

## **Broadband USA Applications Database**

**Applicant Name:** ENGAGE COMMUNICATIONS CORPORATION

**Project Title:** ENGAGE COMMUNICATIONS MIDDLE MILE PROJECT

**Project Type:** Middle Mile

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### **Executive Summary**

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a) This project gives us the opportunity to solve a compelling problem consistent with all of the BTOP statutory goals. First, we will provide a brief description of the physical geography and our current broadband infrastructure as a lead-in to our problem description. We will then address the opportunity we have to solve this problem via a middle mile project. The Florida Keys in Monroe County are a roughly 100 mile-long island chain that begins off the Southeast coast of Florida and extends Southwestward into the Gulf of Mexico. The chain itself consists of a cluster of some 822 islands, with 42 of them home to 99.99% of Monroe County's population. According to the last decennial census, 79,589 people reside in Monroe County, Florida. 43 bridges connect the most populous islands of the archipelago to the mainland by the Two-lane Highway, U.S. 1. This is the only road that leads in and out of the Florida Keys. The communities on these islands rely on only one fiber optic route. This is also the only route by which voice and data is transmitted, for any facilities based, terrestrial broadband service, either fixed or mobile at any speed. This current broadband infrastructure is delicate, and subjects the entire population of these 42 islands to complete isolation from the outside world in the event of a line cut. This is a very real and present danger due to the frequency and severity of hurricanes in the regions where the Florida Keys exist- Southeast and Southwest Florida. This vulnerability is evidenced by the fact, that in terms of value of damage, three of the four worst hurricanes in U.S. history have made landfall in our regions. All three of these storms made landfall between 1992 and 2005, causing nearly 86 Billion Dollars in damage. In 1992, Hurricane Andrew, made landfall in Southeast Florida as a Category 5 storm, classified as having winds greater than 155 MPH or storm surge higher than 18 feet. A Category 5 Hurricane would likely destroy bridges and fiber optic lines connecting these 42 islands to the mainland via U.S. 1. Residents would be isolated both physically and by way of communications with hospitals, emergency services, community outreach organizations, public facilities, or any other groups or individuals who hold their interests in mind. Because no area of the islands is more than 20 feet above sea level and many are only a few feet in elevation, nearly every neighborhood is subject to devastating flooding as well as hurricane force winds. In response, many homes in the Keys are built on concrete stilts with the first floor being not legally habitable and enclosed by breakaway walls that are not strongly attached to the rest of the house. Nonetheless, Monroe County, as reported in the Federal Register, has estimated that there are between 8,000 and 12,000 illegal enclosures inhabited by people. Engage Communications is seeking funds to build a secure, buried, submarine fiber optic cable which would span between Key West, Florida and Everglades City, Florida to the North. This route is about 96 miles in length. This submarine cable would then splice into an existing fiber optic loop in Key West, which would be leased to Engage Communications contingent upon the receipt of BTOP funds. The

opportunity of this project would enable all critical community anchor institutions in the Florida Keys to maintain communications services during times of disaster or severe weather conditions. It is a cost effective means to ensure any range of services from disaster relief to continuity of services from anchor institutions such as hospitals, schools, community outreach, public safety, and disaster relief organizations.

b) A general description of the proposed funded service areas: Note: this project will serve all those whom residing in, or visit Monroe County as it strengthens and supports all of the Florida Keys in Monroe County's anchor institutions, be they in the public, private, or non-profit sectors. Section (c) of this executive summary will provide further detail as to how this is the case. Our proposed funded service area is located in Poinciana Plaza, a designated affordable housing area located in Key West, Florida. It is the termination point of our Middle Mile Span. The census block designation is tract 9719, block group 3, blocks 3000, 3001, 3002, 3003, and 3004. Based on the last decennial census data, there are 25 households in this proposed funded service area. Under construction, and to be completed by December 31, 2010, are another 50 housing units, built by AIDS Help, a local non-profit. This construction, completely funded by the Florida Housing and Finance Corporation (FHFC), will serve individuals living with HIV/AIDS. These units are known as Poinciana Royale.

