

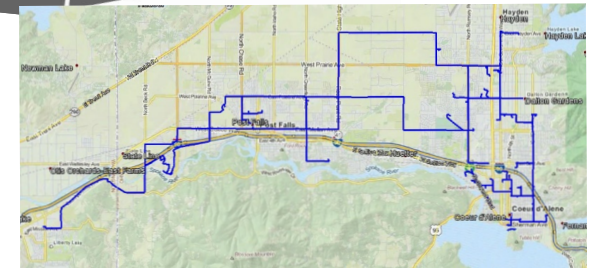
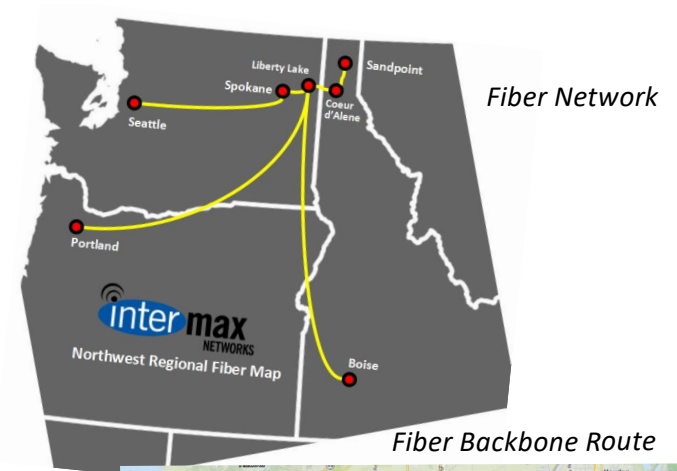
A Provider's Perspective: Intermax Networks

Mike Kennedy
President and CEO



Intermax Networks

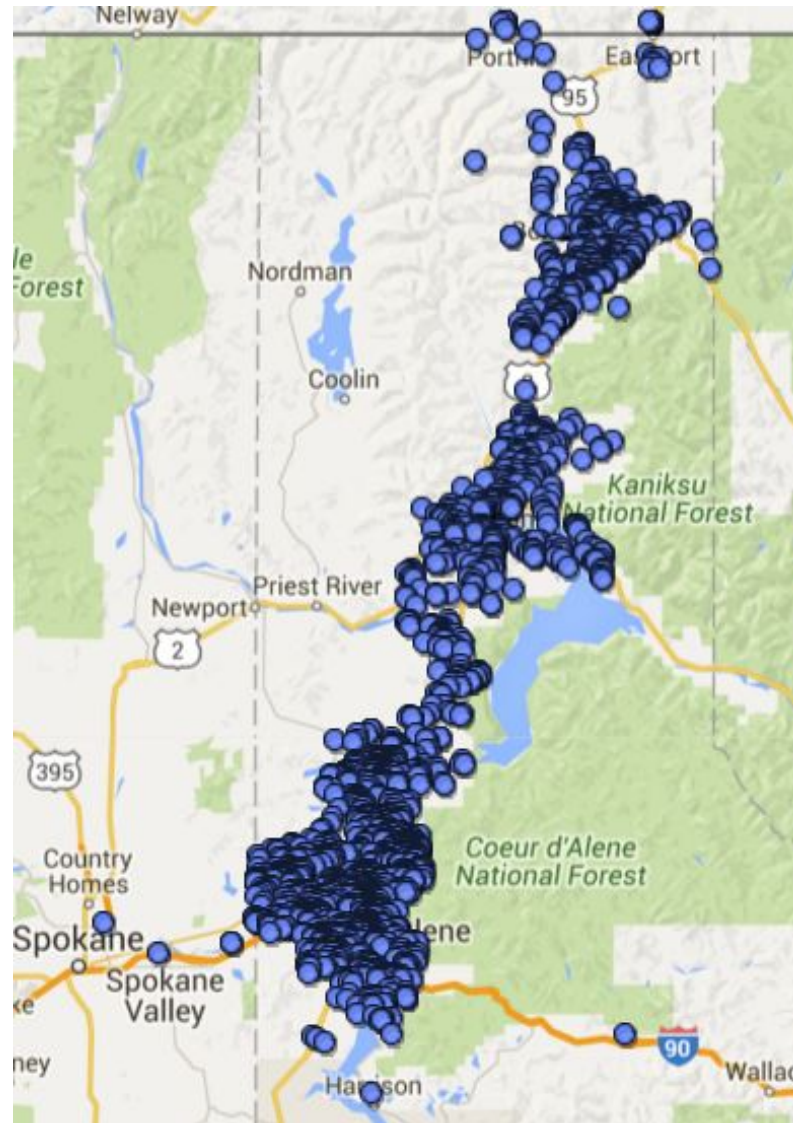
- **Largest independent** fiber and private microwave data network in North Idaho
- **Founded:** 2001
- **Offices:** Coeur d'Alene, Spokane, Sandpoint, St. Maries
- **Staff:** 71 FTE across our four offices (and home, now!)
- **Customer base:**
 - 4,500 Residential and Business ISP
 - 1,800 Business Voice
 - 150 Managed Business IT Networks
- **Fiber Route Miles:** 816
- **Primary Microwave Distribution Towers:** 64
- **Total Access Points:** 185



Towers In North Idaho



- From the Canadian Border down the border of Latah County for ISP Customers
- North Idaho, Eastern Washington, and a growing presence around the Northwest for Voice and IT Managed Service Customers
- Businesses, Schools, Governments, Health Care Providers



