## OFFER ZEN



How Lumkani Builds Tech that Drives Social Impact Lumkani is a social enterprise start-up that uses IoT hardware and financial services to create resilience in underserved communities



# We started by trying to address the challenge of fires with IoT sensors



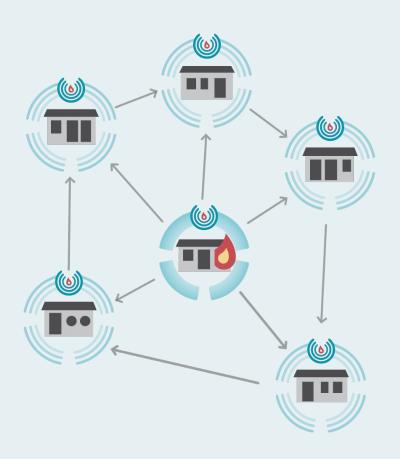
### **1 JANUARY 2013**







#### In-home heat detector



## Mesh network to neighbouring devices



# Data collection through GSM gateway



- Solar powered, low power
- MQTT over USSD
- Global Roaming, Multi-Operator
- LPWAN backup



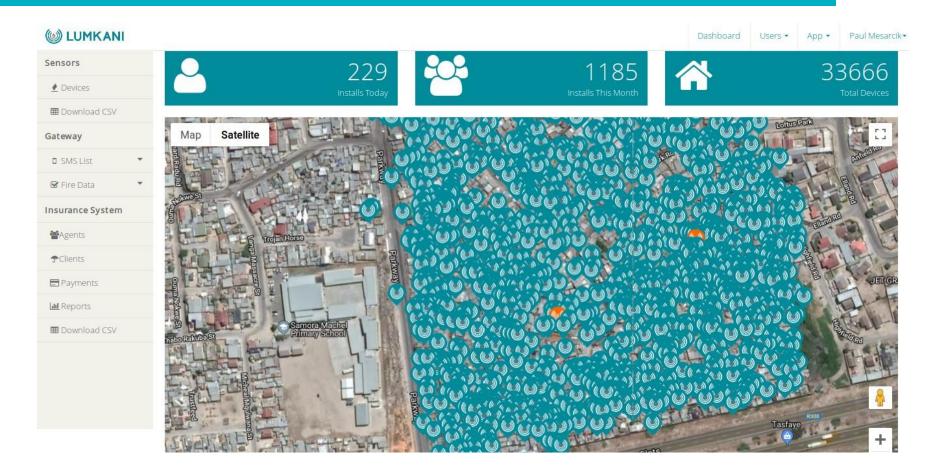
## 2-way SMS

#### We wanted to offer more to our clients:





## Our Insurance and IoT Management Tool



#### PROTECTED BY

# LUMKANI FIRE COVER.

#### WHAT WE OFFER:



AGENT INSTALLS FIRE DETECTOR



AGENT MAINTAINS
DETECTOR



YOU RECEIVE SMS



R40 000

# What are the challenges we have had to overcome:



### **PRODUCT MARKET FIT:**

#### We have consulted with our customers every step of the way





Lumka Kawuta Community leader UT Gardens



### **PRODUCT MARKET FIT:**

We have iteratively designed solutions with the end user in mind



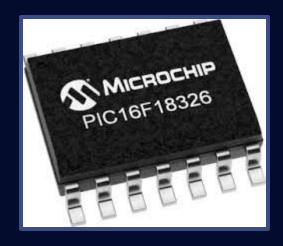






### **COST SENSITIVITY:**

We have used frugal design principles to optimise for cost







## **COST SENSITIVITY:**

We have optimised every second of the manufacturing process.







#### FIRMWARE BEST PRACTICE IS STUCK IN THE 90s:

**Considered interfaces** 

**Unit tests** 

CI/CD



### **OUR IMPACT:**

- 35 501 Sensors installed and actively monitored
- > R1m in claims paid out
- In the last month we stopped 8 fires across the country.
  - All limited to the first home.



#### IN CLOSING:

Technology can create massive impact in our communities.

South Africa needs committed developers to tackle some of our most complex challenges.



