

**STATEMENT OF ALAPAKI NAHALE-A
CHAIRMAN
HAWAII DEPARTMENT OF HAWAIIAN HOME LANDS**

**BEFORE THE
COMMITTEE ON COMMERCE, SCIENCE AND TECHNOLOGY
UNITED STATES SENATE**

**CLOSING THE DIGITAL DIVIDE: CONNECTING NATIVE NATIONS AND
COMMUNITIES TO THE 21ST CENTURY**

April 5, 2011

Senator Inouye and members of the Committee, my name is Alapaki Nahale-a. I am the Chairman of the Hawaiian Homes Commission which was created by Congress through the Hawaiian Homes Commission Act of 1921. As the Chairman of the Commission, I also serve as the Director of the Department of Hawaiian Home Lands, charged with carrying out the mission of the Act to provide housing and economic opportunities for Native Hawaiians utilizing the 200,000 acres that are held in trust for their benefit. It is especially an honor for me to sit before you, as I am among the 37,800 beneficiaries under this Act, born and raised on Hawaiian Home Lands in Keaukaha on the Island of Hawaii. Thank you for this opportunity to share with you the needs of the Hawaiian community. Broadband is a powerful tool to transform and advance our people to a greater level of economic self-sufficiency, educational achievement, and cultural awareness and pride.

The eight primary islands and the immediate surrounding ocean area cover roughly 79,625 square miles which is slightly larger than the State of Nebraska. While most people associate Hawaii with Honolulu and Waikiki, Hawaii is, at its heart, a rural state. I have taken the liberty of attaching a map with my written testimony to illustrate the truly rural non-contiguous nature of our state.

Today, Hawaii's population is approximately 1.4 million people. Native Hawaiians make up about 20% of the state's population and are most concentrated

on rural Oahu and the neighbor islands. Our population is growing with Native Hawaiian students making up 28% of public school enrollment. Moreover, this percentage grows to 37% when you exclude Oahu schools.

Native Hawaiians, like American Indians and Alaska Natives, face similar social-economic challenges. They are overrepresented in the negative indicators including income levels, health and well-being, educational levels, prison populations, and homelessness. It is my belief that we can address these problems and improve our chances for success through the use of technology and access to broadband.

The State of Hawaii, and its rural Native Hawaiian communities in particular, face unique hardships in accessing broadband because of the state's non-contiguous configuration in the middle of the Pacific Ocean. Connectivity is provided by a combination of submarine fiber optic systems and terrestrial fiber systems. Since modern fiber optic systems no longer require a regeneration point in Hawaii, fewer trans-Pacific cables are located in Hawaii. Ultimately, this reduces Hawaii's connectivity to the rest of the world and results in higher costs to users which directly impact the state's ability to conduct advanced research, expand distance education, and further tele-health services for its citizens.

In order for rural and remote Native Hawaiian communities to have access to broadband, the infrastructure must first reach the State of Hawaii before it can be deployed to the rural areas of Oahu and the difficult to reach remote communities on the neighbor islands. Once within our state's borders, our islands are separated by miles of open ocean. As such broadband systems require both a heavily armored submarine and a protected terrestrial fiber optic network that is able to withstand the natural disasters that have historically plagued the Hawaiian Islands. This means higher costs for carriers to deploy and maintain network facilities with little means of recovering these expenses. In fact, some rural Native Hawaiian

communities are relegated to dial-up service because service providers determined that any further upgrades were not cost-effective.

Broadband is a great equalizer for our Native Hawaiian communities. It is a tool that will allow us to remain in our communities and thrive. We can be safe with reliable access to police and fire protection. Our young people can take college courses without having to move to another island. We can raise our families in our community because we have economic opportunities. We can access health care specialists in Honolulu via teleconferencing and tele-health technologies.

In July 2010, Federal Communications Commission Chairman Julius Genachowski visited Hawaii to see firsthand the challenges that Hawaii and Native Hawaiians face. He addressed a Native Communications Roundtable attended by American Indian, Alaska Native, and Native Hawaiian leaders and community members who came to discuss their telecommunications challenges. Interestingly enough, whether the speaker represented the Inupiat people from northwestern Alaska, the Mandan, Hidatsa, and Arikara Nation from the great plains of North Dakota, or a Native Hawaiian homesteader from rural Waimea on Hawaii Island, the message was consistent – their biggest telecom challenges were the geographic isolation of their communities and the lack of capital to invest in a broadband infrastructure. These native leaders discussed with Chairman Genachowski the value of establishing a Tribal Broadband fund to support sustainable broadband deployment and adoption for native communities. He was given an aerial tour of Hawaii Island to see its expansive, remote nature, and the difficulty of reaching and connecting with many in Hawaiian communities.

