# Phuket Smart City

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# **Phuket Smart City 2020**

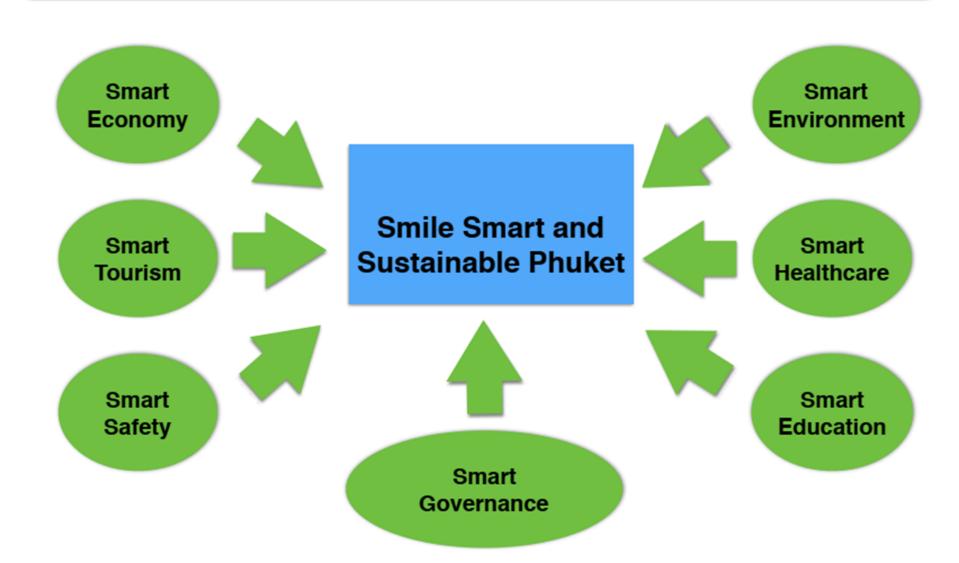






# Phuket Smart City Vision:

"The Tourism Island of Sustainable growth by enhancing Creative Economy to provide Happiness for all"



### Phuket Smart City 2020 Vision: Smile Smart and Sustainable

	Area	Vision 2020
1	Smart Economy	Hub of Creative Economy
2	Smart Tourism	Enjoyable Tour and Convenient Life
3	Smart Health	One Patient Sigle ID
4	Smart Safety	Phuket Safe City
5	Smart Environment	Phuket Green City
6	Smart Education	Smart Learning Community
7	Smart Governance	Smart and Sustainable Phuket

### Smart Economy: Hub of Creative Economy

Goal	1 000 Creative Entrepreneurs	Digital Work

kers and Investors **Paradise** 

Strategy

2020

 Drive local SMEs to be creative entrepreneurs Invite Digital Entrepreneurs, Digital Workers and Digital Investors to Phuket

- Build Local Startup on IoT Smart City

**Projects** 

Innovation Park

Invest Phuket

Startup Ecosystem

Int Creative Ent Academy

International Creative

Entrepreneur Academy

Phuket Investment Info.

