



JOHN DEERE



**CONNECTED
NATION®**



DECLARATION NETWORKS

BROADBAND AND THE FARM

2015 BROADBAND COMMUNITIES SUMMIT

APRIL 15, 2015



ACCESS



ADOPTION



USE

Why We Should Care If Broadband Is Available To Farms and Rural America?

The RTC Broadband and the Farm panel will provide:

- ❖ Texas and Iowa's perspectives on its importance to the state economy,*
- ❖ A commercial perspective of broadband needs on the farm, and*
- ❖ A discussion on how fiber and wireless networks are essential infrastructure to rural America.*

Moderator: Keith Montgomery – RTC Vice President & CFO Declaration Networks

Panel:

Dan Hunter – Assistant Commissioner, Texas Department of Agriculture

Phillip Brown – Director Gov. Policy & Broadband Planning, Connected Nation

Mark Lewellen – Manager Spectrum Advocacy, John Deere & Company

Texas Department of Agriculture



Connecting Texas

Dan Hunter, Assistant Commissioner



Texas Agriculture Matters!

- Agriculture is the 2nd largest economy in Texas
- Leads the nation in multiple production areas
- Connectivity is critical for the 3P's:
 - Production
 - Performance
 - Profitability

Keeping Texas Informed Through

- Marketing
- Health Care
- Help



TexasAgriculture.gov

“TEXAS
AGRICULTURE
Matters!”

-Commissioner Sid Miller



- **Huge rural divide in access at national benchmark speed, and**
 - Rural broadband adoption six percentage points lower than state average
- **Return on investment is a persistent barrier to connecting every acre**
 - Public-private partnership with leveraged federal resources is critical
 - Federal resources include differing speed thresholds
 - Key question surrounding platform
- **Business broadband adoption rate in Iowa = 81%**
 - Agriculture, Mining, Construction & Utility Sector adoption = 84%
- **Telework has grown nine percentage points since 2010**
 - Opportunity exists
- **Transfer of Wealth - \$15.4 trillion in next 20 years**

