



**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)**

Submitted Date: 8/20/2009 4:48:54 PM	Easygrants ID: 1115
Funding Opportunity: Broadband Initiatives Program and Broadband Technology Opportunities Program	Applicant Organization: IT&E
Task: Submit Application - Infrastructure Programs	Applicant Name: Larry Knecht

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A. General Application Information

1. Applicant Information	
1-A. Name, Address, and Federal ID for Applicant	
i. Legal Name:	IT&E
ii. Employer/Taxpayer Identification Number (EIN/TIN):	123456789
Street 1:	PO Box 500306
Street 2:	
City:	Saipan
County:	MP
State:	GU
Country	United States
Zip/Postal Code:	96950

1-B. Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix:	
First Name:	Larry
Middle Name:	
Last Name:	Knecht
Suffix:	
Telephone Number:	670-682-2600
Fax Number:	
Email:	velma.palacios@itehq.net
Title:	



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1-C. Other Required Identification Numbers	
i. Organizational DUNS:	855036690
ii. CCR # (CAGE):	4xu69
iii. Funding Opportunity Number:	1
iv. Catalog of Federal Domestic Assistance Number:	BTOP CFDA Number: 11.557 BIP CFDA Number: 10.787 BTOP CFDA Title: Broadband Technology Opportunities Program BIP CFDA Title: Broadband Initiatives Program

1-D Eligible Entities

Please classify your organization. (Note: If there are multiple organizations involved in the project, designate the lead applicant that would enter into a Loan or Grant agreement with the Agency and assume operational and financial responsibility should an award be made). **For-Profit Corporation**

1-E. RUS Borrower Status

No

1-F. Applicant Federal Debt Delinquency Explanation

Is the Applicant Delinquent On Any Federal Debt? **No**
Federal debt delinquency Explanation:

2. Project Description & Project Title

2-A. Project Title: Next Generation Network - Middle Mile Infrastructure Plan

2-B. Project Description: Developing the infrastructure for long term and increased service support.

3. Application ID for Multiple Submissions for Identified Service Areas:

The communities of Guam and The CNMI lack the required infrastructure to provide broadband services to residents. The proposed project will allow IT&E to stimulate demand



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and sustain adoption with wireless capabilities that can be implemented within a full year. Upon approval of funding, IT&E will launch a strategy to quickly inject federal stimulus funds to support these communities. In two separate infrastructure grant applications IT&E proposes complimentary enhancements to Last Mile infrastructures and an Adoption Plan that will aid in the advancements of these technologies.

In this application, the Next Generation Network plan is unveiled providing benefits that will increase broadband speeds to at least 768kbps provide a backbone to support increased users, and expand the availability of broadband services. The infrastructure enhancements provide IT&E a base to spur and sustain the broadband adoption plan. IT&E will be able to provide more options, truly makin

4. Rural Area Determination

At least 75 percent of the proposed service area to be funded falls within rural areas that are unserved or underserved.

No

5. Applications for Rural Areas: Please choose the funding program(s) to which you are submitting this application.

a) BIP broadband infrastructure category to which you are applying:

b) Would you like this Application for Rural Areas to also be considered for BTOP funding?

c) BTOP Infrastructure category for which you are applying.

6. Applications for All Other Areas: Per the NOFA, all applications to fund broadband infrastructure projects in areas that are less than 75% rural must be submitted to NTIA for consideration under BTOP.

BTOP broadband infrastructure category to which you are applying: **Middle Mile**

B. Eligibility Factors

7. Application Submission



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BIP and BTOP Factors Selected By Applicant:
Applicant has submitted a completed application and provided all supporting documentation required for the application.
The Project will be substantially complete within 2nd year from the award date, and the project will be fully complete by the end of the 3rd year from the award date.
For projects seeking more than \$1 million funding, the Applicant agrees to submit a certification, from a Professional Engineer, that attests that a) the system will deliver the stated performance; and b) the projected project will be substantially completed within two years, and fully completed within three years.
The Applicant provides two-way data transmission with advertised speeds of at least 768 kbps downstream and 200 kbps upstream.
Applicant understands and agrees to comply with the nondiscrimination and interconnection obligations outlined in the NOFA.
If applying for a last mile Broadband Infrastructure project, applicant understands and agrees to comply with the last mile coverage obligations as outlined in the NOFA.

Additional Factors for BIP Selected By Applicant
At least 75 percent of the proposed funded service area qualifies as unserved and underserved rural areas in accordance with the NOFA.
Applicant understands and agrees that the project will be fully funded in accordance with the requirements



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of the NOFA.
Applicant understands and agrees that only projects that RUS determines to be financially feasible and/or economically sustainable will be eligible under this NOFA.

Additional BTOP Factors Selected By Applicant
<ul style="list-style-type: none"> • Conformity with Statutory Purposes • Cost Sharing/Matching • Reasonableness of Project Budget
The project advances at least one of the statutory purposes for BTOP
Applicant has provided documentation that the project would not have been implemented during the grant period without federal grant assistance.
Applicant has provided a budget that is appropriate to the proposed technical solution and only includes eligible costs.

- **Demonstration the Project Could not be Implemented But For Federal Grant Assistance**
Applicant is providing matching funds of at least 20 percent towards the total eligible project costs?
Yes

7-k. Cost Sharing/Matching Fund Explanation

C. Executive Summary



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Executive Summary of Project for BIP and BTOP:

8. Infrastructure Projects Executive Summary

IT&E seeks funding to stimulate the demand for broadband services and provide greater access to the communities of Guam and the Commonwealth of the Northern Mariana Islands (CNMI). The communities of Guam and the CNMI have felt the impact of receding global economies, creating less ability for people to access and afford broadband services. IT&E can best promote broadband demand and access through Last Mile infrastructure enhancements that add options to how people access broadband internet services. This effort will be in combination with two additional plans, another for Last Mile infrastructure enhancements and one for Adoption. The applications work together to provide more options to underserved communities and support a wider audience of broadband services. The proposed plan will impact the included service areas at various levels including economically disadvantaged communities, education, and health and public agencies.

IT&E's proposed funded service areas include the insular areas of Guam and the CNMI, which represent the Mariana Islands. These islands are located in the Micronesian area of Oceania within the North Pacific Ocean. There are more than thirty communities within Guam (19) and Saipan (21) that will be impacted through the proposed plan. The proposed funded service areas of Guam and Saipan have experienced downturns in their respective economies through multiple factors impacting top industries. Higher than average poverty levels further compound the economic woes of these areas. Based on multiple data sets both Guam and Saipan qualify as Historically Underutilized Business Zones (HUBZones) by the Small Business Administration.