Smart City Invest Model

Compare eCosystem Study **Boost IoT Startup eCosystem** 

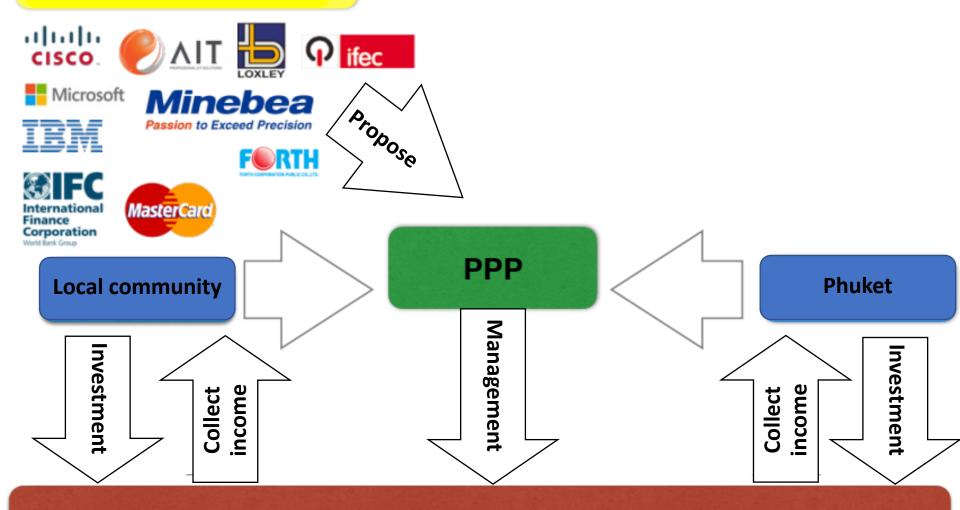
Fast Track Office Roadshow

**Boost Investors eCosystem Boost Digital Workers eCosystem** 

Transform SMEs to Creative Entrepreneur

### **Investment and management plan for Sustainable Phuket Smart City**

### **Entrepreneur / Investor**

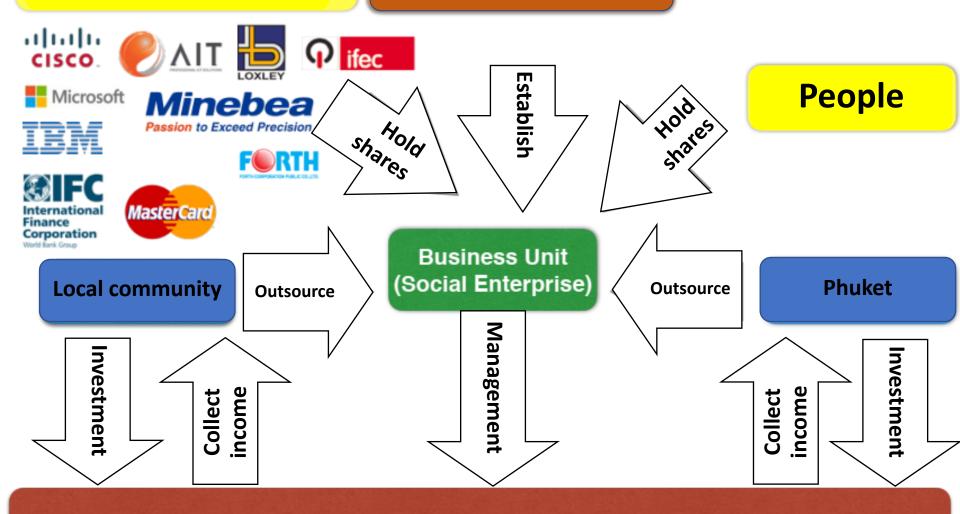


Network | CCTV | Sensors | WiFi | Smart City Services

### **Investment and management plan for Sustainable Phuket Smart City**

**Entrepreneur / Investor** 

### **CAT or TOT**



### **Smart Tourism: Enjoyable Tour and Convenient Life**

Goal 2020

Digitise Tourism (Attractions and Services)

Strategy

- Establish internet access infrastructure for tourists and citizens
- Supporting the construction of the platform and developing the Digital Contents for major tourist attractions
- Encourage travel operators to create Digital Services

#### Important project

Smart WiFi + Smart Growth

High Speed Public Free WiFi + Private to Public WiFi

**Smart Tourism Application** 

Smart City Tourism Big Data (Tourist Behaviour, Foreigner DB)

**Tourist SOS** 

New Project

**Digital Guide** 

**Digital Payment for Tourist** 

LoraWan for Tourism

### **Smart Health: One Patient Sigle ID**

Goal 2020

Digital Healthcare

Strategy

- Connect database 8 hospitals
- Support the development of public health services via Smart Devices
- Support the development of intelligent hospital prototypes

