

Colorado Fiber Network (CFN)

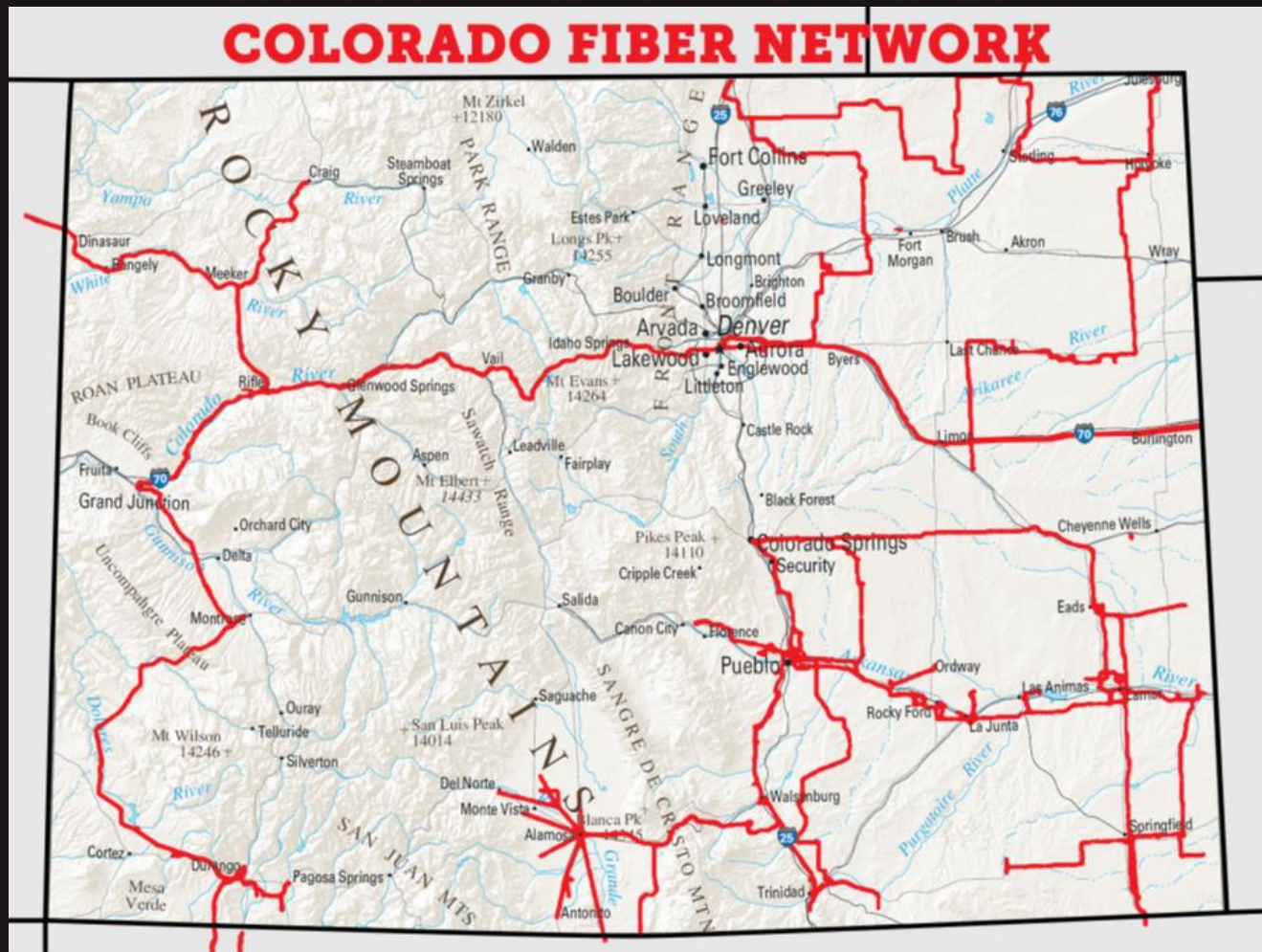
Who is Colorado Fiber Network?



