

SMART Lock-Up

Self-Monitoring Analytics Reporting Technology

Monitoring detainees such as in police lock-ups often rely on manual detection of events and results in post-event action. Such safety levels within lock-ups risk the well-being of detainees. SMART Lock-up utilises video analytics to automatically detect and issue alerts. These are done on suspicious or violation activities in the lock-up cells and the perimeter of a lock-up building, in the absence of patrolling officers.



Overview

SMART Lock-Up is a versatile video surveillance solution for lock-up environments. It includes intelligent elements of advanced video analytics in a flexible architecture. The solution is capable of detecting suspicious or violation activities based on the movement and behaviour of the object in the lock-up cell and perimeter of the lock-up during day and night.

Features

SMART Lock-Up comprises intelligent video analytics and video analytics management server features:

- **Cell-Based Video Analytics**

- Climbing Detection – detects climbing activity in a cell.
- Loitering in Toilet Area Detection – detects object presence in a toilet for a fixed long duration.
- Aggressive Detection – detects fast movement or aggressive activity in a cell such as pushing and punching.
- Tampering Detection – detects any attempt to move or distort a camera's position or view.

- **Perimeter-Based Video Analytics**

- Restricted Region Detection – detects an object's presence at a location with limited access.
- In/Out Detection – detects ins and outs of an object's movement in any location of a lock-up.

- Entering/Leaving Detection – detects the entering and leaving of an object's movement in a monitoring area.
- Crowd Density Detection – detects the presence of high occupancy of people.
- Object Left Detection – detects objects left by people.
- Object Removed Detection – detects the removal of objects from a scene.
- Counting – counts the number of people in two directions.

- **Event Metadata Display and Management**

Event metadata is displayed and managed by a Smart Client or by third party clients (event metadata is accessible through provided socket connection libraries and HTTP POST (JSON)).

- **Smart Client**

Smart client comprises:

- Real-time camera view for live monitoring
- Real-time event alerts (video and audio)
- Real-time display camera view in high resolution with event alerts
- Event list management
- Location-based 3D event indicator
- Event video search and retrieval for forensic applications
- Dynamic masking for privacy preservation
- Comprehensive and integrated viewer



Applications

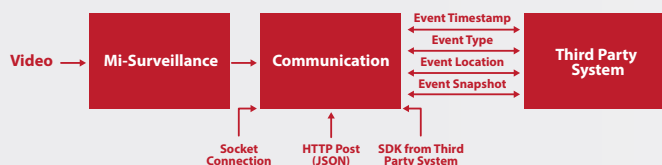
Enterprise, Government, Public Safety

Technology Benefits

The main impacts of SMART Lock-Up are:

- **Real-Time Monitoring and Alert of Human Behaviour**
SMART Lock-Up can be applied for both automated human behaviour monitoring and alert the security personnel in real-time.
- **Event-Driven Surveillance**
The surveillance events are detected based on specific events and can be categorised. Forensics can be conducted based on various search criteria.

- **Increased Operational Efficiency**
Video monitoring and analysis potentially increases daily work efficiency by providing situational awareness to users through various event fusion and analysis.
- **Open Innovation Platform**
The platform is camera agnostic and can be customised and integrated to a third party system, for example a video management system.
- **Patented Algorithm/Technology**
MIMOS' in-house algorithms to provide high accuracy and low false alarm rate.



Event metadata interfaces



Cell-based video analytics



Perimeter-based video analytics



Smart Client

