

# Robust Broadband: How to Get it...and How to Watch Your Bottom Line

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# A Bit About Norvado



- Telephone Cooperative  
Established nearly 70 years ago
- Population of roughly 7 people per square Mile
- FTTH project Started in 2009, scheduled to be 100% complete in 2019
- One of the largest FTTH networks in Wisconsin
- Incumbent Local Exchange Carrier (ILEC) for most of rural Northwest, WI

# CLEC vs. ILEC

- Competitive Local Exchange Carrier (CLEC)
  - A telecommunications provider that is usually created to compete with other established or “incumbent” providers.
  - Regulated by the FCC but not subsidized
  - In rural areas, a CLEC receives no recovery help from the government to provide services
    - What they bill a customer is what they keep
- Incumbent Local Exchange Carrier (ILEC)
  - The established telecommunications provider for a specific area
  - Regulated by the FCC and subsidized by Universal Service funds (USF)
  - In rural areas, an ILEC receives recovery dollars from the federal government to help offset the high costs of providing services to very rural areas
    - Government pays in addition to the amount billed to the customer

# The Challenge

- #1 Challenge - Justifying the costs
  - Fiber = \$28,000 per mile (just to get in the ground)
    - Cost can be higher or lower based on a few different factors including, type of ground and whether or not you need to bore under roads or rivers
    - Cost changes if you are using aerial vs. buried fiber
  - Connection to the home or premise = \$3,000 - \$5,000 per household
    - Cost varies based on distance from the buried fiber line

Norvado serves on average between 4 and 7 people per square mile

$$28,000 + (7 * 4000) = 56,000$$

That is \$56,000 spent to serve 7 people

According to Move.org the average internet bill is \$47

**At that rate, for 1 mile of fiber it would take Just over 99 years to break even!**



# Expansion Opportunities

- Current Expansion Projects
  - Municipalities
  - Tribal partnerships
  - Fiber to the Business (FTTB)

## **Each opportunity is evaluated on a case by case basis**

- Residential opportunities are very hard to make a good case for, but not impossible!
- With changes to regulatory funding, small independent telcos around the country are looking for opportunity's and are willing to invest their own dollars in projects that they anticipate will be profitable
  - If a municipality is willing to invest as well, the business case gets much easier to make

# Frustration!

- 3<sup>rd</sup> year attending Broadband Communities Event
  - Frustrated that every local provider in the country is not here telling our story!

