

# STATE BROADBAND MAPPING & MOBILITY FUND PHASE II CHALLENGE PROCESS PROJECTS

**Kansas Statewide Broadband Expansion  
Planning Task Force Meeting**  
January 11, 2019

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## **Implement a Mobile Broadband Coverage Drive-Testing Process in Support of a Mobility Fund Phase II Challenge (\$225k)**

- FCC's Mobility Fund Phase II (a component of the federal Universal Service Fund): \$4.53 billion for LTE broadband service buildout over 10 years in eligible areas
- Kansas currently has very few eligible areas
- Both the Governor's Office and Kansas Farm Bureau to officially submit challenges
- Goal: to greatly expand eligible areas for MFII Support
- At least 10,000 road miles to be driven





# MF-II Drive Testing Process



- Between the months of June and September, Connected Nation's engineering team covered **15,620 road miles** within Kansas to complete testing
- Process was onerous; 2-3 speed tests per carrier required in each square kilometer grid cell; tests no more than 800 meters apart from one another
- Tests were conducted across parts of **56 Kansas counties:**

Allen, Anderson, Barber, Barton, Bourbon, Brown, Butler, Chase, Clark, Comanche, Crawford, Decatur, Ellsworth, Ford, Geary, Graham, Grant, Greeley, Hamilton, Harper, Jackson, Jewell, Johnson, Kearny, Kingman, Kiowa, Linn, Logan, Marion, Marshall, McPherson, Mitchell, Morton, Nemaha, Neosho, Norton, Osborne, Phillips, Pottawatomie, Pratt, Rawlins, Republic, Riley, Rooks, Russell, Saline, Seward, Shawnee, Sheridan, Sherman, Smith, Stanton, Stevens, Thomas, Wallace, and Wichita





