

RURAL BROADBAND INSIGHTS FOR CLOSING THE DIGITAL DIVIDE



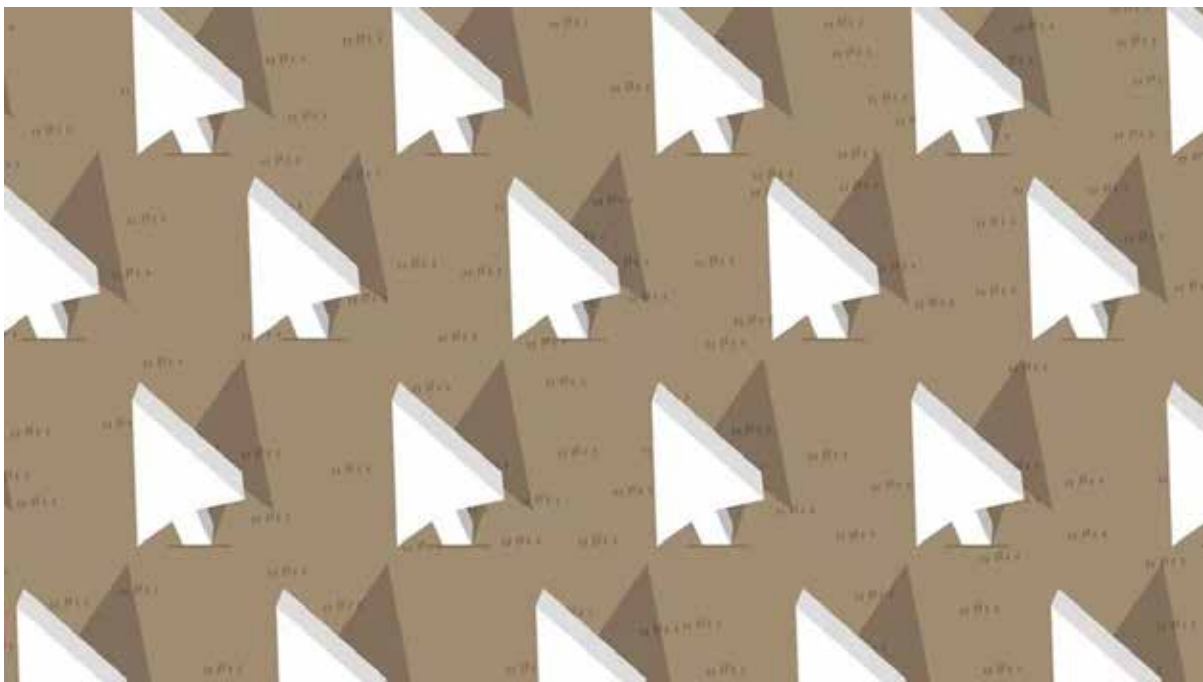
WITH PARTNER JONATHAN CHAMBERS

Co-ops Connect FYI

By Jonathan Chambers • Jan 12, 2023

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What to Expect of the Service Level Challenges to the National Broadband Map



We are not submitting any service challenges to the FCC's broadband map.

I know many of you have been encouraged to do so, and I thought I'd articulate why this exercise is largely, though not wholly, a waste of time and energy.

For a thoughtful examination of whether this was a waste of your time, I recommend [this piece by Mike Conlow](#).

The background:

- The FCC's broadband map was created over a decade ago, by a team led by Mike Byrne. Mike was then the Chief GIS Officer of the FCC, and the mapping team was part of my office at the FCC, what was then called the Office of Strategic Planning and Policy Analysis. Mike and I now work together at Conexon.
- **The first maps used broadband service data provided by each state**, which was funded by the American Rescue and Recovery Act through a program called the State Broadband Initiative (SBI). That funding was used mainly to set up many of the first state broadband offices, which in turn supplied data to the FCC.
- NTIA administered the SBI program and the FCC produced the maps.

The bottom line:

- The state data was inconsistent and generally of poor quality.
- When the SBI funding ran out, NTIA shut down the program and the FCC was faced with a decision: ***Either shut down the map or use another data source.***

So, what happened?

The FCC chose to use the only data available to it at the time – **477 data**.

Go Deeper: Data Challenges



For years, the FCC has collected service availability data from ISPs, which fill out Form 477 every six months, indicating where the ISP advertises the availability of service, the maximum advertised speed, and the technology used.

My view:

The 477 data is comprehensive and accurate, but should have been supplemented with other data collected by the FCC and speed test data.

- It has been the best source of service availability for a decade.
- Most of the criticism of 477 data comes from those who misstate or misunderstand the data.

The FCC also collects data from ISPs on subscribers.

- While that data could have been useful over the years to correlate and verify the 477 availability data, ***the FCC chose not to use it,***

except in analysis.