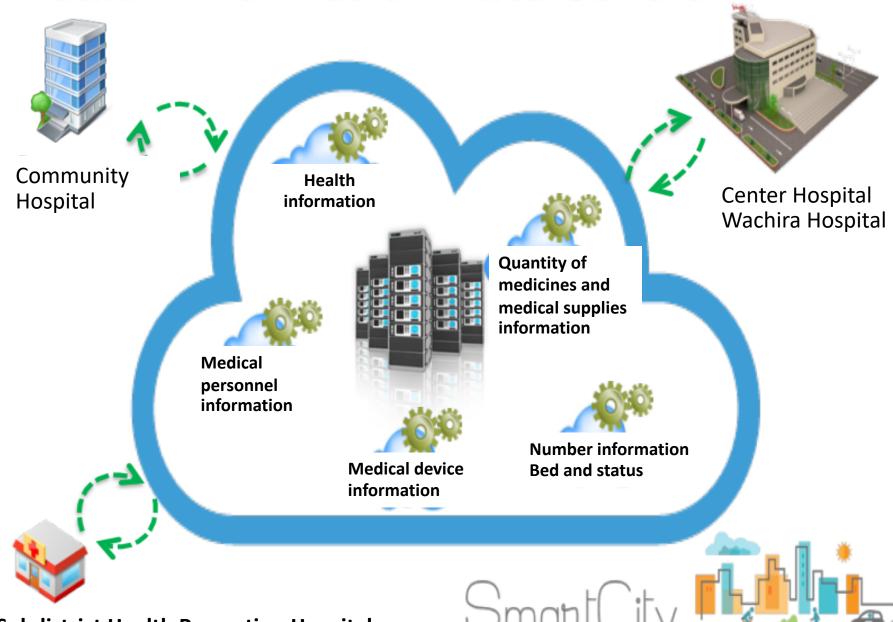
	Important project				
	<b>Smart Healthcare Information</b>				
Connect hospital information 8 hospitals	Referral	Epidemic control map			
	Smart Healthcare Services				
Develop modical complete for motionts via Consut Devices					

**Develop medical services for patients via Smart Devices** 

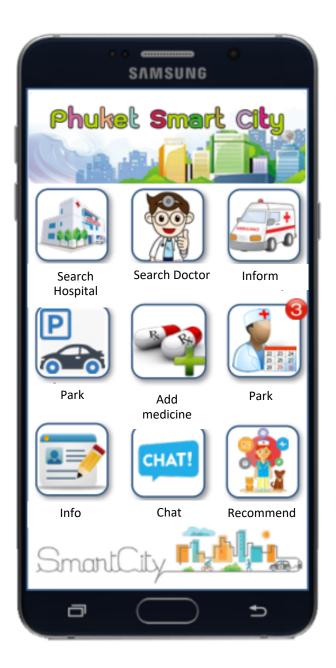
**Smart Hospital** 

Improve the operation of Wachira Phuket Hospital to be completely digital.

## **Health Information Data Centre**



**Subdistrict Health Promotion Hospital** 





## **Smart Safety: Phuket Safe City**

Goal

2020

Phuket Safe City

- Develop Disaster Command Center, expand the number of CCTV cameras to 5000 cameras and Analytic applications to prevent crime, traffic and security.