Statistics from the 2000 U.S. Census counted these totals for Guam which will all be included in through network coverage: 154,805 Total Population, 38,769 Households, 3,143 Businesses (provided in 2005 Economic Survey), and 224 Institutions.

Statistics from the 2000 U.S. Census counted these totals for the CNMI which will all be included in through network coverage: 69,221 Total Population, 14,055 Households, 1,191 Businesses (provided in 2005 Economic Survey), and 81 Institutions.

In order to best support the additional options and increased users in Guam and Saipan with



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broadband services IT&E proposes Middle Mile infrastructure enhancements using 3G and WiMax broadband capabilities in the CNMI and WiMax implementation in Guam. This infrastructure plan, titled the Next Generation Network (NGN) will expand the number of access points for broadband internet without the need to ‘hook-up’ to a landline. The communities of Guam and Saipan will be able to take advantage of a variety of online resources at faster speeds and at supportive price points.

Additionally, in order to promote broadband services and demand IT&E will continue to abide by non-discrimination and interconnection obligations as covered within the Network Openness portion of the application. IT&E follows the open standards as described by the FCC including allowing users to utilize the legal internet without hindrance.

IT&E was acquired by PTI Pacifica in 2008. Combining operations provided a great chance to serve the markets of Guam and the CNMI, under the consolidated brand of IT&E. IT&E and PTI Pacifica have been long time providers of quality services to the Mariana Islands. IT&E combined to form a premier provider within the region and is an employer of choice. IT&E actively seek out opportunities to keep residents of these insular communities connected. Recently, IT&E collaborated with network providers in more than 230 countries to offer customers a worldwide network for their cellular services. This is a first amongst the service providers within the Marianas. Because of economic declines and lingering uncertainties it can be easy to overlook the opportunities to serve local needs that help people stay connected. IT&E leads initiatives to offer quality services and reinvest in the community through job creation, training programs promoting career development, and key sponsorships to community organizations. IT&E now seeks to leverage this funding opportunity to serve the public. IT&E is ready to implement a targeted plan based on understanding the needs and goals of residents, the experience in providing supportive services, and a proven track record of project coordination matching client needs with solutions.

In order to best stimulate demand and provide access to broadband services, inclusive of prepaid services and discount opportunities, IT&E submits a plan to install a Next Generation Network (NGN). IT&E’s three projects total to a cost of nearly \$14 Million. IT&E is committed to providing 20% of the overall budget through in-kind contributions. The total budget for Middle Mile Infrastructure enhancements to the NGN is \$10,062,991.91. Through the additional options to obtain broadband internet services, supported by 3G and WiMax



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plans, IT&E projects subscription increases over 200%. Based on the proposed plan to upgrade and offer more services IT&E projects that 500 direct and indirect jobs will be saved and 30 new direct and indirect jobs will be created.

A main challenge of increasing use of broadband services is creating demand. IT&E understands this challenge and seeks to overcome this by implementing a wide reaching plan targeting higher usage of broadband services through infrastructure and adoption plans. The parts of the strategy best work in concert to increase access and stimulate demand.

Description of BTOP Project Purpose (BTOP Applicants Only Next Three Questions)

9. BTOP Statutory Purpose:

Provide improved access to broadband service to consumers residing in “underserved” areas of the United States.
Provide broadband education, awareness, training, access, equipment, and support to schools, libraries, medical and healthcare providers, community colleges and other institutions of higher education, and other community support organizations by or through these organizations.
Provide broadband education, awareness, training, access, equipment, and support to organizations and agencies that provide outreach, access, equipment and support services to facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations.
Provide broadband education, awareness, training, access, equipment, and support to job-creating strategic facilities located within a defined economic zone, or community as designated by a State authority, Department of Commerce , HUD or USDA.
Improve access to, and use of, broadband service by public safety agencies.
Stimulate the demand for broadband, economic growth, and job creation.

10. Description of BTOP Project Purpose:

IT&E is committed to stimulate demand and provide improved access to broadband services to consumers residing in Guam and the Commonwealth of the Northern Mariana



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(CNMI). The insular areas have experienced a dramatic economic downturn, due to various dynamics inclusive of geographic isolation, exit of large scale industry, and a lack of natural resources. Poverty, unemployment, and outmigration continue to rise due to the trying economic conditions. Due to dwindling public funds, there has been a significant lack of infrastructure development, especially infrastructure that aims to produce services to reach underserved areas. Based on these issues, the funds from the ARRA Broadband Initiative can help Guam and the CNMI stimulate demand through improved access to broadband services in underserved areas and provide access equipment to vulnerable populations.

In article published by Harvard Business School marketing professors, John Deighton and John Quelch, states, “The advertising-supported internet also helps the economy by fostering innovation, entrepreneurship and productivity, particularly among small businesses that create most new jobs in the U.S. In addition, larger companies in this sector, such as Cisco, Google or Adobe, have been a haven of relative stability through the current economic downturn and boost the U.S. balance of trade through their global sales.” Studies contend that digital divides compound the distress experienced in economically depressed areas. The lack of technology infrastructure in an area can limit the abilities of residents. The plan IT&E can implement serves the purposes of providing service to underserved areas, provide access, and stimulate demand for broadband services. The plan begins with infrastructure enhancements to Middle Mile, Next Generation Network (NGN), in order to improve broadband capabilities and provide multiple options at affordable rates. This is the first step in providing a solution that will help target and impact the needs of these areas.

The economic climate of Guam is in an early recovery from a depressed state relating to multiple factors that have impacted the area’s top industry, tourism. The Guam economy suffered a host of natural disasters, inclusive of typhoons and earthquakes, which hampered the development of its infrastructure to support the tourism industry. In addition, a Korean Airliner crash and an Asian economic crisis presented significant challenges to this economic driver. Tourist spending accounts for a large portion of government revenues. Although recent statistics indicate a decline of approximately 14% in 2008 from its peak year in 2000, Guam continues to rely on tourism spending to sustain its economy (information made available through the Guam Visitors Bureau). Based on an economic study conducted in 2005, the average tourist spends \$546, which equates to more than \$98 Million in lost economic revenues in the year of 2008. This does not take into account the impact of inflation.



