PART 2 – PROJECT OVERVIEW

2.1 GENERAL DESCRIPTION

The City of Gainesville, Florida is seeking a business partner to create a investor grade Business Plan Strategy for the CITY to function as a broadband utility.

2.2 BACKGROUND

CITY OF GAINESVILLE/GRU INTRODUCTION

The City of Gainesville (CITY) is the largest city and county seat of Alachua County. The City is approximately 64.4 square miles and is currently home to 133,067 of the 267,306 county residents. The City utility, Gainesville Regional Utility (GRU) service area is approximately 125 square miles and provides services to more than 185,000 people. The University of Florida (UF) and Shands Hospital at UF are the leading employers in Gainesville and provide jobs for many residents of surrounding counties. Known for its preservation of historic buildings and the beauty of its natural surroundings, Gainesville's numerous parks, museums and lakes provide entertainment to thousands of visitors. A seven-member city commission, members of which are elected by Gainesville city residents to four-year terms, governs the City of Gainesville. GRU's mission is to provide safe, reliable, competitively priced utility services in an environmentally responsible manner to enhance the quality of life in our community.

INTRODUCTION TO GRUCom

GRUCom is a competitive business that was created to provide services that were not available in the Gainesville market. GRUCom's presence in this market has driven technology offerings like 4G arriving to the area sooner and the system has grown to expand service throughout Alachua County by developing superior products and services. GRUCom's revenue from these services stays in the Gainesville community and goes to support lower costs for all GRU utility customers.

The System has been providing retail telecommunications services since 1995 under the brand GRUCom. Services provided by GRUCom include Internet and data transport services to local businesses, government agencies, multiple dwelling units (MDU) housing communities, various Internet service providers, and other telecommunications carriers. Additional services provided by GRUCom include tower space leases for wireless personal communications (cellular telephone) providers, public safety radio services for all the major public safety agencies operating in the County and collocation services in the System's central office. GRUCom is licensed by the FPSC (Florida Public Service Commission) as an Alternative Access Vendor and as an Alternative Local Exchange Carrier.

SERVICE AREA

GRUCom provides telecommunications and related services to customers located primarily in the Gainesville urban area and holds telecommunications licenses that allow it to provide telecommunication services throughout the state. GRUCom operates network connections to interface with all major Interexchange Carriers (IXC) who maintain facilities in the County, as well as interconnections with both of the County's two incumbent local exchange carriers. The System, through interlocal agreements, also provides public safety radio services across the entire County.

SERVICES PROVIDED

The services provided by GRUCom fall primarily into the following five major product lines: telecommunications services; Internet access services; communication tower antenna space leasing; public safety radio services; and collocation services.

The telecommunications services provided by GRUCom are primarily Private Line and Special Access transport circuits (both described below) delivered in whole, or in part, on the GRUCom fiber optic network. These high bandwidth circuits are capable of carrying voice, data or video communications. Private Line circuits are point-to-point, unswitched channels connecting two or more customer locations with a dedicated communication path. Special Access circuits are also unswitched and provide a dedicated communication path, but these circuits connect a customer location to the Point of Presence of another telecommunications company. GRUCom transport services are provided at various levels ranging from 1.5 megabits per second (Mbps) to 10 gigabit per second (Gbps). Part of GRUCom's business strategy is to use unbundled network elements from the incumbent local exchange carrier, AT&T, in anticipation of fiber extensions to specific service locations.

GRUCom also uses the fiber optic network to provide high speed Internet access services. Business Internet and Dedicated Internet Access (DIA) class service connections are offered at access speeds ranging from 10 Mbps up to 10 Gbps and bulk residential Internet access service is provided to participating MDU communities at speeds up to 1 Gbps under the brand name GATOR NET. In 2017, GRUCom upgraded its bulk GATOR NET services to deliver Symmetrical bandwidth, a first in the Gainesville area.

GRUCom operates eleven communications towers in the Gainesville area and leases antenna space on these towers as well as on two of the System's water towers, for a total of thirteen antenna attachment sites.

Two of the five transmitter sites for the countywide public safety radio system are also located on these communications towers. Wireless communications service providers lease space on the towers and, in most cases, also purchase fiber transport services from GRUCom to receive and deliver traffic at the towers. GRUCom provides transport services that carry a substantial portion of cell phone traffic in the Gainesville urban area.

