



## Flash

# SMART Lock-Up: IoT Meets Public Security

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## IN THIS FLASH

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This IDC Flash provides an overview and analysis of an Internet of Things (IoT) implementation in Malaysia's public security. The IoT solution is called Self-Monitoring Analytics Reporting Technology (SMART) Lock-Up, developed by MIMOS in collaboration with the Royal Malaysia Police (PDRM). The solution analyzes multiple videos from the existing CCTVs and automatically alerts the authority in real time whenever an unwanted incident is detected. The system is currently being used in more than 50 police lock-ups in Malaysia.

## SITUATION OVERVIEW

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As Malaysia's national research and development (R&D) center in ICT under the purview of the Malaysian Ministry of Science, Technology and Innovation (MOSTI), MIMOS is actively involved in the research, development, and commercialization of ICT solutions in application-specific areas for the Malaysia industry. One of its recent solutions is the SMART Lock-Up.

The system analyzes multiple streams of videos from the existing CCTVs within an IP network for unintended events such as loitering, climbing, vandalism, and fighting; automatically detects incidents based on preconfigured information; and sends real-time notifications with the location of the detected camera in a 3D location map to the authorized devices and terminals to alert authorities on duty about the incidents. This concept is in line with IDC's definition of the Internet of Things.

Video analytics is not new — such solutions have been widely available in the market for decades. However, the SMART Lock-Up is unique as it was developed with a set of algorithms based on Malaysia's police requirements specifically to be used in Malaysia's lock-ups. The main objective of this system is to enhance the security at the police detention center as well as to minimize unexpected incidents such as death cases and injuries in police lock-up, as the result of poor health and aggressive activities.

Having successfully implemented the solution in Jinjang Central Lock-Up since October 2015, Malaysia's police have now implemented SMART Lock-Up at 58 lock-ups and are planning to expand this system to all 704 lock-ups in Malaysia.

## FUTURE OUTLOOK

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### Creating IoT Awareness

IoT has been a hot ICT topic for many years. However, this topic is normally discussed only among the ICT community, including ICT vendors, CIOs, and IT executives. Other business units may have heard

about IoT, but most of them are still confused about it. They are still not able to see clearly how IoT can help them in their daily tasks, which leads to an unclear return on investment (ROI) and business case.

Today, ICT budget is no longer controlled by just the CIO. Other business units are gaining more influence regarding the ICT budget. IT resources are no longer in the IT department only. Based on the *IDC Asia/Pacific (Excluding Japan) C-Suite Barometer 2015 Survey*, which was done with 90 C-level executives of enterprises in Malaysia, 63% of respondents have IT resources in other business units as well. Hence, it is important for the other business units to understand the benefits of IoT and how it can help them to achieve their goals.

The SMART Lock-Up System is not just an IT system to support Malaysia's police operations, but is also a system that improves Malaysia's police image by minimizing deaths and injuries in lock-ups. This creates awareness about the benefits and importance of IoT not only in business units in the public sector but also in other verticals.

## Driving IoT Adoption in Malaysia

IoT remains a new technology. Its ecosystem is still limited and its adoption still low in Malaysia. The low adoption is mainly due to the lack of successful implementations and budget issues, resulting from an unclear ROI and business case.

In developed countries, the public sector is usually the early adopter of a new ICT as it is a non-profitable industry, compared with other vertical industries that are more cost-sensitive. By announcing and showcasing the successful implementation of this system, IDC believes this will not only drive the IoT ecosystem but also drive IoT adoption as well especially in other vertical industries.

## Expanding the IoT Ecosystem

The IoT ecosystem is complex. It involves several key ICTs such as devices, embedded systems, connectivity, middleware, software, analytics, and security. Following the success of the launch of the National IoT Strategic Roadmap by MIMOS in July 2015, the SMART Lock-Up System is one of MIMOS' initiatives to accelerate IoT adoption in Malaysia by bridging different ICT components and leveraging the resources and capabilities across different organizations.

Specifically, start-up companies often come out with innovative ideas but are limited by budget and know-how to acquire technologies. To assist the start-ups, the MIMOS Big Data IoT Technology Accelerator (BITX) Lab provides end-to-end services and necessary technologies for IoT applications and services. In addition, through active engagement with end users and the community, a comprehensive IoT ecosystem can be formed in Malaysia.

## Taking IoT in Malaysia to the Next Level

IoT in public security has been implemented in other countries for many years. For example, police cars in the United Kingdom are equipped with cameras that can intelligently detect a car registration number. The system is connected to the police database for the examination of the car registration number. The police in the car will get real-time information about the car, such as the details of the owner and his/her insurance. Camera wearables for police are also a key trend today. Police in the United States and the United Arab Emirates have begun trialing wearables in 2014 while police in the United Kingdom have committed to use wearables this year. Several device and solution vendors have also announced their police-specific wearables solutions beginning last year.

Having successfully implemented the SMART Lock-Up System, Malaysia's authorities are expected to explore more IoT applications to enhance public safety and security in Malaysia. This will bring IoT in public safety and security in Malaysia to the next level, closing the gap in ICT maturity between Malaysia and other developed countries with mature ICT markets.

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