

Enhancing Urban Traffic Enforcement in Vietnam with Milesight LPR Solutions

Location : Vietnam

Location
Vietnam

Milesight Partner
DMC

Industry Segment
Traffic Management

Related Products
• TrafficX Camera
• AI Road Traffic Pro Bullet Plus Camera

Overview

- In collaboration with Vietnam's local system integrator **DMC**, Milesight has successfully integrated its LPR cameras with **Mekong Smartcam**, a centralized security and traffic management platform developed by **VNPT**, one of Vietnam's top three telecom providers.
- As Vietnam's government increases investment in intelligent transportation systems, the **police department** plays a key role in urban traffic enforcement, relying on real-time, high-quality data for effective decision-making.
- To support this national initiative, **over 300 Milesight LPR cameras** have been deployed across urban roadways to provide reliable plate recognition and high-quality video streams, helping improve traffic flow, enhance law enforcement capabilities, and reduce violations.



Challenges



Demand for High-Quality Video Streams
Urban deployments often involve complex lighting environments, such as tunnels, intersections, or night scenes, which require exceptional imaging performance to ensure data usability for analytics.



Need for Accurate Plate Recognition
License plate data is the foundation of smart enforcement. High capture and recognition rates are essential to ensure reliability for downstream



Seamless Platform Integration
Integration with Mekong Smartcam requires stable RTSP video streaming to ensure reliable real-time monitoring and enforcement. Any instability or latency in data transmission could compromise the responsiveness and accuracy of the overall traffic management system.



Traffic Hotspots Monitoring
Certain locations, such as city centers and main intersections, are enforcement priorities for traffic police and require equipment with enhanced performance.

Solution

To meet the demands of modern urban traffic management, Milesight deployed over 300 AI-powered LPR cameras across key city roads. Two product lines were selected and strategically applied based on environmental and performance needs.



TrafficX Camera for High-Priority Zones

Used in areas with poor lighting, high enforcement focus, and stricter imaging requirements, the TrafficX series offers:

- Up to 250km/h Recognizable ANPR:**
Accurately identifies plates and vehicle information even at highway speeds.
- Global Shutter:**
Eliminates motion blur for clear captures of fast-moving vehicles.
- Frame Parity Flashing:**
Ensures clear capture of the vehicle body and license plate (reflective & non-reflective plates).
- Up to 60m Long IR Distance:**
Enables accurate license plate recognition of distant vehicles even in low-light or nighttime environments.
- 740nm/850nm IR Wavelengths:**
Ensures optimal recognition across various plate types -740nm is especially effective for reflective plates or plates with light-colored characters, while 850nm supports general visibility.

AI LPR Bullet Camera for General Coverage

Ideal for standard traffic zones, this model provides exceptional value and performance:

- 4X/12X Autofocus Lens:**
Adaptable for varying road widths and installation heights.
- Up to 4K Ultra HD Resolution:**
Delivers crisp, detailed footage for back-end analysis.
- 1/1.8" Sensor & 0.002Lux Starlight:**
Ensures visibility even in near-total darkness.
- 90fps High Frame Rate:**
Captures fast-moving vehicles with precision.



Application Highlights



Robust System Interoperability

Milesight cameras are seamlessly integrated with **VNPT's Mekong Smartcam platform** via stable RTSP streaming, ensuring reliable, real-time video delivery. Milesight cameras offer full support for **CGI/APIs, TCP, HTTP, and MQTT** protocols - laying a solid foundation for future upgrades. This forward-compatible architecture enables easy expansion toward more intelligent, API-driven front-end applications as customer needs evolve.



Superior Imaging for Advanced Video Analytics

The delivery of stable, high-definition video streams ensures high-quality input for back-end intelligent analytics, enabling more precise and efficient detection of violations such as red-light running and improper lane usage.



Industry-Leading LPR Performance

With a capture rate exceeding 99% and LPR accuracy over 98%, the cameras deliver highly reliable data for downstream processing. This ensures precise, real-time traffic enforcement and supports data-driven decision-making in intelligent transportation operations.

Conclusion

This deployment demonstrates how Milesight's AI-powered LPR solutions can elevate traffic enforcement and urban mobility through accurate, real-time data collection and seamless integration with national ITS platforms. The project not only supports Vietnam's growing smart city ambitions but also sets a solid foundation for scalable, efficient, and intelligent traffic management in complex urban environments.