Who is Colorado Fiber Network?

- Also known as CFN
- Came to build on the synergy of the individual networks working together collaboratively
 - Statewide reach
 - Regional reach
- The five companies offer fiber facilities throughout Colorado, enabling Gigabit communities, and serving many critical business and community organizations.

Where does CFN cover?



What services does CFN provide?

- Ethernet Transport – MEF Compliant Services
 - 5M to 10G
 - EPL (Ethernet Private Line)
 - EVPL (Ethernet Virtual Private Line)
 - MPLS
- Dedicated facilities
 - DS-X
 - OC-X
- Dedicated Internet Access (DIA)

Network Reach

- 746 Lit buildings (and this number grows monthly)
- 63 School/Library Districts
- 365 Community Anchor Institutions
- Interconnection throughout Colorado
 - Eleven interconnection / peering points
- Regional connections to:
 - Kansas
 - Nebraska
 - Oklahoma
 - Utah
 - Wyoming
 - New Mexico

Overview of each company



Colorado Communications Transport, LLC

A Regional Ethernet Services
Provider



Rural Company Ownership

- Agate Mutual Telephone Cooperative
- Eastern Slope Rural Telephone Association
- Nunn Telephone Company
- Peetz Telephone Cooperative
- Plains Telephone Cooperative
- PC Telcom (Phillips County Cooperative)
- Roggen Telephone Cooperative
- Stoneham Telephone Cooperative
- Wiggins Telephone Association
- Willard Telephone Company



Company History

- Planning initiated in Fall 2009
- Initial Capital Infusion in Spring 2010
- Network Construction Summer 2010
- Fully Operational in January 2011
- Initial Service was Internet Access to Members
- Wireless backhaul initiated in Fall 2011
- 1st 10G Wave to Nebraska Summer 2012
- CDN Connection Summer 2015



Network Map



CCT Network

- Member provided fiber
 - 760 Miles, plus 80 miles to Julesburg, Lorenzo NE, Burlington, and WY border
 - All but one member company has FTTH
- Nodes colocated in member central offices
- Fujitsu 7120 DWDM system
 - 16 available light waves
 - 10Gb Ethernet system
 - OC-48 SONET system
 - 5 10G Linear Transport Wave systems
- Connections to other state networks
 - Nebraska (NebraskaLink) – Sept 2012
 - Kansas (S&T Comm) – 2014
 - Wyoming (ACT) – 2015



Colorado Communications Transport

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STRATA
NETWORKS®

Who Is Strata Networks

- Strata Networks is a Member owned Cooperative started in 1953
- Corporate Headquarters – Roosevelt UT
- Approximately 215 Employees
- Approximately 60,000 total customers
- 8 Sales locations
- Acquired North West Colorado Fiber in 2009



STRATA
NETWORKS®

Strata Networks Services

- 1953 Landline Telephone Service
- Long Distance
- 1989 Cellular Service- CDMA-800, 1900 MHz
- 2012 4G LTE Data Core (90% covered)
- 1995 Broadband Internet
- 2006 IT Services- Hosted PBX, Security systems, Access Control, Monitoring, cameras
- 2009 Video Production Company (VTV)
- 2010 Cable Television (via cable and fiber)
- Satellite Phone redistributor



STRATA
NETWORKS®

Special Services (Ethernet)

- Business Broadband Services
- Ethernet Transport Services
 - 2M to 10G
 - EPLS (Ethernet Private Line Services)
 - EVPL (Ethernet Virtual Private Line)
 - MPLS
 - Point to Point
- Dedicated facilities
 - DS-X
 - OC-X
- Dedicated Internet Access (DIA)
- Wireless Backhaul



