

COOPERATIVES & COMMUNITY BROADBAND NEEDS

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Jerry Schneider, Marquette-Adams Telephone Cooperative

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The 2018 webinar series **Cooperative Solutions for Community Needs** is brought to you by the University of Wisconsin Center for Cooperatives



Center for Cooperatives
UNIVERSITY OF WISCONSIN-MADISON

WHAT IS A COOPERATIVE?

A cooperative is a business that is owned and democratically controlled by the people or entities that use its services.

- Member owned
- Member controlled
- Members benefit

WISCONSIN RURAL ELECTRIC COOPERATIVES

- 24 distribution cooperatives in central and western parts of the state
- Some have supported internet options through arrangements with wireless, satellite providers, or other partnerships
- Continued response to member and community needs

WISCONSIN TELECOM COOPERATIVES

- 11 cooperatives in northwestern and western parts of the state
- Approximately 35,000 access lines statewide (2011)
- Investment in fiber optic networks, including fiber to the premises (FTTP)

— SHANNON CLARK

CEO and General Manager
Richland Electric Cooperative

CEO
Genuine Telecom



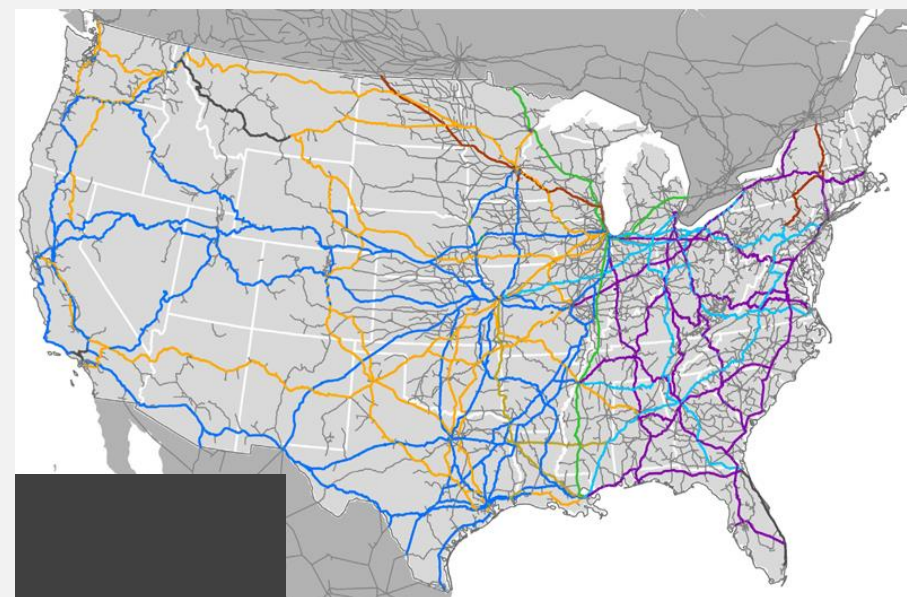
Building Broadband

Shannon Clark
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Historical Perspective

- Broadband data is exponential outgrowth of simple information exchange
 - Telegraph, Telephone, Teletype, Bulletin Board, Dial-Up Internet, Always-on,Internet of things
- Broadband, like most technology advances:
 - Begins in populated areas
 - Connects to other population centers
 - Is slow to reach sparsely populated areas
- Areas left behind can and will suffer or die



Historical Perspective

- There are thousands of examples across the nation of technology bypass killing small community opportunities;
 - Railroads
 - Interstate Road System
 - Interstate Off-ramps
 - Airports
- In general, electricity and telephone infrastructure did not bypass rural America.
 - Cooperative business model
 - REA