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The Commonwealth of the Northern Mariana Islands has experienced a significant economic downturn since the World Trade Organization (WTO) lifted trade restrictions in 2005. This had severe consequences on a historically prosperous industry in garment manufacturing. At its peak in 1998, the garment industry provided the CNMI with a total of \$1 Billion in annual exports, provided more than 15,000 direct jobs, and contributed more than 30% of government revenues for the CNMI. With the complete exit of the garment industry in 2009, the CNMI suffered the loss of one of two economic pillars and currently relies on tourism as the economic mainstay. Similar to Guam, the CNMI's tourism industry suffers from sharp declines in tourist arrivals. According to statistics through the Marianas Visitors Authority, the CNMI has suffered a 25% decrease in tourist arrivals from 2000 through 2008. In addition to declining arrivals, the CNMI is bracing for the loss of two of its four primary tourist markets, from China and Russia, due to the implementation of Federal Law, Public Law 110-229, which aims to extend federal control of immigration to the CNMI. This impact is anticipated to result in the loss of approximately \$180 million annually to the CNMI economy, according to the CNMI Department of Commerce. This negative impact will devastate an already drastically impoverished citizenry. According to the most recent Household Income and Expenditure Survey (HIES), 57% of CNMI households earned less than \$20,000.00 annually, with 28% of this comprising households earning less than \$10,000.00 on an annual basis.

The communities of Guam and The CNMI lack the infrastructure to provide broadband services to most of the residents. As mentioned earlier, digital divides hamper economic capabilities. A World Bank study stated that a substantial difference between Africa's manufacturing exports and the much higher East Asian share can be attributed to the lagging communication infrastructure in Africa (World Bank 2000). And further supporting the economic impact the internet has is in the findings of a study conducted for the Interactive Advertising Bureau. The study measures economic impact through employment value and stated that the internet employs 1.2 million people directly in the U.S. and for each internet job there were 1.54 support jobs.

In order to take advantage of the opportunities broadened internet access can create, IT&E has developed a plan to stimulate demand and sustain adoption with wireless capabilities that can be implemented within a full year. Upon confirmation of funding IT&E can be ready to begin a steps strategy to quickly inject federal stimulus funds into the private sector. In two separate



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infrastructure grant applications IT&E proposes complimentary enhancements to Last Mile infrastructures and an Adoption Plan that will aid in the advancements of these technologies. The Next Generation Network plan will increase broadband speeds to at least 768kbps, provide a backbone to support increased users, and expand the availability of broadband services. The infrastructure enhancements provide IT&E a base to spur and sustain the broadband adoption plan.

IT&E will be able to provide more options, truly making broadband internet more obtainable through affordability and flexibility. The plan involves offerings of landline and wireless broadband. The aforementioned infrastructure plan strengthens landline and wireless signals, supports increased users through 3G and WiMax, pushing speeds to at least the minimum threshold per the Broadband Initiative. Wireless capabilities through these plans provide additional access points with greater capacity making the internet easier to use in diverse places, without the impediments of landline availability. These signals will better reach the community and provide community service organizations much needed support.

The architecture of this plan creates a foundation for broadband internet use that builds into a solid structure, in which the community can initiate and sustain use of broadband internet services. The plan is supportive of the needs of Guam and Saipan by offering a resource to access educational, career development, marketing, and networking services that expand on the limited local resources. Local businesses will have better access to broadband internet services creating opportunities to expedite processes and connect with other businesses. The increased and diverse access can help stimulate not only use of broadband, but more importantly impact key needs like economic and educational development for Guam and the CNMI.

11. BTOP Enhanced Services for Health Care Delivery, Education, and Children:

IT&E has partnered with the community to provide support and services for health care, education, and children. In addition to philanthropic support, monetary and material, IT&E has supported community programs' bandwidth needs, free of cost. Examples include video streaming for youth conferences and seminars for education and health professionals. This is a key opportunity for these areas as the islands of the CNMI (Rota, Saipan, and Tinian) and Guam are separated by water. Economic related shortfalls and the increased price of travel make video teleconferencing a great medium for these separated communities to interact. The infrastructure enhancements encourage individuals and organizations take advantage of video conferencing and video content services more frequently through increased bandwidth



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capacity.

D. Proposed Funded Service Area

12. Proposed Funded Service Area Maps:

12-A. Service Area Map (Reference Number): **B13A-064B-49FF-82E1**

12-B. Is the applicant is seeking a waiver for providing less than 100% coverage of a census block. **No**

13. Proposed Funded Service Area (BIP - Last Mile Projects):

Please refer to section M at the end of document.

14. Proposed Funded Service Area (BTOP - Middle Mile Project):

Please refer to section M at the end of document.

15. Non-Funded Service Area(BIP Only):

16. Coverage Waiver:

Applicant is seeking a waiver for providing less than 100% coverage of a census block.

No

For Response of "Yes" please refer to upload section for additional supporting documentation.

17. Methodology for Area Status:

Guam and The CNMI qualify as underserved areas based on low projections of broadband subscriber rates. Figures from multiple sources project that total internet use, both through dial-up and broadband services, does not reach 40% of the total population. Statistics made available through the United Nations - Asian and Pacific Training Centre for Information and Communication Technology for Development (UN-APCICT) estimate that there is a 38.46 percent rate of internet use amongst residents with a 1.56 percent rate for broadband internet use.

Due diligence efforts were made to obtain broadband statistics in the area, however, it is not available. Subscriber information for the local providers was not obtained because of deregulation and proprietary reasons. The Chief Technical Officer for the government of Guam supported the case of missing information from the providers in reference to qualification



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methods and broadband mapping efforts. Additionally, under the General Provisions of Title VIII of the ARRA for the Departments of Labor, Health and Human Services, and Education, and Related Agencies a stipulation is made to the timely ability to collect data from insular areas, including Guam and The CNMI, pertaining to the funding available through the ARRA. Based on the available data and the stipulation of Title VIII, both Guam and the CNMI would best qualify as being underserved areas, not meeting the 40% broadband subscribership threshold.

18. Middle Mile Benefits

The service will interconnect with VSNL and Level 3 in Guam. The proposed interconnection sites would include the current cell and cable providers in the CNMI. The increase in capacity will allow them to provide greater service to their end users. Currently IT&E provides connectivity for many government institutions and the hospital. The middle mile enhancements, along with the Last Mile enhancements contained within the other application, will allow IT&E to provide services to the community anchor institutions like video conferencing and VOIP. IT&E assists the government in providing internet access for government sponsored conference within the CNMI. With the use of WiMAX, IT&E can deploy networks for government use much faster than the traditional land line based systems.

E. Proposed Service Offering

19. Broadband Service Offerings for Last Mile Project:

Please refer to upload section at the end of the document.

20. Service Offerings for Middle Mile Project:

Please refer to upload section at the end of the document.

Competing Service Providers

21. Existing Broadband Service Providers and Services Offered:

Please refer to upload section at the end of the document.