STRATA
NETWORKS®

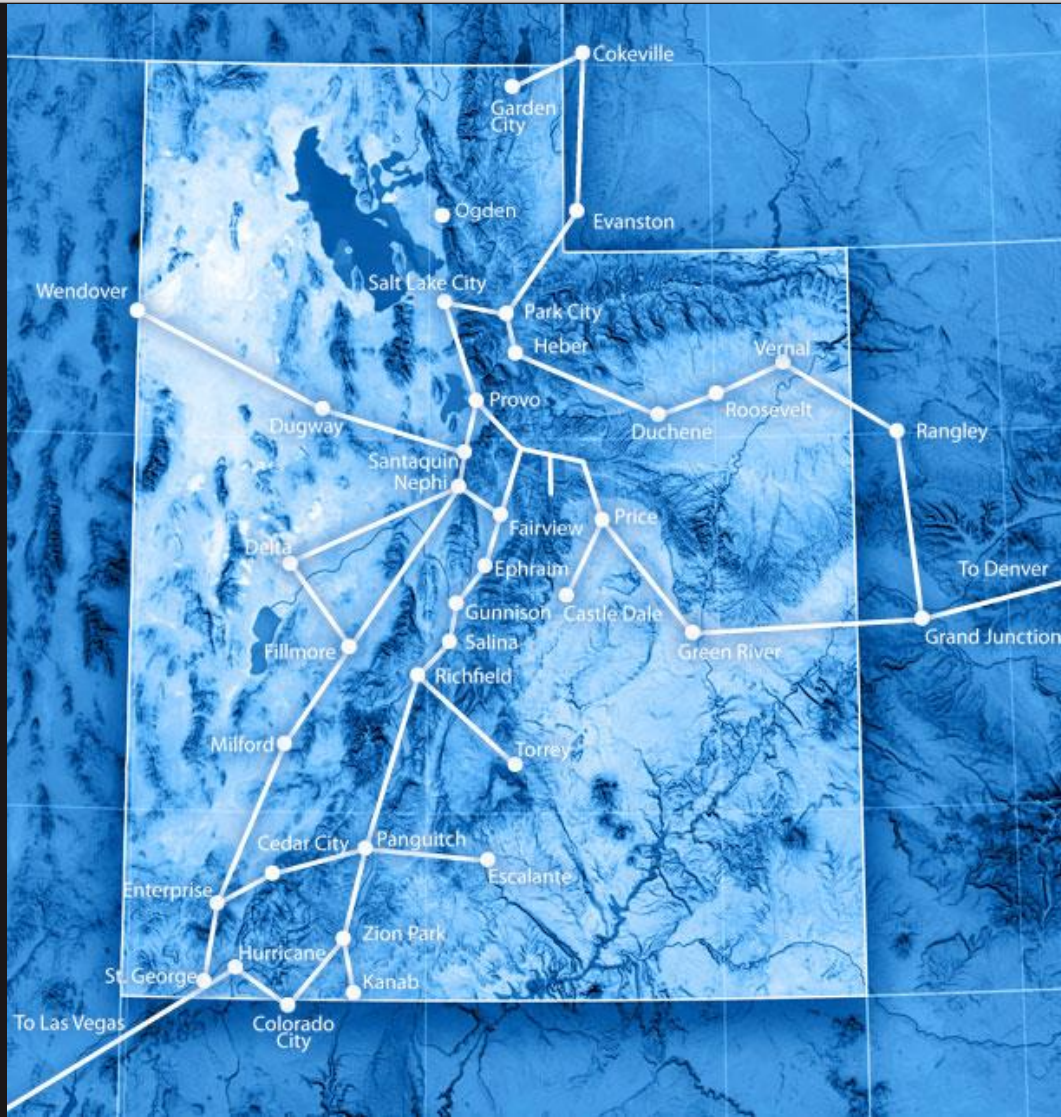
Strata Networks Reach

- Approximately 3000 Fiber Lit buildings (and this number grows monthly)
- Approximately 170 Cell sites
- Serve Counties, Cities, Schools, (UETN), Libraries, Healthcare in Serving Areas.
- Meeker Colorado Office
- Rio Blanco and Moffat Counties
- Regional presence with partnerships
- Western FiberNet



STRATA
NETWORKS®

Network Map



STRATA
NETWORKS®

Contact Information

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SECOM

17 Years of Technology



Who is SECOM?