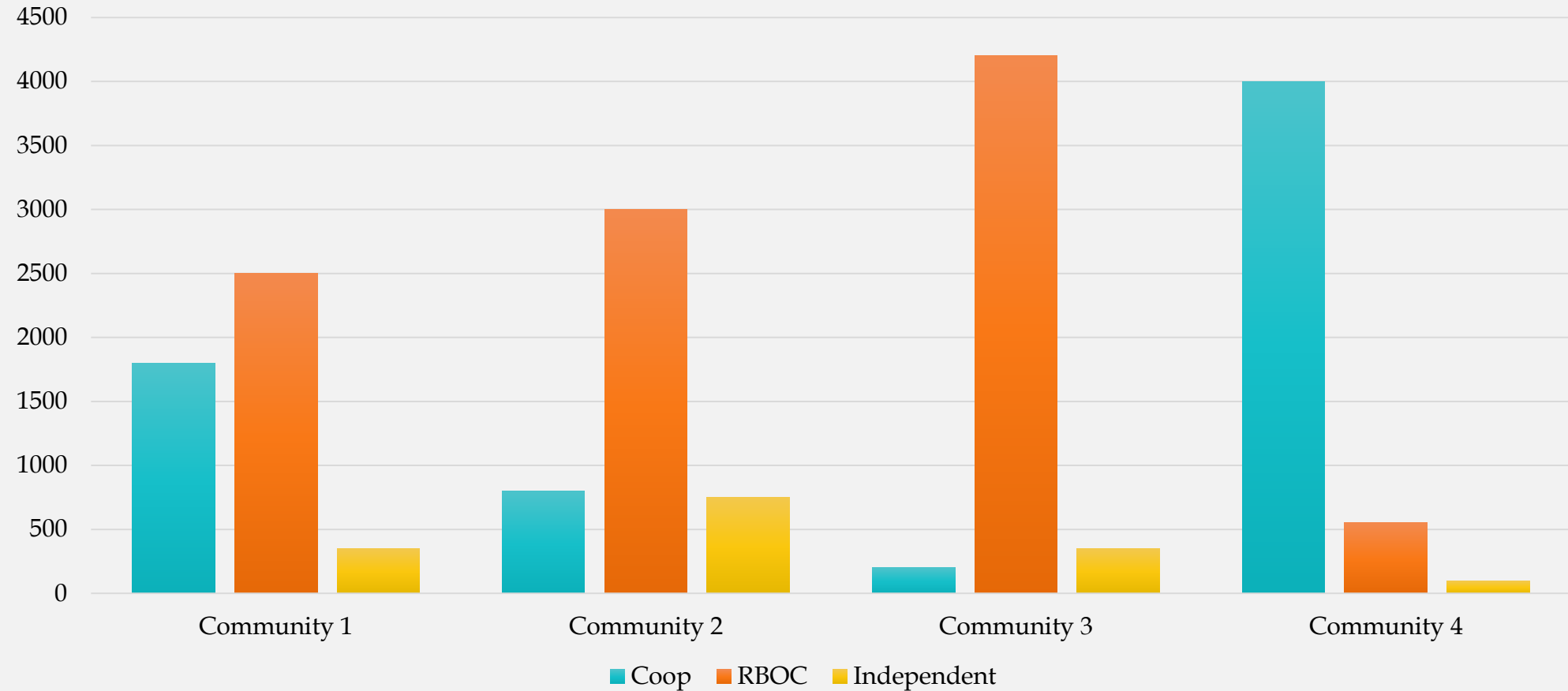
The Broadband Bypass

- Today, the threat of technology bypass remains
 - Much of rural America does not enjoy the level of broadband infrastructure as densely populated areas
 - Where exceptions exist, it is in large part due to telephone cooperatives and independents that have their roots in rural America
- Challenges are real – and difficult to address
 - Capital intensive projects
 - Low potential subscriber density---Richland EC 3.4 per route mile
 - Subscriber demographics are different
 - Technology adoption rates are lower and slower
 - Broadband is a competitive service offering
 - Unlike regulated monopolies of many other utilities
 - Very short technology life-cycle

Cooperative Solutions

- There is a historical solution to ensure rural communities are not bypassed
 - Electric and Telephone Cooperatives both have robust 'networks'
 - Physical
 - Financial
 - Human
 - Both are driven by their members (consumers)
- In Wisconsin, most of the telephone cooperatives have already addressed the broadband needs of their members
- Rural community citizens, including those of electric cooperatives can be served, unserved or underserved because service areas don't overlap exactly

