



Request for Proposal

Retail Internet Service Providers for Open Access Network

INTRODUCTION

Mammoth Networks is pleased to present a Request for Proposal (RFP) for Internet Service Providers (ISPs) to serve on the Pitkin County Broadband Initiative’s (PCBI) Network. As the Network Operator, our role is to operate the Network as an Open-Access Network, facilitating equal access for multiple ISPs to provide services in all the regions outlined further in this RFP. Our intent is to choose qualified ISPs that will serve the residents and business and act as the retail facing entities of the public-private partnership set forth to improve broadband services throughout the area. Further details will be given on roles and responsibilities within the partnership throughout the RFP.

In order to allow each ISP to retain enough market share to create and operate a successful business model, the number of the ISPs allowed on the network may be limited. Mammoth seeks to recommend ISPs that have a reputable business standing, creative solutions for participation, and believes the proposal brings financial benefit to all parties involved.

Successful respondents will enter into an agreement with Mammoth directly to serve as an ISP on the PCBI Network

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1. RESPONSE OVERVIEW

Contact Information:

Please direct all RFP responses, questions, and communications to BOTH:

Evan Biagi, VP of Colorado Operations

ebiagi@mammothnetworks.com

and,

Andrew Eubank, Broadband Development Project Manager

aeubank@mammothnetworks.com

Office: 970-457-1047

Response Format:

All responses shall be emailed to the contacts listed above by the due date. Please provide responses in a .pdf format, with no more than thirty (30) single-sided pages, including any graphics, tables, and any other documentation.

Questions Due:

All questions regarding this RFP must be submitted by **February 1st, 2019**. Mammoth will perform all due diligence in responding to the questions asked and will share a .pdf document containing questions asked and answers as applicable with all interested parties by 5:00 PM MST on **February 8th, 2019**.

Response Due:

A completed response in the format indicated above will be due at or before 5:00 PM MST on **February 15th, 2019**. Responses received after this deadline will be considered invalid. Please email all responses in a .pdf format to both contacts listed above.

ISP Base Requirements and Selection Process:

Pitkin County has established minimum qualifications to ensure the selection of ISPs meet the expectations of the publicly-funded infrastructure and advance the goals of the public-private partnership.

All proposals must meet the minimum qualifications outlined below. Any proposals that do not meet them will not be considered for selection. ISPs who do meet the minimum qualifications will then be recommended based



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on the strength of their profile and response to the RFP. Mammoth will recommend at least two ISPs for selection to Pitkin County, who will either approve or deny those recommendations.

Minimum ISP Qualifications:

- ISP must provide proof of 6 months of positive cash flow.
- ISP must provide current credit rating.
- ISP must provide positive balance sheet as of the end of year for 2018.
- ISP must provide a minimum of (3) relevant references.
- ISP must provide proof of good current standing with the Colorado Secretary of State.
- ISP must provide evidence of being in business for one year as an existing Internet Service Provider as of the date of proposal submission.
- ISP must state intent to serve all areas shown as serviceable by the Pitkin County network.
- ISP must have at least three full time employees, with evidence of employment and not 1099-contracted workers.
- ISP must provide an after-hours support process.

Other Requests:

Proposals should include statements and/or documentation on the following:

- Existing financial stability and the ability to meet or exceed any financial obligations through the term of any agreement.
- An existing or sustainable local presence within Pitkin County, or a defined plan to create and maintain such a presence.
- Current standing with Better Business Bureau.
- Years in active business performing telecommunications functions.
- Positive customer feedback or reviews.
- Objectives with regards to accessing the network, customer service, and growth strategy for at least the terms of any Agreement, and preferably beyond.
- Current company size and potential for growth.
- Include any samples of marketing materials, pricing plans, service-level agreements, services available, special items, and any Non-Disclosure items clearly marked. Include the Company Name, Names of the Principals, a statement of ownership including any parent companies and/or subsidiaries, and the contact information for the primary contact person of the proposal.



