

  
**CML 96<sup>th</sup> Annual Conference**  
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Vail


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**Emerging Role of Municipalities  
in Broadband Deployment**

*Randy Simpson, President, CCUA, ColoradoCUA.org*  
*Jane Blackstone, Project Coordinator, Mammoth Networks*  
*Tom Roiniotis, General Manager, Longmont Power & Communications*  
*Mike Beckstead, Chief Financial Officer, Ft. Collins, Colorado*  
*James DePue, City Manager, Wray, Colorado*


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**Rural Broadband Challenges**

*Jane Blackstone*  
*Project Coordinator*  
*Mammoth Networks*

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**Rural Broadband Challenges**

Difficult business case:

- Expensive to serve -- geography, geology and topography
- Low population density


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**...and Opportunities**

- Unserved and underserved areas
- Economic and community development
- Existing infrastructure: electric, conduit, towers
- Grant funding
- Public-private partnerships

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**One size does not fit all...**

Many variables:

- Community characteristics and resources
- Technology – fiber and/or wireless
- Ownership
- Operation
- Philosophy – provider or facilitator?

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### RIO-BLANCO BROADBAND PPP

- Rio Blanco County is Network Owner and Builder/Operator of an FTTP network in Meeker and Rangely and county-wide fixed wireless infrastructure
- Private ISPs serve customers
- Local and DOLA grant funding

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### Northwest Colorado Broadband

Non-profit Demand Aggregation/Open Access

- Community anchor demand – City, County, SSSD, YVEA, UCHealth – aggregated and met at one carrier-neutral location
- Open access middle mile fiber network
- Mammoth is contracted network operator
- Partner and grant funding (DOLA, E-rate, FCC Rural Healthcare)

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**NCB**  
Northwest Colorado Broadband

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### Project THOR

Regional Demand Aggregation

- NWCCOG regional open-access middle-mile transport ring to deliver resilient service to community meet me centers
- Meet me centers distribute to community anchors and ISPs
- Regional demand aggregation lowers costs to CAIs and ISPs

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### Project THOR Concept

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### Pitkin County

Fixed Wireless Open Access


- Existing and new tower infrastructure
- Planned backhaul through THOR
- Local and DOLA grant funding

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## DMEA's Elevate Fiber Rural Electric Co-op ISP

- Leverages electric infrastructure
- 100% fiber
- High speed internet and voice



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## ...and others

Rural communities throughout Colorado continue to develop new approaches to deliver high-quality broadband for economic and community development.



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## NextLight: An Update From The Gig City

Tom Roiniotis  
General Manager  
Longmont Power & Communications





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## So, What's New?


It is especially gratifying to applaud Longmont, Colo., who was a 2013 NATOA winner for its 2017 has delivered world-class broadband service at home in the economic future. Jodie Miller



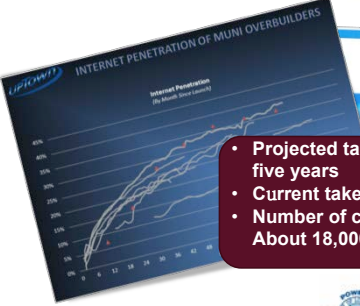
City	Speed (Mbps)
Longmont, CO	198.4
Atlanta, GA	145.8
San Jose, CA	128.5
San Francisco, CA	127.1
San Diego, CA	108.2
Seattle, WA	104.3
Portland, OR	93.3
Denver, CO	89.3
Phoenix, AZ	88.2

Local utilities like this ... are the best hope we've got for mega-fast internet service in this country."


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## In Demand



- Projected take rate: 37% after five years
- Current take rate: 53%
- Number of customers (to date): About 18,000



## In Demand



nextLight™ Over Time

9/2/2014

### A Quick History

**Fiber in Longmont on hold: City grants cash-Strapped Adesta time to seek investors**  
By Jeff Thomas on June 29 2011

The four-month "standstill agreement" essentially allows Adesta to suspend construction on the project, without violating its original agreement with Longmont.

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### A Quick History

With 2A approved, LPC prepares to plan the next step

"Passed with over 60% of the vote"

**Issue 2A on ballots**

**WE WIN!**

2A Huge Win for Longmont Community

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### Reasons Why

NextLight issues net-neutrality policy

The company has received numerous questions about policies

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### What's Happening Now?

Spread the light with FREE NextLight™ internet and phone service!

Colorado's First Gig City

Standard Gig rates lowered to \$49.95

Refer a friend and get a FREE MONTH of service

Sign up for Digital Divide and get a FREE MONTH of phone

Sign up for Digital Divide and get a FREE MONTH of phone

Refer a friend and get a FREE MONTH. Got six friends? Get six months FREE.

Digital Divide Program

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### What About Layer3?

