Milesight

Milesight Highway Toll Station LPR Solution in Vietnam

📍 Location: Vietnam

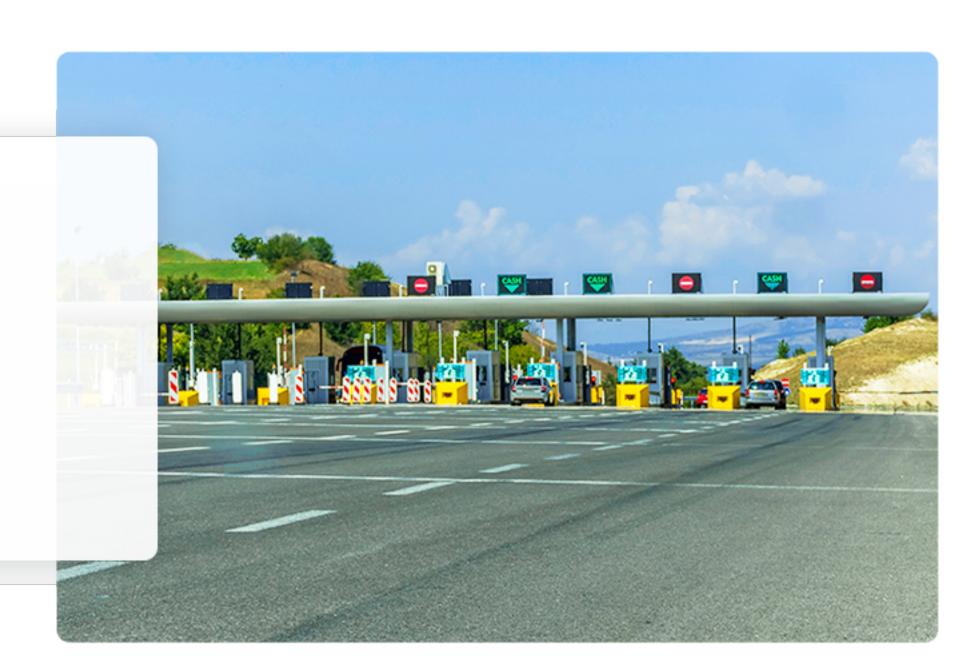| Location	Milesight Partner	Industry Segment	Related Products	Core Technology
Vietnam	VVA	Traffic Management	Entrance & Exit Supplement Light AI LPR Pro Bullet Plus Camera →	Plate Xpert

Overview

In response to the increasing demand for efficient and intelligent toll collection in Vietnam's expanding highway network, Milesight partnered with VVA to deliver a cutting-edge License Plate Recognition (LPR) solution. By integrating high-performance AI cameras with VVA's proprietary management platform and the Electronic Toll Collection (ETC) system, the project enabled highly accurate vehicle identification and seamless toll processing, significantly enhancing operational efficiency at toll stations.

Challenges

Precision in Complex Environments
Achieve high-precision license plate recognition under varying environmental conditions.

Seamless System Connectivity
Ensure seamless data synchronization between LPR devices and VVA's customized backend platform.

Real-Time ETC Integration
Enable reliable integration with the ETC system for real-time, automated toll charging.

Interoperable Event Communication
Facilitate standardized event transmission to support system interoperability.

Solution

☑ **Superior Imaging Performance under Challenging Lighting Conditions:**
Milesight's Entrance & Exit Supplement Light AI LPR Pro Bullet Plus Cameras are designed to deliver exceptional image quality, even in low-light or backlit environments. This ensures accurate license plate recognition regardless of environmental challenges, such as nighttime or adverse weather.

☑ **Effortless Integration with VVA's Proprietary Platform:**
The LPR cameras were seamlessly integrated into VVA's custom backend platform, enabling the real-time synchronization of captured vehicle data. The platform compatibility minimizes the need for middleware solutions, streamlining the overall integration process and reducing deployment complexity.

☑ **Reliable Event Transmission via ONVIF Protocol for System Interoperability:**
To ensure seamless data flow between devices and software, vehicle entry and exit events are transmitted using the ONVIF protocol. This industry-standard method ensures interoperability with other systems and maintains reliable communication across the entire network.

☑ **Advanced Vehicle Classification for Enhanced Traffic Insights:**
In addition to license plate recognition, the solution also features advanced vehicle type classification. This capability enables the differentiation of vehicles such as passenger cars, trucks, and buses, providing valuable insights for operational optimization and differentiated tolling based on vehicle categories.

☑ **Automated ETC System Integration for Real-Time Toll Processing:**
The solution integrates directly with VVA's ETC system, automating toll transactions. By linking vehicle identification data with the ETC system, the solution eliminates the need for manual input, reducing human error and improving the efficiency of toll collection, while ensuring a smoother experience for drivers.

Conclusion

The deployment of Milesight's AI LPR at Vietnam's toll stations resulted in a measurable enhancement in operational performance. Vehicle processing efficiency increased by approximately 40%, contributing to significant reductions in congestion and queuing times at toll plazas. By enabling accurate, real-time tolling, the solution not only optimized the customer experience but also laid a robust technological foundation to support Vietnam's broader smart highway initiatives.

Product Showcase

Entrance & Exit Supplement Light AI LPR Pro Bullet Plus Camera

- Integrated Supplement Light
- Wiegand Protocol for Access Control System
- Intelligent AI-powered LPR Algorithm
- Black & White List and No-plate Vehicle Detection
- Evidence Camera Linkage
- 140dB Super WDR
- Smart IR II Technology
- Versatile Interfaces