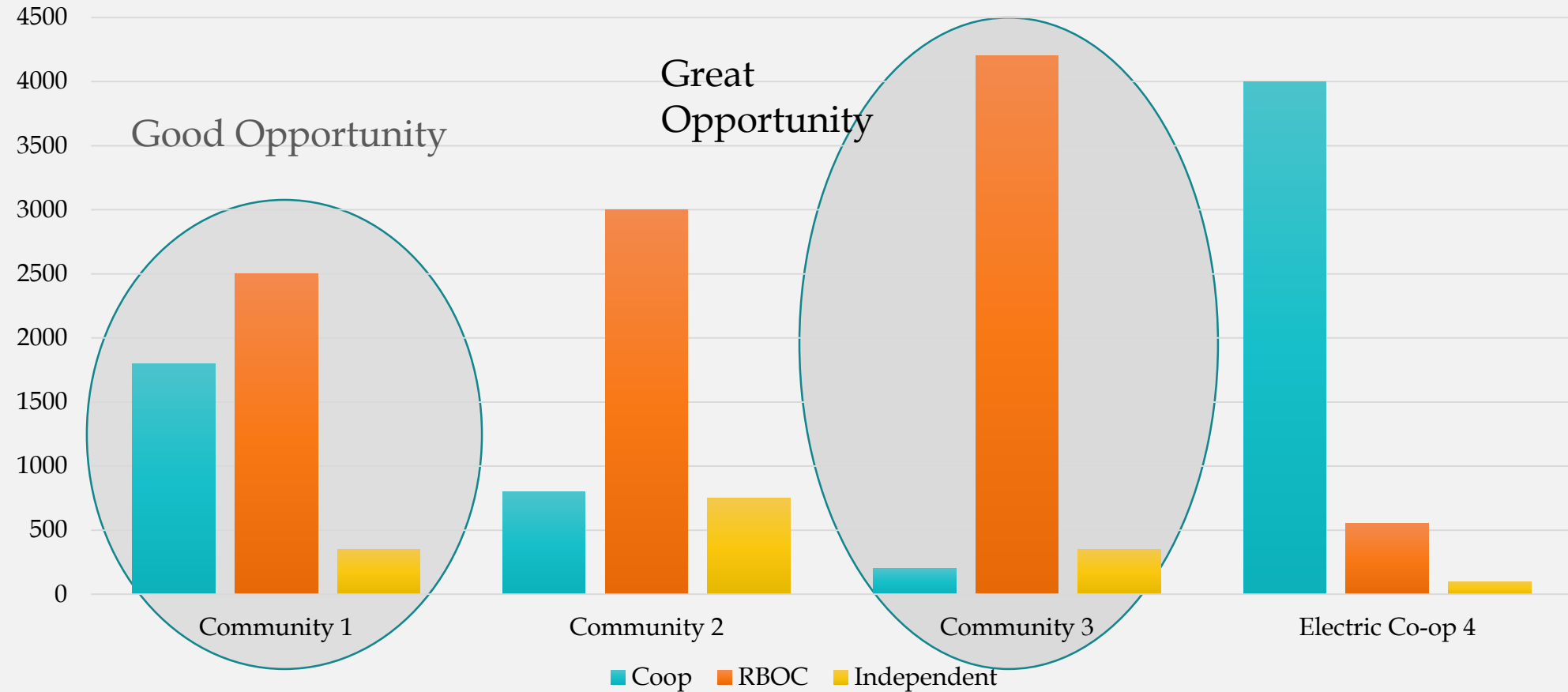
Service Provider By Type Varies



Finding Opportunities

- Electric cooperatives have growing needs- for members and for internal operational networks
 - Even with an 'owned' network---excess capacity is likely available
 - Energy management is a 'consumer-trend' and requires broadband
 - Vested interest in community development and growth
- Telephone cooperatives have networks and experience that scales
 - Large investments for sparsely populated area
 - Adding 'load' provides incremental revenue that helps members control cost
 - Vested interest in community development and growth
- Other interests exist and have valuable resources to ensure success
 - Community organization

Service Provider By Type Varies



Solution Options

- There is no 'one-size-fits-all'
- Independent and separate project(s)
 - At a minimum recognize these are community needs and avoid cannibalization of 'partial providers'
 - Market is too small
- Stand and support
 - Much better to have a 'cooperative' friend providing service in your community than someone with only a profit motive
- Shared resources
 - One owner, but trading, leasing or contracting resources

Solution Options

- Joint Projects
 - Share planning
 - Duct placement
 - Right-of-way
- Partnership
 - Level of formality
 - Board/Community support and participation
- New Business
 - Shareholder
 - Cooperative?

Key Milestones



Avoiding Historical Pitfalls

- Define Need
 - Are you really unserved or underserved?
 - Are their new technologies on the horizon?
- Resource Inventory
 - Human resources – can they really scale?
 - What's native and what's contracted?
- Model Resource Application
 - Who is in charge?
 - Assignment of costs?

