

## Case Study

### Customized Toll Surveillance for India NICE Highway



Created for NICE (Nandi Infrastructure Corridor Enterprises), Infinova IR illuminated day/night IP65 cameras monitor lanes, IP PTZ cameras and fixed domes monitor traffic at plazas



Solution: Infinova V1492 PTZ camera system and IP PTZ Dome cameras

#### **172 Infinova Cameras Integral to Customized Toll Surveillance System for NICE Highway**

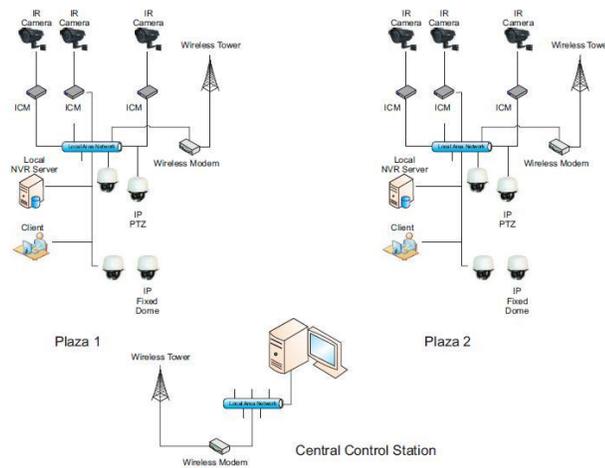
Peripheral ring roads, expressways, interchanges and toll plazas on the outskirts of Bangalore developed by NICE (Nandi Infrastructure Corridor Enterprises) are now using a variety of Infinova cameras as part of a customized, independent, vision-based Toll Surveillance solution created by Infinova and DELOPT. The solution is installed at all eight plazas and their 106 total toll lanes.

Since the plazas are located throughout the entire length of the highway, it was extremely difficult for management to manage tolls and control revenue pilferage. Using Infinova's wide range of cameras, we were able to provide NICE with exactly what was needed for each specific section of the highway.

Infinova's V1044B IR illuminated day/night IP65-rated cameras are used for lane monitoring. These 111 cameras watch over each and every lane, automatically capturing images and license plate details of all vehicles and then passing on the images for recording on a 24/7 basis. These cameras are connected to DELOPT's Image Camera Module (ICM) which includes additional information such as lane ID, user ID, and date and time details which are nondestructively overlaid onto the image. A live feed of the lane cameras is also provided to the toll collection stations.

**Infinova**<sup>®</sup>  
The Integrator's Manufacturer

At bigger plazas, nine Infinova V1749N IP PTZ dome cameras are installed to monitor traffic while, at smaller plazas and administrative buildings, 52 Infinova V6642 IP fixed dome day/night cameras are used. The video management system at each plaza records the video feeds from its cameras and provides playback and extract options. At the tollbooths, images caught by the ICM are also stored in the plaza server to compare with data from point-of-sale transactions from each lane of that plaza.



All cameras can be monitored from the Central Control Center through the system’s wireless infrastructure.

The toll surveillance system has already begun paying dividends. Revenue pilferage has been halted and there has been an increase in revenue collected as determined by the cross-verification of vehicle counts. The system has also optimized the utilization of ground staff. Movement of vehicles is more orderly, resulting in an increased reliability of traffic control which has also reduced waiting time for drivers.

## **Infinova**<sup>®</sup>

By helping channel partners provide their customers with complete, affordable, best-in-class, large and small video surveillance solutions, Infinova helps integrators generate more business more profitably. Leveraging a manufacturing process certified to ISO 9001:2000 standards and over 250 engineers with a list of video industry firsts, Infinova channel partners provide their end-users with industry-acknowledged product reliability and technical leadership.

So that Infinova channel partners can create complete solutions, Infinova provides IP surveillance cameras and components, CCTV analog cameras, DVRs and components, camera accessories, monitors, power supplies and fiber optics communications devices. Infinova also has the technical ability and manufacturing flexibility to let integrators propose customized solutions. In addition, Infinova will partner with other manufacturers making other surveillance equipment and software to help its channel partners create turnkey solutions. Contrary to most other companies, Infinova will back-up their partners’ products as well as its own to assure both the integrator and its customers that one call – to Infinova only – takes care of everything.

Infinova works diligently to assure its channel partners can provide cost-conscious solutions. With Infinova’s hybrid systems, channel partners can propose systems that protect a customer’s investment in its already-installed analog surveillance system but that also put them on a dynamic migration pathway to IP systems.

Infinova is lauded for its exceptional maintenance programs. A major highlight is the company’s 24-hour advanced replacement policy in which a substitute product is shipped immediately upon notice of a problem.

With such customer focus, Infinova is often referred to as “the integrators’ manufacturer.”



DELOPT focuses on the design, development and production of Embedded Systems for Military, Industrial and Civilian applications. Our offerings include Electro-Optics systems, Automatic test equipments, high speed Data Acquisition systems and Avionics, Display systems for Defense Applications.

We design and develop high-end Machine vision security/surveillance systems, retail intelligence systems and traffic management systems for civilian use.

**About NICE**

The Kalyani Group of Companies and SAB International LTD. has formed Nandi Infrastructure Corridor Enterprises LTD. (NICE) to develop the Bangalore-Mysore Infrastructure Corridor. As the owners of this Build-Own-Operate-Transfer (BOOT) project, we will implement the project in its various phases and operate the facilities after completion of construction.

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