Ursalink Monitors Traffic Security and Environmental Data for Building a Smarter City In Singapore

As cities continue to grow, an increasing number of smart devices are being deployed to combine the concepts of good governance, economy-friendly and sustainable development together for a smart city. Generally initiated by installing cameras for traffic monitoring, smart city projects always end up with a range of deployed IoT sensors, typically LoRaWAN sensors here for environmental monitoring. While IP cameras demand high-bandwidth based on cellular router usually, LoRaWAN sensors are designed to consume low power to ensure economical and operational values.

**PROJECT**

**KEY WORDS**

- Public Safety and Traffic Monitoring (IP Camera)
- Environmental Monitoring (Temperature, Humidity, PM2.5, PM10, Wind Speed)

**HARDWARE LIST**

- UG85 LoRaWAN Gateway (Indoor)
- UC11-N1 Sensor Node/Controller
- UR35 Cellular Router (PoE)
- Solar Panel for UC11-N1

**SOLUTION**

Recently, our Singaporean partner Infracomms provides a purpose-built communication solution for smart city with the cellular router and LoRaWAN gateway as well as sensor node, which are all well integrated into a smart street light box to effectively support all real-time big data via cellular network and small data transmissions via LoRa network.
**SOLUTION**

In this application, several kinds of environmental monitoring sensors collect the air quality, wind speed, temperature and humidity data and send it to the UG85 gateway through UC11-N1 sensor node; and UR35 cellular router provides electric power for both UG85 gateway and IP camera via PoE interface, and meanwhile receives data from both devices. Thus, UR35 cellular router works as a packet forwarder and delivers all data to the monitoring center via 4G LTE cellular network, enabling operators to browse the data on the screen then.

**DEPLOYMENT**

Get perfect coexistence of high-bandwidth and low-bandwidth data transmission in smart city in Singapore.

**ADVANTAGES**

- Offers external interfaces to power, connect and manage multiple devices including high-definition IP camera and LoRaWAN gateway;
- Bridges the gap between legacy sensors and LoRaWAN network
- Assures the benefits of fully-private network
- Significantly simplifies deployment processes and smart city maintenance
- Meets Internet access and back-haul requirements
- Perfect balance of governance, budget and management

**ABOUT INFRACOMMS**

InfraComms is a communication infrastructure supply chain specialist that has many years of experience in supplying and deploying copper connectivity solutions, fiber optics connectivity solution and advanced coverage for indoor and outdoor environment.

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