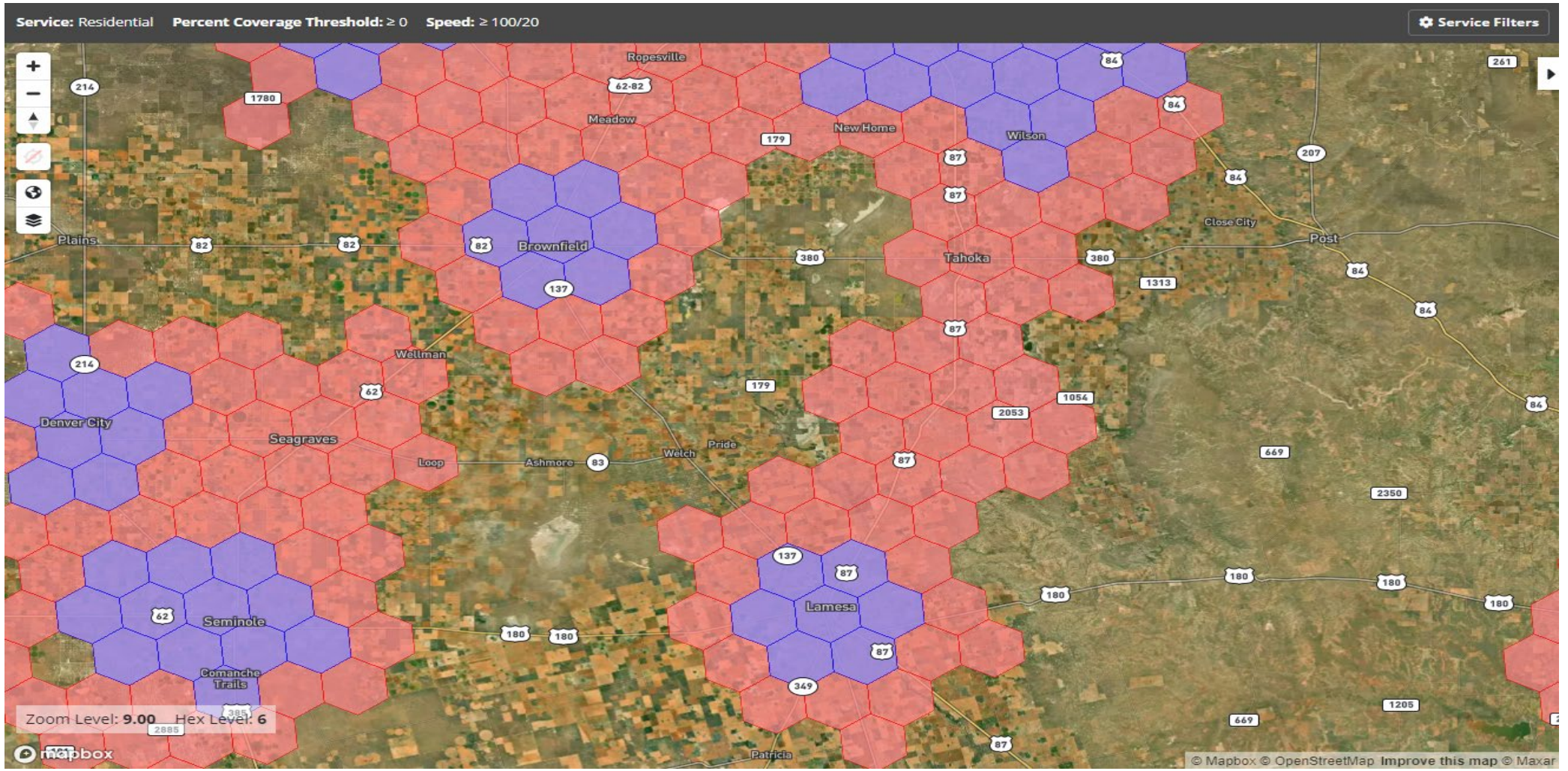
Case Study 4


Service: Residential
Percent Coverage Threshold: ≥ 0
Speed: ≥ 100/20
Service Filters
Ropesville
Meadow
New Home
Wilson
Plains
Brownfield
Tahoka
Close City
Post
Wellman
Denver City
Seagraves
Loop
Ashmore
Welch
Pride
Lamesa
Seminole
Comanche Trails
Patricia
Zoom Level: 9.02
Hex Level: 6
mapbox
© Mapbox © OpenStreetMap Improve this map © Maxar

