This proposal, submitted by Cable One, Inc., d.b.a. Sparklight (hereinafter "Sparklight"), creates an opportunity to construct Fiber to the Premise (FTTP) infrastructure to serve households and the businesses in community of Verde Village and unincorporated community in Yavapai County. This will allow this community to fully embrace and participate in the broadband revolution with the proposed deployment. The critical need for reliable, affordable, and robust internet has been amplified for residential and business users with applications for work from home, tele-medicine, and the growth of internet commerce, all require state-of-the art and scalable infrastructure now more than ever.

Sparklight

Sparklight has the financial, managerial, and technological expertise to provide a robust, reliable, and scalable FTTP broadband architecture to the community of Verde Village. Attached as a separate file is five years of audited financials which illustrates the financial strength of Sparklight. Sparklight growth strategy composed of organic growth in existing markets, targeted acquisitions of companies in small to rural markets, and building in rural communities which are suffering with slow and unreliable broadband.

Verde Village are very similar in demographics to other Arizona Sparklight markets like Cotton Valley, Prescott, Show Low, Winslow to name a few.

While Sparklight has its roots providing service in rural and smaller markets, overall, it is a very large broadband provider servicing over 1 million customers in 24 states. Below is a chart of Sparklight's broadband subscriber base over the past five years.

PERIOD ENDING	BROADBAND SUBSCRIBERS
September 2021	1,013,000
December 2020	857,000
December 2019	773,000
December 2018	663,000
December 2017	643,000

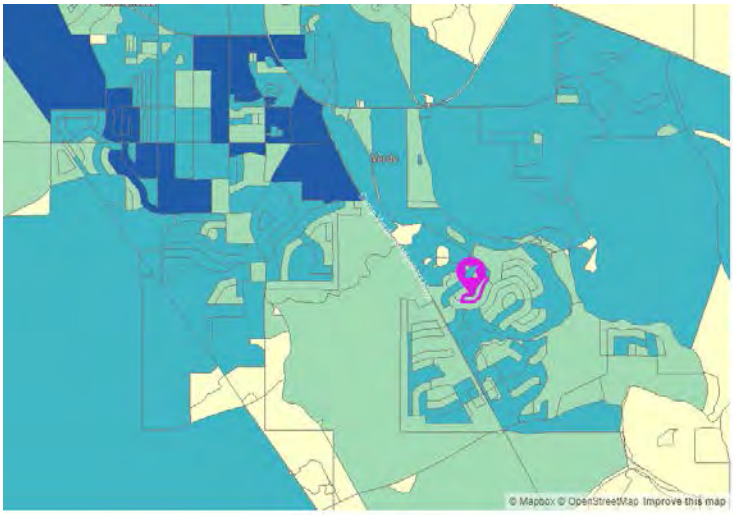
Traditionally, Sparklight offered broadband over HFC technology but within the past several years, for new communities, FTTP is the technology of choice. Sparklight provides fiber connectivity to businesses in Jerome AZ, Payson AZ, McKinney TX, Portland TX, Victoria TX, Monroe LA, Biloxi MS, Columbus MS, Odessa TX, Fargo ND, Boise ID and Gadsden AL. Also, recognizing the need for reliable residential broadband, Sparklight has embarked on building entire markets for both households and businesses. Currently, construction is taking place in Longview TX and Kilgore TX to provide FTTP to residential customers with great success. Work is also starting in Henderson TX and Victoria TX. Sparklight would like to add Verde Village to the list of FTTP communities with the assistance of the ACA Broadband Grant.

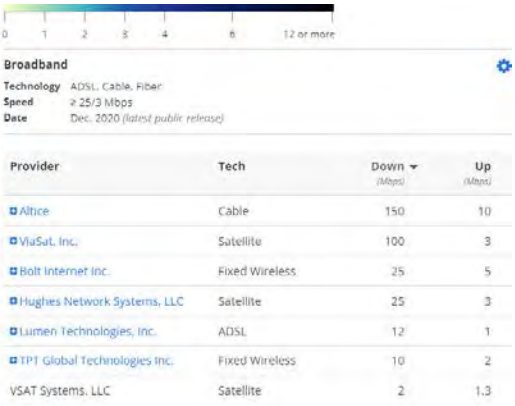
The above projects demonstrate that Sparklight has the technical expertise to construct and maintain the network being proposed. Also, Sparklight will leverage existing back office functions necessary to support the customers. Billing, Technical Support, Customers Service, Product Development, Network Operations Center, and more are all in place to support broadband customers for these communities.

Current Broadband Landscape

The current broadband offerings are limited in speeds and in some instances are limited by distance, with degradation of speed as distance is increased for traditional copper infrastructure. Sparklight will be offering household broadband speeds up to 1 Gbps symmetrical and businesses up to 5 Gbps. Additional information regarding network architecture will be provided later in the submission.