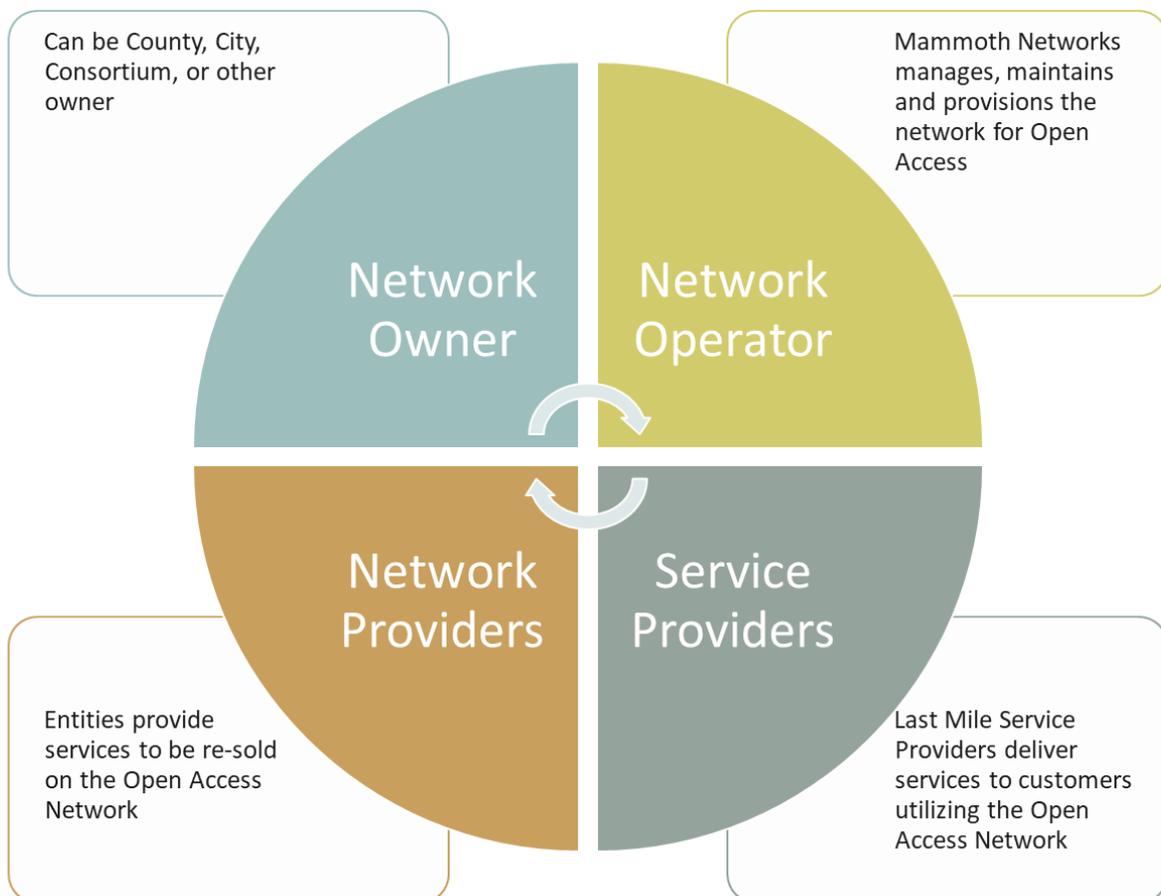
2. ABOUT THE PROJECT

What is an Open Access Network?

An open-access network (OAN) refers to a horizontally layered network architecture in telecommunications, and the business model that separates the physical access to the network from the delivery of services. In an OAN, the owner or manager of the network does not supply services for the network; these services must be supplied by separate retail service providers.

Another way of looking at this sort of network is that it is a division of responsibilities and costs. In many cases, the network owner supplies capital and other physical resources to the project. The network operator provides network engineering, expertise, and administrative functions – operational expenses. ISPs on the network provide retail functions, like hooking up the customers to the network, billing, and customer support. The public gets to benefit because of the investment made by the network owner, often a municipality, public entity, or consortium, which is then fully realized by a public-private partnership that brings all the pieces together to make a cohesive whole. Other public benefits include competition: instead of a monopolized system by a single ISP, each ISP gets to compete on the things that often truly matter to their customers: customer service, support, and additional offerings.

(This graphic shows the roles within an Open Access Network. Pitkin County fills the role of Network Owner.)



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What is Pitkin County Broadband Initiative's Open Access Network?

At its core, the OAN is a method of delivering broadband through fixed wireless, open for use by multiple Internet Service Providers. It is the result of public-private partnership with clear intent to reach the unserved and underserved areas of Pitkin County.

PCBI's OAN came about as a result of a public initiative spearheaded by the Pitkin County Broadband Initiative group, or PCBI. Through a series of information and proposal requests, vetting, documentation, engineering, and hundreds of hours of hard work, what is believed to be a feasible business case was made to bring broadband via fixed wireless over an LTE-based platform, utilizing the Pitkin County Translator Network as the backbone. Mammoth Networks was then chosen as the network operator for this new network. As part of our contracted role, through this RFP, Mammoth will put together a list of qualified Internet Service Providers that meet the County's determined criteria for selection.