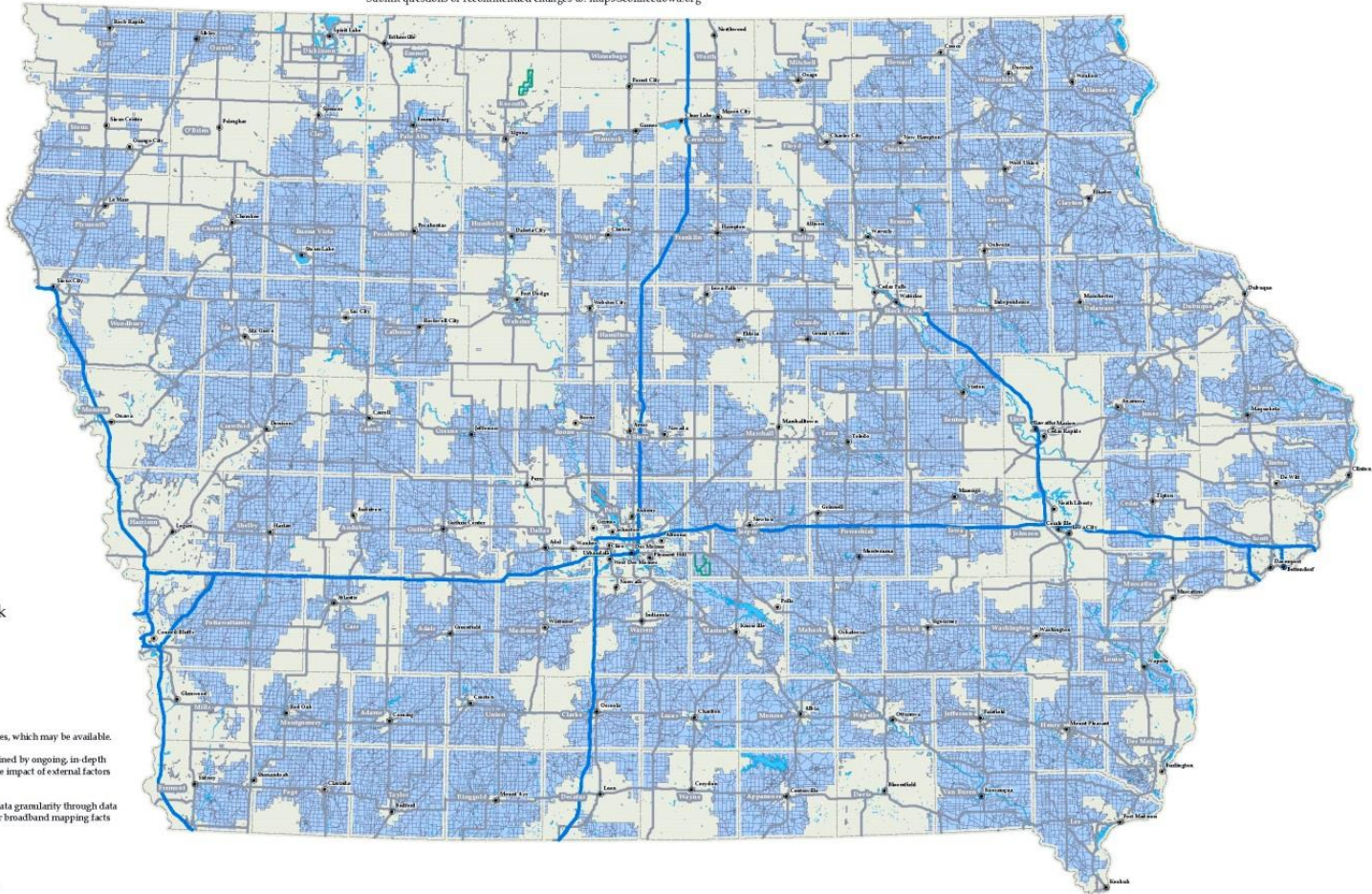


Households Unserved by a Broadband Provider by Census Block

Whole Census Blocks Lacking Broadband with Advertised Speeds of at Least 10 Mbps Downstream and 1.5 Mbps Upstream

Submit questions or recommended changes to: maps@connectiowa.org

Updated October 1, 2014
BETA Version

Symbology

- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands
- Whole, Unserved Census Block
- Broadband Available*

*This does not include mobile wireless or satellite broadband services, which may be available.
This map represents areas of broadband service availability determined by ongoing, in depth technical analysis of provider networks and accommodations for the impact of external factors on service quality.
Map users are encouraged to participate in improving broadband data granularity through data validation and field testing efforts. Learn more about this and other broadband mapping facts at www.connectiowa.org



ACCESS



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Broadband Service Inventory for the State of Iowa