To truly appreciate the benefit a fiber based broadband service is, it is important to understand existing service is composed of either DSL, Fixed Wireless, or unreliable satellite.





0 1 2 3 4 6 12 or more

Broadband

Technology ADSL, Cable, Fiber
Speed ≥ 25/3 Mbps
Date Dec. 2020 *(latest public release)*

Provider	Tech	Down (Mbps)	Up (Mbps)
Altice	Cable	150	10
ViaSat, Inc.	Satellite	100	3
Bolt Internet Inc.	Fixed Wireless	25	5
Hughes Network Systems, LLC	Satellite	25	3
Lumen Technologies, Inc.	ADSL	12	1
TPT Global Technologies Inc.	Fixed Wireless	10	2
VSAT Systems, LLC	Satellite	2	1.3

Source: FCC Fixed Broadband Deployment website

Economic Benefit

Sparklight's project plan incorporates **4,202** households and **48** businesses. The population of the area is over **12,019** individuals. Sparklight expects to serve anchor tenants of schools, and county facilities and financial institutions.

The economic benefit cannot be overstated. With [redacted], and construction team of 15 to 25 individuals during construction could translate into 2 to 3 times in GDP growth. But more importantly, the sustainable economic benefit to businesses and households with a fast, affordable, and reliable broadband connection. The ability for the communities to attract remote workers or household now able to start a homebased e-commerce business. This project will be utilizing existing Sparklight assets which reduces the overall capital to provide this infrastructure. Sparklight utilizing existing Hub in Cottonwood to service Verde Village . The existing Middle Mile route out of Cottonwood is diverse.

Network Description

The network architecture will be FTTP. Our main hub, sometimes called a Head End (HE) or Central Office (CO) or Central HUB, is the "brains" of the network housing all the electronics including the OLT and Market Router. The HUB is powered by commercial power backed up by a DC battery supply and a Natural Gas Generator.

A Market Router will be used for the project. The GPON electronics (OLT) will be from Calix (Product information is attached as a separate file) for each community.

Sparklight will build distribution fiber to a 10 centralized point, Fiber Distribution Area (FDA) within the area, typically 200 to 500 passings. From the FDA, fiber is built closer to the customer to a splice location. From there, the Terminals and Tails are installed. Terminals are the equivalent to a port for the fiber drop which terminates on the customer structure. In total **60** miles of fiber cable is utilized for this project. Below is a chart highlighting prospective customers, miles of construction and in kind Sparklight provided infrastructure. It is important to note the entire build is underground.

							In Kind Contribution	
Community	**Population**	**Passings**	**Last Mile Construction**	**% Underground**	**% Aerial**	**# FDAs**	**Middle Mile Fiber**	**Building**
Verde Village	12,019	4,250	60	100%	0%	10	0	Yes

Preliminary maps of the design are below and for greater detail, KMZ files are included as a separate attachment.

[redacted]

Being a Passive Optical Network, there are no active powered devices in the network between the customer ONU and the OLT. Power outages along the distribution fiber path have no impact on service. Also, since less power is required for the overall network compared to HFC plant, it is a cleaner alternative for the environment.

[redacted]

Stated Commitment to Fund and Operate for Five Years

Below is Sparklight's resolution to fund the sizable capital commitment for this project. Sparklight is a builder and operator of markets has intentions of owning, maintaining and operating Verde Village well beyond the 5 year commitment period.

RESOLUTION OF OFFEROR

BE IT RESOLVED that **Cable One, Inc** act as the legal sponsor for project(s) contained in the ACA Broadband Initiative to be submitted on January 31, 2022 and that **Ken Conner** its **Director Divisional Operations** hereby authorized to apply for funding of this project on behalf of **Cable One, Inc.**

BE IT FURTHER RESOLVED that **Cable One, Inc**. has the legal authority to apply for financial assistance, and the institutional, managerial, and financial capability to ensure adequate project administration.

BE IT FURTHER RESOLVED that the sources and amounts of the provider match identified in the Offer are committed to the projects identified.

BE IT FURTHER RESOLVED that **Cable One, Inc**. has not violated any Federal, State or local laws pertaining to fraud, bribery, graft, kickbacks, collusion, conflict of interest or other unlawful or corrupt practice.

BE IT FURTHER RESOLVED that upon award of its Offer by the ACA, **Cable One, Inc**. may enter into an agreement with the ACA for the referenced projects, and that **Cable One, Inc** certifies that it will comply with all applicable laws and regulations as stated in all contract agreements.