Case Study 4


Service: Residential
Percent Coverage Threshold: ≥ 0
Speed: ≥ 100/20
Service Filters
Ropesville
Meadow
New Home
Wilson
Plains
Brownfield
Tahoka
Close City
Post
Wellman
Denver City
Seagraves
Loop
Ashmore
Welch
Pride
Seminole
Comanche Trails
Lamesa
Patricia
Zoom Level: 9.01 Hex Level: 6
mapbox
© Mapbox © OpenStreetMap Improve this map © Maxar

Case Study 4


Service: Residential
Percent Coverage Threshold: ≥ 0
Speed: ≥ 100/20
Service Filters
Ropesville
Meadow
New Home
Wilson
Plains
Brownfield
Tahoka
Close City
Post
Wellman
Denver City
Seagraves
Loop
Ashmore
Welch
Pride
Lamesa
Seminole
Comanche Trails
Patricia
Zoom Level: 9.00 Hex Level: 6
mapbox
© Mapbox © OpenStreetMap Improve this map © Maxar

Case Study 5

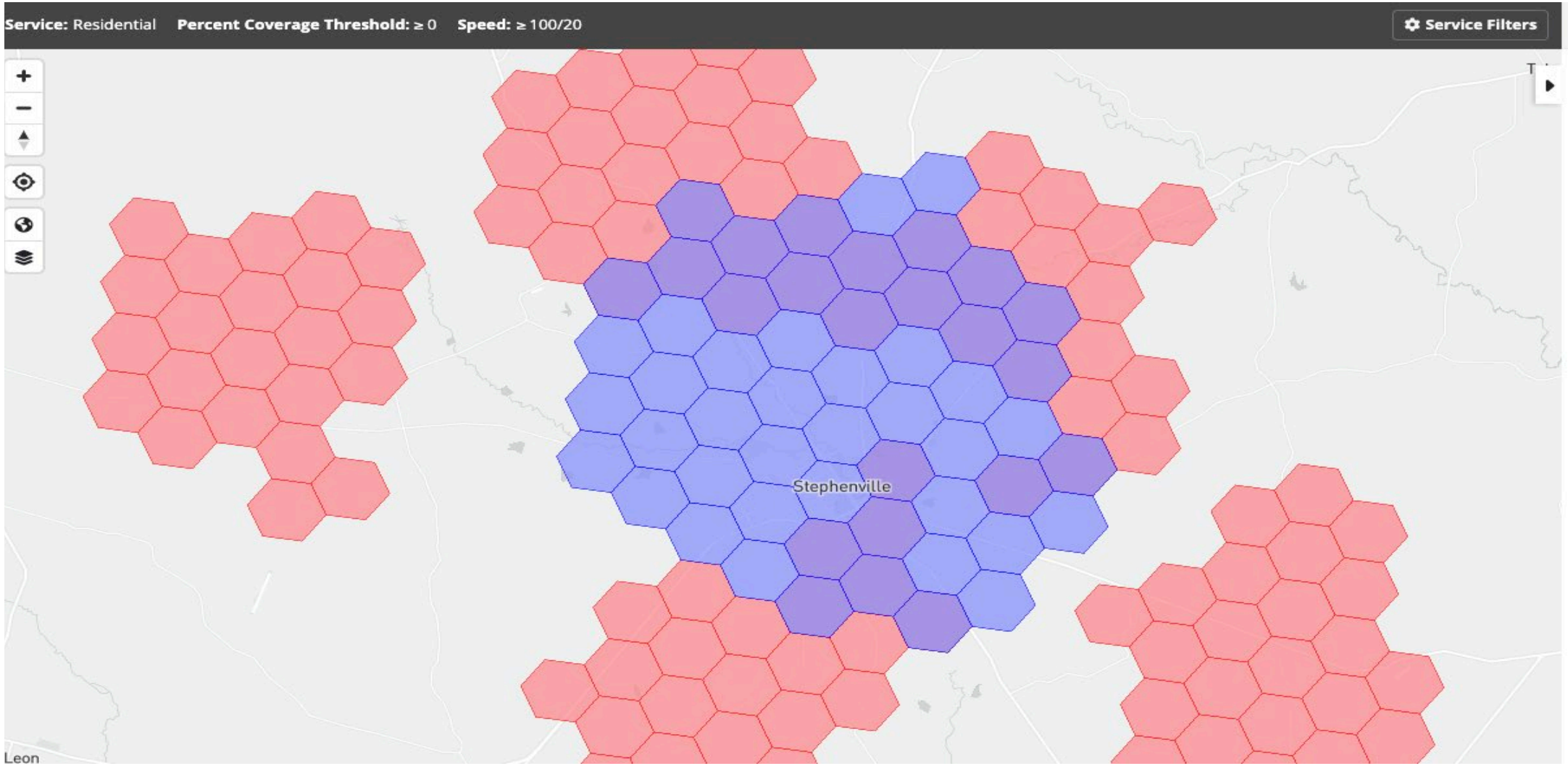
7807 RAKERS RD
CARLYLE, IL 62231

Status: **Served** | Residential | Unit Count: 1

Broadband Availability Availability Challenge

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
AT&T Inc.	Licensed Fixed Wireless	10	1	
Hughes Network Systems, LLC	GSO Satellite	25	3	
Netwitz Internet Services, Inc.	Unlicensed Fixed Wireless	10	1	
Space Exploration Technologies Corp.	NGSO Satellite	220	25	
T-Mobile USA, Inc.	Licensed Fixed Wireless	0.2	0.2	
Viasat, Inc.	GSO Satellite	100	3	
Wisper ISP, Inc.	Unlicensed Fixed Wireless	10	1	
Wisper ISP, Inc.	Licensed Fixed Wireless	25	4	

Case Study 6


Service: Residential
Percent Coverage Threshold: ≥ 0
Speed: ≥ 100/20
Service Filters
Stephenville
Leon

Solutions for Broadband Overreach

- **As long as problems persist, the BDC will be informative but hardly dispositive – undermining policy decisions and driving potentially misguided funding decisions**
- **There are steps that the FCC can take to realize the promise of the BDC and the National Broadband Map**
- **Delaying/forgoing action on these will only further frustrate broadband objectives – and frustrate the consumers losing out from bad information that leads to bad decisions**

Specific Solutions

1. **Start creating public "heat maps" –**
   - If (a) there are numerous challenges of the same provider in a given area, or
   - (b) if a coverage report looks questionable on its face as compared to what other ISPs report in terms of performance and scope using similar technologies,
