

Manila achieves effective traffic management with Axis cameras. Solution gives live traffic updates and assists in accident investigations.



Organization:
Metro Manila
Development Authority

Location:
Manila, Philippines

Industry segment:
Transportation

Application:
Traffic Management

Axis partner:
MEC Networks
Corporation

Mission

The Metro Manila Development Authority (MMDA), which is in charge of providing metro-wide services in Manila, wanted a system to effectively monitor traffic on major roads of the metropolis. MMDA also wanted to track accidents, and use the footage as evidence in serious accident cases. The city did have an earlier installation, which was supplemented by manual patrolling in a few areas, but this system was not effective in meeting the MMDA's requirements.

Solution

For the first phase of the project, the MMDA targeted the Epifanio delos Santos Avenue (EDSA) highway, considered as the main artery of Metro Manila traffic. Approximately 50 AXIS 233D Network Cameras were placed along the highway as part of this project, to monitor the traffic conditions round the clock.

Result

The deployment provides accurate information on traffic conditions and assists the MMDA in promptly attending to situations such as floods, stalled vehicles, etc. The high-resolution footage from the cameras further helps in solving difficult accident cases.

Based on camera feeds, the MMDA can broadcast constant traffic updates, allowing motorists to assess the situation and take alternative routes, if required.

"Our top priority was being able to access real-time information on traffic conditions. Timely information on situations such as obstructions or accidents that could lead to traffic jams can help tremendously in monitoring traffic effectively."

Atty. Yves P. Gonzalez, Technology Evangelist, Metropolitan Manila Development Authority.

The MMDA is a government body whose key mandates include development planning; transport and traffic management; solid waste disposal and public safety, among others. To achieve effective traffic management, the MMDA's responsibilities include the formulation, coordination and monitoring of policies and standards for road users. It also undertakes the administration and implementation of all traffic enforcement operations.

The MMDA identified the need for a comprehensive surveillance solution to achieve absolute monitoring of the traffic flow. The agency also wanted to use the solution to alert motorists of traffic conditions to avoid any major traffic congestion. Another priority was capturing high quality footage to help track accident-related cases and erring motorists, which was difficult to achieve with the earlier system.

Installation

The authority identified EDSA, one of the arterial and busiest roads in Manila, for the first phase of the surveillance project. Thousands of cars and buses ply this route on a daily basis. Earlier, the authorities managed the highway through round-the-clock manual patrolling. This was done by spotters who worked in 3 shifts and shared updates via radio communication. Given the obvious limitations of manual patrolling, the MMDA decided to install a surveillance system consisting of 50 Axis network cameras that were placed along the highway.

Effective monitoring

The ability to remotely access live or recorded video footage of the highway helps the agency to effectively monitor traffic. The live footage is analyzed and posted via Twitter feeds to alert motorists, thereby avoiding traffic congestion. The authorities can also observe situations such as accidents, flooded areas, stalled vehicles, etc. and initiate action immediately. The high image quality of the cameras is also an important tool in identifying persons or vehicles involved in accidents. The solution allows police authorities to zoom into license plates of vehicles and identify them. The constant surveillance also ensures increasingly effective execution of tasks by traffic enforcers.

Moreover, the PoE technology in the Axis network cameras allowed the placement of the cameras at a superior height to capture an unhindered view of the highway.

Return on Investment (RoI)

The solution is being used widely in the implementation of the government's 'No Physical Contact Policy' and has proved to be very cost-effective.

In subsequent phases of the project, MMDA intends to add more cameras to expand the scope of traffic monitoring. The agency also plans to install cameras in flood-prone areas to help in flood control monitoring. In addition, the MMDA has also tied up with ABS-CBN, the largest broadcast network in the country, to report traffic situations in Manila. MMDA will make camera footage available to partner organizations to help them monitor traffic without having to invest in cameras.

