# AGENDA ITEM COVER SHEET

**TO:** **FRUITA CITY COUNCIL AND MAYOR**

**FROM:** **MIKE BENNETT, CITY MANAGER**

**DATE:** **OCTOBER 11, 2021**

**RE:** **BROADBAND STRATEGIES**

## PURPOSE

The purpose of this agenda item is to discuss with Council next steps in our broadband strategy. Staff is interested in requesting information/qualifications/proposals to establish a public-private partnership. This partnership would be build-out of 1-gigabit wired fiber available to each home and business in Fruita. With funding options using American Rescue Plan Act funds and state funding specific to broadband available to the City of Fruita and improving upon the City's existing fiber ring connecting all City facilities, it is opportune to consider expanding our fiber ring to maintain open access and City access, while allowing private providers to build, operate and maintain service to residents and businesses in Fruita. Unsolicited proposals and discussions with other municipalities have resulted in existing private providers willing to cover some or all costs in this approach. The City would need to cover costs of upgrades to the open access ring and negotiate terms of value owed back to the City for use, or lease of that ring, customer service requirements, reasonable charges for service, etc.

## BACKGROUND

Even before the pandemic, but especially highlighted by it, having reliable access to adequate internet speed is central for economic development, education, and quality of life. Within Colorado, many organizations have (or are in the process) of being actively involved in building out broadband connections to their communities or partnering with other organizations or private companies to aid in this effort. When discussing broadband, and how municipalities can plan for improving internet service to the community, there are several common terms that are used to describe the process and technology. Implementing broadband requires data centers, middle mile and last-mile connections. More background on these common terms is summarized here:

- **Broadband –** According to the Federal Communications Commission, broadband is commonly referred to as high-speed internet access that is always on and faster than traditional dial-up access. Broadband includes several technologies, such as Digital Subscriber Lines (DSL), Cable Modem, Fiber, Wireless, and Satellite. Broadband can be delivered to homes and businesses in a variety of different ways. Fruita staff have evaluated options such as Fiber To The Premise ("FTTP") and wireless options. The current definition of high speed is 25 megabits per second for download speed and three megabits per second for upload speed.
- **Middle Mile –** A middle mile is a connection that allows data to be transferred from a data center to an internet service provider or anchor institution, usually through several different jurisdictions. Most broadband projects can be defined as either a middle-mile project or a last-mile project. An example of a Colorado-based middle-mile connection is Project THOR. A middle mile can be owned by public organizations (whether one or several) or private companies.
- **Last Mile –** A last mile connection is a connection between a service provider and a customer. An example of this is connecting the middle-mile connection to homes and businesses, whether through fiber, wireless, or other means.
- **Take Rate –** The projected number of subscribers over the total possible subscribers in a system. Essentially, the number of people that will utilize the service. This is usually forecasted after a community completes a feasibility study.

In Colorado, there are generally three types of business models for municipal broadband. These three are a Retail model, a Franchise Model, and a Wholesale Model. Each model comes with its own positives and negatives, and when thinking about this, it's important to consider risk, reward, cost, available capital, and more.

- **Retail Model –** The retail model, or a full municipal broadband model, is the most advantageous and comes with the greatest cost and risk, but also the potential for the most reward. In this, the municipality is the internet provider and operates it like a public utility. The Retail Model is the most common approach in Colorado and in the United States. In this model, the municipality owns all components of the internet service, including owning the middle mile (whether shared or owned among several public organizations) and the last mile connections. The municipality operates and maintains the infrastructure and provides customer service. In Colorado, the cost of building out the retail model has ranged from $3.2 million (in the Town of Mountain Village) to an estimated amount of $145 million in Fort Collins. Such projects have been funded through a variety of different means, including from capital funds, private bonds, and voter approved revenue bonds.
- **Franchise Model –** A Franchise Model, commonly described as a middle-ground between a full Retail Model and a Wholesale Model, is when a community or organization owns pieces of the infrastructure, and a private internet service provider (or multiple providers) installs the network to each home. In this model, a public organization has an existing fiber line that connects to anchor institutions in the community, or a "backbone". The organization also secures a middle mile connection, and leases that to one or several internet service providers. In some cities in Colorado, the organization has spent the upfront capital needed to allow internet service providers ("ISPs") to build out to each home and are paid back over the course of years from the provider. Build out of the backbone and middle mile connection can be funded through the same ways as mentioned for the retail model and can be less expensive to the organization. Two Franchise Models that stand out in Colorado are Fort Morgan and Breckenridge. In both cases, the municipality has partnered with the network provider "Allo" to build fiber to each home. Despite

the same approach to implementing broadband, the outcomes for the two municipalities have been very different.

- **Wholesale Model –** Similar to a franchise model, a municipality may own a backbone or network that exists in its jurisdiction and leases access to that network to private internet service providers who bear the cost of building FTTP. In this model, organizations may forgo revenues associated with the internet service, but can potentially receive some revenues based upon fees, yearly leases, or per subscriber. The private providers can largely dictate what areas to serve in this model, the cost of the service, and more. An example of a wholesale model is the City of Centennial.

When thinking about these models, it is important to consider the costs and who bears the majority (or all) of the costs associated with implementing broadband in a community. By far, when going through implementation, construction of the network is the highest cost and barrier. As was described in the Mesa County Broadband plan, the bulk of the costs associated with building a network are for the directional boring or placement of conduit. While placing conduit underground is most likely the preferred option, fiber can also be placed overhead and on utility poles, if a company or organization has the permissions to do so. There are ways that these costs can be decreased, such as installing dark fiber (unused conduit to be used later) on construction projects, which is a process that City staff has been implementing in recent projects.

With all of this mind and considering that there are several different ways that the City of Fruita can approach a potential broadband project, staff is interested in learning more and potentially receiving information from ISPs about what a build-out could look like.

**Authority to Implement.** It should also be noted that the City of Fruita does have the authority to implement broadband specific projects as the City is no longer limited by Colorado Senate Bill 05-152. Senate Bill 152, when passed, essentially prohibited the use of municipal or county funds to be used to improve local broadband infrastructure and service. To be able to use funds on broadband projects, a local jurisdiction is required to opt-out of this bill, and Fruita voters approved opting-out in the spring of 2016. This also highlights the public's interest to improve service in our community.

**2021 Community Survey Results.** In the 2021 Fruita Community Survey, participants were asked about the availability of high-speed internet options in Fruita. When asked this, 34% of respondents perceived the availability of high-speed internet options as excellent or good, and 41% of respondents indicated that it is below average or poor. When asked about reasons to live in Fruita and access to high speed-internet, 41% of respondents indicated that their needs are met and 39% indicated that their needs are not met.

**Mesa County-Garfield County Broadband Plan.** NEOConnect completed a broadband study for Mesa and Garfield Counties in 2017. In recent conversations with NEOConnect, it is estimated that a build-out of fiber to each home and business in Fruita would cost approximately $10 - $12 million. The Fruita specific abstract of the broadband study was utilized to summarize the above.