Layer3 TV C Municipality

**Layer3 TV signs deal with Colorado utility to put video service in fiber bundle**  
By Daniel Frankel on March 14, 2017

THE NEW CABLE IS HERE


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### Lessons Learned

- Adjustments required to meet higher than anticipated demand
  - Permit process
  - Locate services
  - Additional service installation crews
- MDU/Business Property Owner Access Process
- Flexibility – be open to design/procedural changes as you move through the process
- Details, details, details, for a new utility setup
  - Billing & network systems software
  - Different tax & federal filing requirements
  - Policies, SOPS, space requirements
  - Hiring and contractor management

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"NextLight is a shining example to other areas that may want to bring power and ownership back to the local community. You rock, seriously."  
 – Mandie B.




**Thank you!**



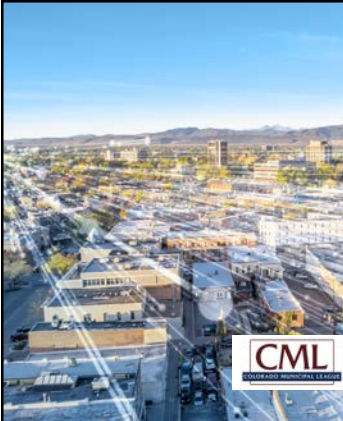

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## City of Fort Collins Broadband

*Mike Beckstead, Chief Financial Officer*  
*Fort Collins, Colorado*






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City of Fort Collins  
**BROADBAND JOURNEY**

Mike Beckstead,  
 Chief Financial Officer  
 Fort Collins, Colorado

### Why We Began Our Broadband Journey

- Explored potential options
- None provided what our City needed






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### How We Got Here

- SB152
- Community engagement
- Doing our homework
- Developed Business Plan
- November 2017 election






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Operationalizing

- Assembled Launch Team
- Hired Colman Kean, EPB and began recruiting
- Issued Bonds

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Resources

**LET US BE A RESOURCE!**

Visit us online for links, updates and more!

[ourcity.fcgov.com/citybroadband](http://ourcity.fcgov.com/citybroadband)

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**BROADBAND TIMELINE**

**2014** Community outreach, prioritization, broadband in the City Budget for Outcome process

**2015** **January** Issue to benchmark communities issue studies  
**NOVEMBER** **SDG** agreement signed at 87%

**2016** **January** Services LLC hired to complete feasibility analysis  
**MARCH** Staff/citizen survey conducted for market demand  
**APRIL - JUNE** Citizens Services and City Council Executive Session  
**NOVEMBER** **Feasibility** study completed  
**AUGUST** Request for Information issued to seek 3rd Party alternatives. Also selected in October 2016  
**NOVEMBER** For new Services Team Hall with City Manager, Mayor and CFO  
**DECEMBER** Narrowed to two options - 3rd Party alternative and retain

**2017** **JANUARY - APRIL** 3rd Party alternative Due Diligence  
**APRIL** **APRIL** Available to move forward with the City  
**MAY** Council decision to move forward with business plan for municipal broadband and issue Request for Proposals for 3rd Party alternative  
**JULY** Broadband Business Plan is completed  
**AUGUST** Council to review latest ballot language for November charter change  
**NOVEMBER** Voters approve a ballot measure to add telecommunication services to the Utility Charter and bond up to \$50M to build out the network by 20%.

**2018** **JANUARY** Council gave direction to move forward with building and engineering high speed network broadband to the entire community  
**FEBRUARY - MARCH** Board request for proposals (RFP) for engineering, design, equipment and materials. In addition, the City will allocate funds to launch the start-up.  
**MAY**

**LOOKING AHEAD**

**2017 DECEMBER** Design, planning and permitting

**2018 DECEMBER** Construction begins

**2019** First customer service

**2020**

**2021** Continued system buildout and increased customer availability

**2022**

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City of Wray, Colorado  
Broadband Network

James DePue, City Manager  
Wray, Colorado

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City of Wray, Colorado

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Project Size

- Wray services approximately 1,600 utility customers (residential and business)
- Plains Communications Services LLC service approximately 1,000 customers with phone and internet (prior to partnership agreement)

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## Project Outcomes

- A publically owned open access middle mile backbone of fiber infrastructure.
- Partnership with PCS
  - Deliver retail services to businesses and residents
  - Operate and manage the network infrastructure
  - Support the public organizations connected to the infrastructure with a secure network

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## Partnership Agreement

- PCS leases middle mile network from the City of Wray
  - Annual fee based penetration
- 10 year agreement
- City has option to purchase partner's broadband communication facilities at fair market value upon expiration or termination of agreement

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## Local Impact

- Business district
- Wray Community District Hospital
- Wray School District
- Industry



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## Challenges

- Financial
- Perception vs. needs
- Defining project goals and outcomes
- Evaluating potential partners



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## Lessons Learned

- There are no easy answers!
- Education is critical
- Seek local partners
- Collaboration locally
  - County, hospital, school, business district, local grantors, non-profits

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## Questions?

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