Avoiding Historical Pitfalls

- Explore Business Relationships
 - Know your people and your board
 - Culture
- Business Planning
 - Feasibility
 - Financing
 - Regulatory
- Go- No Go Decision
 - ANY unanswered questions
 - EVERYTHING has been put on the table

Final Thoughts

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- There are 'natural' partnerships, but others can and do exist.
- It starts with someone – don't be shy
- There are no 'stupid' questions
- Be honest
- It will always be about service
- Study others success and failure
- Anticipate change
- The co-op model requires 'Cooperation among Cooperatives'

JERRY SCHNEIDER

CEO and General Manager
Marquette-Adams
Telephone Cooperative



Broadband Deployment Decisions

A Provider Perspective

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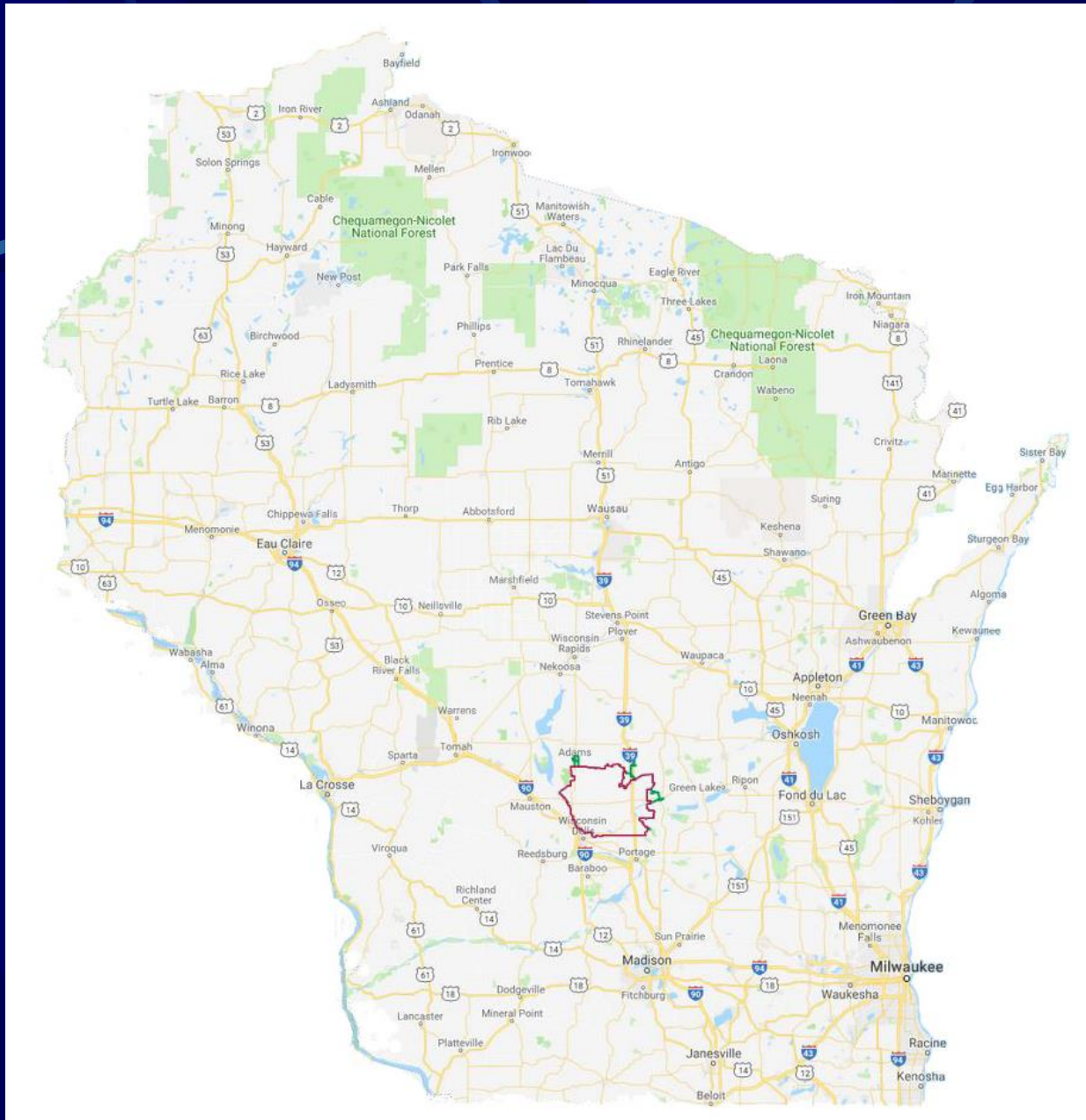
- Diverse Perspective On How Capital Deployment Decisions Made
 - Worked for three large Telco's at Operating Co, Region, Corporate level
 - Worked in four states
 - Worked for Wisconsin Independent Commercial Company
 - 25,000 Subscribers
 - Currently Manage Wisconsin Cooperative
 - 5,100 Members