Strategy

- Development of marine safety

Important project

## **CCTV**

**Integrate CCTV** 

**Investment plan and** management

**Establish Command Center (3** 

centers)

**Expand Maritime Safety** 

Center

**Navigation Maritime Safety** 

**Establish Disaster Command Expand the number of** 

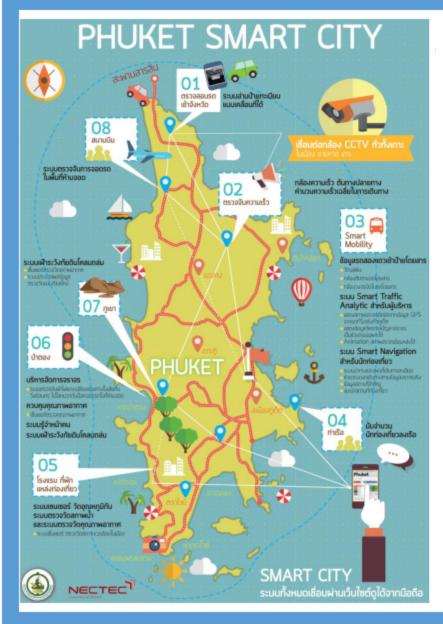
cameras according to CCTV master plan

**Navigation using CCTV Analytic** 

**Traffic Law Enforcement** 

**Phuket Smart Gateway** 

**Maritime** 



### Smart City Development Project Phuket province

- Integration of existing
   CCTV links in Phuket and Image processing for aggressive crime prevention
- Development of real time traffic reporting systems and systems tell the time of the parking sign
- Using digital technology for narrowing traffic discipline
- Development of intelligent command center

## Maritime Safety

Check Passengers
 Information

 Tracking Passengers on board



### **Smart Environment: Phuket Green City**

Goal 2020

Sustainable Environment for Tourism

Strategy

- Build a LoRaWAN (Long-Range Wide Area Network) network for IoT (Internet of things) Environment Sensors
- Reduce energy consumption (Carbon Footprint)
- Create real-time environmental awareness

### **Important project**

#### **IoT Environment Sensors**

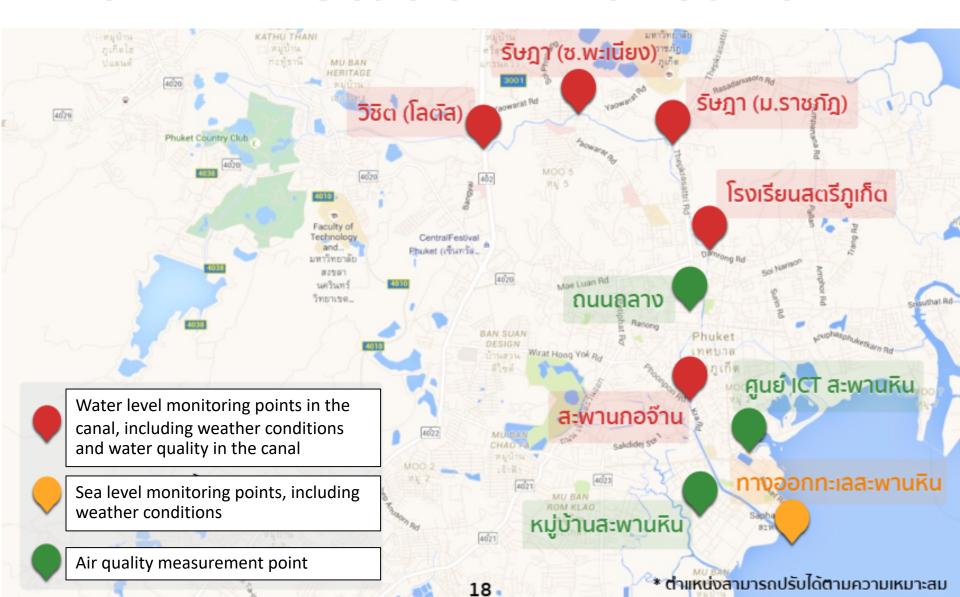
IoT Sensors Patong, Phuket Town City of IoT Environment Sensors

Reservoir Monitoring LoraWan for IoT Environment Sensors

**Smart Lighting** 

**One Map Solution** 

# **IoT Envi Station Phuket Town**



### **Smart Education: Smart Learning Community**

Goal 2020

Smart Learning Community

Strategy

- Developing and preparing manpower to support Smart City development
- Build learning infrastructure outside the classroom