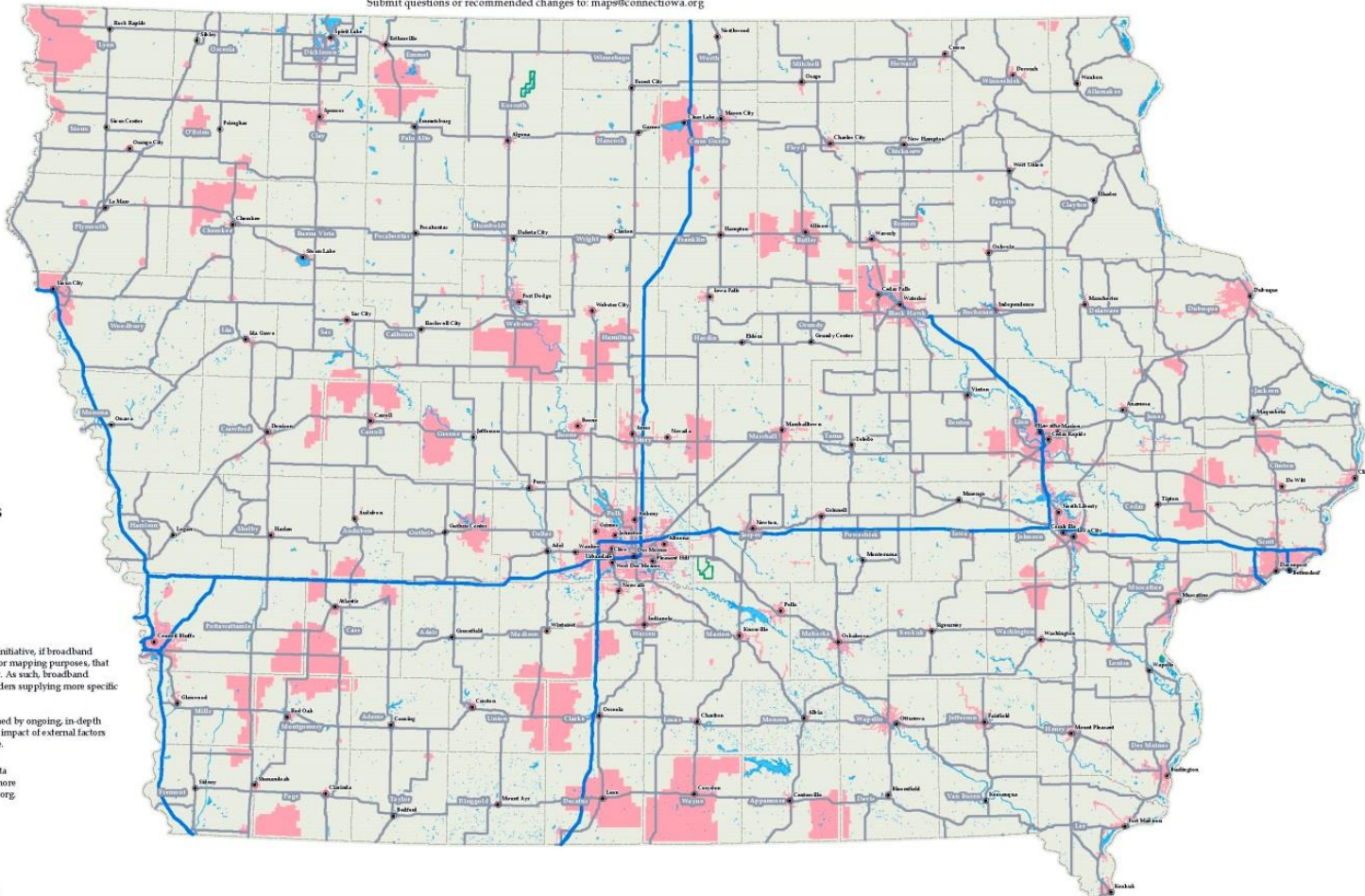
Advertised Speeds of at Least 25 Mbps Downstream and 3 Mbps Upstream