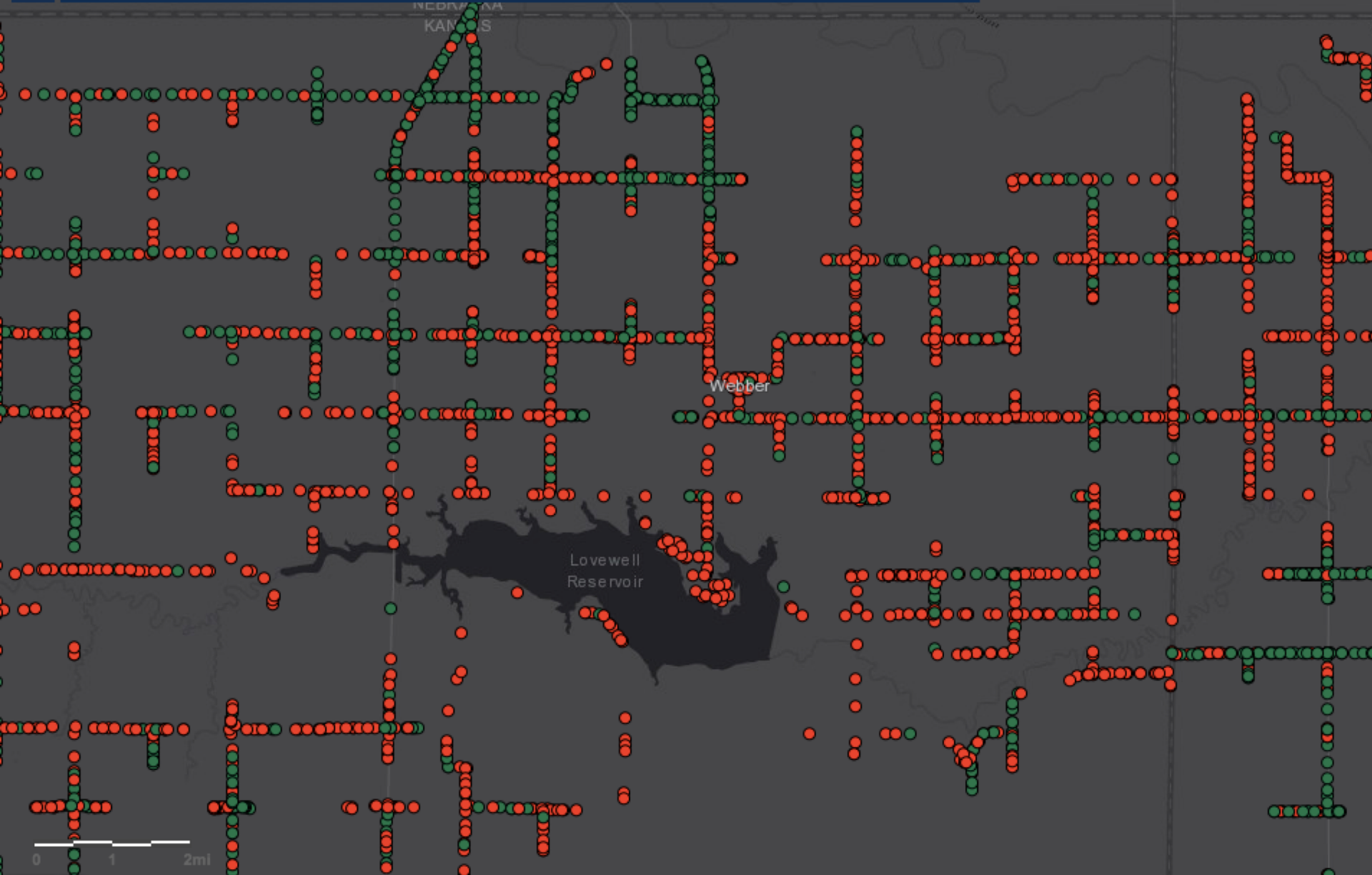


# Kansas MF-II Challenge Drive Testing

Data as of 8/27/18



Hardy



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# MF-II Drive Testing Results in Kansas



- Out of the **187,397 tests** that were conducted, **119,994 failed (64.03%)**—meaning that the tests indicated less than 5 Mbps service or no service at all in areas where service had been reported as available to the FCC.
- Results yield a total challengeable area of **13,158.63 square kilometers**, or **5,080.58 square miles**, a little smaller than the State of Connecticut.

	<b>Qualifying Tests</b>	<b>Passing Tests</b>	<b>Failing Tests</b>	<b>% Failing</b>
<b>AT&amp;T</b>	62,279	19,790	42,489	68.2%
<b>T-Mobile</b>	37,371	14,576	22,795	61.0%
<b>Verizon</b>	87,747	33,037	54,710	62.3%
<b>TOTAL</b>	<b>187,397</b>	<b>67,403</b>	<b>119,994</b>	<b>64.03%</b>