#### **Important project**

Manpower development

Development of infrastructure for learning



### **Smart Governance: Phuket Green City**

Goal 2020

**Smart and Sustainable City** 

Strategy

- Study investment methods to meet the needs of urban development
- Collect provincial information from all ministries to manage

### **Important project**

**City Investment Model** 

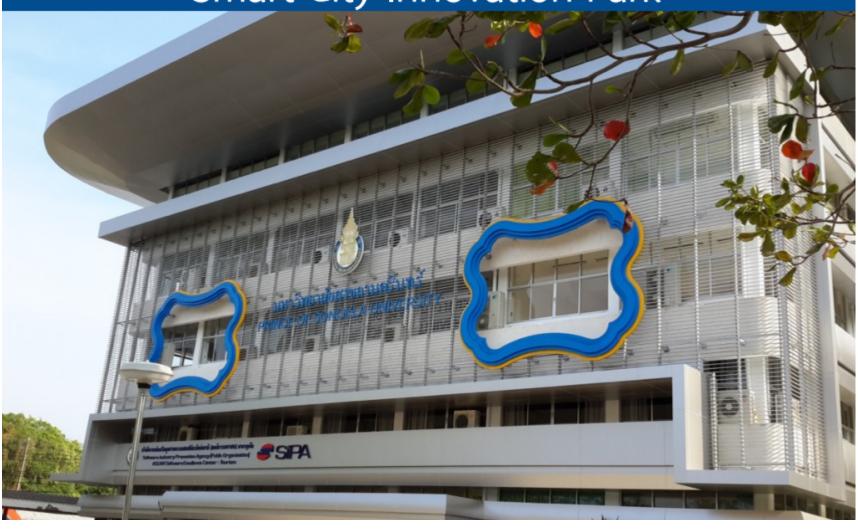
**City Data Platform** 

**Center for Intelligent City Management Integration** 

**People Driven Smart City Project** 

**Smart City World Congress 2020** 

# Smart Economy Smart City Innovation Park



### **Smart Economy**

# Innovation Incubation Centre

#### **GOAL**

- Provide Fast Track Office for investment services
- Organizing the International Creative Entrepreneurship Program
- Co-Research on Smart City Projects
- IOT Smart City Lab and Learning Center
- Digital Entrepreneur working space

