Milesight

Integrated Traffic Information Display System on La Gomera Island

📍 Location: La Gomera Island, Spain

Location	Industry Segment	Related Products	Core Technology
La Gomera Island, Spain	Traffic Management	• AI Road Traffic Pro Bullet Plus Camera	PlateXpert ANPR Technology

Overview

To enhance traffic monitoring and optimize road safety on La Gomera Island, five sets of integrated traffic information display systems were deployed. Each system features a Milesight AI Road Traffic Pro Bullet Plus Camera, an infrared (IR) illuminator, a controller, and a variable message sign (PMV), all connected in real-time to a centralized control center via 4G or LoRa.

This comprehensive setup enables accurate vehicle data collection, real-time traffic information dissemination, and centralized data management, significantly contributing to smarter traffic governance on the island.

Challenges

Lack of real-time traffic visibility across the island.

Difficulty in capturing clear images during nighttime or low-light conditions.
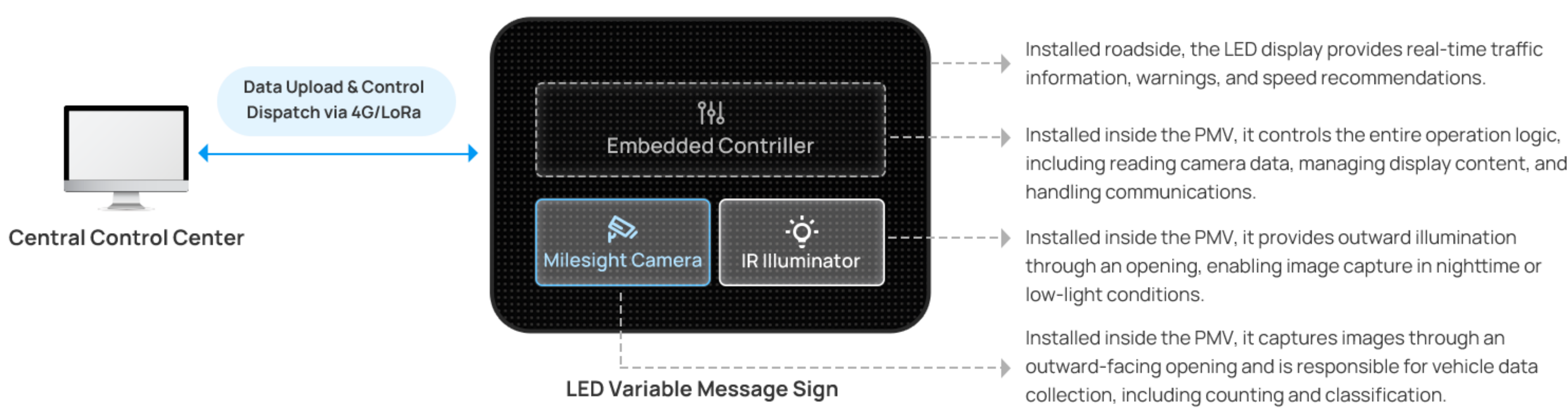
Need for intelligent, automated control and data processing without frequent manual intervention.

Limited infrastructure to support dynamic traffic information delivery.

Solution

Data Upload & Control Dispatch via 4G/LoRa

Central Control Center

Embedded Contriller

Milesight Camera

IR Illuminator

LED Variable Message Sign

Installed roadside, the LED display provides real-time traffic information, warnings, and speed recommendations.

Installed inside the PMV, it controls the entire operation logic, including reading camera data, managing display content, and handling communications.

Installed inside the PMV, it provides outward illumination through an opening, enabling image capture in nighttime or low-light conditions.

Installed inside the PMV, it captures images through an outward-facing opening and is responsible for vehicle data collection, including counting and classification.

Fully Integrated Design
- All components (camera, IR light, controller, LED screen) are housed in a compact unit, simplifying deployment and reducing installation costs.
- Designed for resilience in outdoor environments, ensuring reliability even under harsh weather conditions.

Milesight Camera Integration
- Accurately captures vehicle data including vehicle count and classification (e.g., cars, trucks, motorcycles), enabling detailed traffic flow analysis.
- Built-in AI capabilities ensure edge-side data processing, reducing bandwidth usage and latency.

IR Illuminator
- Provides supplemental lighting through a dedicated aperture, ensuring image clarity in low-light or nighttime conditions.
- Supports 24/7 uninterrupted monitoring regardless of ambient lighting.