Non-Discrimination, Interconnection



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22. Description of Network Openness:

IT&E is committed to following the guidelines developed by the FCC in regards to FCC-05-151 policy statement. Specifically the IT&E network policy does not limit consumer access to lawful internet content of the consumer's choice. Consumers are allowed to run applications and use services of their choice over the network and consumers are allowed to connect their choice of legal compatible devices to the network. IT&E also currently provides wholesale services to competitors in its capacity as the Incumbent Local Exchange Carrier (ILEC).

Wholesale Competitiveness

IT&E's increase in capacity and redundancy along with the enhancements to the network infrastructure and billing & operational systems will provide consumers with additional choices not only in access equipment and connectivity but also with overall competition. IT&E currently provides and will continue to provide wholesale services including collocation of equipment and interconnectedness as defined by the Telecommunications Act of 1996. Wholesalers will have access to interconnection points within IT&E's Central Office locations for collocation of equipment. The interconnection points will provide the Wholesalers with access to the IT&E backhaul and core infrastructure.

Reseller Program

IT&E will also provide an outlet for reselling of prepaid air time through multiple channels. The hospitality industry, small businesses, educational institutions and other organizations will have the ability to resell data air time over the wireless network with prepaid cards. This program will allow traditional small businesses and industries outside of telecommunications to compete for consumers. Currently very few hotels, cafes and other various businesses provide paid internet access. IT&E's program will help to create additional sales channels to with very little overhead to local businesses.

Openness of Network

The enhancements to 3G and introduction of WiMAX to the consumer provide additional speeds allowing users to continue to access lawful internet content of their choosing. IT&E policy does not filter or block access to such content, nor will do so in the future. Consumers



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are allowed to run applications and utilized services of their choosing, subject to the needs of law enforcement. The introduction of WiMAX will increase the number of Wi-Fi access points within the service areas allowing consumers to connect to the provider's network utilizing industry standard protocols. Also, IT&E will allow consumers to connect to the network with the consumer's choice of legal device that do not harm the network and comply with industry standards/protocols.

Non-Discrimination and Interconnection (BTOP applicants only for next three questions)

23. Non-Discrimination Obligations (applicable to Last Mile and Middle Mile Applicants):

Adhere to the minimum non-discrimination requirements as set forth in the NOFA.
Display the nondiscrimination practices in a prominent location on the service provider's web page, and provide notice to customers of changes to these policies.

24. Interconnection Obligations (applicable to Last Mile Applicants):

Adhere to the minimum interconnection requirements as set forth in the NOFA.
Display the interconnection policies in a prominent location on the service provider's web page, and provide notice to customers of changes to these policies.
Commit to offering wholesale access to the project facilities at reasonable rates and terms.
Commit to binding private arbitration of disputes concerning interconnection obligations.



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25. Interconnection Obligations Middle Mile Applicants:

Adhere to the minimum interconnection requirements as set forth in the NOFA.
Display the interconnection policies in a prominent location on the service provider's web page, and provide notice to customers of changes to these policies.
Commit to offering wholesale access to network components and services such as wavelength or fibers at reasonable rates and terms.
Commit to binding private arbitration of disputes concerning interconnection obligations.

Cost Effectiveness and Affordability

26. Cost per Household (BTOP only):

The total cost of the Next Generation Network project is \$10,062,991.91 and according to the 2000 census there exists 38,769 households in Guam and 14,055 households in the CNMI. Based on the total project budget and total households in Guam and the CNMI (52,824) the average cost per household is \$190.50.

27. Affordability

There currently exists no prepaid pricing structure in the region. IT&E took into consideration multiple factors that evaluated prioritized criteria to determine price targets for prepaid and postpaid broadband internet service offerings. The pricing goals of IT&E are to stimulate demand, sustain adoption, and make a return on investment. IT&E used these goals and other factors to create a pricing strategy.

IT&E will focus on prepaid service affordability and determined pricing using these criteria: stimulate demand, create less risk to current subscriber levels, and partial cost recovery. In consideration of a priority on prepaid promotions, IT&E used a separate set of criteria to determine pricing of monthly subscription services: create value, low demand risk due to prepaid offerings, survival, price stabilization, sustained adoption through discount promotions,



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and partial cost recovery.

IT&E used the highlighted criteria sets to develop maximum points of return using pricing levels against potential subscriber levels. The pricing structures proposed best stimulate demand and provide opportunities to support sustained adoption through future promotions discounting monthly services. IT&E compares favorably with competitors because of the prepaid broadband internet strategy promoting a flexible cost structure that supports individuals at variable income levels.

F. Technology Strategy

28. Technology Type:

Wireless - Terrestrial Mobile

Other:

29. System Design

IT&E has been the Local Incumbent Exchange Carrier (ILEC) in the CNMI for over 20+ years. IT&E has also been the traditional Interexchange Carrier (IXC) for Guam. Today IT&E services both markets in the same capacity offering voice and data products. IT&E provides the main connectivity between the islands of Saipan, Tinian, Rota and Guam along with providing wireless CDMA and GSM access. IT&E is licensed by the FCC to provide 3G CDMA access in the CNMI and Guam.

Island Topology

Guam is 212 square miles (30 miles long and up to 12 miles wide). The highest point of the island is 1,334 ft. The northern portion of the island is relatively flat with a mountainous southern region. 52 cell sites are dispersed throughout the island providing coverage to all population areas.



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Saipan is 47 square miles (12.5 miles long and 5.5 miles wide). The highest point of the island is 1,554 ft with the population spread around the island minus portions of the northern part of the island. 9 cell sites provide coverage to the populated areas of the island.

Rota is 33 square mile (10.5 miles long and 3 miles wide) with the highest point of 1,612 ft with the population primarily in the southern portion of the island. 2 cell sites provides coverage to the populated area of the island.

Tinian is 39 square miles (10.5 miles long and 5 miles wide) with the highest point of 557 ft. The island population is concentrated in the southern portion of the island. The northern portions are reserved for military use. 1 cell site provides coverage to the populated area.

Current System State

The current middle mile infrastructure is running at 90% capacity during peak loads when connecting to IT&E's ISPs. The redundant microwave system will only be available to support voice traffic if the primary fiber cable is rendered in operable. The management of the network, including creations of business class products like point to point connections and VLAN's are manual intensive increasing the cost to the business customers and creating barriers to entry to an economy which is already depressed. The operational applications used to support the service offerings are not capable of handling the ever expanding option of available services without code modifications increasing the amount of time and cost to provide new services.

