

I'M HERE.

IMPROVING HEALTH COMMUNICATION IN REFUGEE CAMPS



DuckLinks (e.g., mobile phone, laptop) relay messages via dedicated portal to the MaMaDuck over Wi-Fi, LoRa or Bluetooth.

MaMaDuck receive the messages, connects with other MaMa, relays messages to the PaPaDuck.

PaPaDuck receives all incoming messages from the network and send them over Wi-Fi, LTE, and satellite to the DMS

BACKGROUND

Refugee camps often present barriers in health care delivery; one of the main problems is the fragmentation and difficulty in health communication and information sharing, especially during disasters and blackouts. The need for new innovative humanitarian technologies to support emergency relief, refugee camp establishments and health assistance is evident today with the potential to accelerate access to healthcare, commodities and data for beneficiaries, providers, and policymakers.



OBJECTIVE

This project aims at facilitating medical information sharing (e.g., data reports, medical records) among HC facilities when communication networks are not available and accessible. In details, the project aims at evaluating the effectiveness of a mesh network technology that will allow HWCs to a) share information b) facilitate early responses to provide health services to refugees c) request medical assistance and referrals and d) assess, contain and monitor outbreaks.



TECHNOLOGY

This technology consists of a stable, innovative, low-cost, and easy-to-use deployable network for organizations that are in need for wireless communications. It consists of a network of hardware IoT devices called Deployable Ubiquitous Connectivity Kit (DUCKs). Each DUCK generates a mesh network (ClusterDuck network) and creates a Wi-Fi network that a user cell phone or laptop can connect to with no requirements in terms of density of cell phones for the network to operate.



STUDY AREA

Kutupalong camp is the largest and most densely populated refugee settlement in the world; over 920,000 stateless Rohingya refugees reside in congested camps (2022). The location makes the camp highly prone to cyclones and to cascading disaster such as flooding, soil erosion and landslides. Overcrowding, inaccessibility to parts of the site and weather conditions increase all risks. When a disaster happen, communication problems are common especially concerning internal health communication among HCWs and their agencies.