- For example, my group once ran a regression analysis of fixed wireless and satellite subscribership in areas with cable or fiber and found that less than two-tenths of 1% of subscribers choose fixed wireless or satellite.
- **The bottom line:** It is enormously wasteful for the government to fund services so profoundly rejected in the marketplace.

What's next:

The new FCC maps are an attempt to improve upon the old maps primarily by collecting data from ISPs for each location in the country, rather than each census block.

- To me, this has been one of the most profound examples of groupthink stupidity I have witnessed in over 35 years of work.
- **Accurate location-specific data is impossible and unnecessary.**
- **It has delayed funding** for broadband deployment for at least two years and may well delay deployment longer than that.

The FCC hired a firm, CostQuest, to produce a new type of data, something now called “broadband serviceable locations,” or BSLs, that are published in a proprietary “location fabric.”

What is a BSL?

Not households or housing units. Not businesses of a particular type or size. Not multiple places on a farm. Not schools, libraries, health care facilities, government buildings, or other community anchor institutions.

The bottom line: A BSL is whatever CostQuest and a few attorneys at the FCC say it is. At times, the definitions are Humpty Dumpty-ish:

“When I use a word, it means just what I choose it to mean – neither more nor less.”

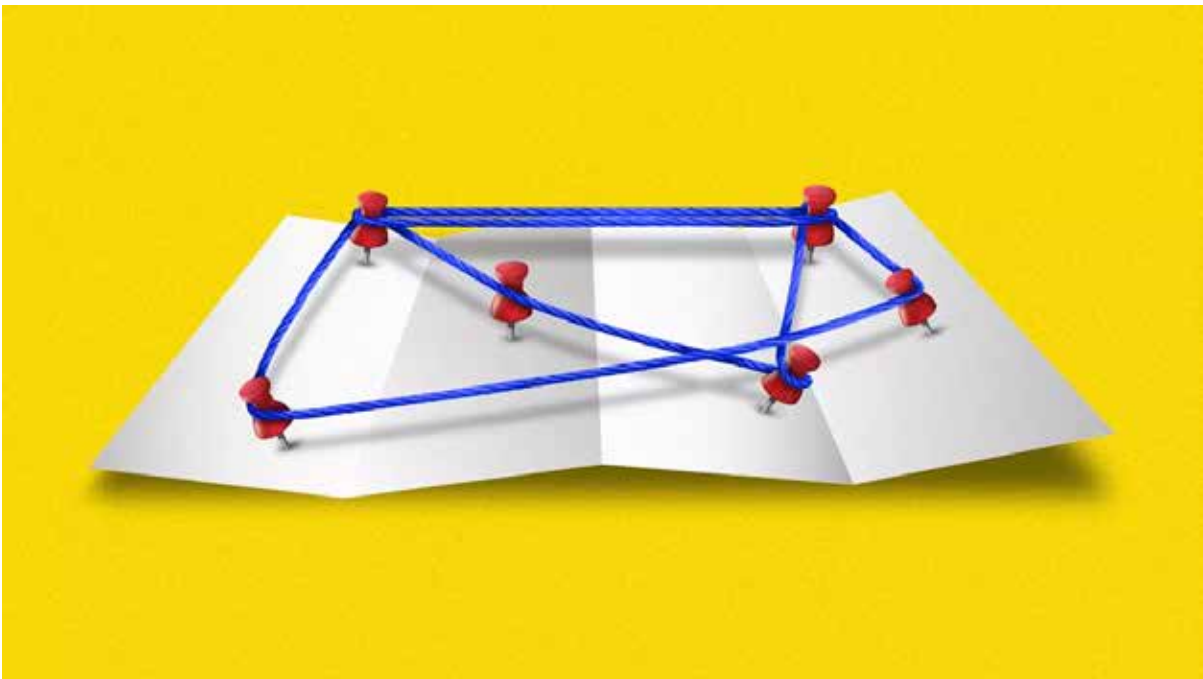
Why it matters:

Nearly all past FCC modeling and funding used housing units as its basis.

- The many Connect America Funds and the Rural Digital Opportunity Fund are based primarily on housing units.
- Housing units and households are data collected by the Census Bureau.
- For over two centuries, the Constitutionally proscribed Census has been a rich source of data for government agencies, researchers, policymakers, and the public at large.

Not so for the FCC.

By the Numbers: BSL Challenges



According to the Census:

- There are 142,153,010 housing units.
- There are millions of business locations.
- There are millions of community anchor institutions.
- (See [Sept. 29 Co-ops Connect FYI](#) for more analysis on this topic.)

The big picture: There are well over 150 million places where one might use the internet.

Yes, but:

According to the FCC, there are 113,499,962 BSLs.

The reasons for the disparity in numbers are many.