Backbone upgrade to increase Peak Capacity and Redundancy

IT&E is the regional ILEC and sole provider of internet connectivity for the CNMI. IT&E maintains a fiber connection (12 Strands) between the islands of Guam, Rota, Tinian and Saipan. Currently the system utilizes an OC-48 connection (3 Strands) from Saipan through the island to the ISP providers. IP Bandwidth that is transported via the OC-48 is currently at 94% utilization at peak hours (02:00 PM to 08:00 PM). This limits the ability of IT&E and its competitors (who utilize IT&E's infrastructure) to provide broadband access to the internet for the CNMI islands of Rota, Tinian and Saipan.

The redundancy system utilizes microwave radio for transmissions between the islands of



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Guam, Rota, Tinian and Saipan. The system currently only has the capacity to support voice in the case of an outage (STM-1). This has the potential to severely hurt local businesses, government agencies and learning institutions which rely on the internet for day to day operations. Each island maintains one microwave radio tower operating at a frequency of 6 GHz and 8 GHz.

The current 3G Backhaul uses the unlicensed 2.4 and 5.8 GHz microwave radio of 4 and 8xT1 capacity, which is susceptible to unwanted frequencies brought by the other competitor's network (Docomo, I-connect , GTA and other private ISPs). The current solution has a limited capacity and without FE connection for data applications. It is also not possible for path protection or circuit redundancy. The Network Management System (NMS) currently uses telnet remote monitoring in a command line mode which is prone to user error.

Management of Middle Mile Resources

The current management of middle mile resources is fragmented by different technologies and protocols. The network lacks an overall network management platform which allows for an all IP based configuration and does not provide Quality of Service (QoS) standards. This fragmentation requires manual configuration for business class services for offerings such as point to point communication and VPN's which are critical for medium to large size businesses, government agencies, educational institutions and healthcare providers making services such as VOIP and Video Conferencing difficult to provide. The manual intensive nature of the network also increases barriers to wholesale adoption decreasing the overall ability of competitors to utilize the network to provide competitively priced solutions. The middle mile network is currently connected with fiber (2 Strands) Gig-E in a self healing configuration.

Operational Systems

The current operational and billing systems were built to handle landline product offerings with traditional postpaid accounts. Mediation is handled through passive pulling of current hardware which does not allow for real time pre-delivery charging seen in most prepaid systems. The billing and mediation systems do not allow for native bundling of services, specifically voice and data. Wireless and prepaid services do require code modifications in order to introduce



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new service offerings. This creates delays in providing new products and increases the risk of operational billing related issues. It also impacts on the ability to provide new services to wholesale customers and overall customer services.

Future State

IT&E is seeking to increase the current peak load capacity, enhance the management of middle mile resources and provide a new billing and operations platform to support new broadband products which will be available to resale (residential, business and government) and wholesale customers.

Peak Capacity and Redundancy

Increase the capacity of the fiber optic cable system from Saipan to Guam to OC-192 by replacing the current OC-48 optic cards. This will require replacing the circuit packs on the islands of Saipan, Tinian, Rota and Guam. This will allow IT&E to increase the peak load capacity both internally to meet the needs of increased broadband adoption by both resale and wholesale customers. The total capacity after installation of the equipment will increase the bandwidth between the islands to 10 gbps which increase the peak load capacity by a factor of 4.

Increase the capacity of the microwave radio transmission system to 8 STM-1 connections. This will provide voice and data redundancy for the fiber optic cables. The enhancements will occur on Saipan, Tinian, Rota and Guam locations. The microwave enhancements will include additional radios and enhancements to antennas operating at a frequency of 6 GHz and 11 GHz. The total capacity of the microwave system will be increased from 465 mbps to 1240 mbps for inter-island communication.

The 3G Backhaul will use a licensed microwave radio on the 7 to 11 GHz frequency range to achieve network reliability. The capacity will be upgrade with T1 and FE interface for data application. The solution will include network path and circuit level protection. The Network Management System (NMS) will utilize a graphical user interface for easy isolation and trouble shooting. This solution will provide a more robust network in order to provide better redundancy and transport of data across the network.



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Enhance Middle Mile Network

The enhancements to the middle mile network will provide Quality of Service and ease of management through the implementation of Multiprotocol Label Switching (MPLS). The enhancements will allow for the management of VPNs, E-VLANs, Symmetric communication and Ethernet to Premise which will provide more options to resale and wholesale customers. Specifically, this will allow the creation of VLAN's for the educational and government institutions which are located on multiple islands. The VLAN's will be able to support Video Conferencing and other broadband intensive protocols.

The enhancements will include installation of Cisco Catalyst 4500 and 6500 Switches and Cisco 7200 Routers in Saipan and Guam along with general enhancements to the NOC in Saipan. The installations will occur at the primary Central Office locations on both of the two islands.

Billing and Operational System

The creation of a new billing system and prepaid platform will allow IT&E to provide new broadband service offerings faster with less risk of billing issues. This will increase the overall customer experience and provide better access to IT&E network for wholesalers.

The new billing system and prepaid platform will provide the ability to easily add new services and products. The prepaid platform will implement pre-delivery charging allowing real time mediation of data usage which will be based on both time allotment and bandwidth usage. The combined system will provide the ability to bundle both voice and data services. This solution will provide IT&E the ability to sell buckets of prepaid minutes or bandwidth (dependent upon the customer's preference) to customers who traditionally are not able to either afford or qualify for the postpaid plans. The customer will have the ability to top off the data bucket at their convenience and not be required to maintain a monthly recurring cost. Business and large institutions (educational and government) will have access to business class services (VLANs, VPNs, Ethernet to Premise). The system will also support wholesalers through implementation of industry standard CABS. This will assist in creating alternative resale product offerings for the CNMI and Guam and increasing competition in the service areas.



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30. Network Diagram:

Please refer to upload section at the end of document.

31. Certification by Professional Engineer:

Please refer to upload section at the end of document.

32. Buy American Waiver Request:

Is the applicant seeking an individual waiver of the Buy American provision? **No**

Buy American Waiver Request – Legal Justification

33. Choice of Service Provider:

Does the project’s Infrastructure and the Company’s business plan allow more than one provider to serve end users in the proposed funded service area?

Yes

G. Project Milestones and Completion Factors

Timeline & Milestones

34. Infrastructure Build-out Timeline:

Please refer to upload section at the end of the document.

