Milesight

Smart Roads, Safer Rides: How Milesight Intelligent Traffic Solution Protects Cyclists in Gipuzkoa

📍 Location: Gipuzkoa, Spain

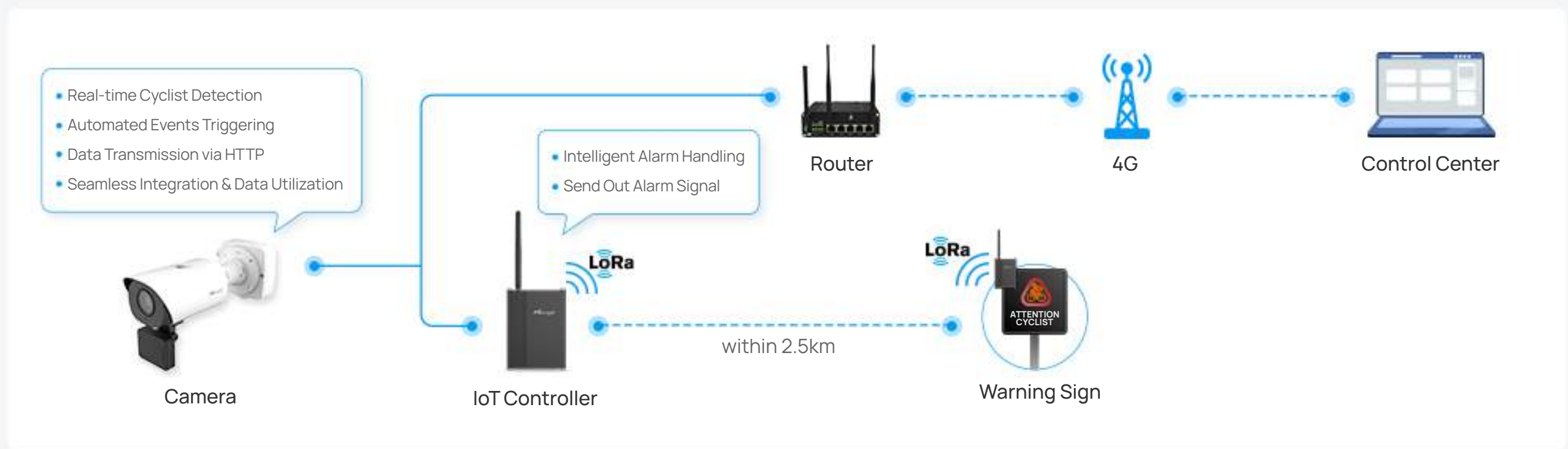| Milesight Partner	Location	Industry Segment	Related Products
Canvision	Gipuzkoa, Spain	Traffic Management	AI Road Traffic Radar Pro Bullet Plus AI Road Traffic Pro Bullet Plus IoT Controller - UC300

Introduction

Cycling accidents on roads often lead to severe consequences due to the lack of physical protection for cyclists compared to motor vehicles. In Spain, from 2016 to 2022, 452 cyclists lost their lives in traffic accidents, according to the Spanish Directorate-General for Traffic (DGT). Gipuzkoa, a province with a high number of cycling and bike tourism enthusiasts, has multiple accident-prone areas where fatal incidents have occurred. To enhance road safety and improve traffic management, Milesight provided an intelligent surveillance solution aimed at mitigating cycling-related accidents.

Solution

Milesight deployed an intelligent surveillance and traffic monitoring solution to enhance cyclist safety and road traffic management. The system operates as follows:

- Real-time Cyclist Detection
- Automated Events Triggering
- Data Transmission via HTTP
- Seamless Integration & Data Utilization

- Intelligent Alarm Handling
- Send Out Alarm Signal

Router • 4G • Control Center

Camera • IoT Controller • within 2.5km • Warning Sign

Installation Suggestions:
- Recommended camera installation height: 3~6 meters.
- The distance between controller and the warning sign is within 2.5km.

✓ Real-time Cyclist Detection:
Milesight cameras detect passing vehicles and accurately recognize bicycles among them. This enables immediate identification of cyclists on the road.

✓ Automated Trigger & Data Transmission:
After setting the attributes event, when a cyclist is detected, the system triggers an alarm output and sends real-time vehicle data via HTTP to the backend for further processing.
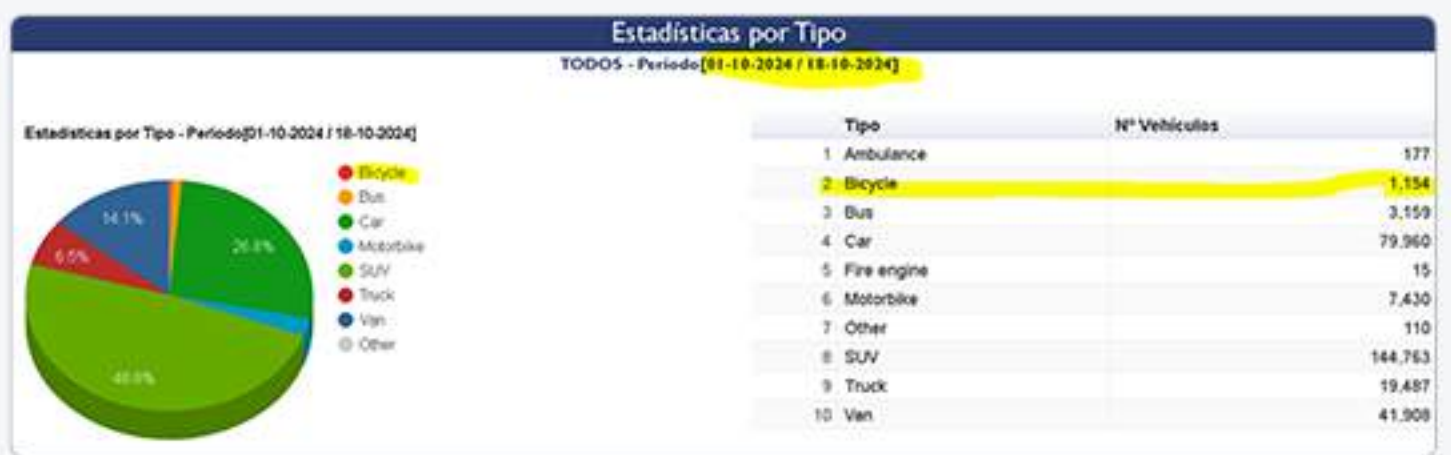
✓ Intelligent Alarm Handling:
- An IoT controller receives the alarm signal from the camera's output interface and forwards it to another IoT controller, which then activates the signboard to warn approaching drivers about nearby cyclists.
- Simultaneously, all detected vehicle information on the road (license plate, vehicle type, color, speed, etc) are transmitted to a centralized backend platform for in-depth analysis and road safety

✓ Seamless Integration & Data Utilization:
The collected traffic data, including vehicle type, speed, and frequency of cyclist appearances, helps authorities analyze road conditions and implement safety measures effectively. Milesight supports HTTP, TCP, and MQTT push methods and provides a comprehensive API, enabling users to seamlessly integrate with any third-party platform.

Results

By providing real-time warnings to drivers and enabling authorities to manage road safety with data-driven insights, Milesight's solution significantly reduces the risk of cycling-related accidents by 40%. The system helps drivers stay aware of cyclists in high-risk situations, while traffic authorities can take proactive actions to prevent accidents. This led to a notable decrease in fatalities and injuries in Gipuzkoa, improving road safety for cyclists and promoting safer, more sustainable urban mobility.

40%
Cycling-related Accidents have decreased by 40%