FASOVE
transforming ideas

Public-interest and Private-interest IoT: Caribbean Ventures

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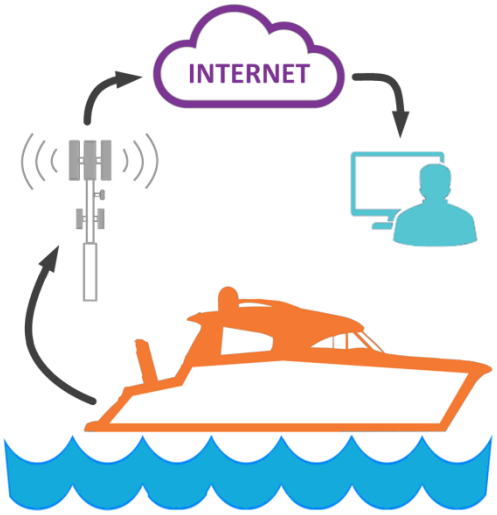
Caribbean International Telecommunications Union IOT Forum 2017

TRANSFORMING IDEAS

IOT PROJECTS

Private Interest



Boat monitoring

Public Interest

Flood & Rain level monitoring

PRIVATE INTEREST: Boat Monitoring

HowDBoat: (Client Eddy Devisse)

Development Cycle/Cost: 8mt/USD20k

A sensor device which remotely monitors the status of boat(s) moored in T&T.

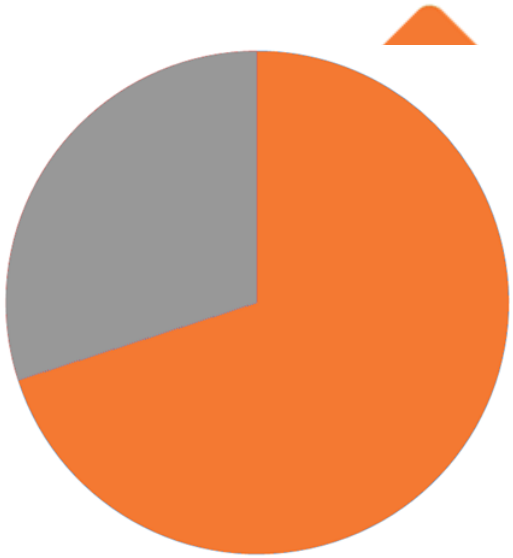
It utilises commercially available electronic components and provides information to owners via a secure website.

IDENTIFIED NEED

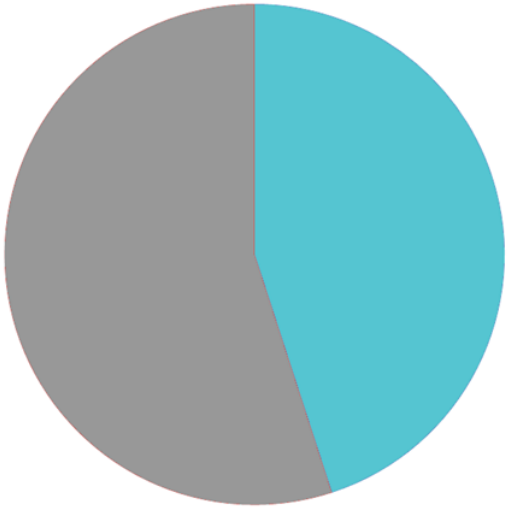
Marina storage – larger vessels

Drydock land storage – smaller vessels

BUSINESS OPPORTUNITY



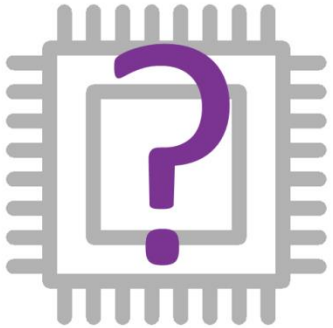
70%
customers
interested



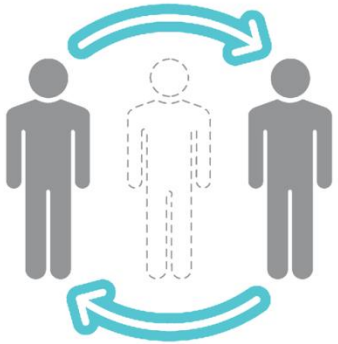
45%
immediate
subscription

TECHNICAL DETAILS

Why not resell a GSM solution?

