Executive Summary

The Hawaii Broadband Network (HBN) is a statewide middle mile network delivering comprehensive community infrastructure, to facilitate open interconnection across the Counties of Kauai, Maui, and Hawaii. The proposed network is a highly-collaborative, high-value project that will provide enormous benefits to residents, promote economic growth in a substantially depressed economy, and provide upgraded connections to community anchor institutions across the state. The HBN project team, assembled by native Hawaiian organization, Gold Ivory, is a public/private partnership including government agencies, non-profit and for-profit entities, as well as economically disadvantaged small businesses. The islands of Maui, Molokai, Lanai, Kauai, and Hawaii are the five middle mile service areas that are collectively referred to as the HBN proposed funded service area (PFSA). The HBN PFSA is home to 335,234 residents, 10,282 businesses, 1,279 community anchor institutions, and several third party service providers that have expressed an interest in the upgraded services the HBN will provide through its policy of open interconnection. 71% of the PFSA, which spans the Counties of Maui (consisting of the islands of Maui, Molokai, and Lanai), Kauai, and Hawaii, is designated 'economically disadvantaged.'

With limited economic resources, an unemployment rate of over 6%, and a median income of only $21,767 per year, accessibility to a robust, affordable and open network is appealing to these rural County governments, residents, and businesses. According to 2000 Census Bureau data, 98.8% of the HBN PFSA is designated 'rural'. Furthermore, Gold Ivory used statistical models to classify the PFSA status as underserved; the rate of terrestrial broadband subscribership is 34% - less than the 40% subscribership threshold. The underserved classification was determined by extrapolating data reported in Consumer Electronics Association report, "Broadband in America: Access, Use and Outlook", the 2000 Census Report, the 'Hawaii Broadband Task Force Final Report', and Broadband Service Coverage Maps. The Counties of Maui, Kauai, and Hawaii, as last mile service providers of iNet and owners of existing microwave infrastructure, have demonstrated a firm commitment to utilize the network to improve service to their existing customer base. The HBN will provide direct connection to 148 community facilities, including 59 public safety entities and community colleges. The HBN will also directly connect with key anchor institution, Hawaii Community College. A letter of commitment, submitted by Rockne Freitas, Chancellor of HCC, cites a 'direct connection [which] will enable HCC to obtain affordable access to robust broadband connections not presently available or affordable.' PC Magazine recently ranked Hawaii as 49th in broadband speeds, among the country's 50 states, with a median surf speed of 378 kbps, markedly lower than the FCC recommendation of minimum broadband transmission speeds. Inequitable access to high speed connectivity has certainly had an impact on Hawaii's schools. Students across Hawaii consistently perform below the national average on NAEP (National Assessment of
Educational Progress) exams. With limited or no access to high-speed technology in their formative school years, they are being denied powerful educational advantages possible via high-speed internet connections. Clearly, students with limited exposure to digital technologies translate to adults with limited career opportunities. 'Workers lacking technological versatility put the American workforce at a competitive disadvantage within the world economy' (Communication Workers of America, 2010). The proposal submitted by Gold Ivory also presents a unique opportunity to address a significant problem faced by Hawaii's public safety agencies - an obsolete and unreliable field communications infrastructure. As a direct result of this partnership, 58 public safety entities, including fire, police, and civil defense, will be directly connected to the HBN, providing inter-island connectivity and operability and laying a foundation for the addition of access technologies that will enable much needed applications such as mobile and fixed data services, video, conferencing, training, surveillance and internet access. The infrastructure being built and upgraded will also support planned P25 Land Mobile Radio network and Next Generation 911 initiatives. The HBN leverages existing microwave assets of the Counties of Maui, Kauai, and Hawaii along with protected underground/submarine fiber from ClearCom. The network has been designed for high availability and high quality of service using IP/MPLS technology. IP/MPLS assures high availability through fast path restoration and network reconvergence. MPLS also has traffic engineering capability that ensures the best link is chosen to optimize network bandwidth and availability. Another key element of this network is the centralized network management tools, simplifying the deployment and operation of the network. Gold Ivory is committed to the nondiscrimination and interconnection obligations set forth in the NOFA and the principles outlined by the FCC's Internet Policy Statement. The HBN will offer interconnection, where technically feasible, at reasonable rates and terms to be negotiated in good faith with requesting parties at appropriate interconnection points throughout the five middle mile service areas. Gold Ivory is a privately held native Hawaiian corporation, established specifically to implement the proposed project. Its president, Albert Hee, is a native Hawaiian that appreciates the unique problems associated with the remoteness and isolation of our islands. He recognizes that a reliable and respected public safety presence is essential for our remote communities to establish a stable and healthy economy, and to ensure positive social growth. Mr. Hee has spent the last 25 years developing utility infrastructure in Hawaii, including telecommunications. Given his intimate knowledge of the telecommunications issues unique to Hawaii, and his ability to access technical expertise, Gold Ivory is uniquely qualified to bring the necessary resources together to successfully complete the project. The HBN will cost $293,682,070. However, by leveraging existing resources and partnerships, Gold Ivory is prepared to provide $132,202,990 in matching funds, which is 45% of the total cost, reducing the funding request to $161,479,080. This funding will infuse much needed capital into the economies of the Counties that have been impacted by the economic recession and the dramatic decline in tourism - the state’s primary economic driver. To estimate the likely impact of the fiscal stimulus spending in the HBN service area, Gold Ivory estimated job creation for the proposed infrastructure project using the Council of Economic Advisers' guide, using the simple rule that '$92,000 creates one job-year,' and has determined that the HBN will result in an estimated 5,265 job-years, or 1,755 job-years for each of the three years of the HBN project. A vast majority of jobs created as a result of this government spending will be indirect jobs, or those in the private sector, building out this critical broadband network. Additionally, the 1,895 induced jobs that result from the HBN project will contribute to the sustainability of the project, and
significantly improve Hawaii’s economy. As increases in income within the service area are realized, additional increases in spending will result. Gold Ivory understands that the need for a cost-effective networking infrastructure in Hawaii far exceeds what any single entity could procure on its own, and, as a result, has assembled an impressive team of telecommunications professionals with extensive experience in the design and implementation of broadband technology and infrastructure to successfully deploy the HBN. The proposal submitted by Gold Ivory presents a unique opportunity to address the critical broadband needs of key anchor institutions in the Counties of Maui, Kauai, and Hawaii. It was developed in the true spirit of the requirements for funding under the BTOP Grant program (CCI) and will serve as a model program for the American Reinvestment and Recovery Act.