   - Then treat these as a "red flags" for public alerts, investigation, and audit

2. **Update challenge codes 6 (speed offered), 7 (speed testing) and 8 (use of technical information)**

Specific Solutions

3. **Place greater burden on parties refiling coverage claims after successful challenges**
   - Challenges need to be “sticky”
   - If a party wants to reassert coverage where it has previously lost a challenge in a subsequent filing, entire area should be seen as *prima facie* unserved and burden should flip to reporting entity to prove service

4. **Strengthen existing verification efforts**
   - Rather than asking rote verification questions in cases of claimed deployment but no subscriptions, implement audit procedures automatically in such instances
   - “Where there’s smoke, look for fire” – e.g., if either 3 valid challenges or a lack of meaningful subscribership after the first filing, entire area should be seen as *prima facie* unserved and burden should flip to reporting entity to prove service

Specific Solutions

5. Update the reporting standards

- Adopt technical standards that define boundaries of what's reasonable/achievable from a sound engineering perspective
- Close "the CSV loophole" – require filing of propagation models in all cases
- Move from advertised to actual reporting based upon those standards

6. Refine the challenge processes further

- Provide protected access to propagation details & other technical information
- Provide transparency on resolution of availability challenges

Specific Solutions

7. **Impose Meaningful Penalties for Chronic Overreach**
   - Lack of public pronouncements with respect to investigations and penalties erodes confidence in the system
   - Lack of meaningful penalties emboldens overreach

8. **Also – don't ignore the Anywhere/Everywhere Problem**
   - When making policy or funding decisions, don't assume coverage reported is equivalent to the ability to assume the mission of truly universal service

- **In summary, we need -**
  - Accountability applied
  - Challenges streamlined; and
  - Enforcement strengthened