The GRUCom public safety radio system began operation in 2000. These services are provided over Federal Communications Commission (FCC)-licensed 800 MHz frequencies, utilizing a trunked radio system that is compliant with the current frequency allocations enacted by the FCC in 2010 to accommodate Personal Communication Services (PCS) providers. The trunked radio system meets current industry standards for interagency operability. The trunked radio system consists of 22 trunked voice frequencies. Antenna sites are linked to the network controller and various dispatch centers utilizing GRUCom's transport services.

CUSTOMERS

GRUCom's customer base is growing as the fiber optic network is expanded and new product offerings are introduced. Customer types vary for each GRUCom business activity.

GRUCom's fiber transport customers include other land-line telecommunications companies, cellular telecommunications companies, private commercial and industrial businesses, federal, state and local governmental agencies, public and private schools, public libraries, Santa Fe College, the University of Florida, UF Health and the University of Florida Health Science Center. As of September 30, 2018, GRUCom had a total of 499 transport circuits in service.

Internet access services are provided to other Internet service providers, local businesses, government agencies, and participating MDU housing communities. As of September 30, 2018, GRUCom had 333 Business Internet access customer connections and bulk residential Internet agreements with 41 MDU communities. GRUCom tower space leasing services are used primarily by wireless providers, which include cellular telephone and PCS companies. As of September 30, 2018, GRUCom executed 32 tower leases, for space on eleven of its thirteen antenna attachment sites with eight different lessees, including national and regional cellular service providers.

Public safety radio system customers consist solely of government entities due to restrictions on the use of the frequencies allocated to the System under licenses issued by the FCC. The primary radio system users include: the System, the Gainesville Police Department, the Gainesville Fire Rescue Department, the Gainesville Regional Transit System, the City's Public Works Department, the University of Florida Police Department, the Santa Fe College Police Department, the City of Alachua Police Department, the City of High Springs Police Department, the County's Sheriff's Office, the County's Fire Rescue Operations and the County's Public Works Departments. These users have entered into service agreements which are valid through 2020, with minimum commitments for the number of users and monthly fees per user established for voice and dispatch subscriber units. The public safety radio system is operated by GRUCom on an enterprise basis, but an interagency Radio Management Board has been established to govern user protocols, monitor system service levels, and review system changes that could increase rates. As of September 30, 2018, the public safety radio system had 2,599 subscriber units in service.

	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Telecom and Data Services Sales	$ 7,733,558	$ 7,964,792	$ 8,117,296	$ 8,514,959	$ 9,080,145	$ 9,648,284
TRS Sales	$ 1,718,952	$ 1,706,112	$ 2,451,453	$ 2,451,453	$ 2,451,453	$ 2,451,453
Tower Leasing Sales	$ 1,767,692	$ 1,817,517	$ 1,868,807	$ 1,921,609	$ 1,975,966	$ 2,031,927
Non-Standard Sales (Non-Recurring)	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000
Total Revenue	$ 11,255,202	$ 11,523,421	$ 12,472,557	$ 12,923,020	$ 13,542,565	$ 14,166,665

DESCRIPTION OF FACILITIES

As of September 30, 2018, GRUCom had 543 miles of fiber optic cable installed throughout Gainesville and Alachua County. The fiber strand count included in the cable depends on service requirements for the particular area and ranges from 12 to 144 strands. The fiber is installed in a ringed topology consisting of a backbone loop and several subtending rings. Service is provisioned on the network in two ways: for services requiring transmission through Synchronous Optical Network standard protocol, GRUCom has deployed equipment manufactured by Ciena (primarily); and for services requiring transmission through Ethernet standard protocol, GRUCom uses equipment manufactured by Cisco and Telco System. GRUCom is in the process of retiring the Cisco Systems equipment and migrating all Ethernet to the Telco System's transmission platform. The Telco Systems equipment will enable GRUCom to provide multi-protocol line switching functionality and reduce network infrastructure equipment complexity. The Ethernet protocol provides GRUCom with increased flexibility for managing bandwidth delivered to the customer. The maximum transport speed currently utilized in the fiber optic network is 10 Gbps, which is enough bandwidth to deliver more than 125,000 simultaneous phone calls (as an illustration). Bandwidth on this network is a function of the electronic equipment utilized and, with technologies such as dense wave division multiplexing, expansion of the transport capability of

the network is virtually unlimited. To exchange network traffic, GRUCom also is interconnected with other major telecommunications companies serving the Gainesville area.