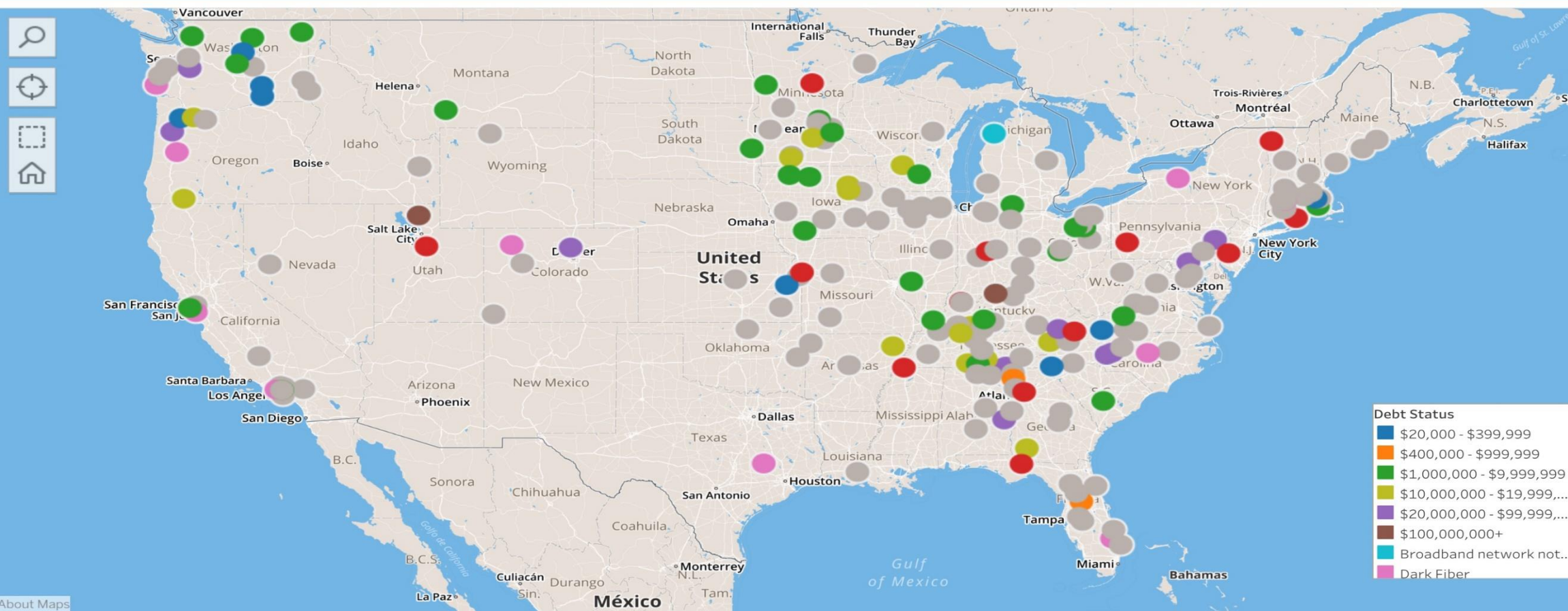
Every year more municipalities and counties “go it alone” and build networks based on recommendations from consultants without ever even trying to reach out to the base of local providers in their state.

Reach out to the local providers – Give them a chance to talk to you and if nothing else, leverage nearly 100 years of experience running a network like you are building.

**You do not need to do it alone!**

# Broadband Boondoggles: A Map of Failed Taxpayer-Funded Networks

For decades, local governments have made promises of faster and cheaper broadband networks. Unfortunately, these municipal networks often don't deliver or fail, leaving taxpayers to foot the bill. Explore the map to learn about the massive debt, waste and broken promises left behind by these failed government networks.



Over time, more than 200 municipal networks have sprung up in communities across the United States, sold with promises of faster speeds, an improved quality of life, a boon for local economies, and job growth. While on the surface these promises sound enticing, unfortunately,

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[www.munibroadbandfailures.com](http://www.munibroadbandfailures.com)

- iProvo (Utah)
  - Government Owned \$39.5M Cost
  - \$10M in operating losses
  - \$5.35 tax on utility bills for subscribers
  - Sold network to Google for \$1
- Thames Valley Communications (Connecticut)
  - \$30M spent by taxpayers
  - Sold to private investor for \$150k to stop losing money



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- Memphis Networx (Tennessee)
  - Memphis Light, Gas and Water Division spent \$32M on municipal broadband
  - Sold for \$11.5M 8 years later
- FiberNet (Georgia)
  - City spent \$35M
  - Only secured 180 customers
  - Sold to a private company for \$11.2M

## More Lessons Learned

- Kentucky Wired
  - 3,400 miles of fiber started in 2015
  - \$231M may end up being \$342M and has already experienced significant delays
- Cooperatives vs. For-Profit Companies
  - Superior internet access for Cooperatives (yes, many are recipients of USF)
  - AT&T's 10/1 Mbps svc is \$60-70 per month
  - Use of CAF funds to expand copper DSL

# Jumping Hurdles

- Open Access Challenge
- Retail Pricing
- Ownership
- Financing
- Density
- Competition
- Community Buy In
- Realistic Expectations

# Keys to Success

- Find a Need and Fill it Mentality
- Design the Network Needed with Cost in Mind
- Building a Business Case
- Show Value of the Proposed Network
- Defining Goals/Outcomes
- Learn from Others' Mistakes
- Partners
- Exit Plans





# Neighborhoodly

Modern Public Finance