- SECOM is telecommunications company
 - Phones – Internet – Data Circuits
- Facilities based carrier
 - SECOM has its own fiber – not using or reselling incumbent facilities in SECOM's area.
- It is a wholly owned subsidiary of Southeast Colorado Power Association (SECPA)
- Started in 1998 as a division
- Because of the growth, changed from a division to a wholly owned subsidiary

Why did SECPA get into this?

In 1998, the State of Colorado wanted high speed communications to a number of entities in southeast Colorado:

- Rural school districts
- Colleges
- Hospitals
- CSU extension agencies
- Libraries

How did it all start?

- Lack of broadband availability and competition southeast Colorado.
- Southeast Colorado Power Assn wanted to diversify its electric business.
- Growing need for internal communication system to automate meter reading, SCADA (monitoring of the system), plus connecting four offices

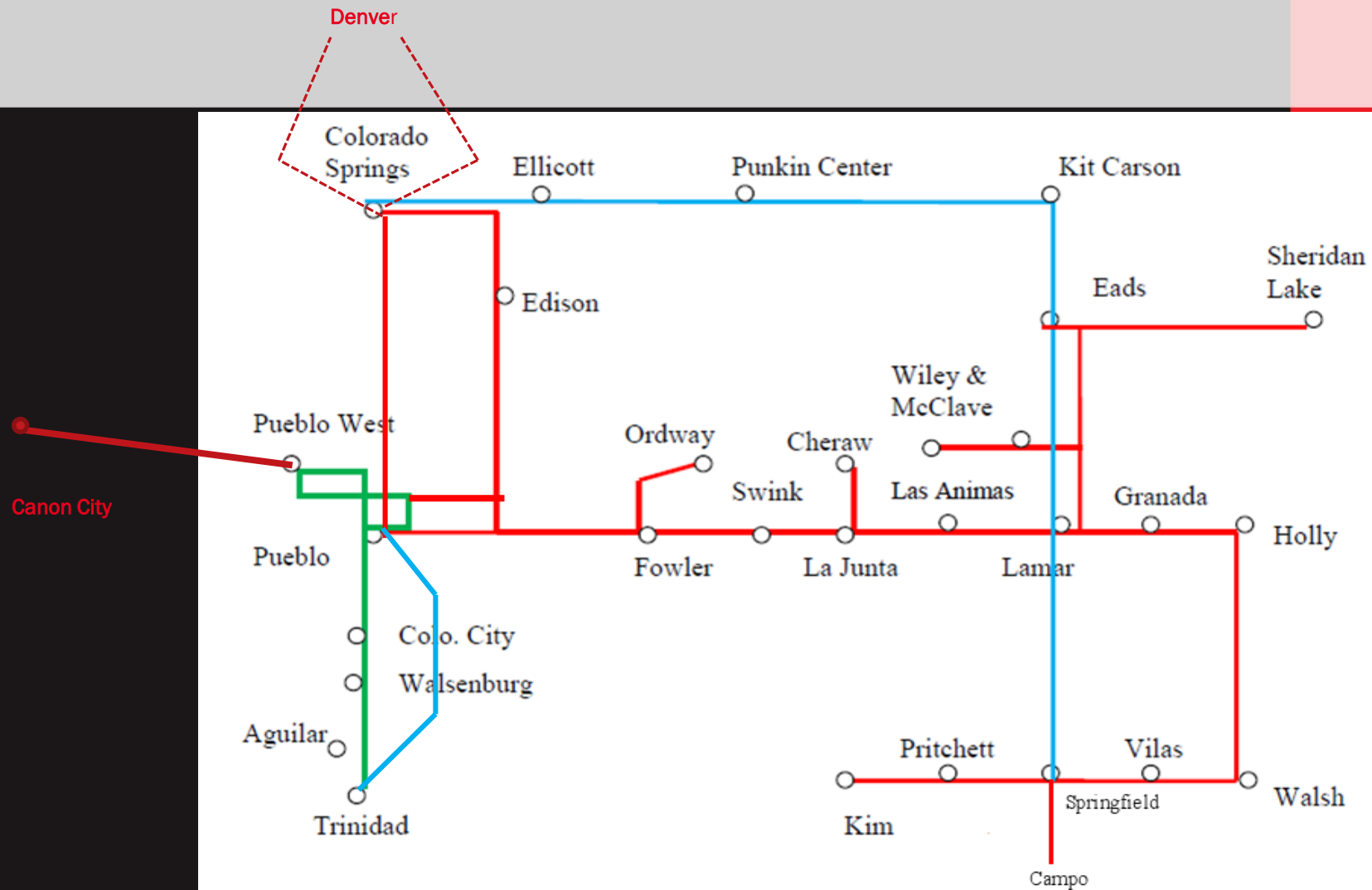
What happened next?

