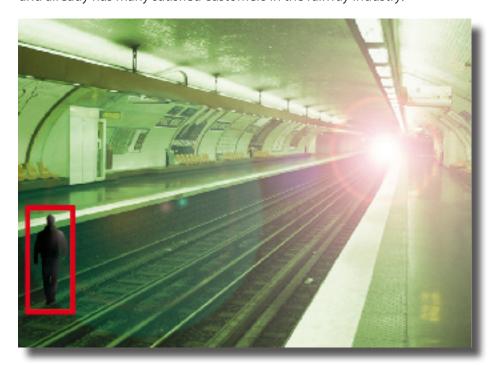Railways have many stakeholders and multiple departments including security, customer service and site management - each of which have their own requirements. iQ-Railway is a comprehensive portfolio of applications that can fulfill each department's specific requirements while operating as a single integrated system to ensure quick distribution of information to all concerned when any event occurs.

iOmniscient is the only Video Analytics system in the world that can provide the specific range of capabilities for the railway industry. For example, iOmniscient's railway crossing management systems accurately detects an obstacle on the tracks providing sufficient warning to enable the driver to slow down before hitting the obstacle.

iOmniscient also provides yellow line detection to prevent people from walking too close to the edge of the platform and accidentally falling on to the track. iOmniscient technology can detect when someone has unintentionally crossed the line to sound an audible alarm, for example an automatically transmitted message over the public address system – "please step back from the yellow line". This intelligent technology is able to automatically identify if the train has stopped at the platform or has left the station, to enable or disable the yellow line detection at the appropriate time. Furthermore, iOmniscient's detection technology is fully automated and requires no manual operation.

iOmniscient's systems are armed with its Artificial Intelligence based Nuisance Alarm Minimization System (NAMS) to accurately detect events and reduce false alarms, such as light changes. iOmniscient's internationally patented technologies provide a comprehensive solution for the many applications required in the railway industry, including the world's only Video Analytics system that is able to handle crowded and complex scenes. iOmniscient is the technology leader in Video Analytics and already has many satisfied customers in the railway industry.

# Railway

The safety and security of passengers, staff and their assets is of primary concern for Railways and Metros around the world. Having understood their requirements iOmniscient's iQ-Railway provides a range of products to meet their requirements in different parts of their operations.  The different modules  available are:

## Platform Safety
- Detection of Train Berthing (overshooting or undershooting incident)
- Detection of person moving from platform to rail corridor at end of platform
- Detection of person moving from platform to rail corridor along the platform
- Detection of person on edge of platform when train is not at the station (able to understand when the train is at the station and have the detection turned off to allow passenger crossing)
- Detection of Abandoned object on CROWDED Platform
- Detection of person slipping and falling on the platform
- Detection of overcrowding on platform
- Detection of platform being used by homeless people as a refuge
- Detection of faces of people on the platform for recognition of known criminals
- Detection of overflowing Garbage bins
- Detection of Smoke and Fire
- Tracking persons of interest in forensic mode (e.g. after London bombing)

## Tunnel Safety
- Detection of intrusion into tunnel
- Detection of Smoke and Fire

## Stabling yards/Rail yards
- Detection of Graffiti and vandalism
- Detection of Intrusion into the stabling yards

## Level Crossings/ Grade Crossings
(available with rugged integrated Super Edge device for external use)
- Detection of significant objects eg vehicles, on the track in time for the train to stop
- Detection of humans on the track at level crossings
- Detection of vehicles speeding towards the crossings
- Interface with boom gates and signal lights

## Track Protection and Maintenance
- Detection of Intrusion on the track
- Detection of Fallen rocks or tree on the track
- Detection of loose bolts at track changeover points
- Control of access to rail personnel (prevent fraudulent access through misuse of access cards)

## Concourse and external bus/taxi interchange
- Queue Management
- Drop off Zone Management
- Counting of people for marketing/advertising
- Detection of people slipping and falling
- Detection of Overcrowding
- Recognition of known hooligans and criminals
- Fraud detection on ATMs

# Railway

- Ensuring the ticket vending machines are operational
- Tracking Persons of Interest in forensic mode (e.g. as in London bombing)

## Car Parks
- Understanding of number of empty spaces in the car park
- Detection of loitering
- Detection of vehicles parked in illegal spaces

## Internal Office Safety
- General Surveillance
- General Surveillance of Cash Exchange points such as booking offices

## Maintenance Centers/ Workshops
- Detection of Theft from stock rooms
- Work flow analysis
- Prevent Access control Fraud

## Protection of High Value Assets
- Protection of Ticket Vending Machines, booking offices, rolling stock against vandalism and graffiti
- Protection of cash and cash transportation facilities

## Protection of Medium Value Assets
- Protection of Advertising boards, concession vending machines, garbage bins and other devices, furniture and products at stations

## Fare Evasion
- Detection of people jumping over turnstiles
- Detection of damage to Ticket vending machines

## On Board Trains
(available with rugged integrated Super Edge device for external use)
- Detection of Overcrowding
- Detection of someone falling
- Ensuring that doors close effectively
- Recognizing Persons of Interest in forensic mode (e.g. after London bombing)

# See Through the Crowd

**iOmniscient**
High iQ Analytics
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