Submit questions or recommended changes to: map@connectiowa.org

Updated October 1, 2014
BETA Version

Symbology

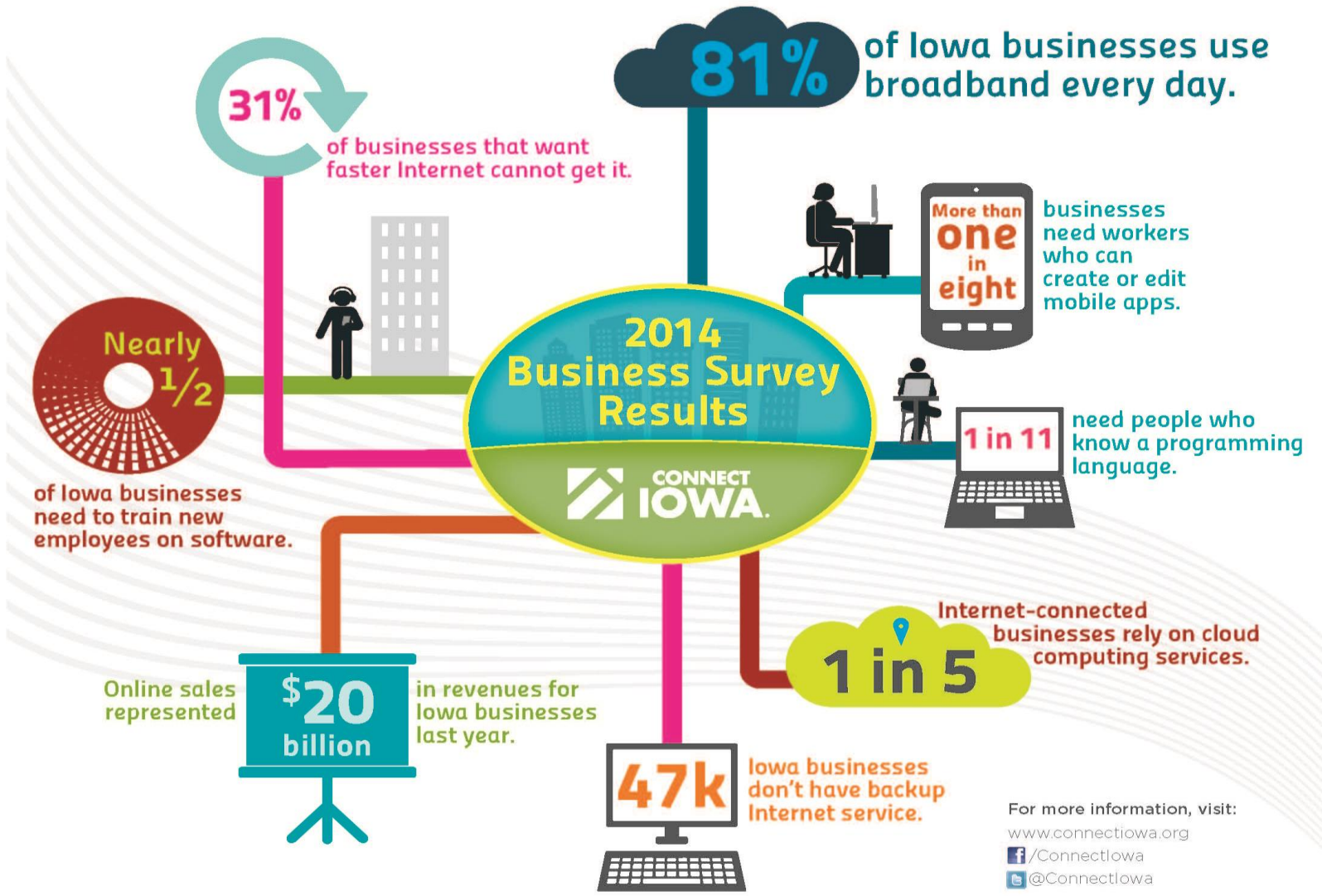
- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands
- Broadband Available
- Unserviced Areas



As required by the US Department of Commerce's State Broadband Initiative, if broadband service is available to at least one household in a census block, then for mapping purposes, that census block is reported to have some level of broadband availability. As such, broadband availability at an exact address location cannot be guaranteed. Providers supplying more specific data than census block are displayed as such.

This map represents areas of broadband service availability determined by ongoing, in-depth technical analysis of provider networks and accommodations for the impact of external factors on service quality. Satellite broadband services may also be available.

Map users are encouraged to participate in improving broadband data granularity through data validation and field testing efforts. Learn more about this and other broadband mapping facts at www.connectiowa.org.