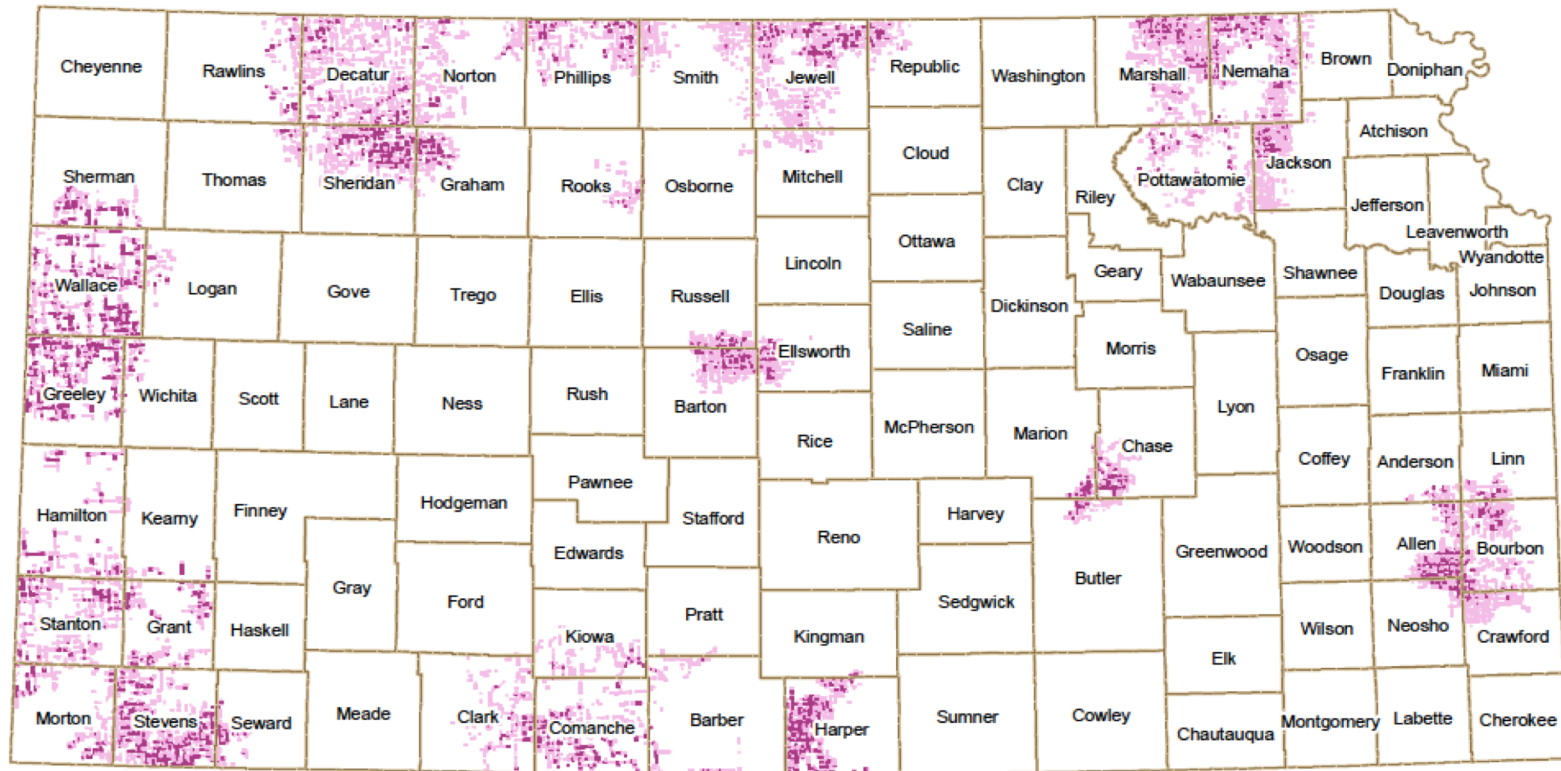
# Challenged Grid Cells



## Kansas Mobility Fund Phase II Challenge Process

### Challenged Grid Cells

Published September 20, 2018



Geographic Area of Grid Cell Challenged in Ineligible Area

 ≥ 75%     < 75%

13,206 grid cells (1 square kilometer each) were tested;  
2,763 grids have at least 75% of the geographic area challenged,  
for a total area of 13,158 square kilometers challenged.



# Next Steps



- All challenge data will be reviewed by the FCC
- Mobile carriers will have an opportunity to “challenge the challenge” and provide evidence that any submitted challenges were done in error
- The FCC will adjudicate claims
- The FCC will publish an updated eligibility map
- The MFII reverse auction process will commence
- Carriers will submit bids to build out service in eligible areas
- The FCC will announce reverse auction winners
- Winners will build out new service

# Project Overview



## **Granular Statewide Broadband Availability Map (\$300k)**

- Collect street level data on service availability (provider name, provider type, speed, serviceable location)
- All service types (fiber, cable, DSL, fixed wireless, mobile wireless)
- Online searchable GIS map and downloadable PDF maps
- For use by the general public and the Statewide Broadband Expansion Planning Task Force (created by HB 2701)
- Feedback-driven in-field validation of infrastructure January-June 2018
- Initial map delivered on December 31, revised map by July 2018

# The Impact of Broadband Mapping



- More granular and accurate broadband data informs state & local policymaking; helps communities market themselves as connected
- Each provider receives maps of their service areas
- If a provider elects to not participate in this mapping project, the State Broadband Task Force may consider those areas to be unserved
- Any future funding made available for broadband expansion can be targeted to unserved and underserved areas
- Data may be requested by NTIA or the FCC to augment the National Broadband Map
- Overbuilding broadband is in no one's interest, so participation is critical



