KEDACOM Smart Checkpoint – The First Line of Defense for Phuket Island

Situation

Lying off the west coast of Thailand in the Andaman Sea, Phuket Island is the largest island in the country and arguably the most famous. Establishing a safe tourism destination for tourists and residents has always been the core task for Phuket authority.

Tha Chatchai checkpoint, which is the only land gateway of the Phuket island. In 2020, Phuket authority cooperated with AZKING CO., LTD, KEDACOM's local distributor in Thailand, and invested a Smart Checkpoint project to replace the outdated surveillance system to a more intelligent security and management system.

Being the first line of defense for the island, the project is aimed to identify suspicious person and vehicles, as well as support the island's reopening measures after the long closure due to Covid-19 pandemic.

(Tha Chatchai checkpoint, Phuket)

Solution

KEDACOM Ultra-lowlight AI cameras have been installed along the way arriving at the Checkpoint. The cameras adopted a deep learning and image enhancement algorithm to ensure that distinct images including vehicle plate number and faces of driver and passengers can be captured in spite of day and night.

Meanwhile, real-time transmission to command center is provided for automatic searching and official database comparison. The system can help authorities identify suspect vehicles or criminals, and therefore prevent and suppress illegal activities. A speed-measuring radar has also been deployed for speeding detection.

(Ultra-lowlight AI cameras for vehicle plate number and driver's face detection, real-time comparison and pre-alarm to Phuket polices)

In order to achieve a full security coverage at the entrance of Tha Chatchai Checkpoint, KEDACOM has integrated our vehicle recognition cameras and face recognition cameras with Border Collie iNVR, and successfully established a fine access control management.

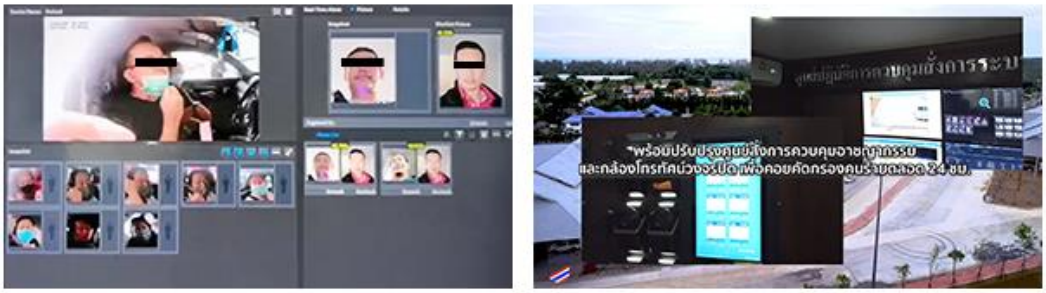
Embedded with temperature screening algorithm, our face recognition camera can

detect the body temperature precisely of a driver or a passerby, making it the best suited device to help contain the spread of Covid-19.

(Vehicle recognition camera and face recognition camera installation)

(Vehicle number plate & driver's face detection, elevated body temperature detection)

In addition to that, Phuket polices will also be wearing KEDACOM body worn camera while on patrol at the checkpoint. The camera is designated for clear and continuous video/audio streaming, and the footages can be transmitted back to the command center in real time for official database comparison using our Falcon system. (An intelligent human recognitive system that integrated with face recognition, people search and human big data analysis.)



(Real time human face capture via KEDACOM body worn camera and comparison via Falcon system)

KEDACOM LED display screen has been applied to the Command center at Thailand Emergency Call Center 191. Once Phuket has established its network coverage and put KEDACOM display system in use, it will be able to integrate big data visualization with multiple command resources to achieve a smooth and direct command for Phuket police authority, and therefore improve their work efficiency.

(Upgrading LCD screen to KEDACOM seamless stitching LED screen)

In conclusion, KEDACOM Smart Checkpoint solution can significantly reduce the time needed to scan each person and vehicle, hence it helps eliminate congestion at the checkpoint. More importantly, by ensuring accurate detection of suspect vehicles and

people, the whole system can assist police authority to make decisions accordingly. From March to June 2020, Phuket polices have successfully captured and arrested a number of drug smugglers and wanted criminals. General Roongroj, the Police chief of Phuket, has praised that the total solution will eventually lead Phuket to be one of the safest tourist destinations in Thailand.