#### Floor 5: Accommodation

#### Floor 4: International Creative Entrepreneurship Academy

Floor 3: Digital Entrepreneur Space

Floor 2 : SIPA Office, Smart City IOT Lab and Learning Centre

Floor 1: Business Centre, Investment OSS, Software Demo Room



Business Centre ,Investment OSS



Smart City IOT Lab and Learning Centre

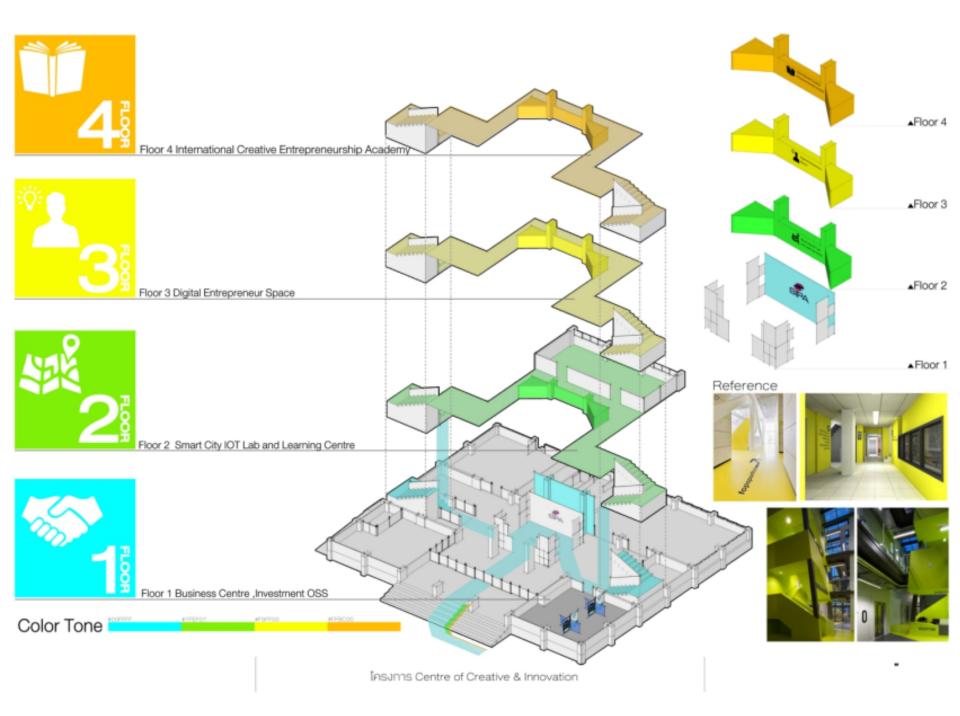


Digital Entrepreneur Space



International Creative Entrepreneurship Academy







Perspective Floor 1: Business Centre ,Investment OSS



Perspective Floor 1: Business Centre



Perspective Floor 1: IOT Lab and Leaning Centre

### **Smart Living Community**

**Pilot Sites** 

**Phuket City** 

**Patong City** 

**Investment & Maintenance Model** 

**Build | Transfer | Lease** 

**Build | Transfer | Operate** 

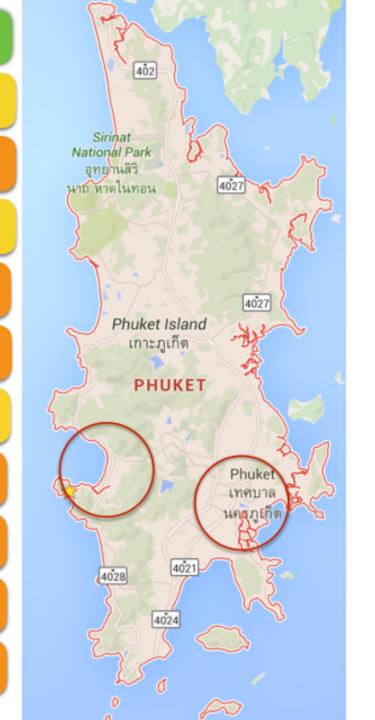
**Services** 

**High Speed Public Free WiFi** 

**CCTV & IoT Environment Sensors** 

**Smart Tourist Card** 

Maritime Safety



#### High Speed Public/Private Free WiFi (Smart WiFi)

#### **Problems**

- Free Wi-Fi is not available.
- Free Wi-Fi service provider is illegal
- Can not continue to use data
- Duplicate Free Wi-Fi investment