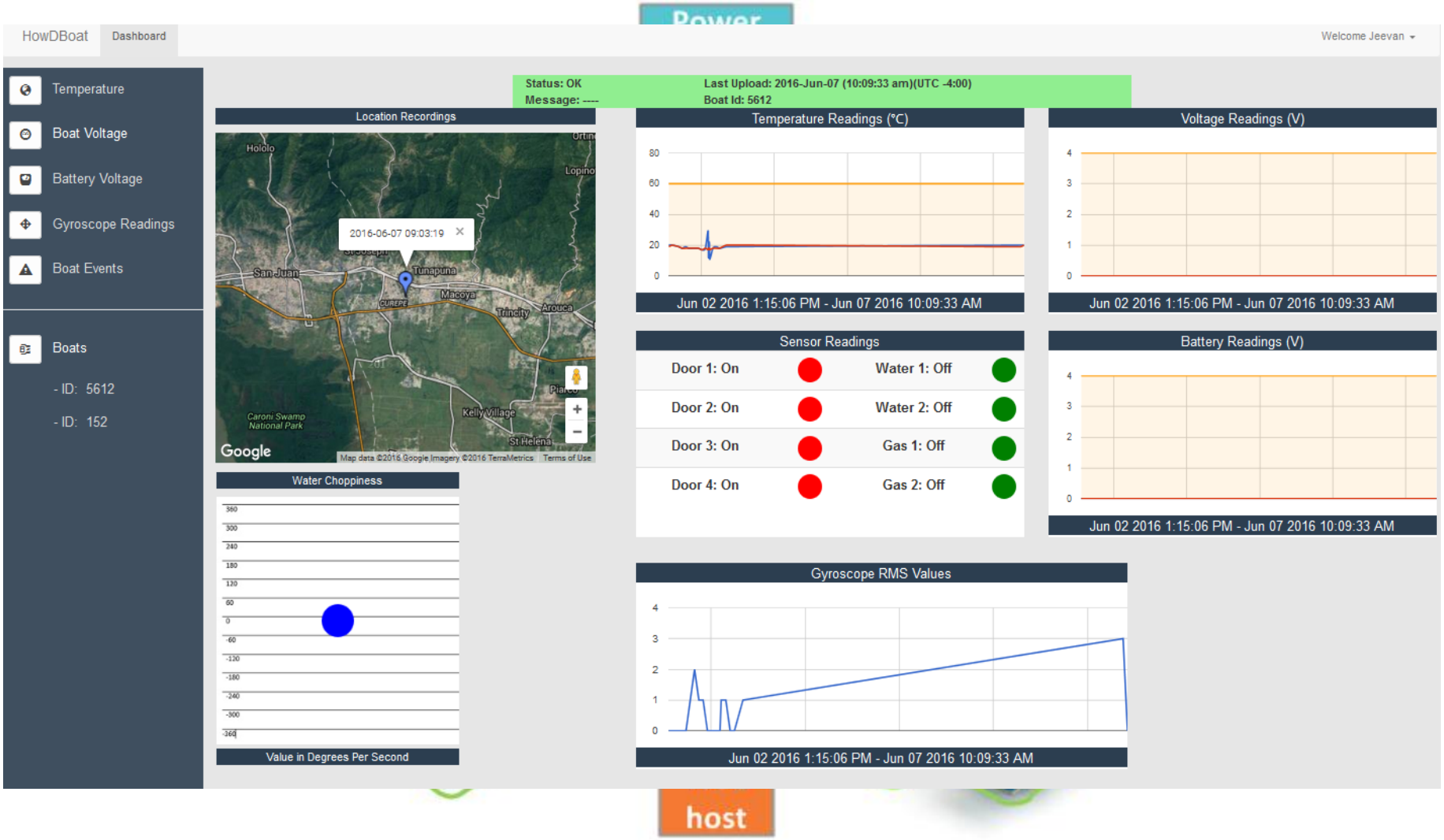


Quality
&
Safety



Middlemen
$$$

TECHNICAL DETAILS



PROTOTYPE COSTING

Specified	Section	% Cost	Quantity	Unit Cost	Total Cost
Arduino	system core	31	1	USD 26	USD 44
NA	sensor	7	2	USD 5	USD 10
NA	water sensor	10	2	USD 7	USD 14
MQ-2 605-00008 propane sensor	gas sensor	13	2	USD 9	USD 18
NA	window & door	14	4	USD 10	USD 20
SIM900 module Quad-band GSM/GPRS	GPRS uplink	13	1	USD 18	USD 18
GY-GPS6MV2 module	GPS	9	1	USD 12	USD 12
MPU-6050 module	Accelerometer	3	1	USD 4	USD 4
		100	**14**	**USD 91**	**USD 140**

Prototype cost (USD)

INITIAL LAUNCH MODEL

1st
Marina Security

2nd
Marina Tech Staff

3rd
Premium level

Fee Description	Costing
Installation fee	USD 200
Basic (1-3 sensors)	USD30/mt
Advanced (up to 10 sensors)	USD50/mt
Premium service	TBD

MOVING FORWARD

Negotiating logistics and funding toward:

Field testing of system with ≈ 10 watercraft

Further stakeholder feedback to establish:

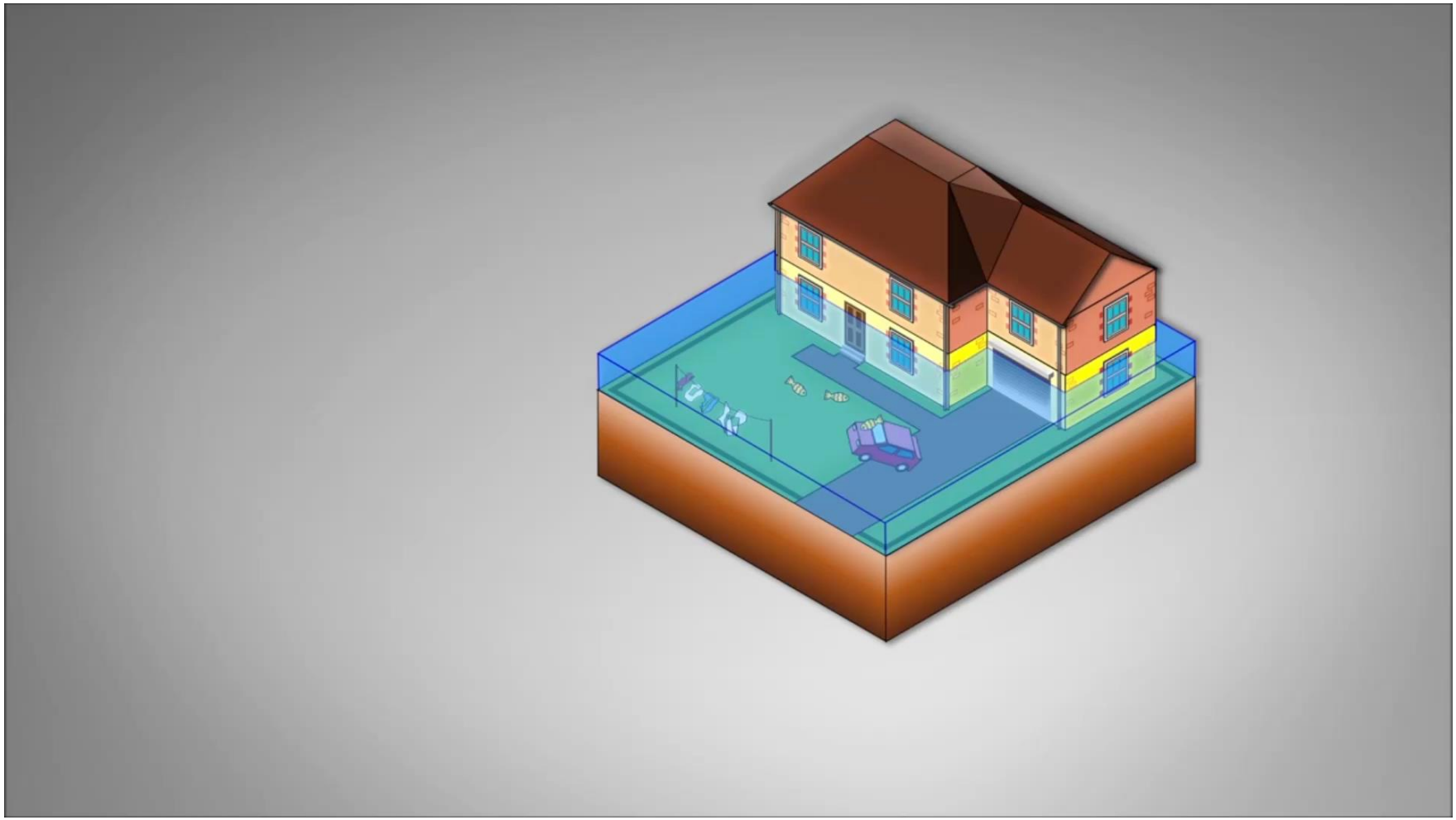
- Pricing
- Service Level Agreements
- Equipment manufacturing

PUBLIC INTEREST

Flood & Rain level monitor: (Client Prof. Jacob Opadeyi)

To empower individuals and communities threatened by hazards to act in sufficient time and in an appropriate manner so as to reduce the possibility of personal injury, loss of life and damage to property or the environment.

SOCIETAL IMPACT



PRODUCT HISTORY & DETAILS

Timeline	Cost
2005 – rain monitor ONLY audible alarm	USD40
2006 – fixed telephone line connection	USD50
2007 – 50 units deployed regionally	---

*Trinidad, Barbados, St. Lucia, Dominica, Grenada and St. Vincent

2008 to present – focus on the development of:

- Disaster response policy
- Geographic information system (GIS)

LATEST PRODUCT EVOLUTION

LATEST PRODUCT EVOLUTION

	COMPONENTS			
	Moisture sensors	**Uplink**	**Power source**	**Data collection**
FEATURES	Contact	Many – one	Mains	Cloud
	Non-contact	One – One	Solar	APP
	Active	Wired	Wind	
	Passive	Wireless	12V battery	
		Smartphone		

PERCEIVED REMAINING HURDLES

Funding is currently being sought for development of proposed equipment.

CLOSING THOUGHTS

- Both initiatives benefit from improvements to the ICT backbone regionally and internationally
- The sensor components were readily available and simple
- Overall, barriers to participation in this space are eroding

THANK YOU

transforming ideas