- There was a group that came together to rose up to meet a need:
 - 22 rural schools
 - 8 libraries
 - 6 CSU Extension offices
 - 4 hospitals
 - 2 community colleges
- A public/partnership was formed to construct approximately 600 miles of fiber optic cable on power poles.

Teamwork with a common goal



What does the fiber system look like now?



K
A
N
S
A
S

New Mexico

Oklahoma

What does SECOM offer?

- High Speed Internet
 - Businesses On fiber
 - Residential wireless – especially rural areas
- Wholesale High Speed Internet
 - (10 ISPs/Telcos)
- Metro Optical Ethernet data circuits
- Traditional T1s and other circuits
- Phone Service
 - Standard replacement for telco phone lines
 - Hosted PBX

15 years of growth

- SECOM has grown from a single circuit in 1999 to nearly 750 fiber circuits.
- SECOM currently has over 1700 wireless internet customers.
- Revenue of over \$6 million in 2014.
- SECOM now has 33 full time employees.
 - Adding six more in the next two months

Advantages to SE Colorado

- Economic Development
 - 33 employees local rather than in another state
- Competition
 - Lower costs for bandwidth and phone lines
 - Makes economic advantages for companies to relocate

Contact Information

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- Sales: sales@secom.net



FASTTRACK
communications

Who is *FastTrack* Communications

- *FastTrack* is a Competitive Local Exchange Carrier (CLEC) in CO and NM providing High Speed Internet, Voice and Data transport services to businesses
- Facilities based carrier
 - *FastTrack* owns, manages and operates its own fiber network
- Corporate Headquarters - Durango, CO



Company History

FastTrack Communications was formed in 2002 by two rural electrical cooperatives—La Plata Electric Association and Empire Electric Association—to bring state-of-the-art telecommunications to underserved rural areas. We remain locally owned and operated.

FastTrack applies its profits to building fiber infrastructure to school districts, colleges, governments, local airports and other vital community cornerstones.

FastTrack's broad array of data transport, Internet and voice services meet the needs of organizations in a variety of industries:

- Broadcasting
- Defense
- Education
- Energy
- Finance
- Government
- Healthcare
- Higher education
- Hospitality
- Manufacturing
- Nonprofits



Network Map



FastTrack Network

- Member provided fiber backbone from Grand Junction, CO to Albuquerque, NM
 - 420 Miles

Local loop (last mile) fiber in Colorado:

- Bayfield Durango Montrose
- Cortez Mancos Grand Junction
- Dolores Ignacio

Local loop (last mile) fiber in New Mexico

- Aztec
- Bloomfield
- Farmington

- Fujitsu 7500 DWDM system
 - 40 available light waves
 - 1Gb Ethernet
 - OC-48 SONET
 - 10Gb Ethernet
 - OC-192 SONET
 - 40Gb Ethernet

Contact Information

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- Kelly Hebbard, General Manager: 970-828-1005
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Who is Jade Communications