September 26, 2018

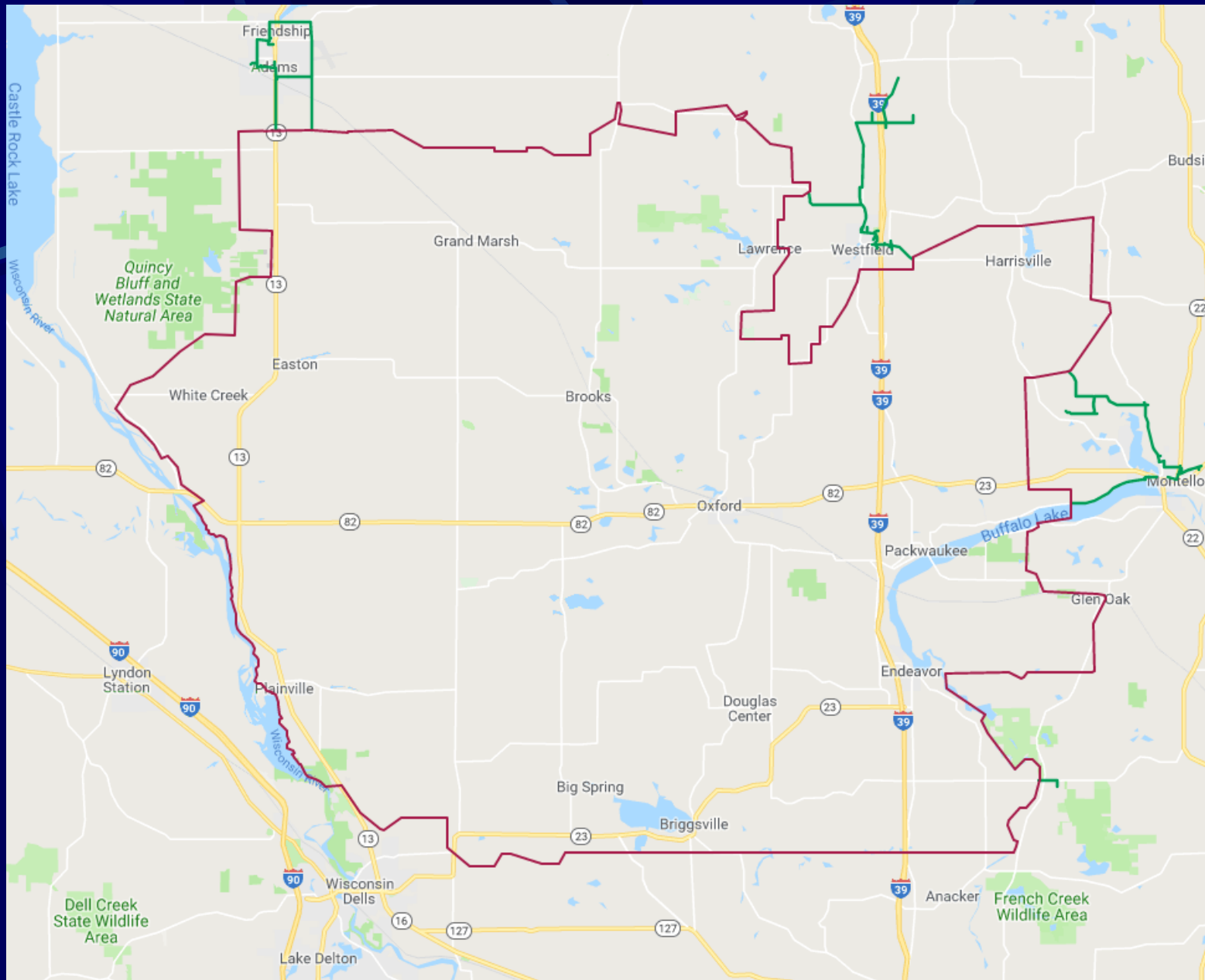
Marquette-Adams Telephone Cooperative

- Established 1951
- Cooperative has 5,100 members
 - 3,100 members in 2010
 - 89% Take High Speed Internet
 - 300 Mbps down 20 Mbps up is the most popular
 - 68% Take Long Distance
 - 58% Take TV
 - Most Customers take all major services
 - (Voice with Long Distance, Internet, TV)

