Loea

"We were all growing older waiting for downloads... now downloads are faster here than on the main campus... We remained connected even during stormy weather. Loea is amazing technology, and I recommend it highly."
- Jo-Anne Leong, Director

The Challenges

- Limited to low-speed connection between Coconut Island and Windward Community College on Oahu (3.9km/2.4mile link)
- Large file transfers and access to Maui Super Computer required high bandwidth solution
- Underwater fiber for GigE to cost $500K

Benefits

- Loea product cost lower than alternatives
- New capacity has resulted in grants from National Science Foundation
- Loea link has run efficiently for 3 years

Case Study

University of Hawaii
Institute of Marine Biology

Customer Overview

The University of Hawaii is spread out into several campuses across the chain of Hawaiian Islands.

The University of Hawaii's Institute of Marine Biology (HIMB) is a world-renowned research institute situated on Coconut Island located a quarter mile from Kaneohe Bay of Oahu, Hawaii.

This beautiful Institute draws nationally and internationally known scientists as it has 64 acres of coral reef designated by the State of Hawaii known as the Hawaii Marine Laboratory Refuge.

Researchers and students go to the Institute's Coconut Island location because it is unparalleled for the collection of data vital to pursuing work in their field.

The Challenges

Since it is located on an island off of Oahu, HIMB faced typical problems associated with providing high speed connectivity between two remote locations.

Laying fiber optic cable underwater was an option, but it was expensive—more than $500,000. Underwater trenching also required a time consuming ecological survey.

Researchers were forced to rely on a low capacity microwave link to Oahu that suffered from intermittent interference problems. The sub optimal availability and bandwidth failed to satisfy the University's needs.

"We could make a cup of coffee before we finished downloading a document," said Jo-Anne Leong, Ph. D. and HIMB Director.

HIMB considered other solutions, but was unable to find one that could deliver the capacity it needed and penetrate the mist and rain over the distance between Coconut Island and the Island of Oahu.

The Loea Solution and Benefits

The Institute's decision to install Loea was based on its ability to be weather resilient at the nearly 4km/2.4 mile distance and provide Gigabit Ethernet data rates.

Loea's system is today being used by HIMB to transfer scientists' valuable research and data collections from a small Island near Oahu, Hawaii to one of the University's Community Colleges.

Loea saved the University of Hawaii more than $500,000 and eliminated the need for a time-consuming ecological survey.

Furthermore, by upgrading its communications capability, HIMB won a National Science Foundation grant allowing it to carry out its mission of performing world-class marine research.

Configuration Example

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