c) Due to our unique Geography, our Middle mile span only technically passes those households and institutions in our termination point in Poinciana Plaza. The span itself will cover some 96 miles of open-ocean, and terminate in an unpopulated area in the Florida Mainland. Also, due to the technical nature of burying submarine cable, we cannot accurately map exactly which census blocks in the ocean will house this cable. Please note that our Middle Mile Service Details do not, and can not represent the actual beneficiaries of this project. All census designated communities and places in the Florida Keys Monroe County will benefit from this span by way of our open network architecture. Therefore, we include all Monroe county households and businesses in our estimates, even though they are not a part of our Middle Mile Span. Households: 35,086 (The total number of households in Monroe County according to the last decennial census count.) Businesses: 10,224 (The total number of businesses in Monroe County according to the last decennial census count.)

d) As all 79,589 residents of Monroe County will benefit from this project, we include all community anchor institutions, public safety entities, and critical community organizations in Monroe County in our estimates. According to the University of Florida bureau of Economic and Business Research Florida Statistical Abstract 2008 there are, in terms of reporting units: 27 schools, including a community college, public, and private institutions, 17 civic and social organizations and 5 hospitals. Interviews with officials from the public library system, police, and fire departments reported 3 libraries, 4 police stations, and 23 fire stations. The Interagency Council, Inc. of Key West, Florida 2009 Community Health and Social Services Directory lists some 104 agencies in Monroe County acting in the interest of public safety, health, education, and children. Because of overlaps within this listing, and because we know we can not track every single agency that qualifies as an anchor institution, we can only estimate there are at least 104 community anchor institutions passed, though the actual number may be on the order of over 200.

e) We will provide Poinciana Royale residents with fiber to the home, training, and internet access that they may be in constant contact, via Telepresence with AIDS Help counselors. Please refer to our Last Mile Application for details on our proposed services and applications for the proposed funded service area and users. The majority of our services and applications apply to users whom operate outside of the proposed funded service area, and are composed entirely of non-profit and public entities working in the interest of healthcare, education,

public safety, and children. Please refer to our Sustainable Broadband Adoption Application for details on how these services and applications will be implemented. f) Engage Communications will exceed the minimum requirements for the nondiscrimination and interconnection obligations as required in Section VII.A.2.c of the NOFA. In accordance with the FCC Policy Statement FCC 05-151, we will not knowingly hinder consumer's access to lawful Internet content contained on systems or networks that it manages directly. For further details, please refer to Question 22 of this Application. g) Engage Communications will provide service utilizing Cisco edge and core routers connected to an Occam Fiber Optic infrastructure using both aerial and buried Fiber optic cabling. For further details on this system, please refer to Question 29 of this Application. h) Engage Communications is a State of Florida Certified Competitive Local Exchange Carrier (CLEC) headquartered in Key West, Florida, primarily servicing the Florida Keys in Monroe County. For details on our qualifications, please refer to our uploaded Management Team Resumes from Question 37 of this Application. i) The overall infrastructure cost of the broadband system is \$3,184,500.00 This total is detailed in the Project Budget section of this Application. j) Based on 2009 Pew Results for broadband adoption rates based on household income (80% for incomes of \$50,000 - \$75,000, 71% for incomes between \$40,000 - \$50,000), U.S. Census data estimates for per capita income for Monroe County residents in 2007, (55,054) and U.S. decennial Census Data on household count (35,086) and average household size (2.23) for Monroe County FL, we are able to create a rough estimate of those who would subscribe to service using this middle mile span, either through Engage Communications, or leased access to AT&T, Comcast, or Embarq. All data collected is from the most up to date and reliable sources we found available. In order to be conservative in our rough estimate, we used the 71% adoption rate from Pew Results. Our expected subscriber projections are in the area of 55,552 users, or 24,911 household subscriptions. We address the issue of new subscribers in our Sustainable Broadband Application. k) Number of jobs estimated to be created or saved as a result of this project: 14