September 26, 2018



Serving area in reference to the entire state of Wisconsin



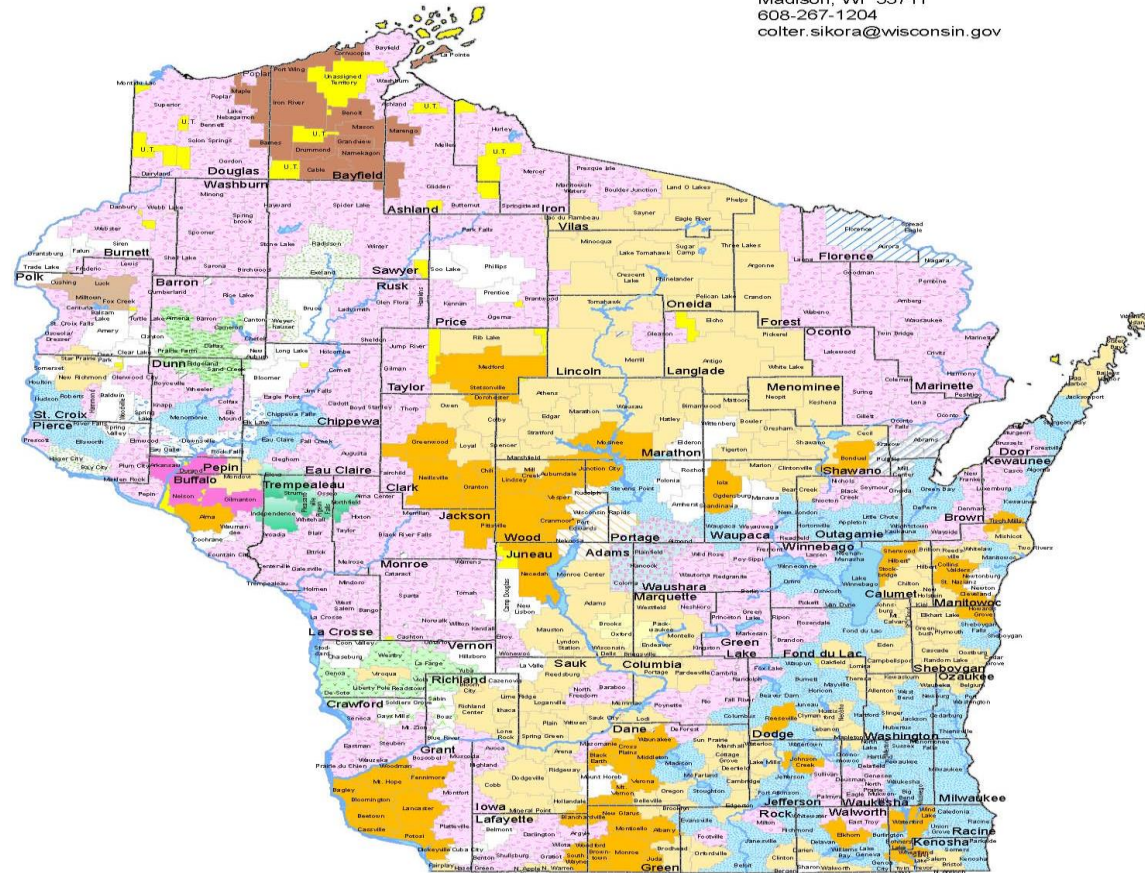
Red outline of entire service area / Green lines are individual fiber roads

Wisconsin Telephone Exchange Boundaries

June 2011



For Map Orders Contact:
Public Service Commission of Wisconsin
Telecommunications Division
610 North Whitney Way
Madison, WI 53711
608-267-1204
colter.sikora@wisconsin.gov



