CASE STUDIES OF REAL PROJECTS SOLVING REAL PROBLEMS WITH LoRaWAN®

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Smart Agriculture

Use Case: Crop Monitoring
SMART AGRICULTURE: CROP MONITORING

Requirements

Customer wants to monitor the farmers tobacco curing process in order to know when the crop is ready for shipment.

Customer expectation is to collect data from all farmer’s in the area and use the data to improve the quality of their products and reduce loss.
Challenges

• Farmers curing process start at different times and it is difficult to know when the crop is at its ideal curing stage
• Last mile connectivity is difficult to achieve in rural farms /villages
• Sensors need to be low-cost and run for months at a time on same battery.
SMART AGRICULTURE: CROP MONITORING

Reduced Crop Loss by 8%

Solution

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Smart Water Management
Use Case: Smart Water Metering
SMART WATER MANAGEMENT: SMART WATER METERING

Requirements

Smart city authorities want to automate their domestic water metering services, to include monitoring water flow, leakage, consumption, and real-time meter availability for their citizens.
Challenges

- No real-time meter reading availability
- Operational costs are too high
- Billing system was not streamlined
- Unable to determine the source of water and revenue loss
SMART WATER MANAGEMENT: SMART WATER METERING

Solution
SMART WATER MANAGEMENT: SMART WATER METERING

Solution
SMART WATER MANAGEMENT: SMART WATER METERING

Reduced Non-Revenue Water by 10%
Smart Parking

Use Case: Automated Illegal Parking Management
Requirements

Smart city authorities want to reduce traffic congestion at intersections where vehicles are illegally parking.

Smart city authorities want to send automatic notifications to the police when a vehicle has parked in a “No Parking” zone in real-time.
SMART PARKING: AUTOMATED ILLEGAL PARKING MANAGEMENT

Challenges

• Police are unable to physically monitor the illegal parking at all times
• Parking ticket issuance is not tracked properly
• Existing illegal parking solutions do not work
Solution
Solution
SMART PARKING: AUTOMATED ILLEGAL PARKING MANAGEMENT

ROI:
+30%

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Connected Operations in Manufacturing

Use Case: Vehicle Tracking
Requirements

Customer wants to monitor the movement of vehicles (trucks) throughout the manufacturing campus to include visited warehouses.

Customer expectation is to know the vehicle throughput (inwards and outwards) across the entire campus in hopes to improve the warehouse logistic operations.
Challenges

• 8 Hectares need to be covered
• LAN is not available at all warehouses
• Existing RFID readers are unable to send data to the cloud
CONNECTED OPERATIONS: VEHICLE TRACKING

Solution

Security Office → VDS Verification → Warehouse A

Main Office → Warehouse B → Warehouse C

Exit

Reduced transportation costs on site by 50%

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DEMONSTRATED SAVINGS LEVERAGING LoRaWAN®

- Reduced Crop Loss by 8%
- Reduced Non-Revenue Water by 10%
- Reduced transportation costs on site by 50%
- Reduced Revenue Water by 10%
- Reduced Crop Loss by 8%
- ROI: +30%

Smart Agriculture
Smart Water Management
Smart Parking
Manufacturing

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