35. Licenses, Regulatory Approvals and Agreements:

Licenses

Cellular

CNMI – Call Signal: KNKN515 - Frequency Range 880.000-894.000/835.000 to 849.000
– Expires 2011



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PCS

Guam-Call Signal: CNMI WQCV08 – Frequency Range 1850.000 – 1865.000 and 1930.000 to 1945.000 – Expires 6/7/2015

Guam/CNMI – Call Signal – WPOK677 & WOPOK678 – Frequency Range 1895.0000 – 1910.0000 – Expires 9/29/09

Land Leases

End Date

MARIANAS PUBLIC LAND CORP. (LAND FOR SAT. & EARTH STATION (SPN))	
12/5/2031	
MARIANAS PUBLIC LAND CORP. (LAND FOR SWITCH FAC OFFICE (SPN))	
10/31/2033	
MARIANAS PUBLIC LAND CORP. (LAND FOR SAT. STATION (SAN JOSE, TIQ))	
10/30/2033	
MARIANAS PUBLIC LAND CORP. (LAND FOR SAT. STATION (SONGSONG, ROP))	
10/30/2033	
MARIANAS PUBLIC LAND CORP. (LAND FOR LOWER BASE FACILITY(SPN))	
10/30/2033	
MARIANAS PUBLIC LAND CORP. (LAND FOR MW TOWER SITE (SABANAH, ROP))	
8/1/2010	
MARIANAS PUBLIC LAND CORP. (GARAPAN REMOTE OFFICE)	
8/1/2015	
MARIANAS PUBLIC LAND CORP. (SINAPALO CO (ROTA))	6/1/2017
MARIANAS PUBLIC LAND CORP. (AS-GONNO OFFICE)	
9/1/2015	
MARIANAS PUBLIC LAND CORP. (CHACHA-KAGMAN)	
5/31/2015	
MARIANAS PUBLIC LAND CORP. (SUBMERGE LAND LEASE)	
12/31/2021	
EDWARDCHUNG/KI CHA CHUNG (CHALAN LAU LAU)	
12/31/2012	
COMMONWEALTH DEV. AUTHORITY (SAN VICENTE - TEL. SWITCHING EQPT)	
1/9/2007	



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- CNMI TREASURER-EMO (MT. TAPOCHAO - TOWER CELL SITE)
8/19/2021
- JOSE AYUYU-RJ/M&N CORP. (CELLSITE RENTAL - KOBLERVILLE)
11/30/2010
- NORITA, FRANCISCO/ELOISA - ROTA (BUILDING LEASE - ROTA)
2/28/2010
- DIANALYN TESIRO (CAPITOL HILL-TOWER LEASE)
3/27/2010
- L&T GROUP OF COMPANIES (SPACE RENTAL WIRELESS CENTER)
3/31/2011
- CHONG INTERNATIONAL (DANDAN CELLSITE)
2/2/2011

36. Construction and Vendor Contracts

IT&E will not require construction contracts within scope of the work being proposed. The projects are enhancements to or replacement of existing equipment. Vendors will be used for the creation of the billing and prepaid support systems along with enhancements to the Microwave Radio (increased for redundancy). The vendors will be the primaries on the project. IT&E has used the vendors in previous engagements and/or have obtained quotes from the vendors regarding the work to be performed. IT&E will provide project managers, engineers and other staff to support the efforts and manage the project to the expected deadline. The MPLS and Fiber Optic Card upgrade will be performed in-house by IT&E personnel. The turnaround time for project initiation should be roughly two to three months from awarding of the grants.

Qualification of Management Team and Organizational Readiness

37. Management Team Resumes:

Please refer to upload section at the end of the document.

38. Organizational Readiness:

IT&E is prepared to immediately begin adoption efforts upon approval of the grant funding. IT&E has been successful in completing similar projects within the region timely and



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efficiently. These projects include:

- Undersea Fiber Optic Cable Lay
- GSM Network
- CDMA Wireless Platform
- EV-DO Mobile Broadband Network
- Push-to-Talk Mobile Service
- Global Roaming
- Prepaid Cellular Service

The experience in the region gives IT&E the knowledge necessary to complete projects expeditiously. IT&E is prepared to use the infrastructure enhancements as an opportunity to begin promoting use of broadband services. The launch of Prepaid Cellular Services is a testament to how IT&E can be successful in the adoption of broadband services.

Through an understanding of local needs, IT&E launched Prepaid Cellular Service. The implementation of Prepaid Cellular included infrastructure development to the network, billing system implementation, equipment procurement, and promotional efforts. IT&E marketed prepaid services to the community through multiple means effectively targeting population segments that were most in need of these services. This led to usage increases over 500% in the first five years.

The high functioning departments support specialized expertise critical to project execution and successful campaigns. Multiple departments will support the Last Mile project plan execution.

Information Management - Responsible for installing, supporting, and maintaining servers, and other computer systems. Planning for and responding to service outages and other problems. Other duties may include light programming, project management for systems-related projects, supervising or training computer operators, and being the consultant for computer problems beyond the knowledge of technical support staff.

Wireless Engineering - Design installation & maintenance procedures. Design power, grounding, cabling & mounting for antennas/base stations. Write system functional specifications/requirements documents. Understand regulatory requirements, ensure that



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system designs comply with requirements, and handle regulatory compliance. Perform and test system integration. Verify systems meet performance requirements.

Network Operations - Responsible for end-to-end implementation of network initiatives as it relates to new product and service deployments. Direct deployment activities for the integration and commercial success of new product and services projects. Develops and execution of comprehensive project plans, coordination of multiple teams, risk management.

Other

39. Organizational Chart:

Please refer to upload section at the end of document.

40. Legal Opinion:

Please refer to upload section at the end of document

41. Government and other Key Partnerships:

The proposal to use funding includes partnerships with agencies coordinating aiding in efforts towards key government initiatives. An example of IT&E's commitment is through the participation in the Life-Line/Link-Up government program. Through this program IT&E provides subsidized home and mobile phone services for low income families. There exist segments of these communities disaffected by the economic downturns experienced through receding global economies and other factors (Detailed in the Project Purpose). These families have little to no discretionary income to use even basic services, which is validated through low subscribership of other IT&E services. Supporting basic services for disaffected families is an important undertaking for IT&E in Guam and the CNMI.

IT&E plans to use the same criteria to offer discounted equipment to existing Life-Line/Link-Up subscribers and potential subscribers. In a continuing commitment to these communities and the initiatives of the ARRA Broadband Plans, IT&E will offer diverse options to promote early adoption, especially amongst the disadvantaged populations. The details of the plan include:



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Prepaid wireless broadband services
Netbook affordability through discounts
Monthly payment options to purchase equipment
Complimentary broadband access to introduce service offering

Prepaid internet services provide a solution affording consumers the access to internet using broadband speeds that meet their needs. IT&E also plans to offer subsistence to agencies helping support individuals with fewer opportunities. Targeted public services include labor agencies, health care, services for the disabled, and public schools. The plan to widen access points of broadband services helps bridge the initiatives of government to the funding opportunities within the ARRA.