- Jade Communications is locally owned and operated in the San Luis Valley

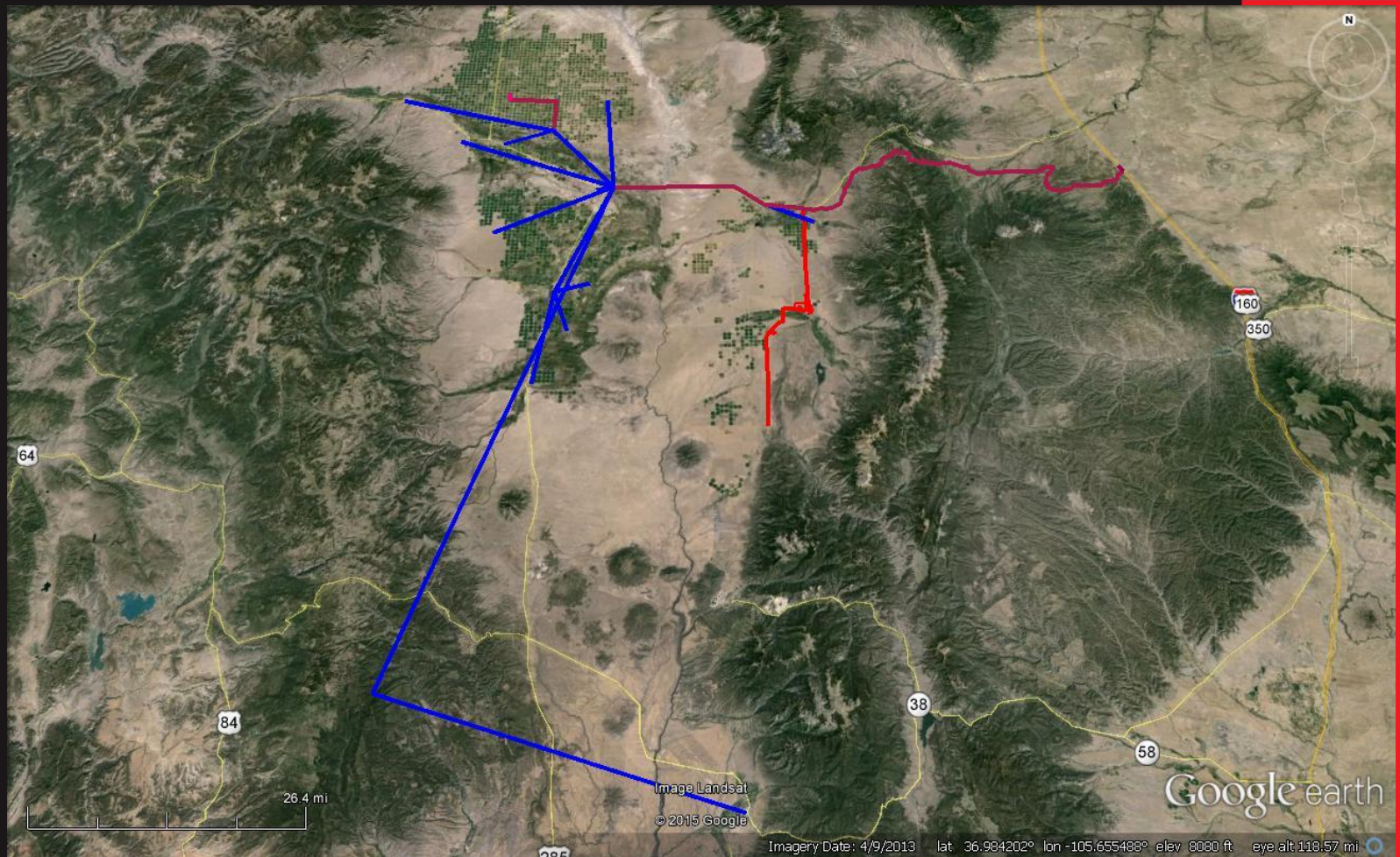


Company History

- 2000 - Deployed wireless Internet
- 2009 - Implemented the Chile route (alternate internet route)
- Installed DWDM in 2012
- 2014 Implemented a fiber alternate route



Network Map



Jade Communications Network

- Fiber
 - 380 Miles fiber
- DWDM system
 - 10Gb Ethernet system
- 2 - Connections to New Mexico