# NDA's & Data Collection



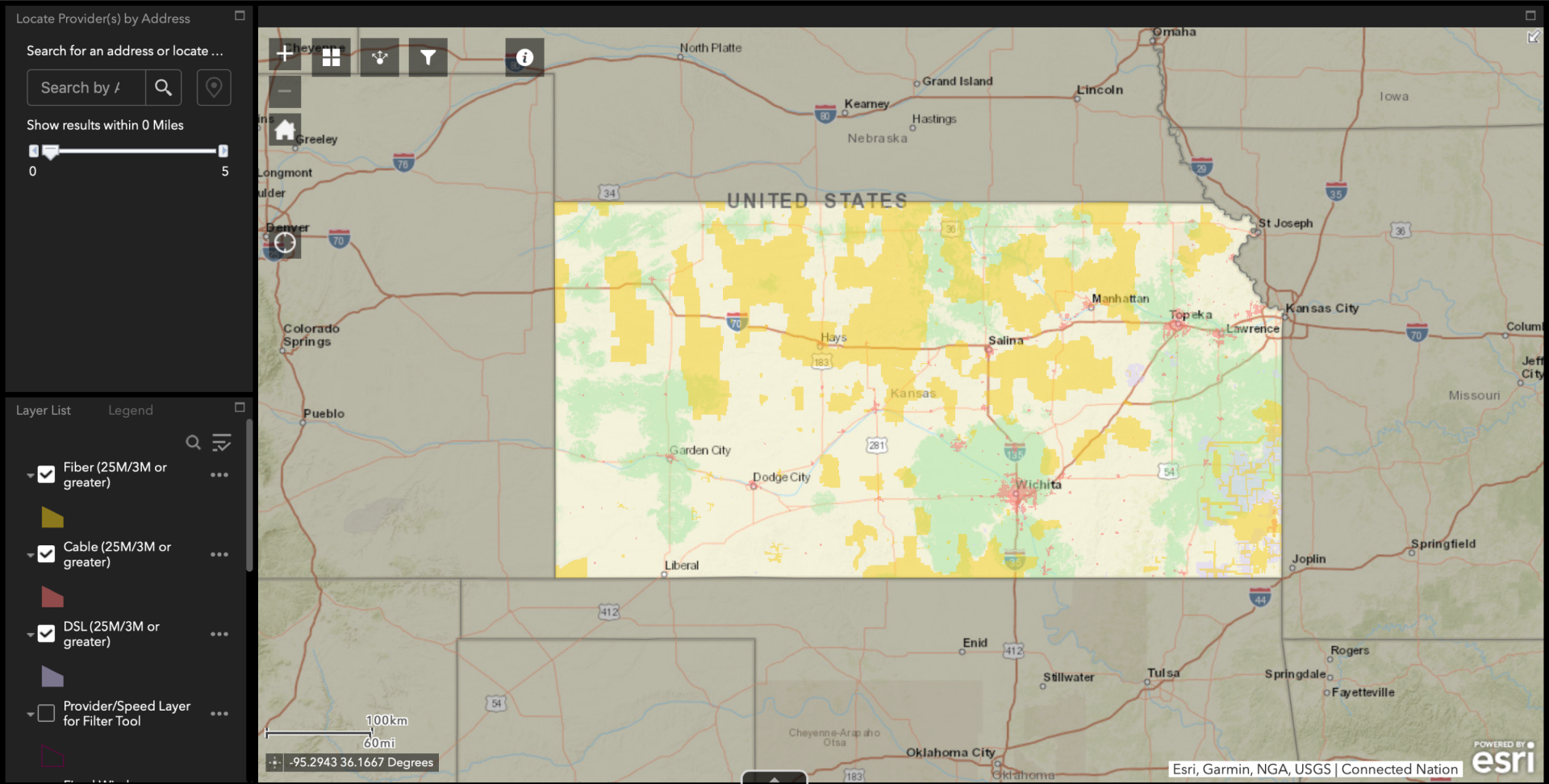
- Nondisclosure agreements (NDA) available to providers to protect Confidential Information shared with Connected Nation
- Map Development: Broadband Service Areas by Technology and Speeds by Serviceable Area
- Confidential Information: Used to derive service areas **IF** granular service area data is not available
  - Serviceable Locations
  - Infrastructure Routes
  - Equipment Locations (except certain vertical assets)
- Data collection began in August 2018 and will continue through ~May 2019