Holding Company, Independent Company, or Cooperative

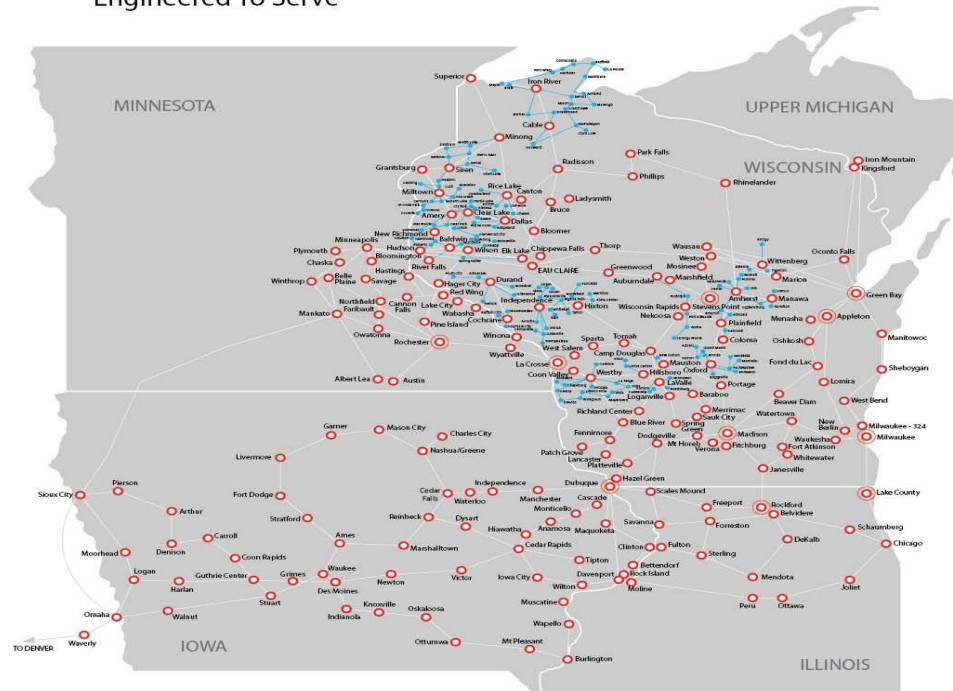
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|-------------------------------|--------------------------------|--|
| AT&T | Niagara Telephone Company | Under 10,000 lines or equal to or < 3 exch |
| Alliance Communications | Night Teleservices | West Wisconsin Telecom Co-op. |
| CenturyLink. | Richland-Grant Telephone Co-op | Water Bodies |
| Chequamegon Telephone Co-op | Solarus | County Line |
| Frontier Communications of WI | Telephone and Data Systems Inc | Open Territory |
| Lakeland Communications, Inc. | Tri-County Telephone Co-op. | Unassigned Territory (U.T.) |
| Marquette-Adams Co-op. | Under 10,000 lines or < 3 exch | Switcher Area |
| Mosaic Telecom | Union Telephone Company | |
| Nelson Telephone Co-op. | Vernon Telephone Co-op. | |





Engineered To Serve

Network Map



LEGEND

- Extended Fiber Network/Community
- WIN Fiber Network POP
- WIN Fiber Network POP/Metro Fiber Network

www.wins.net



Broadband Deployment Decisions

A Provider Perspective

- Broadband Provider, both Cooperative & Commercial looks at Economic Viability
 - Return on Investment
 - Cooperative Threshold Lower
 - Not Burden Current Members
 - Risk
- Community Economic Development
- Projects Prioritized
 - Pass on Good Projects – Others Better

Broadband Deployment Decisions

User Steps to Increase Chances

- 1. Contact Current Area Broadband Providers
 - Get to Decision Maker
 - Follow Up
 - Discuss if Aid to Construction Would Help
- 2. If Provider is Not Receptive (Clearly Says No or If Price Too High)
 - Contact Nearby Independent Telephone Provider
 - Cooperative or Commercial
- 3. Discuss Creative Solutions -Brainstorm

Marquette-Adams Telephone Cooperative Broadband Expansion

- Targets of Opportunity
- Winning American Recovery and Reinvestment Grant Award (Stimulus)
 - \$13.8 Million Grant + \$6.2 Million Loan
 - 2011-2012 Construction
 - One Time Program
- State Broadband Grants – Funding has Increased. Matching Funds.
 - April 2018 Award - \$53K - 50 Premise Potential
 - September 2018 Award - \$145K – 111 Premise Potential

Marquette-Adams Telephone Cooperative Broadband Expansion

- Service to 30 Cell Tower Connections
 - Serve Customers Along That Route
 - In Position to Serve Additional Rural Customers
- Customer Wanted Better Broadband Connection
 - Cost to Construct Was Prohibitive
 - Point To Point Microwave Deployment
- Campgrounds Wanted Worry Free Wireless
 - Largest over 200 Acres and Over 600 sites
 - Credit Card Access Handled by Telco