What is the ISP's Role in the Network?

ISPs function as the retail-facing organization(s) for the network. ISPs are responsible for marketing retail services, closing sales, billing customers, performing customer support, and other end user related functions.

ISPs may choose to offer, for sale or lease, customer premise equipment past the demarcation point of the PCBI network, such as customer premise wiring or services. Each ISP will be responsible for all the costs of their own customer acquisition, and any other costs associated with providing service to the retail end users. ISPs recover these costs through retail service charges.

Both the ISP and Mammoth will have many responsibilities within their roles. Among them, but not limited solely to, are these:

Administration:

Mammoth will contract with the ISPs to operate on the network, subject to the final approval of Pitkin County Broadband Initiative.

Each ISP will maintain an accurate database of subscribers and services sold, and any additional over the top services provided to customers.

Accounting:

Mammoth will invoice the ISPs for any services purchased on/from the Network

Mammoth will maintain inventory counts and asset tracking for all network demarcation equipment, also known as subscriber equipment/customer premise equipment.

Mammoth will provide access to a method of tracking inventory, customer access, and monitored systems as applicable to the ISPs.

The ISPs will bill end customers in a timely and accurate manner.

The ISP will need to provide monthly bills to customers that are clear, concise, and understandable.



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The ISPs will issue bill credits to Customers, if it's warranted by an ISP-caused outage or incident. The ISP will be responsible for following a documented SLA process for credits due if there's an outage caused by the network operator or owner.

Customer Care:

The ISPs will provide Tier I customer support. This encompasses billing questions between the ISP and its customers, general troubleshooting at the demarcation point and beyond, and other basic functions. Questions that require troubleshooting within the PCBI network will require escalation to Mammoth and will remain as communications between the ISP and Mammoth, not involving the customer with Mammoth or PCBI.

Mammoth will provide Tier II and Tier III support, troubleshooting calls within the PCBI network for the ISPs. Mammoth won't directly interface with any ISP customers.

The ISPs will provide installation of the customer premise equipment/demarcation devices, which will be mountable antenna units that relay back to the wireless access points on each PCBI tower.

Dedicated Internet Access:

Each ISP will be responsible for bringing in their own bandwidth to the PCBI Network. They will have the option of bringing it to two potential Meet Me Centers, which will function as the entry points into the network. The amount of bandwidth will be up to the ISP, as well as the carrier they use. The entry points will be located at:

North 40:

43 Sage Way

Aspen, CO 81611

City of Aspen:

130 S. Galena St

Aspen, CO 81611

We anticipate this being a potential way for ISPs to distinguish themselves from other competition, since each ISP will otherwise have equal access to the same distribution and middle mile network.

Each ISP will need to be able to provide the troubleshooting for their equipment and handoff to the PCBI network, as well as the entire backhaul link/circuit utilized. Mammoth's responsibility will be to accept the handoff and ensure the bandwidth services are able to be utilized singularly by each ISP for their customers.

Infrastructure Expansion:

