How to Create Smart Cities in the Caribbean

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Chief Philosophy Officer

Nxt Wave Inc. is an independent strategy & technology advisory firm aimed at helping clients with relevant insights and intelligence. Nxt Wave Inc. has global alliances with cool vendors, leading technology service providers and top notch analysts firms.
A bit about my Background
Technology
Changes
Everythink™
Social Media is now Mainstream Media
Put the needle on the record...

Music has gone streaming
Youtube is the new Television
And Video is On Demand
Share Economy
Everything-as-a-Service
The internet is now the X internet
Big Data
Big Data
Big Data
...
“I’ve talked to Mark about this. His understanding of the subject is limited.”

Elon Musk

“...people who drum up doomsday scenarios... I actually think it is pretty irresponsible.”

Mark Zuckerberg
Whoever leads in AI will rule the world

Vladimir Putin
Don’t Believe Fake Facts!

Trust me!
So the Big Q is: How & Who to Trust?

"On the Internet, nobody knows you're a dog."
“With the Rise of Smart Cities we need next levels of cyber security and cybertrust…

Smart City Operating System
What is the Key of Smart Cities?
Think Global, Act Local!

Georgetown is not Amsterdam is not New York...is not New Amsterdam
How will 5G benefit the smart city vision?

- Energy and Utilities
  - Water Pipes leaks and savings in energy
- Smart Lighting
  - Save power, reduce pollution, keep people safe
- Smart Grids
  - Economies of scale, automated real-time grid switching
- Smart Traffic
  - Autonomous Vehicles, Vehicle Platooning, Road Safety, Smart Parking, On-demand communication
- Smart Parking
- Mobility and Transport
- Security
  - Surveillance cameras, broadband video
- Sustainability
  - Air quality sensors

$160 billion in benefits and savings in energy

20 Billion devices connected to mobile networks worldwide

2017

2020

How will 5G be used?

1. Massive Internet of Things (MIoT)
2. Enhanced Mobile Broadband (EMBB)
3. Mission Critical Services (MCS)

Low latency: <10 ms
Low power: 1 M cells per km
1 Gbps, higher speed

IOT

5G capacity increases with densification

Cities play a critical role for Small Cell deployment in Mobile Network Densification.

Tomorrow’s wireless networks will require hundreds, or even thousands, of small cells densely deployed across cities.

Small cells

The full promise of Smart Cities and 5G requires a robust deployment of small cells.

By Smart City Expo World Congress - Fira de Barcelona 2018. May be used with attribution to @SmartCityExpo
SMART STREET LIGHTING

Energy Savings

LEDs reduce energy consumption for street lighting by up to 50%.

New LED deployments when made together with networking and controls installations reduce costs, increase efficiency and functionality of street lighting and provide a smart city platform for many solutions.

LED networks offer cities the chance to deploy smart city solutions that can save money, keep residents safe, improve sustainability, and attract new people and businesses.

Street Lighting

Smart City Platform Applications

Which network technology?

1. Massive Broadband
   - Low latency
   - High speed
   - High bandwidth
   - MBBs
   - Higher cost
   - Short range
   - Requires density
   - Licensed
   - 3G, 4G LTE, 5G
   - Wi-Fi
   - PLC
   - WiFi Mesh

2. Mediumband
   - Good balance between price and number of supported applications
   - Unlicensed
   - PLC
   - RF Mesh

3. Narrowband
   - Low cost
   - Long Range
   - Low Power
   - High latency
   - Very limited data
   - Risk of interference (unlicensed)
   - Unlicensed
   - Sigfox
   - LoRaWAN
   - Licensed
   - NB-IoT
   - LTE-M
IoT in Healthcare
Gartner says: “Manage AI Implementations Across Government Organizational Boundaries for Maximum Results”

- The same networks of sensors and cameras used to improve transport efficiency can be used to save lives and fight against crime.

- The same intelligent traffic lights used to improve traffic flow can be utilized by ambulances and fire trucks to get to the emergency scene quicker.

- The same license plate recognition technology used to track parking can be used by law enforcement to find stolen cars and track criminals.
looked at dozens of smart applications that will be relevant for cities through 2025.

**Security**
- Predictive policing
- Real-time crime mapping
- Gunshot detection
- Smart surveillance
- Emergency response optimization
- Body-worn cameras
- Disaster early-warning systems
- Personal alert applications
- Home security systems
- Data-driven building inspections
- Crowd management

**Healthcare**
- Telemedicine
- Remote patient monitoring
- Lifestyle wearables
- First aid alerts
- Real-time air quality information
- Infectious disease surveillance
- Data-based public health interventions: Maternal and child health
- Data-based public health interventions: Sanitation and hygiene
- Online care search and scheduling
- Integrated patient flow management systems

**Mobility**
- Real-time public transit information
- Digital public transit payment
- Autonomous vehicles
- Predictive maintenance of transportation infrastructure
- Intelligent traffic signals
- Congestion pricing
- Demand-based microtransit
- Smart parking
- E-hailing (private and pooled)
- Car sharing
- Bike sharing
- Integrated multimodal information
- Real-time road navigation
- Parcel load pooling
- Smart parcel lockers
Oil Boom! The Billion Dollar Question

Oil & Gas Emerging and Disruptive Trends
There are countless opportunities for IoT Oil & Gas Industry

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Investments in Digital Technologies

Global $30.57 Billion Internet of Things (IOT) In Oil and Gas (O&G) Market - Analysis And Forecast: 2017-2026

Focus on: IoT solutions such as platforms and analytics, Applications such as Upstream, Midstream and Downstream
Is a Smart City automatically a Wise City?
What about Ethics?

Terms & Conditions May Apply

Who owns the Data?

The Rise of Smart Cities and the need for a New Script.
Smart Cities need Smart Citizens!

Al hebben alle Citizens een Smartphone, al hebben we de beste Computer en Internet Technologie uitgerold in de stad, of op een eiland, daarmee hebben we niet automatisch een Smart City.
“OUR EDUCATIONAL SYSTEM IS ROOTED IN THE INDUSTRIAL AGE. IT VALUES PUNCTUALITY, ATTENDANCE, AND SILENCE ABOVE ALL ELSE.”
Let's have a closer look at goal #2.
...if not all children can go to school...
then we should bring the school to all kids!!!
Stay Hungry,
Stay Foolish!

Steve Jobs
Thanks for your time. For more info please connect:

https://www.linkedin.com/in/anilyzer/