Intermax North Idaho Broadband Customer Map as of 2/2020

The Challenge of Topography in Rural North Idaho

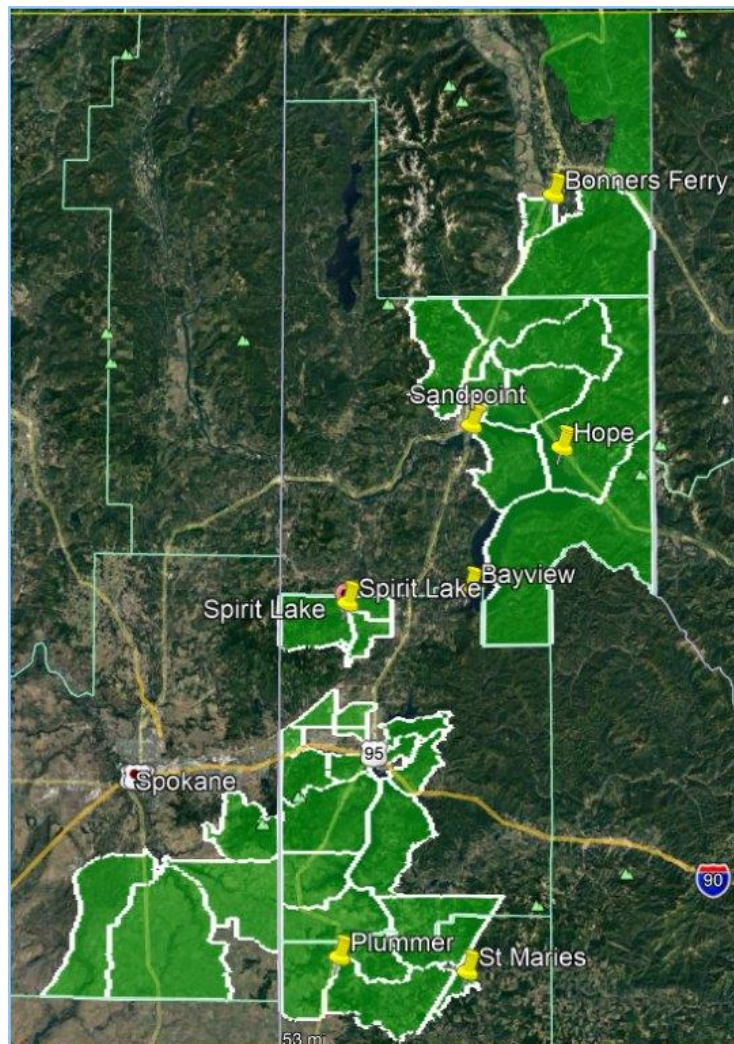
- DENSITY MATTERS - Building infrastructure is very expensive – and if there is limited density – there is no return on investment.
- LOCATION MATTERS - Development infrastructure in flat prairie lands (Kootenai County where growth is booming), when sewer and water are being run and expanded, is a simple cost of extending services. Not so in the smaller towns or unincorporated county places.
- COSTS:
 - Fiber can easily cost \$70,000 per mile to extend outside of flat prairie lands - just to the connect to a major hub - due to Mountains, Rock, Natural barriers, Wetlands, etc. That doesn't include the actual extension to the homes and businesses.
- Now consider remote rural areas like:
 - Bonners Ferry, Bayview, Blanchard
- Or even the closer in but expensive to access places like:
 - Hayden, Rose Lake, Spirit Lake
- Many miles, few potential customers, makes it unsatisfactory for the private sector to invest, and so they haven't. The bigger multinational telcos haven't either.

Our Recent Methods to Address the Divide

- PRIVATE INVESTMENT – 18 years of internally generated growth and expansion
- TECHNOLOGY changes improve outcomes, but speed requirements keep growing, so constant over-building of ourselves without new capital constrains growth.
- SPECTRUM: We've invested \$500k this year in protected, licensed CBRS – made available in consultation with the FCC and the Navy
- PARTNERSHIPS ARE CRUCIAL
 - Federal Programs
 - USDA ReConnect dollars (low interest loans).
 - FCC Auction using Universal Service Fees paid and intended to extend rural broadband (reimbursable long-term infrastructure payments – 10 years) CAF – Connect America Fund
 - State Programs
 - Idaho – recent Commerce Grants through CARES Act in Idaho
 - \$50 million targeted statewide – about a third of that targeted to the Panhandle and Latah and Nez Perce Counties. 28 projects in Kootenai and Boundary Counties
 - Idaho Transportation Department for conduit sharing and communication



FCC CAF Intermax Auction Award Census Blocks



Rural areas in the following counties:

- Boundary
- Bonner
- Kootenai
- Benewah
- Spokane

Idaho State Grant Project Lone Mountain, Kootenai County, Idaho



Takeaways for City and County Leaders

- It may feel exceptionally expensive, especially for smaller rural places – IT IS.
- It may feel helpless or hopeless when you look at the numbers – IT IS NOT
- The federal and state governments used to hand out monopolies for infrastructure (power, telephone, rail, etc.) – not with Broadband. But they are offering grants, loans, and programs.
- Don't try to go it alone. There is an allure to becoming your own utility provider, but the technology advances make it a very difficult service to stand up and do on your own.
- Public-Private Partnerships still work (despite the critics).
- Don't put all your eggs only into Fiber – there are more technologies that are available now and far less expensive.