# Interactive Map



## The Broadband Landscape of Kansas

An ongoing project with data collection in progress. Last updated: 12/28/2018



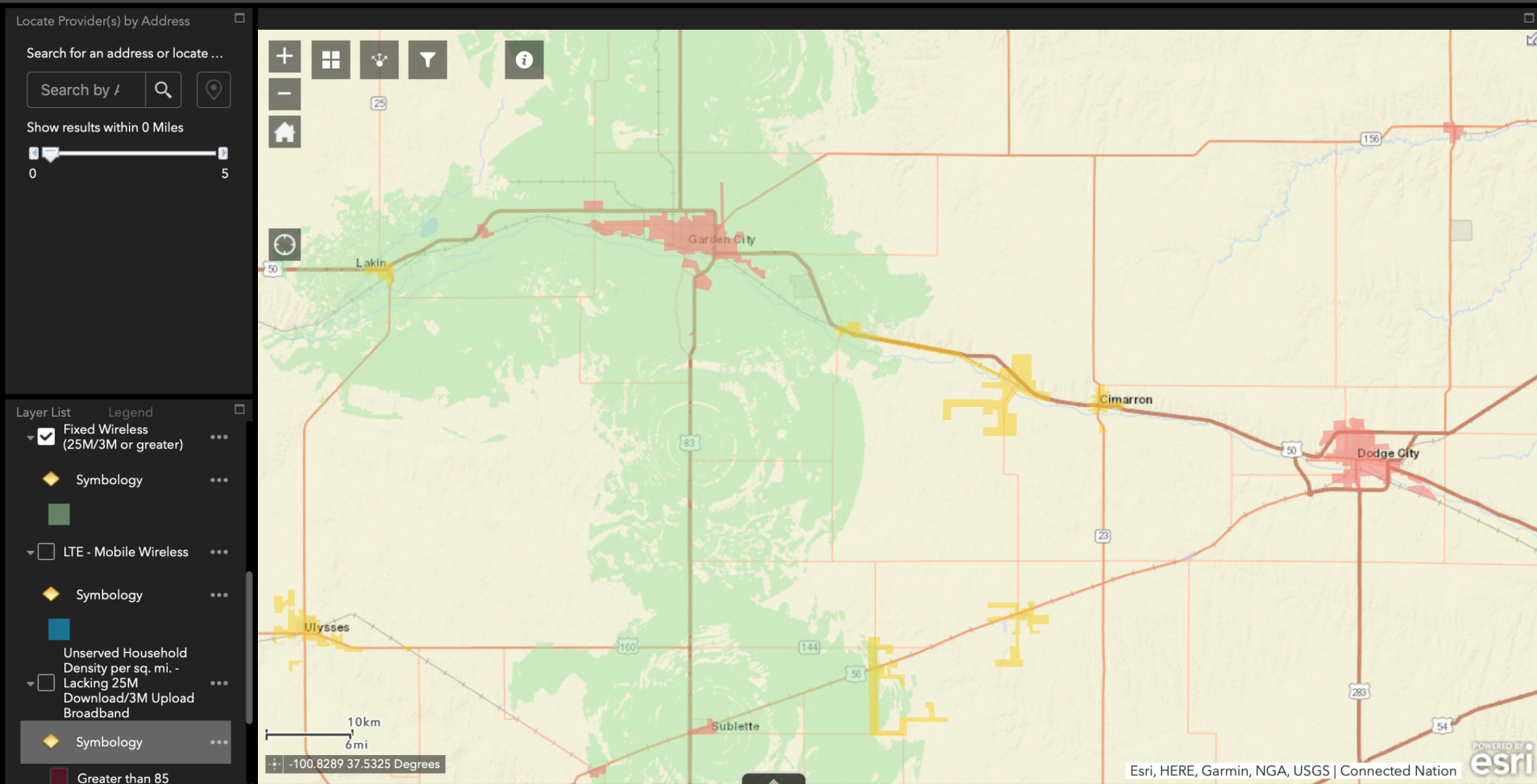
Access the map online at <https://arcg.is/5L9jO>

