Across the country, innovative municipalities are recognizing the importance of leveraging gigabit level internet to attract new business and create jobs, improve health care and education, ensure civic participation, and connect residents to new opportunities. Next Century Cities is committed to celebrating these successes, demonstrating their value, and helping other cities to realize the full power of truly high-speed, affordable, and accessible broadband.
COLORADO

85.9% of the state is served by a terrestrial service provider, but only 3% have access to a wired plan that costs less than $60 a month.

#SHOWMEYOURMAPS
As a core guiding tenet of this initiative, County stakeholders assert that “broadband is a critical part of every community’s infrastructure that impacts the economy, safety, well-being, education and overall connectedness of [Larimer County] residents, businesses and institutions.”

~Larimer Broadband Feasibility Study
LARIMER BROADBAND UPDATE: INFORMATION TECHNOLOGY

UPDATE

UPDATE ON LARIMER BROADBAND INITIATIVE

LARIMER BROADBAND IS CURRENTLY CHARGED TO ACCOMPLISH:

• Act as a community convener; build strong partnerships, find opportunities to bring communities and providers together to improve connectivity
• Address Broadband connectivity for County facilities and services
• Support Strategic Plan Goal 1; Objective 3: Rural Broadband Infrastructure
• Obtain “grant ready” engineering estimates for county buildout
• Complete for ARPA and grant funding to support broadband projects
Strategic Plan Goal 1 of the 2019-23 Strategic Plan: Larimer County works collaboratively to ensure adequate public infrastructure is available to support the needs of our growing community.
OBJECTIVE 3

By the end of 2021 Larimer County will develop a comprehensive rural infrastructure strategy that defines the County’s role, funding level and targeted activities to... expand broadband services within unincorporated areas.
BACKGROUND

ACTIVITIES TO-DATE

• In 2016 72% voters said “YES” to an exemption to Senate Bill 05-152, approving Larimer County’s involvement in broadband/connectivity improvement.

• Larimer County BoCC said “YES” to a connectivity/broadband program with the goal of identifying problems and opportunities related to internal/community connectivity.

• Department of Local Affairs (DOLA) said “YES” to funding Larimer County’s Broadband Feasibility Study by awarding $82,000 grant: The Study was completed in December 2018.
LARIMER BROADBAND UPDATE: INFORMATION TECHNOLOGY

BACKGROUND

ACTIVITIES TO-DATE

- In 2019 commissioners set strategic goal to develop an infrastructure strategy to expand broadband services within unincorporated areas.

- **NOW:** County approved expansion of Loveland Pulse to build out FTTP project to help students in two key areas with poor connectivity leveraging funds from Thompson School District state grant.

- (Mobile Home Park/Drake)

- **NOW:** Preparing an NTIA grant application to expand municipal broadband projects to the GMA’s and unincorporated county priority areas of need adjacent to existing municipal fiber service areas.

- **NOW:** In 2020 county developed a SpeedTest tool and marketed the participation in the submitting speed test results to help identify areas and census blocks that have underserviced internet or lack of wireline service.

- 2020/2021 - Partnered with a local ISP to quickly rollout point to point wireless services to priority areas identified in our speed test in response to COVID recovery. County also launched a subsidized internet offering.
SpeedTest Results

Red = ARPA “Underserved”

https://speedtest.larimer.org/
NEAR TERM GOALS

- Obtain **NTIA Grant** with municipal partners to build out high priority projects
- Hire Full Time **Broadband Program Manager** to facilitate projects and drive future digital equity initiatives.
- Complete “grant ready” **engineering estimates** for middle mile and FTTP projects in remaining areas of unincorporated of Larimer County and GMA’s (growth management areas) – target homes within 3 miles of proposed fiber backbone
- Determine amount of county **ARPA funding support** for broadband projects.
- Solidify **community partnerships** (Municipal, Rural Electric, Schools, Libraries, etc)
- Compete for additional state and federal **funding** to “stretch” county support

- **Become the most connected community in the nation.**
“It’s an issue of unhappy users, degradation of the library’s ability to conduct business, and in the event of a local emergency, as was the 2012 High Park Fire—a serious threat to health and safety.”
Creed Kidd
Red Feather Lakes Community Library

“Our internet service goes out for days at a time. This has caused severe disruptions for our business—we can’t operate our business effectively without reliable broadband.”
Barbara Koelzer
Loveland, CO

Glen Haven has extremely limited access to internet options and virtually no cell phone receptivity unless one has a Wi-Fi enabled phone.
Polly Bennett
Glen Haven

Our Somewhere is very hopeful that our County can help improve our current service, if not perhaps give us some better choices. Most of us require on that one provider for phone, internet and cellular hotspots (hotspot tied to Broadband router broadcasting within our homes) for communication with the outside world—especially during emergencies.
From Ronald Ames
Livermore, Colorado

I think there are situations where government can fill that gap left by the private sector and I think this is one of those situations.
Cole Thompson
Rural Larimer County
Richard Holt – Council Member
Chair, Fiber Commission
Fiber Commissioners

- Council Member Richard Holt, Chair
- Council Member Mike Sutherland, Vice-Chair
- Mayor Stephanie Piko, Commissioner
- Jim Duncan, Citizen Commissioner
- Daniel Reitz, Citizen Commissioner
Centennial FiberWorks