Jade Communications

Alan Wehe

Manager

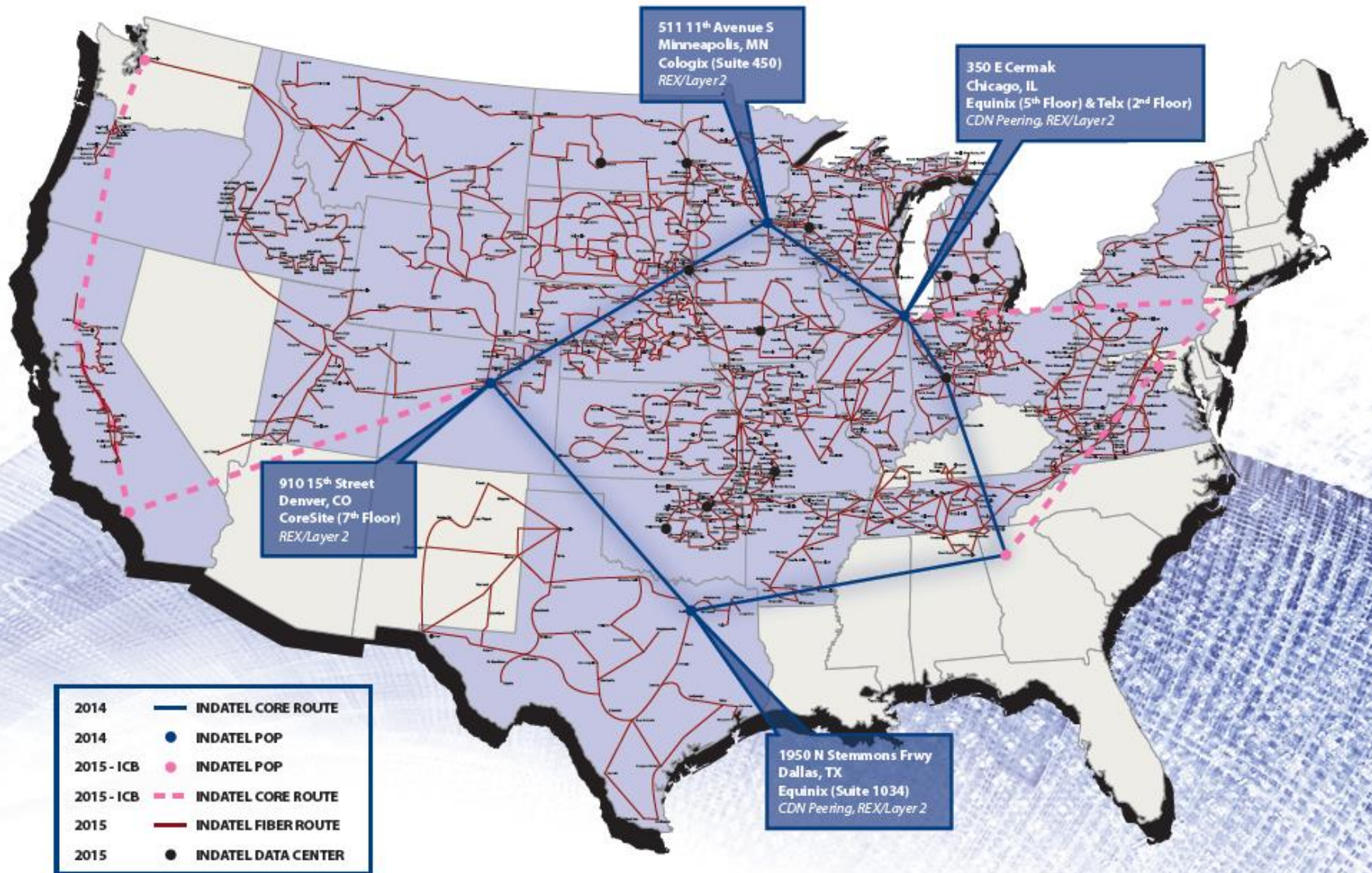
Jade Communications

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