- The location fabric counts structures, using AI, imagery, and other methods that have not been shared with the public.
- The location fabric data, though paid for by the public, is not available to the public.
- The FCC treats MDUs as one BSL.
- The FCC does not count anchor institutions.
- The FCC does not count business locations that are part of a chain.
- The FCC does not count many of the places on farms that could use internet access.
- The FCC does not count all the homes in trailer parks.

The bottom line:

The new broadband map misses more than 10 million

“broadband serviceable locations” — perhaps tens of millions.

- In particular, the FCC discounts many aspects of rural America, especially farms and the rural poor.

Perhaps this is intentional. I will once again quote a senior White House official, who said to me:

“*We’re Democrats. They [rural Americans] are not our people.*”

One Example: Conexon’s Challenge



As a small but significant test of the FCC’s willingness to correct their data, **Conexon submitted a bulk challenge to the location fabric.**

- We submitted data of meter locations, using GIS data, where we had designed and are building fiber. We followed the FCC challenge guidelines, providing highly specific data in our documentation.
- A location served with fiber and an XGS PON network would seem to meet the definition of a broadband serviceable location. It would

seem almost tautological that a location served by broadband is broadband serviceable.

- Of 483,145 locations in our test set, we found the location fabric was missing 47,250 locations.

The result:

After several months of silence, we received this response.

| Count of response_description_code_desc | Column Labels | |
|---|---------------|---------------|
| Row Labels | (blank) | Grand Total |
| The address provided for the challenge could not be validated. | 17,663 | 17,663 |
| The address provided for the challenge is a duplicate. | 6,215 | 6,215 |
| The challenge attempted to add another BSL to a single-location parcel inconsistent with the FCC definition of a BSL. | 5,874 | 5,874 |
| The challenge duplicated a previously accepted challenge. | 804 | 804 |
| The challenge duplicates key fields from another challenge. | 1,471 | 1,471 |
| The challenge failed following manual review. | 7,479 | 7,479 |
| The challenge impermissibly attempts to add another BSL within an "entity" boundary. | 3,277 | 3,277 |
| The challenge was overtaken by new data as reflected in updated Fabric. | 268 | 268 |
| The FCC has accepted the challenge. | 1,741 | 1,741 |
| The geographic coordinates for the challenge intersect with the footprint of an existing BSL. | 14 | 14 |
| The geographic coordinates provided with the challenge are not valid. | 2,444 | 2,444 |
| Grand Total | 47,250 | 47,250 |

- **1,741 of our 47,250** challenges were accepted — of 483,145 total locations.
- Another 804 locations were apparently accepted from another challenger's submission.
- **The bottom line:** That is, at best, a four-tenths of 1% improvement to the part of the map Conexon challenged.

The big picture:

It is notable that most, perhaps all, of our challenges were reviewed.

- The catch-all reason for rejection ("challenge could not be validated") is frustrating.
- We could follow up, appeal, file a new set of challenges at a later date, **but we will not.**

The challenge process is problematic for many reasons.

- It is opaque. The data is proprietary, not public.
- The challenge process must be continuous, as new maps and data are collected and issued every six months.

The Final Word



Electric co-ops and others have been encouraged by public officials and trade associations to use their local knowledge to challenge claims of service.

Why this is problematic:

- It has largely been a PR stunt by the FCC, which in turn asked all the DC trade associations to encourage their members to participate.
- The easier challenge was the fabric location challenge, since you were demonstrating something exists.

- In the service challenge, you are effectively being asked to demonstrate with evidence **the absence of something claimed by someone else.**

The bottom line:

Conexon was successful in 5% of our challenges. I expect the service level challenges will be successful at about a 1-2% rate. That is the historic level of success in past FCC challenge processes.

It is mathematically unlikely the challenges will affect the BEAD allocation or the availability of funding at a local level.

- The challenge process will likely take between 7 months and a year, though I suspect there will be millions of challenges, and the process will take much longer.
- Congress directed NTIA to calculate the allocations once the FCC maps were published. **The maps have now been published.**
- It is unlikely the challenges will be concluded prior to the NTIA state funding allocations.

The challenge process itself is interminable — and by further delaying the BEAD program, it is damaging rural America.

What's ahead:

Over the next couple of months, every ISP will submit new service data to the FCC based on the new location fabric. The maps published in May or June will not contain the challenges you have just submitted.

NTIA should not wait for the conclusion of the current challenge process before announcing the state funding allocations for BEAD.

We will publish our calculations for the BEAD allocation in the coming weeks. I believe that's where the industry should focus: **Encouraging NTIA to get on with their job.**

*Feel free to forward this **Co-ops Connect FYI** to colleagues who want to stay in the know on all things broadband! Subscribe to Conexon's weekly newsletter [here](#).*

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