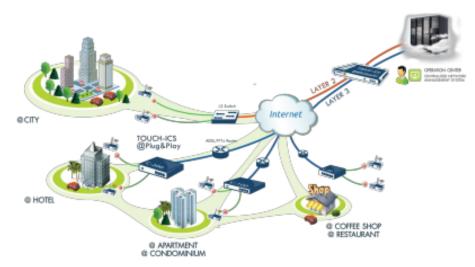
#### Pilot area

- Phuket Municipality
- Patong Municipality
- Important attractions

#### Cooperation



#### Solutions



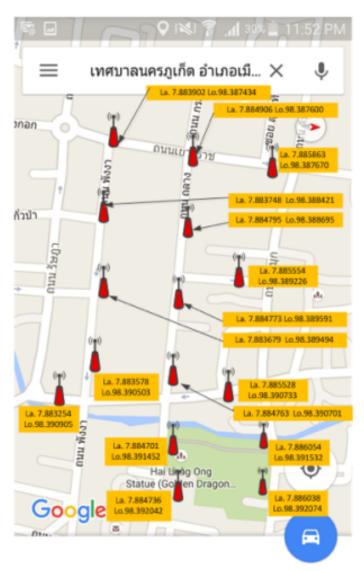




### **Patong Beach Road**



AP 250 Concurrent (out Door IP 67) มี ibeacon



### **Phuket Municipality**

# Old Town, Thalang Road, Phang Nga Road



AP 250 Concurrent (out Door IP 67) มี ibeacon

# "PHUKET SMART CITY"

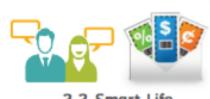


### ภาพรวมฟังก์ชันของระบบ



2.1 Smart Directory





2.2 Smart Life

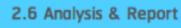




2.4 Smart Reservation



2.5 Big Data



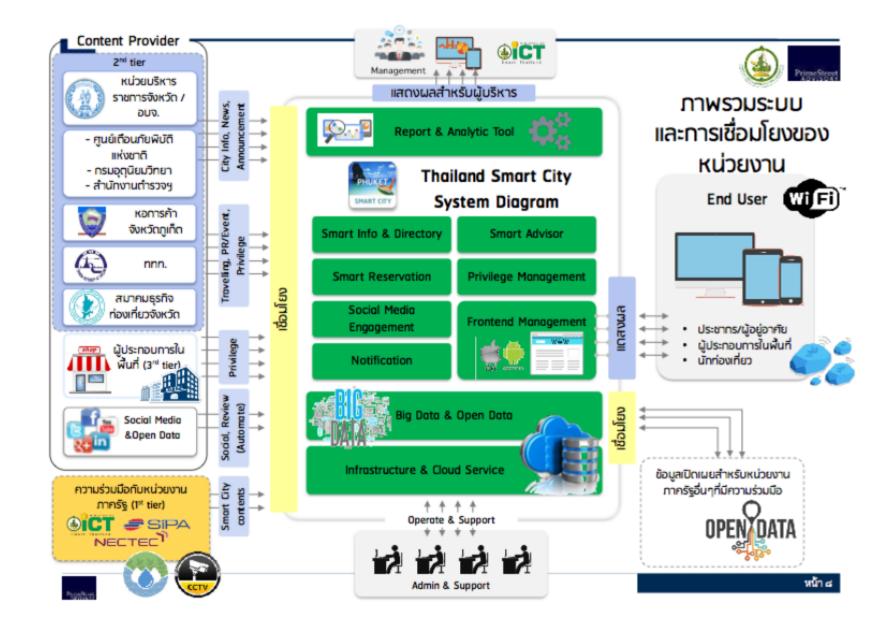






Operate & Support







### Smart Living Community: Phuket Safe City & **Smart Environment** Marine Rescue

#### Features

- Mobile Application
- E-Coupon
- Trip Advice
- · Return Activity
- · Management System

#### Devices

 500 beacons or BLE for Movement Detection, Provide Information and Promotions

#### **Smart Tourist Card**

**Smart Rescue** 

#### Features

- Receive Notification and location from SMART TOURIST CARD and tracking rescue units
- Management System
- Rescue System

#### Features

- Monitoring and Warning System
- Management System

#### Devices

- 4 x Carbon Dioxide Sensor AIR
- 4 x Oxygen Sensor WATER
- 5 x Water Sensor Station WATER
- 2 x IP CCTV
- 1 x Wall Room
- 2 x Remote Client

## **IOT Environment**

Sensor

Maritime Safety













SMART CITY **PLAFORM** 



Beacon

#### Features

- Marine Boarding System
- Marine Checkpoint System
- Location Tracking and Warning System
- · Management System

- 10 x Marine Boarding
- 2 x Marine Checkpoint
- 1,000 x beacon or BLE on Wristband for Tourist Location Tracking

### THANK YOU



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