NOW, THEREFORE BE IT FINALLY RESOLVED that the undersigned is hereby authorized to execute such agreements as are necessary to implement the project on behalf of Offeror.

I CERTIFY THAT the above resolution was adopted by **Leadership Team** of **Cable One, Inc**. on **January 15, 2022.**

[redacted]

VP Market Expansion 1/15/2022

Partner Vendors

Sparklight will begin by selecting a vendor for the walkout and design for the fiber.

The largest single capital line item will be construction labor. An RFP will be issued to Sparklight approved construction contractors explain the project and timelines. Sparklight will chose a contractor based on experience on quality of work, cost, and commitment to achieve timelines.

Material requests will be issued to multiple vendors. For construction material, quotes will be solicited from known third parties and purchased based on price and delivery intervals.

The same is true with electronics and other capital costs associated with the project.

Sparklight will maintain overall responsibility for the project quality and timelines.

Intended Use of Funds

Building a FTTP network topology to cover all households and businesses in the community is an expensive proposition. Without the funding of the ACA Rural Broadband Grant, Sparklight would never undertake this project because of the cost per passing for both eligible and ineligible costs. Sparklight has a threshold for return on investment which would not be achieved without the support of this grant.

Below is a chart for the projected budget based on the composite labor costs, material and other expenses related to the project.

When a household signs up as a customer, a fiber drop is taken from the terminal to the side of the structure. At that point a housing (a small box) is attached to the structure and fiber is then run into the household or business directly to the Sparklight provided modem. This provides a fiber network end to end.

The technology Sparklight proposes is not an inexpensive option to implement. However, it is the best choice for both scalability and reliability and is overall more economical. Other delivery technologies including fixed wireless and hybrid fiber coax (HFC) wired infrastructure, may require additional upgrades to achieve the scalability of FTTP. Fixed wireless delivery, while a marginally less expensive solution to deploy, is highly dependent on acquiring licensed or unlicensed spectrum and lacks the robust upstream/downstream data transport capabilities of fiber. HFC can deliver greater speeds than fixed wireless but constructing new HFC plant, with its noted performance limitations, costs close to the same amount as Sparklight's proposed FTTP solution. Because the construction and speed of implementation of FTTP and HFC are the same, FTTP with its tremendously greater performance characteristics and future scalability, is the obvious choice.

Project Budget

Below is a chart outlining the capital costs for this project.

[redacted]

The budget template highlights the major budget components of the project like most projects is construction labor, materials, fiber, and fiber splicing being [redacted]. The template also provides key metrics on cost per passing, cost per mile of construction and the grant contribution on a per passing basis.

The above Sparklight contribution to the project does not include existing Middle Mile and building infrastructure already in place.

It is important to note, none of the cost includes the capital cost and operating cost to maintain the market. Sparklight success based capital for each new residential subscriber is [redacted] which includes the drop, Inside Fiber, ONU and labor to install. It also does not include the personnel needed on-going maintenance and operation.

Marketing and Pricing

The Market goal is to awareness of Sparklight's fiber internet service in markets. Messaging centers around fast, reliable fiber broadband with symmetrical speeds at affordable prices.

During the construction phase, the objective is to create a cadence of messaging to prospects when fiber broadband will be available for their home or businesses. Tactics initially focused on direct mail and could include digital and billboards as princple means of advertising, but word of mouth is the most effective advertising available. Sparklight associates will also be involved in civic events to inform the community of the activity.

At community introduction, a press release announcing fiber delivered broadband service is coming will be released. During construction, a web site will be available to inform residents and businesses of what to expect during construction and an opportunity to inquire about service. Additionally, postcards are mailed to area prior to construction to remind them that Sparklight is bringing fiber delivered broadband to their home and business and they will soon be see crews working in their area.

A series of direct mail pieces to communicate with prospective customers before construction begins, when services are soon to be ready and when fiber broadband is available in their area.

Once an area is activated, prospective customers will receive direct mail piece approximately every 2 weeks. Two examples of direct mail pieces are below.

Sparklight has created speeds and rate plans tailored to the needs of a variety of internet subscribers. For broadband customers with low usage that primarily surf and need access to email, we offer an economical entry level. For individuals and families with heavier usage requirements (streaming, gaming, distance learning or remote work), we offer service plans with higher data plans at a slightly greater price point. This variety allows our broadband customers the flexibility to choose the service which best meets both their budgetary and usage needs. Below is a chart illustrating our everyday prices. Sparklight will offer promotions from time to time.

[redacted]

Type	Project	Applicant	GEOID
Rural	Verde Village	Cable One dba Sparklight	04025001701
Rural	Verde Village	Cable One dba Sparklight	04025002002
Rural	Verde Village	Cable One dba Sparklight	04025002003