Embedded Controller
- Acts as the operational brain of the PMV system, orchestrating all internal components.
- Processes image data from the camera, extracts traffic metrics, and controls the LED display content in real time.
- Supports wireless communication protocols (4G/LoRa), enabling flexible and remote updates from the control center.
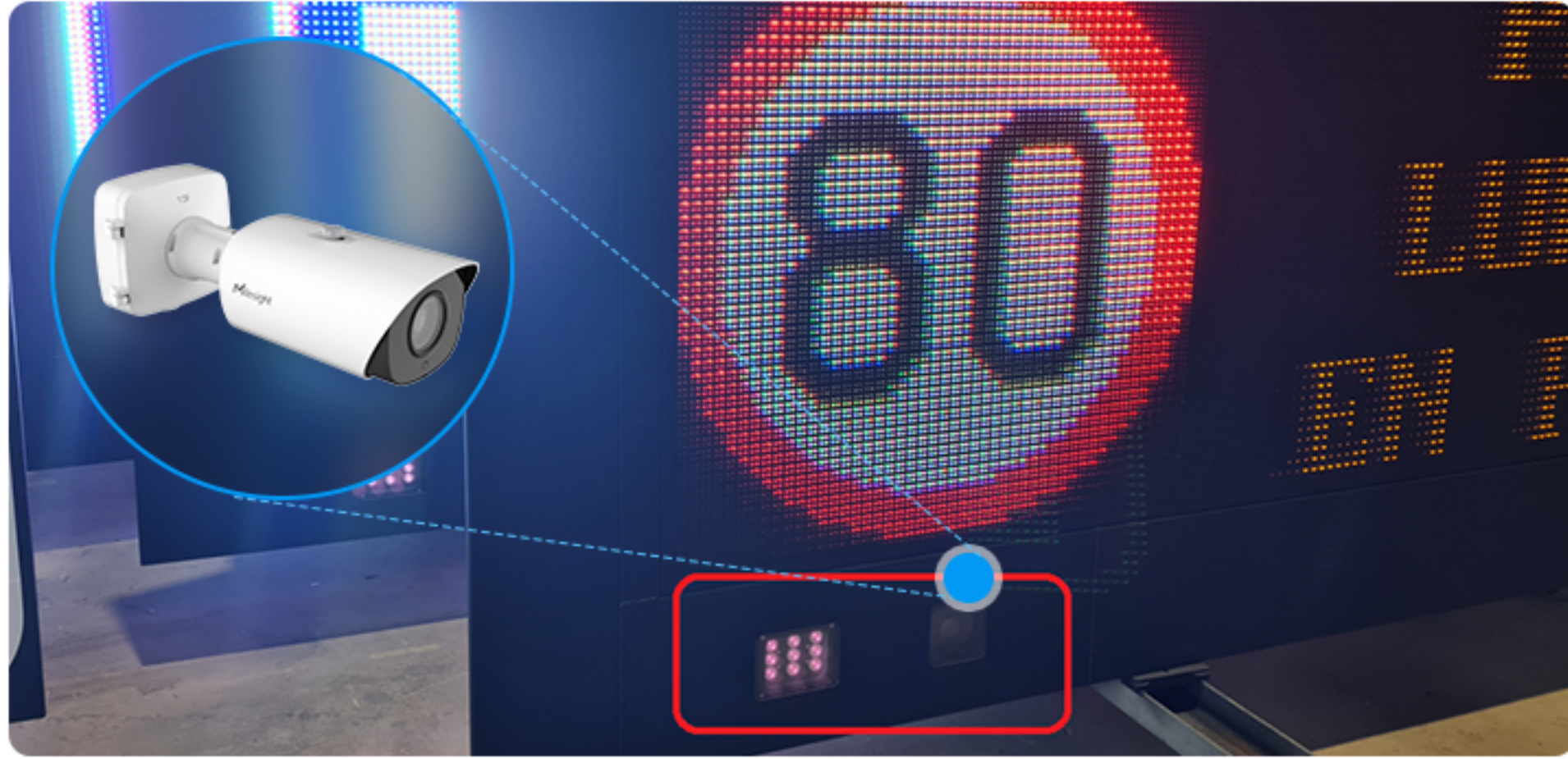
Data Connectivity with Central Control Center
- All units are remotely managed through a centralized platform, which allows operators to:
  - Monitor system health and traffic conditions in real time.
  - Push content or alerts dynamically based on current road status.
  - Aggregate and analyze historical traffic data to support long-term planning and congestion management.

PMV LED Display (Variable Message Sign)
- Instantly displays dynamic content including speed limits, congestion alerts, weather warnings, and real-time traffic updates.
- Enhances driver awareness and encourages compliance with traffic advisories, reducing accidents and congestion.

PRECAUCION ENTRADA VEHICULOS

Milesight Camera

IR Illuminator

Conclusion

The implementation of this smart traffic display system on La Gomera has greatly improved traffic flow efficiency, enhanced road safety through real-time alerts, and empowered authorities with accurate, real-time data for better urban mobility planning. It stands as a successful example of how integrated edge AI solutions can elevate traffic management in remote or infrastructure-limited regions.

Product Showcase

AI Road Traffic Pro Bullet Plus Camera
- Traffic Violation Detection
- Intelligent AI-powered LPR Algorithm
- Traffic Flow Statistics
- Evidence Camera Linkage
- 4X/12X AF Lens
- Up to 4K Ultra High Definition
- 1/1.8" Sensor & 0.002Lux Starlight
- 90fps High Frame Rate