• 2013: Centennial residents overwhelmingly supported opting out of SB-152 – allowing for the City to indirectly provide services through competitive and nonexclusive partnerships with private businesses
• 2015: City Council developed goals and adopted a Fiber Master Plan
• 2016: Council allocated $5.7 million to implement the City’s Fiber Master Plan and construct a 50-mile fiber backbone
• 2018: Construction completed
Centennial FiberWorks Network
Centennial FiberWorks

- Middle-mile dark fiber network model
- Conduit collocation policy – City has ability to place shadow conduit when private sector installs 1,000+ ft.
- Network connects intelligent transportation system (ITS)
FiberWorks Network Users
**Town of Breckenridge**

Mountain Resort Community with population of approx. 4,800
Home to Breckenridge Ski Resort - open nearly 10 months

**Goals**

- Deliver a balanced economy driven by destination tourism by 2024
- Protect our authentic character and brand
- More boots & bikes, less cars – Travel Demand Management
- Establish Breckenridge at the leading edge in sustainability

Strong support for infrastructure projects to meet these goals, including fiber that can play a part in meeting all Town goals.
Town of Breck Timeline

- 2017: Feasibility – A Municipal fiber network is necessary as residents struggle to find fast, reliable service with excellent customer service
- Fall 2018: Approval by Council to move forward
- Fast planning between October 2018 and May 2019
  - Hired Launch Advertising to brand our Network and develop marketing collateral
  - Solicited proposals from interested Network Operators & Service Providers
    - Challenge to educate ourselves on the best network architecture
  - Quickly completed a detailed design
  - After RFP selected a contractor and broke ground on May 22 2019
Since then...

- In 2019, we completed the backbone of the network, reached much of the downtown core, and brought service to one major local workforce housing development - $30M in town funds.

- In 2020, the town committed to obtaining a loan of $10M for the 2020 build, which allowed for additional build out of neighborhoods and completion of most the downtown core, as well as installation of a robust, fee Town run Wi-Fi system in the core of Town.

- With the uncertainly of COVID, no funding allocated for 2021. THEN, the Town was awarded a DOLA mineral grant of $875K to build middle mile infrastructure to anchor institutions.

- Now, we are utilizing those funds, as well as an additional $1.5M Council allocated in May 2021, to reach a new low income housing development, connect to other workforce and low income units, and continue connections within the existing network.

- Working with cellular providers to maximize fiber install in support of expanded service (4G/5G).
Where do we go from here...

- Find ways to leverage town dollars with available grant funds – Building in the high country is very expensive
- Establish public/private partnerships to bring fast, reliable service to all of Breckenridge
- Utilize our fiber network to support other infrastructure essential to town operations and quality of life
2014
Community outreach prioritizes broadband in the City Budget for Outcome process
- GigU
- Google

2015
Magellan hired to benchmark communities case studies
NOVEMBER SB152 overturned; passed at 83%

2016
Uptown Services LLC hired to complete feasibility analysis
MARCH Statistically-valid survey conducted for market demand
APRIL - JUNE Uptown Services and City create financial feasibility, begin modeling
JUNE - NOVEMBER Community Outreach conducted
AUGUST Request for Information issued to seek 3rd Party alternatives; Axia selected in October 2016
NOVEMBER 1st ever Telephone Town Hall with City Manager, Mayor and CFO
DECEMBER Narrowed to two options - 3rd Party alternative and retail

2017
JANUARY - APRIL 3rd Party alternative Due Diligence
APRIL Axia unable to move forward with the City
MAY Council direction 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/adopt ballot language for November charter change
NOVEMBER Voters approve a ballot measure to add telecommunication services to the Utility Charter and a bond up to $150M to build out the network by 57%.

2018
JANUARY Council gave direction to move forward with building and implementing high-speed next-generation broadband to the entire community.
FEBRUARY - MARCH Issued request for proposals (RFPs) for engineering, design, equipment and marketing. In addition, the City will allocate funds to launch the startup.
MAY City Council Authorizes bonds
JULY Fort Collins Connexion unveiled
Connexion Team announced
NOVEMBER Construction begins
OVERALL FIBER CONSTRUCTION THROUGH MAY ‘21

- **Design:**
  - 2018
  - 2019
  - 2020
  - 2021
  - 2022

- **Construction:**
  - 2018
  - 2019
  - 2020
  - 2021
  - 2022
  - 2023

- **Available:**
  - 2018
  - 2019
  - 2020
  - 2021
  - 2022
  - 2023

- **Legend:**
  - Blue: Atlantic Engineering Group (AEG) work
  - Orange: Connexion Service Available
### Fiber Areas Q3 2020 vs Q2 2021

<table>
<thead>
<tr>
<th>Category</th>
<th>Q3-20</th>
<th>Q2-21</th>
<th>Change</th>
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<tbody>
<tr>
<td>In Design</td>
<td>147</td>
<td>63</td>
<td>84</td>
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<tr>
<td>Under Construction</td>
<td>150</td>
<td>143</td>
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<tr>
<td>Construction Completed</td>
<td>60</td>
<td>151</td>
<td>91</td>
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<tr>
<td>Total Fiber Areas</td>
<td>357</td>
<td>357</td>
<td>0</td>
</tr>
</tbody>
</table>
Our Goal: Reduce Digital Disparities

1 Gig Internet + Wireless at $19.95 Per Month
✓ Reduced Cost With No Reductions in Speed or Service
✓ Based on Income Eligibility

Build on City + Community Income Qualified Programs
✓ Utilize Existing Need-Based Programs
✓ An Online Application for User-Friendly Verification

Community-Driven Program Development
✓ Affordable Housing Properties
✓ Digital Learning “Anchors”
✓ Community Partnerships