Rural Telecom Congress (RTC)

Mark N. Lewellen

Manager of Spectrum Advocacy



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JDLink™ Enabled Machines



Agricultural Equipment

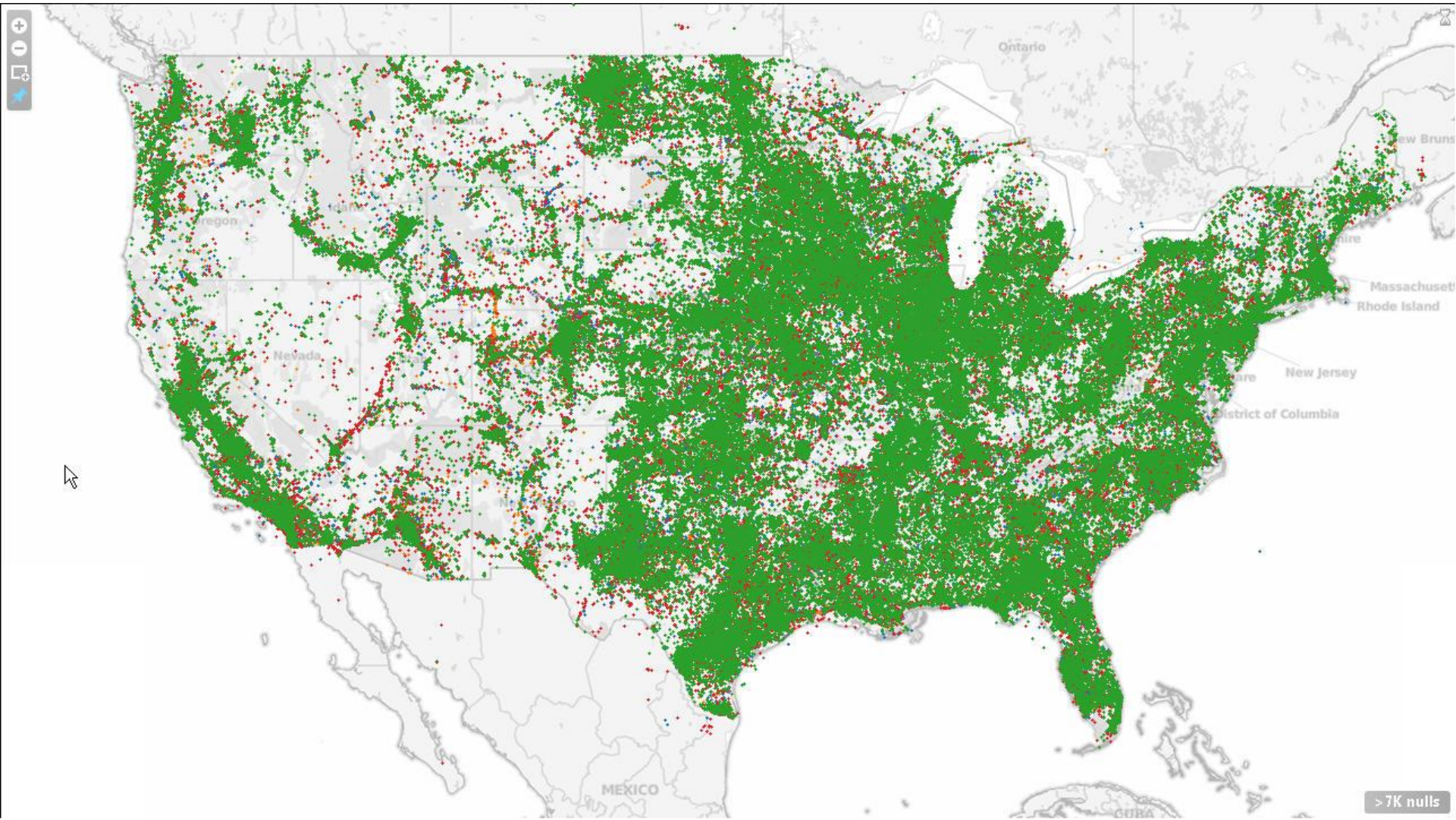


Mobile Telematic Gateway (MTG)



Construction & Forestry Equipment

2012



Connecting the Nation's Cropland

- If you want to reduce costs and increase yields in cropland, then it needs mobile broadband coverage
- More mobile broadband coverage requires more cell towers
- We are doing several things to address that challenge:
 - Pointing out the need to cover modems not just people in the "Internet of Things"
 - Advocating for cropland at both State and Federal level
- If you produce on cropland, it needs mobile broadband



Broadband is what Iowa needs to keep growing