The public radio system employs a Motorola 800 MHz simulcast system configured with six transmit and receive tower sites including 22 simulcast voice and two additional mutual aid channels. GRUCom has begun the process of migrating to the P25 protocol.

GRUCom maintains a point-of-presence at the Digital Realty Trust, Inc. collocation and interconnection facility located in Atlanta, Georgia (the ATL1 data center). The ATL1 data center provides access to hundreds of leading domestic and international carriers as well as physical connection points to the world's telecommunications networks and internet backbones. Atlanta, Georgia is a major fiber interconnection point from Florida to New York and the ATL1 data center sits on top of most of the fiber. GRUCom maintains an ultra-high bandwidth backbone transmission interconnection on diverse routes between Gainesville and the ATL1 data center to provide highly reliable Internet access to customers in Gainesville. GRUCom is also a member of the Digital Realty Internet Exchange (the Internet Exchange), a separate peering point in the ATL1 data center. The Internet Exchange allows GRUCom to quickly and easily exchange Internet protocol (IP) traffic directly with over 60 of the world's largest Internet Service Providers (ISPs), Content Providers, Gaming Providers and Enterprises, including companies such as Google, Netflix, Apple, McAfee Akami, Hurricane Electric (a major Internet service), Sprint, Level 3 and several other Internet service providers. The Internet Exchange participants can route IP traffic efficiently, providing faster, more reliable and lower-latency internet or voice over Internet protocol ("VoIP") access to their customers, by bypassing intermediate router points so that Internet traffic may have direct access to destination networks.

GRUCom maintains a second point-of-presence at the Equinix, Inc. Network Access Point of the Americas (NOTA) collocation and interconnection facility which is located in Miami, Florida. NOTA is one of the most significant telecommunications projects in the world. The Tier-IV facility was the first purpose-built, carrier-neutral Network Access Point and is the only facility of its kind specifically designed to link Latin America with the rest of the world. NOTA is located in downtown Miami in close proximity to numerous other telecommunications carrier facilities, fiber loops, international cable landings and multiple power grids. More than 160 global carriers exchange data at NOTA including seven Tier-1 world-wide Internet service providers. GRUCom maintains an ultra-high bandwidth backbone transmission interconnection between Gainesville and NOTA, separate from the ATL1 data center interconnection circuits, which allows GRUCom to maintain a second, fully diverse data gateway and exchange to further enhance the reliability of the Internet services provided to customers in Gainesville. In Miami, GRUCom is also connected to the FL-IX Peering facility to provide additional and duplicate peering points with various ISPs including Content Providers, Gaming Providers and enterprises similar to the Internet Exchange connection in Atlanta.

2.3   SCOPE OF SERVICES

Key elements of the strategy

A. Assess the community broadband study by CCG consulting from June 2019 (attached as Exhibit A) for verification and validation based off the current environment.

B. The City of Gainesville needs to develop a fact base around what digital assets are available (and at what price and quality level), determine what gaps may exist and how best to address these gaps (i.e., through the private sector or through municipal fiber). The City's goal is to make high-speed fiber internet service available to all residents and businesses at an affordable price in order to address the digital divide.

C. City to function as an Internet Service Provider (ISP) to both business and residential customers within the City limits and possibly into the GRUCom service area. The City will provide affordable broadband high- speed fiber or innovative wireless infrastructure to support businesses and residents with a minimum symmetrical speed of 50 megabits per second, but with a capability of up to 1 gigabit per second.

D. This project will result in the production of a Business Plan containing strategies and solutions, preliminary engineering and construction cost estimates, organizational and operational recommendations for future network implementation projects, and funding strategies for potential projects.

Expected Outcomes and High Level Deliverables

City of Gainesville leadership is committed to a resilient local economy for the City. To that end, the City has the following objectives:

A. Increase the number of successful sustainable, small and locally owned businesses
B. Reduce the poverty level in the Gainesville community.
C. Have the technology infrastructure/community broadband that is fast, reliable and affordable to support businesses and home offices.
D. Have a diverse local economy (industrial and business) insulated from economic trends.
E. Attract new businesses to Gainesville consistent with vision and "targeted" businesses.
F. Develop a successful MWBE (Minority and Women Owned Business Enterprise) program.

2.3.1 TASK ONE: DOCUMENT REVIEW

The consultant is expected to thoroughly review existing documentation and the previous study and supporting documents [Appendixes A Report, B Survey Results, and C Survey Area] and provide an analysis of the following.