# Broadband Availability at 25 Mbps Down / 3 Mbps Up



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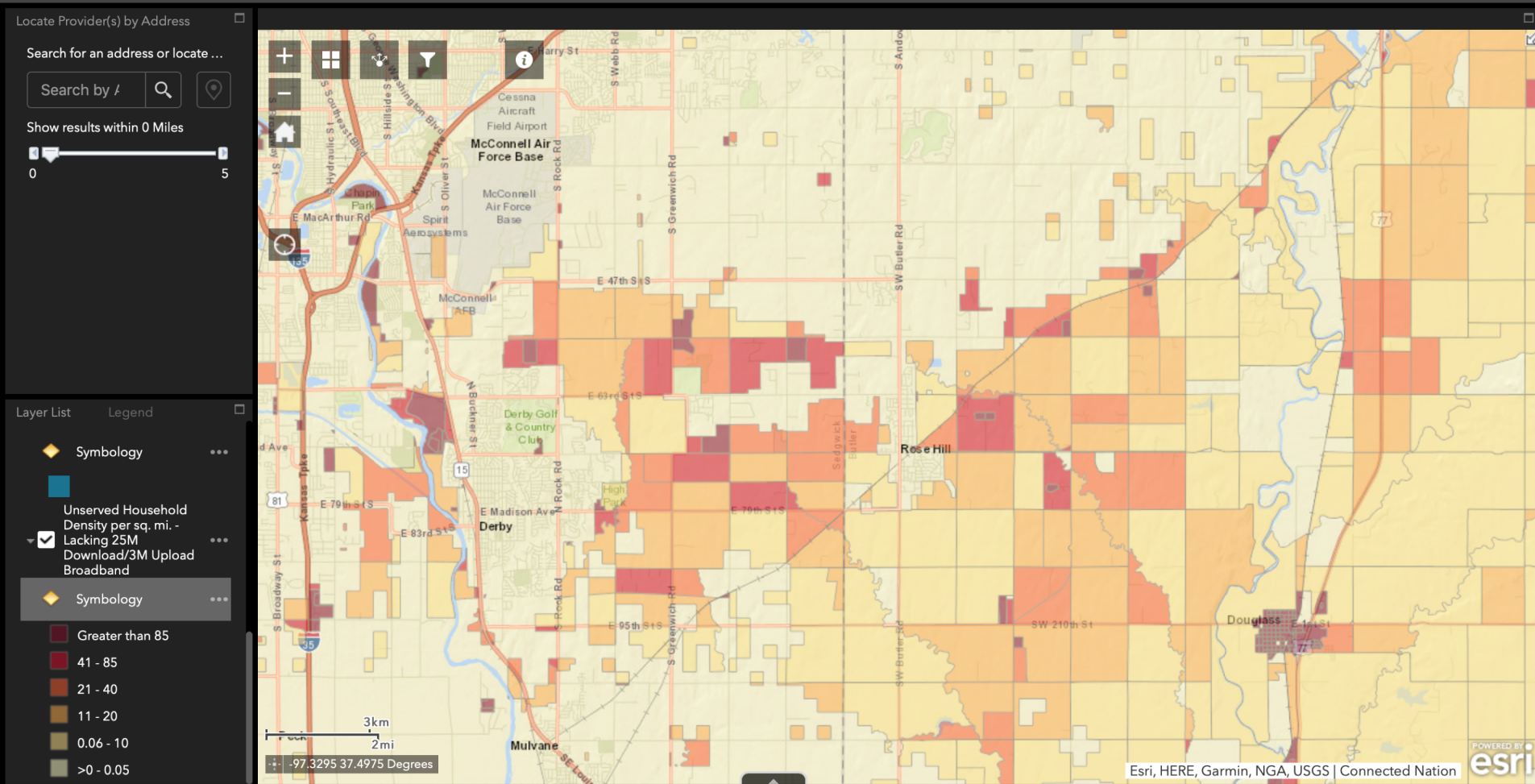


# Household Density of Unserved Areas



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**Served Households:**

738,795 (66.43%)

**Unserved Households:**

373,301 (33.57%)

# Provider Participation



Viable Providers	NDA's	Data Received	Provider Gathering Data	Outreach in Progress	Refused to Participate
91	53	65	5	15	6

Provider Name	DBA Name	Status
AT&T		Refused to Participate
Benson Tel Service Inc.	BTS Skynet	Refused to Participate
Birch Communications, Inc		Outreach in Progress
Charter Communications	Spectrum	Outreach in Progress
City of Coffeyville		Non-Responsive
Comcast Cable Communications, LLC		Outreach in Progress
Community Wireless Communications Co.	Wicked Broadband, Lawrence Freenet	Refused to Participate
Consolidated Communications	Sunflower Telephone Company	Outreach in Progress
Google Fiber		Refused to Participate
Kansas.Net	Kansas.Net Internet Services; Fox Comp	Refused to Participate
LocalLoop, Inc		Non-Responsive
Mercury Wireless, LLC	Mercury Wireless Indiana LLC	Non-Responsive
Mobilcom Pittsburg Inc.	Wireless Telecommunications Corp	Outreach in Progress
Suddenlink Communications		Refused to Participate
Sumner Cable TV, Inc.	Sumner Communications	Non-Responsive
SWKO, Inc.		Outreach in Progress
T-Mobile USA		Outreach in Progress
Verizon Communications		Outreach in Progress
Windstream Communications		Outreach in Progress
Wisper ISP, INC		Outreach in Progress
Zito Midwest, LLC		Outreach in Progress



# Next Steps



- Continue outreach to, and process data from, providers that have not yet supplied information
- Add data from providers that offer Internet speeds less than 25 Mbps download/3 Mbps upload to the map. These are potentially upgradeable service areas
- Optimize interactive map layers to improve user experience (e.g., loading speed of wireless layers, pop-up and legend labeling for unserved density layer, a filter tool to identify specific providers' service areas, etc.)
- Collect public feedback on areas that do not have broadband or where there is an inaccuracy on the map
- Plan and commence field validation activities based on feedback

# QUESTIONS?

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