Chairman Genachowski also witnessed how broadband connected a gifted high school student from the rural Native Hawaiian community of Nanakuli on Oahu to an Advanced Placement calculus class being taught on the Island of Maui. In the early days, instructor Michele Sera taught students on other islands via the

telephone, and later through a dial-up internet connection. Today, she is able to effectively teach students from multiple locations through video-conferencing. Broadband allows our cash-strapped public school system to leverage limited teaching resources to reach multiple campuses. This gifted student was able to take an advanced class not offered at his campus without having to travel long distances from his rural neighborhood. He was not left behind. This enlightened example must be expanded to other courses and programs throughout the state. This can only happen with broadband connectivity.

Native Hawaiians have led the way in the perpetuation of their native language. Their efforts have resulted in a highly regarded program where children learn and speak their native language from age three all the way through a doctoral program at the University of Hawaii at Hilo. Imagine how far and how fast this Native language renaissance can spread as a “living language” with high-speed connectivity between the schools, between the islands, and beyond. Embedded in the native language revival is a healthy dose of self-esteem about the literary greatness of our ancestors to propel our young people forward with self-confidence and optimism.

Broadband deployment into Native Hawaiian communities can also serve as incubators for economic development. Hawaiian Homes Technology (HHT) is a job creating and capacity building initiative which began in the Hawaiian homestead community of Anahola on the Island of Kauai. Through the use of broadband, they opened a digitization business, converting legacy data from files, microfilm, microfiche, diagrams, blueprints, and images into electronic files. HHT has been able to create living wage technology jobs in economically challenged Native Hawaiian communities. Through broadband and information technology, Native Hawaiians can choose to live and work in the communities where they grew up without having to move away to support their family. With broadband

infrastructure in more communities, a person's imagination, entrepreneurship, and old-fashioned hard work will be the only limitation to success.

Broadband deployment can also be a powerful tool to preserve Native Hawaiian culture and history. One such project, *Ho'olaupa'i*, focuses on digitizing daily newspapers published in the Hawaiian language between 1834 and 1949. For years, these newspapers languished in museum archives, many too fragile for people to access. Today, the newspaper pages are individually digitally scanned and converted into searchable text files using optical character recognition software. After being reviewed by language experts, these files are uploaded to www.nupepa.org, where members of the public can explore the wealth of information and wisdom stored in these pages.

Hawaiian cultural treasures, locked safely behind the climate controlled walls of the Bishop Museum, can also now be shared with the community at large without ever stepping foot on the museum's Honolulu campus. The website www.hawaiialive.org features images of Hawaiian artifacts and cultural treasures, along with primary source materials which educators utilize to teach Hawaiian history and culture. The educational resources include contemporary videos, historic footage, archival audio files of songs and chants, essays, and lesson plans which are tied to the public school benchmarks. Through broadband, students and teachers now have unprecedented access to authentic Hawaiian educational resources.

Broadband is just beginning to provide rural Native Hawaiian patients with quality acute health care services using tele-health technology which eliminates the time and expense of traveling to major hospitals on Oahu. On the rural island of Molokai, a Native Hawaiian cancer patient utilized video conferencing for a virtual consultation with her Molokai medical providers and her oncology specialists in Honolulu. The system was not perfect, and at times the screen images would

pixilate or even freeze. Nevertheless, the patient and her husband explained how much they valued the videoconference tool, without which she would have had to travel to Oahu for each oncology treatment. Every trip is expensive, time-consuming, stressful, and emotionally and physically draining. The Molokai medical team even shared anecdotally that without the videoconferencing, some Native Hawaiian patients would forego treatment with specialists in Honolulu because of the cost and stress.

Unfortunately this tele-health option is not yet widespread. However with improved technology and broadband infrastructure, the reliability and viability of this service will undoubtedly expand to other health care services.

Despite the challenges of geography and expense, broadband can be the great equalizer for Native peoples, particularly those residing in rural communities. We believe it will allow Native Hawaiian communities to leapfrog over the digital divide that has historically held us back, enabling us to succeed in the 21st century and beyond.

The FCC's National Broadband Plan recommends establishing a Native Nations Broadband fund. We fully support this. We believe that the deployment of broadband into Hawaiian Home Lands and our rural Native Hawaiian communities accelerates our ability to address the social, health, education, and economic challenges we face. Thus far the Native Hawaiian community is beginning to recognize the transformative effect of broadband. With modern technology, imagination, and the necessary broadband infrastructure, Native Hawaiians will be able to excel into the next century and beyond.