A. Validation of data used and assumptions of the previous study. Use any readily available data to update the assertions of that study. Specific attention should be paid to:
B. What are the capabilities, capacities, and resiliencies of the existing digital infrastructure?
C. What are the gaps in knowledge of existing digital infrastructure that prevent efficient or effective decision-making?
D. How well is the service provider broadband market performing on a granular geographic basis? What are the areas of improvement in affordability, reliability, and speeds necessary to support residents and businesses and where are these improvement areas located?
E. What are the gaps in the City and service provider digital infrastructure that would prevent scaling existing or future initiatives?
F. Review the existing GRUCom business model and assets and provide observations relevant to the desired outcomes.
G. Building upon the work of the previous study, provide additional insights from other jurisdictions, particularly in Florida, that will inform our next steps.

2.3.2   TASK TWO: BUSINESS MODEL SCENARIOS

The Consultant will develop a minimum of three high-level scenarios that achieve the objectives of the Digital Inclusion Strategy. These scenarios will ultimately be delivered to the City

Commission in presentation form. These scenarios will reflect different variations including but not limited to the following factors (all within the confines of current state and federal regulations):

    A. Provide Public Partnerships
    B. University Partnerships
    C. Direct involvement of the University of Florida
    D. Investment level in new technologies
    E. Public subsidization
    F. Service delivery inside and outside of the city limits of Gainesville
    G. Financing models

2.3.3 TASK THREE: DIGITAL INCLUSION STRATEGY

Based on the results of the document review and the desired business model scenarios, the consultant will develop a Digital Inclusion Strategy that answers the following:

    A. What is the nature of broadband internet usage and barriers across different underserved segments so the City of Gainesville can target and prioritize our digital inclusion efforts?

    B. How will the business model scenarios the City of Gainesville improve access, adoption, and affordability for low income households with students, seniors over the age of 65, other underserved segments and small business, incubators, and entrepreneurs?

2.3.4 FUTURE TASK FOUR: BUSINESS PLAN DEVELOPMENT

If the City Commission authorizes moving forward with one or more of the business model scenarios. After direction is given by the City Commission, a detailed business plan will be developed by the consultant that includes at a minimum the following:

Operating Plan

    A. Retail model critical success factors
    B. Broadband Utility Governance and Management Strategy
    C. Current and anticipated regulatory requirements and restrictions
    D. Current and anticipated federal (Net Neutrality) and state legislative actions that may impact decisions
    E. Legal requirements that may impact our decisions
    F. Capital and operational budget requirements during construction
    G. Capital and operational budget requirements ongoing
    H. High-Level Marketing plan
    I. High-Level Customer service plan
    J. Billing and Collections
        i. Back office systems
    K. Security and privacy
    L. Capital and operations budget for customer service

Network architecture and design

    A. Design alternatives to enable the City to function as an ISP
        i. Data Center backend equipment
        ii. GPON and active Ethernet
        iii. Total bandwidth requirements considering customer growth projections

    iv. Facilities, vehicles and equipment
 B. Fiber design and build-out
    i. Phased construction projects should be planned
 C. Innovative wireless alternatives and design
    i. Consider innovative wireless (last-mile) to the premise, example: millimeter wave
 D. Security and privacy

Network Operations and Management

 A. Management planning for the Fiber Utility
 B. Strategies for installation and service management
 C. Service Level Agreement (SLA) provisions
 D. Capacity and Performance monitoring
 E. Security and privacy
 F. Capital and operations budget for Network Operations

Financial Modeling

 A. Financial modeling and base case assumptions
    i. Business and residential pricing assumptions and alternatives
    ii. Passing cost analysis
    iii. Drop cost analysis
    iv. Take rate assumptions and break-even analysis based on market demand

 B. Funding
    i. Bond issuance
    ii. Principal and interest payments
 C. Revenue model
 D. Provide the City with a twenty-year (20) financial pro forma (including a profit and loss statement, balance sheet, and income statements). This pro forma will provide the City with a highly detailed projection of revenue, expenses, debt costs, subscription rate projections, capital expenses, and build out plans. The analysis should provide detailed schedules that show:

    i. Operating income and cash flow

    ii. Net present value analysis

    iii. Projected revenues and benefits

    iv. Uses and sources of funds

    v. Operational expenses

    vi. Depreciation schedule

    vii. Debt service analysis

    viii. Key Assumptions