

Customer Success Story



Indian Railway - over 4000 VMS and 1400 VCA channels in use



Indian Railway introduced its first rail link in 1853 from Central Mumbai to Thane. Today Indian Railway has impressive numbers to present:

- One of the world's largest railway network comprising of 115,000 km
- Over 8000 stations
- Over 30 million passengers daily
- World's 4th largest employer with more than 1 million employees
- 17 Railway Zones in India like Central, Eastern, North Western and Southern Railway Zones.

THE CHALLENGE:

- Tighten platform security
- Improve crowd management
- Apply central monitoring
- Identify persons and activities
- Have an intellignet integrated system in every zone

INTEGRATED SECURITY AND SURVEILLANCE SYSTEMS:

- CCTV, VMS, VCA, IT & Networking
 - Mirasys Video Content Analysis (VCA) includes intruder detection, object left behind, overcrowding, trip wire, queue management, running / unusual behaviour, gunshot detection, camera tampering, motion detection
- Access Control (under vehicle scanner system)
- Personal and Baggage Screening System
- Explosive Detection and Disposal System
- System Integration

THE BENEFITS:

- Practically unlimited number of clients and cameras in one centrally managed Mirasys VMS environment
- A vast amount of different analytic options and various reporting possibilities based on current & future needs
- Wealth of integration options making it easy and faster to integrate with other systems
- Remote accessibility for video

Customer needs

When thinking of updating gradually the security systems in different Zones the biggest concern of Indian Railway was the platform security. They wanted to have measures to tighten security, improve the crowd management, apply central monitoring and identify persons and activities. They needed to have an Integrated Security and Surveillance System in every Zone and an intelligent system, overall.

An independent body RDSO (Research, Design & Standards Organisation) acts as the Product Approving Authority. They formed the Technical Specifications which included several items like

- The software shall be an open architecture based solution, highly scalable enterprise level software with end user friendly (unrestricted) licensing policy.
- The software should allow time-synchronized playback of different cameras together in the same video pane. This should enable the operator to watch playback of an event from different angles as the event happens in an area covered by multiple cameras.
- Integration with other security equipment like X-ray baggage scanner, under vehicle scanner etc.
- Video analytics like intrusion detection, left object detection, overcrowding and camera tampering.



In addition to the RDSO Technical Specification Mumbai's Central Railway Station set more demands for the project because of the Heritage station building. It had for example the followed special feature requirements:

- The software shall support audio analytics to provide alarm with pop up of live video and audio stream in the Control Room on sound of breaking glass or gunshot.
- Identify and locate various resources like cameras, specialised units and sensors around the station areas on 2D / 3D GIS map. All the mobile point and vehicles which have the GPS capability should be displayed on the GIS map as a layer.
- Incidents management, including preliminary planning and plan activation to better respond to any event and identify all the needed activities required to resolve the incident.

Mirasys advantage

Mirasys' local partner Tata Nelco (part of USD 100 bn Tata Group) and Mirasys have a close co-operation in India. "As Mirasys team has showed dedicated field support and readiness to customise solution for Tata Nelco's customers already when delivering video management solutions to Southern, South Central, North Western and Central Railway Zones, we want to continue to work with Mirasys in large scale command and control solutions," says Nelco's top management. According to Tata Nelco, Mirasys' other strong points are:

- The general user interface of Mirasys system is very easy to use (The Railway Police Force point of view).
- The solution is flexible – Mirasys is willing to customise according to the client needs.
- Mirasys' open platform and easy integration handling meet the needs of many integrations.
- Mirasys is dedicated to find the right solution for the customer based on customer needs and Mirasys knowledge from the transportation sector.

So far Mirasys Solution is in four major Zones out of 8 which Indian Railway have procured until now. On Pan-India level Mirasys has helped to procure 29 main junction stations out of 75. Over 4000 VMS and 1400 VCA channels are in use now and the number is increasing. RPF and railway authority use Mirasys system for day to day monitoring. The solution includes also centralised Command and Control Rooms for monitoring and running the operations. The use of advanced analytics helps to reduce criminal incidents. Mirasys automated intelligent solution has acted as a deterrent and has already proved to be useful for the railway authorities.



photo by Joe Ravi