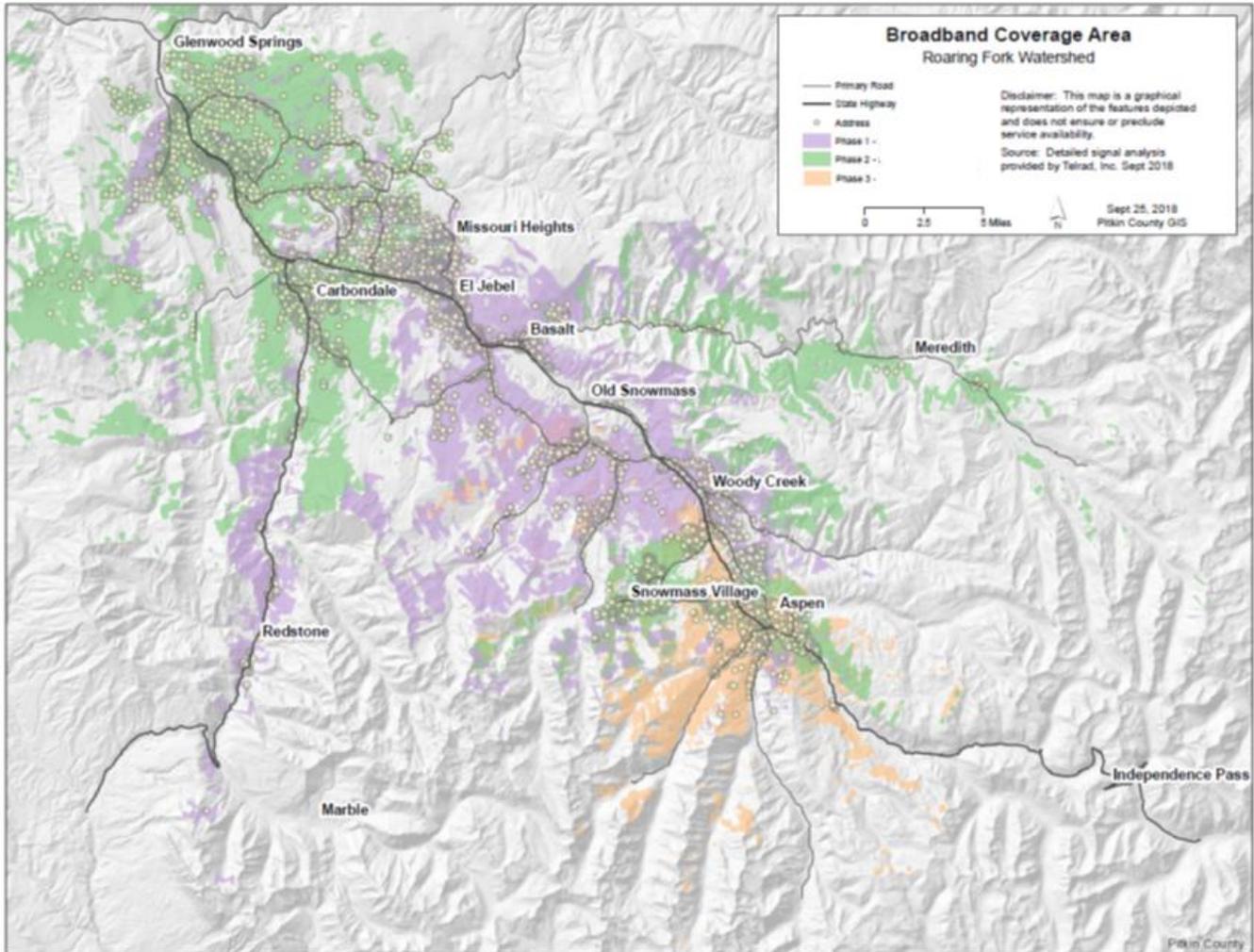
As the project unfolds, there will undoubtedly be small areas or pockets of population that remain unserved. It will be the responsibility of the ISPs to help Mammoth and PCBI identify these areas. Mammoth will then work closely with PCBI to engineer and plan future expansion, with the expansion being funded by PCBI.



3. NETWORK INFORMATION AND PHASES

Phases and Potential Coverage:

Below is a graphic showing the estimated coverage and phases of the Pitkin County network. In total, we estimate the network will cover approximately 22,278 addresses, both business and residential. These numbers are not guaranteed, but we believe it to be a fairly accurate representation of the coverages coming available.



Phase 1 consists of the areas shaded in purple. Coverages are estimated at 6,995.

Phase 2 consists of the areas shaded in green. Coverages are estimated at 11,203.

Phase 3 consists of the areas shaded in light orange. Coverages are estimated at 4,080.

Network Design and Requirements:

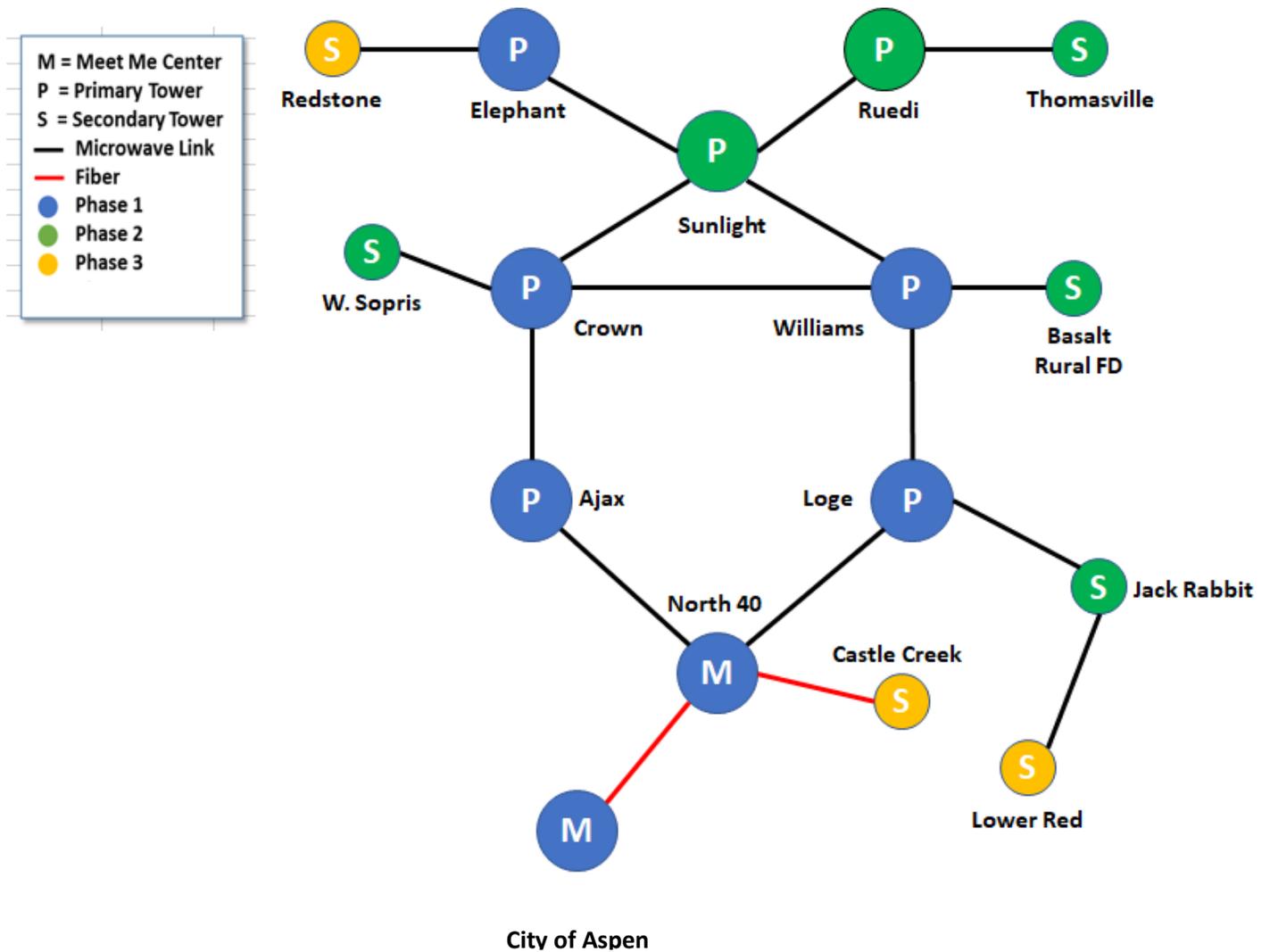
The network will consist of fixed wireless as the last mile and middle portions. The method of access for each ISP will be to bring bandwidth to the designated Meet-Me Centers. Each ISP will connect into the Pitkin County network and have virtual traffic routing from the Meet Me Center to their end users, riding the middle mile



network, separate from the other ISPs. Each ISP will have full access to all the areas and potential addresses that the network covers. An ISP will not be able to bring bandwidth directly to any tower site – the only options for ‘entrance’ into the network will at the City of Aspen Meet-Me Center or the North 40 Meet Me Center. Other Meet-Me Centers may become available, such as a location in Glenwood Springs or other potential sites.

The network as it pertains to any ISP will consist of LTE-based fixed wireless gear from Telrad Networks, including but not limited to BreezeCOMPACT base stations, and LTE Customer Premise Equipment such as the CPE9000, CPE12000U, or others as deemed appropriate. In no instance will an ISP ever provide their own Customer Premise Equipment used to access the Pitkin County network, such gear will always be obtained from Mammoth as the network operator. Mammoth will provide stock and basic instructions for installation and access. The ISPs will not be responsible for any maintenance or access of the actual tower sites and access points.

A sample diagram of the network is included below:



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Pitkin County's Network will maintain the following roles as described within this RFP:

Network Owner: Pitkin County Broadband Initiative

Network Operator: Mammoth Networks

Network Provider: Any Internet/DIA/Backhaul provider of choice to the Meet-Me Center Location(s)

Internet Service Provider(s): TBD

Timelines:

The current timelines are outlined below and may be subject to change. These dates represent when it is anticipated that ISPs will be able to use that portion of the network to service customers.

Phase 1: Spring/Summer of 2019

Phase 2: Spring of 2020

Phase 3: 2021