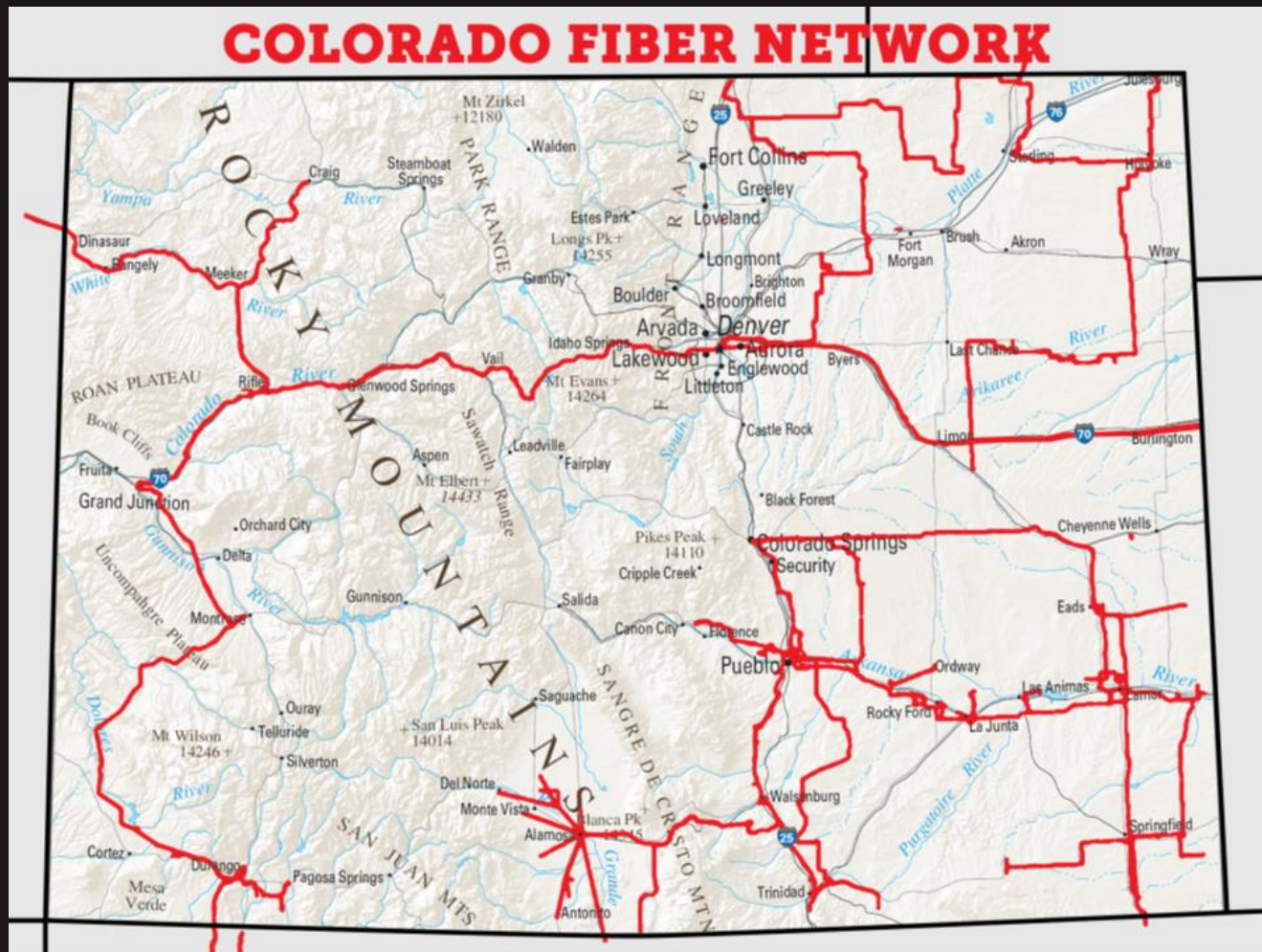
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Where does CFN cover?



CFN - Summary

Questions?