42. Recovery Act and Other Governmental Collaboration.

Areas of opportunity to collaborate with government agencies include Global Information Systems (GIS) support and video teleconferencing. Current infrastructure planning in the CNMI is completed from manual maps. Future undertakings by the Department of Energy and partnering agencies seek to consolidate mapping into a digital format. This creates better efficiencies in coordinating construction or digging projects that can be worked on concurrently. Organization of a variety of hard copy map resources makes project collaboration difficult. IT&E can help conserve the energy and monetary resources of duplicate area project work by supporting GIS through education and outreach available in long distance outreach programs. This can be accomplished by supporting the video conferencing needs of these agencies. IT&E will also provide video conference support, as it has previously, for economic planning conducted by the Department of Commerce. IT&E provided the video teleconferencing support for an Economic Restoration Summit for the islands of the CNMI.

Community Involvement (BTOP Applicants Only)

43. Partnering with Disadvantaged Businesses

It should be noted that all small businesses in the CNMI are HUBZone businesses referring to the status of economically disadvantaged due to local economic conditions. IT&E has partnerships with local businesses and will continue to partner through other opportunities going forward. IT&E will also provide an outlet for reselling of prepaid air time through



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multiple channels. The hospitality industry, small businesses, educational institutions and other organizations will have the ability to resell data air time over the wireless network with prepaid cards. This program will allow traditional small businesses and industries outside of telecommunications to compete for consumers. Currently very few hotels, cafes and other various businesses provide paid internet access. IT&E's program will help to create additional sales channels to with very little overhead to local businesses.

H. Project Budget

44. General Overall Budget



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Budget	Loan Request	Grant Request	Equity	Debt	Bond	Other
Network & Access Equipment (switching, routing, transport, access)		3,848,655				
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)		67,200				
Buildings and Land – (new construction, improvements, renovations, lease)						
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)						
Billing and Operational Support Systems (IT systems, software, etc.)		3,161,136				
Operating Equipment						



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(vehicles, office equipment, other)						
Engineering/ Professional Services (engineering design, project management, consulting, etc.)		962,800	2,023,200			
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)						
Site Preparation						
Other						
TOTAL BROADBAND SYSTEM		8,039,791	2,023,200			



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Total Budget: \$ 10,062,991

45. Detailed Budget:

Please refer to upload section at the end of the document.

Sustainability

46. Reasonableness

The unit prices and total number of units required are reasonable within this budget as it is expanded upon an already constructed infrastructure. The number of routers, switches and BTS units has already been established through previously build outs. The enhancements will not require construction or detailed analysis as that was performed during the initial roll outs.

The total number of MPLS routers (14) and switches (11) is based upon the current network configuration and interisland connections between Guam, Rota, Tinian and Saipan. The Fiber Optic Cards (10 in all) were predetermined per previous construction. The 46 3G Backhaul components is necessary in order provide a reliable and redundant system.

47. Historical Financial Statements:

Please refer to upload section at the end of the document.

48. Broadband Subscriber Estimates:

Please refer to upload section at the end of the document.

49. Other Services:

Please refer to upload section at the end of the document.

50. Pro Forma 5-Year Financial Forecast and Assumptions:

Please refer to upload section at the end of the document.

51. Commitment of Capital Funding Support

IT&E will commit funding in the amount \$2,023,200.00 or 20.11% of the project cost. The funds are grant matching (in-kind) and will be used primarily for costs associated with personnel and the facilities to support IT&E personnel including but not limited to use of buildings and vehicles.



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BTOP Requirements

52. Matching Funds:

- a. Cash: \$.00
- b. In-Kind: \$ 1,936,200.00
- c. Percent of Total Project Cost: 26

53. Demonstration of Financial Need:

Without funding IT&E would not be able to deploy this strategic plan to build, provide and stimulate demand. Supportive wireless broadband technologies create diverse places (locations without landlines, public areas and educational/developmental establishments) for people to access the internet. The purchase of IT&E and related costs of consolidation have diminished the cash on-hand. The projected cash flows indicate that implementing this strategy would not be a realistic opportunity until after 2010, and would diminish cash on hand near current levels.

Furthermore, waiting beyond 2010 would hamper the ability to take advantage of current infrastructure development opportunities such as WiMAX and strong product lines of netbooks. Early adoption is one of the barriers to tear down, and can be here by making new technologies affordable to implement and obtain. This can help spur adoption of broadband services. IT&E is committed to supporting the plan with a 20% contribution of total costs through in-kind contributions.

54. Unjust Enrichment

IT&E is not receiving funding from other sources, including federal and local, to supplement the funding requested in this application. IT&E has not requested and is not receiving funding for non-recurring costs in the service areas for which they seek funding.

55. Disclosure of Federal and/or State Funding Sources

IT&E is a designated ETC for Lifeline through the Federal USF. IT&E receives \$ 323,133.00 for maintenance and enhancements to the existing infrastructure and cell sites. The focus of the funds is on supporting Voice Services.



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I. Self Scoring – BIP Only Self Scoring

56. Self Scoring Sheet



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Criteria	Method	Points	Self Scores
<u>PROJECT PURPOSE</u>			
Proportion of Rural Residents Served in Unserved Areas	1 point for every 10,000 unserved households	Up to 5	0
Rural Area Targeting	1 point for every 5% increase in the rural service area up the minimum 75% rural area requirement	Up to 5	0
Remote Area targeting	1 point for every 50 miles a service area is located from a non-rural area	Up to 5	0
Title II Borrower	If you are or were a Title II borrower	5	0
Recovery Act and other governmental collaboration	1 point will be awarded for each governmental or Recovery program the applicant is partnering with	Up to 5	0
<u>PROJECT BENEFITS</u>			
Performance of the offered services	If a last mile wireline project delivers 20M to household – if a last mile wireless projects delivers 2M to end-user – if a middle mile projects delivers 100M to end points	10	0
Affordable of services offered	Points awarded based on the proposed rate structure and the logistics of the proposed service area	Up to 5	0