Broadband Deployment Decisions

A Provider Perspective

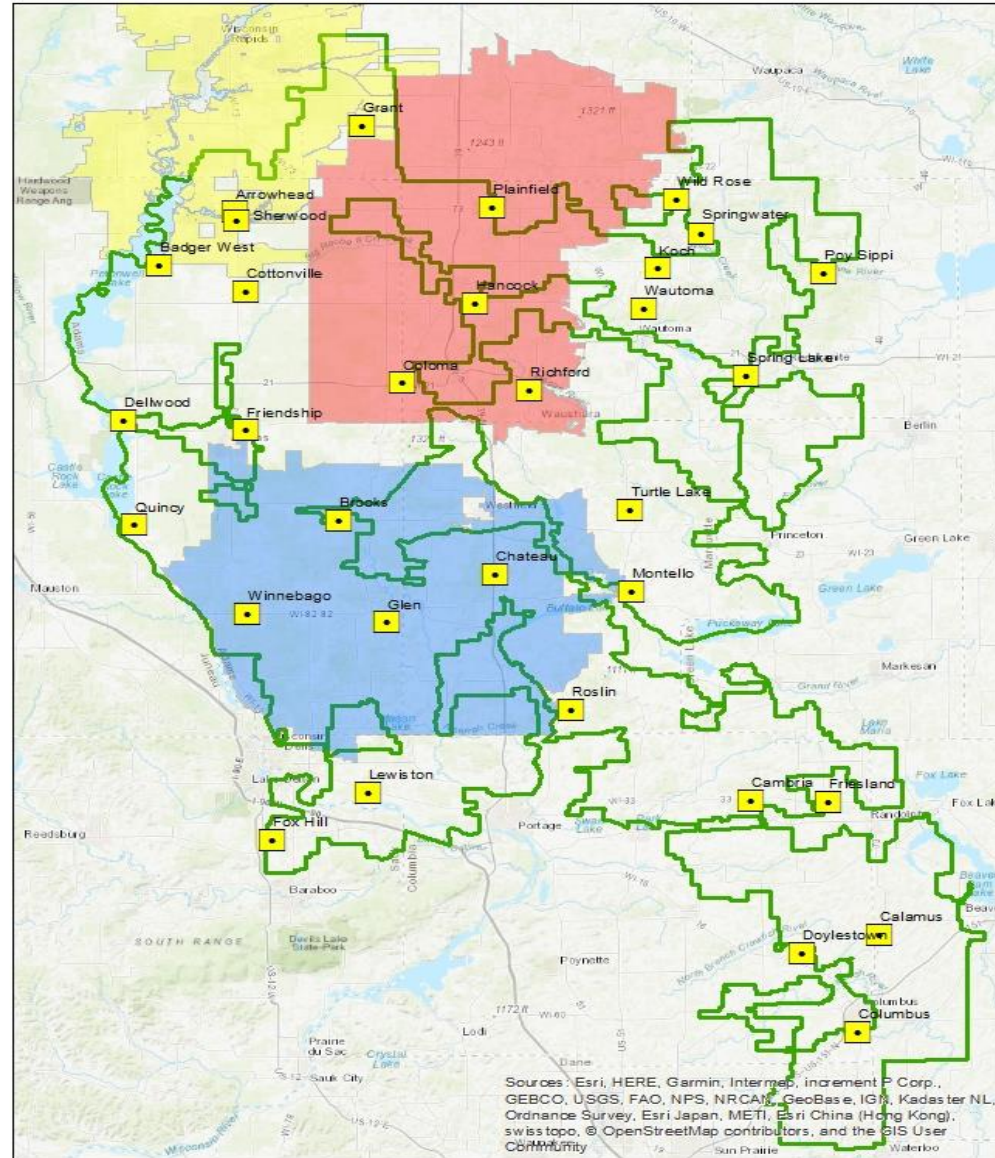
- Cooperation Among Cooperatives
- Supporting Adams-Columbia Electric Cooperative Communication Needs
 - Needed More Reliable Service
 - Internet, Telephone, Long Distance
 - Got Two Other Companies to Help Defray Cost
 - Aid to Construction
 - Long Term Contracts

Broadband Deployment Decisions

A Provider Perspective

- Adams-Columbia Electric Cooperative Wants Substations Hooked Up.
- We Hooked Up Six In Our Territory
- Built to Two More
- Nine More Being Brought on,
 - Negotiated with Neighboring Independent Broadband Companies for Cost Effective Connection
- Wisconsin Broadband Grant and Funds
 - One Week Ago Rejected
 - Will Meet to Discuss Next Steps

ACEC Broadband



- Marquette-Adams Telephone
- Solarus
- Union Telephone Company

- Substations
- Service_Territory_Reprojected



Broadband Deployment Decisions

A Provider Perspective

- Condo Association Near Our Boundary
 - A Couple of Customers Service With Prior
 - Met with Condo Board
- Proposal From Marquette-Adams
 - Prepay \$250 from 31 of 41 Members
- Similar Approach to Town. \$100 Prepay
 - Not Enough Interest
 - Construction Piece by Piece as Customers Show Interest

Broadband Deployment Decisions A Provider Perspective Summary

- Need to Explore Options
- Not a Quick Process

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Questions?

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