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Choice of service provider	If the proposed infrastructure is available to be used by multiple service providers	5	0
Critical Community Facilities	If discounted rate packages at least 25% lower than advertise rates are available to critical facilities	5	0
<u>PROJECT VIABILITY</u>			
Applicant's organizational capability	Points will be awarded on the strengths and accomplishments of key management	Up to 12	0
Community Support	If a letter of support has been received from a designated representative of the community for every community in the proposed service territory	2	0
Ability to promptly start project	If the applicant can demonstrate that all licenses and regulatory approvals have been received, contractors and vendors are ready to enter into contracts, and equity has been deposited into applicant accounts	10	0
Socially and economically disadvantaged small businesses (SDB), as defined by section 8(a) of the Small Business Act, 15 U.S.C. §637.	If the applicant is a Section 8(a) entity	1	0
<u>PROJECT BUDGET AND SUSTAINABILITY</u>			
Reasonableness of the budget	Points will be awarded based the	Up to 5	0



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	adequacy of the proposed budget		
Leverage of outside resources (outside funding/financing requested)	(i) 10 points if this ratio is greater than 100% (ii) 7 points if this ratio is between 100% and 75% (iii) 5 points if this ratio is between 75% and 50% (iv) 3 points if this ratio is between 50% and 25% (v) 1 points if this ratio is lower than 25%	10	1
Extent of grant funding (Grant funds/loan funds)	(i) 0 points if this ratio equals 100% (ii) 1 points if this ratio is between 100% and 75% (iii) 3 points if this ratio is between 75% and 50% (iv) 5 points if this ratio is lower than 50% (v) 10 points if no grant funds are requested	10	0
Total Points		100	1



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Funding Opportunity: Broadband Initiatives Program and Broadband Technology Opportunities Program	Applicant Organization: IT&E
Task: Submit Application - Infrastructure Programs	Applicant Name: Larry Knecht

J. BTOP Certification Requirements

Certification (Requested for BTOP)

Please refer to upload section at the end of the document regarding following uploads.

1. U.S. Department of Commerce, Broadband Technology Opportunities Program
2. SF-424D Assurances—Construction Programs (Schedule N)
3. CD-511, Certification Regarding Lobbying (Attachment O)
4. SF-LLL, Disclosure of Lobbying Activities (Attachment P)
5. CD-512, Certification Regarding Lobbying—Lower-Tier Covered Transactions (Attachment Q) This certification will not be required until the time of the grant award, because it applies to subcontractors, etc.

K. BIP Certification Requirements

Certification (Requested for BIP)

Please refer to upload section at the end of the document regarding following uploads.

1. Equal Opportunity and Nondiscrimination Certification
2. Certification Regarding Architectural Barriers
3. Uniform Relocation Assistance and Real Property Acquisition - Policies Act of 1970 Certification
4. Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions
5. Certification Regarding Lobbying for Contracts, Grants, Loans, and Cooperative Agreements



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6. Network Design and Implementation Plan Certification (to be complete for projects requesting more than \$1 million in federal assistance)

L. Schedules

Schedule: A-1 Congressional Districts

1. State the Congressional District of the Applicant's headquarters

Northern Mariana Islands - At-Large

2. State the Congressional District for each area covered by the Project.

Guam - At-Large

Northern Mariana Islands - At-Large

M. Proposed Funded Service Area Details (BIP & BTOP)

13. Proposed Funded Service Area (BIP - Last Mile Projects):

Proposed Funded Service Area Name: Guam

Census Blocks in Proposed Funded Service Area: Agana Heights

Agat

Asan

Barrigada

Chalan Pago-Ordot

Dededo

Hagatna

Inarajan

Mangilao

Merizo

Mong Mong, Toto, Maite

Piti



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Santa Rita
Sinajana
Talafofo
Tamuning
Umatac
Yigo
Yona

Community Name: Guam
Rural Classification of the Community: Non-Rural
BIP - Service Status:

BIP - If Service Status is "Underserved" please select at least one applicable option from this list.

BTOP – Service Status: Underserved

BTOP - If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles of Community: 212
Total Population : 154,805
Total Number of Households: 38,769
Total Number of Businesses: 3,143
Total Number of Critical Community Facilities, Anchor Institutions and Public Safety Entities: 224

Proposed Funded Service Area Name: CNMI
Census Blocks in Proposed Funded Service Area: Capital Hill
Chalan Kanoa
Dandan
Garapan
Gualo Rai
Kagman
Koblerville
Navy Hill
San Antonio
San Jose(Saipan)
San Jose (Tinian)



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San Roque
San Vicente
Songsong
Sususpe
Tanapag

Community Name: CNMI
Rural Classification of the Community: Non-Rural
BIP - Service Status:

BIP - If Service Status is "Underserved" please select at least one applicable option from this list.

BTOP – Service Status: Underserved

BTOP - If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles of Community: 119
Total Population : 69,221
Total Number of Households: 14,055
Total Number of Businesses: 1,191
Total Number of Critical Community Facilities, Anchor Institutions and Public Safety Entities: 81

14. Proposed Service Area (BTOP - Middle Mile Project):

Middle Mile Span Name: Guam
Census Blocks in Middle Mile Span: Agana Heights
Agat
Asan
Barrigada
Chalan Pago-Ordot
Dededo
Hagatna
Inarajan



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Mangilao
Merizo
Mong Mong, Toto, Maite
Piti
Santa Rita
Sinajana
Talafofo
Tamuning
Umatac
Yigo
Yona

Last Mile Service Area Name: Guam
Community Name: Guam
Rural Classification of the Community: Non-Rural
BIP – Service Status:

BIP - If Service Status is "Underserved" please select at least one applicable option from this list.

BTOP - Service Status: Underserved

BTOP - If Service Status is "Underserved" please select at least one applicable option from this list.
The rate of broadband subscribership for the proposed funded service area is 40% of households or less.

Total Square Miles of Service Area: 212
Total Population : 154,805
Total Number of Households: 38,769
Total Number of Businesses: 3,143
Total Number of Critical Community Facilities, Anchor Institutions and Public Safety Entities: 224

Middle Mile Span Name: CNMI
Census Blocks in Middle Mile Span: Capital Hill
Chalan Kanoa
Dandan
Garapan
Gualo Rai
Kagman



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Koblerville
Navy Hill
San Antonio
San Jose(Saipan)
San Jose (Tinian)
San Roque
San Vicente
Songsong
Sususpe
Tanapag

Last Mile Service Area Name: CNMI
Community Name: CNMI
Rural Classification of the Community: Non-Rural
BIP – Service Status:

BIP - If Service Status is "Underserved" please select at least one applicable option from this list.

BTOP - Service Status: Underserved

BTOP - If Service Status is "Underserved" please select at least one applicable option from this list.
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N. Uploads

In order to improve system performance and help ensure that all applicants are able to complete their applications by the deadline, we have changed the way your application PDF is created.



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