LTE based mobile CCTV solution from Airbus DS proves superior performance in Safe City Test Bed Project

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The solution consists of the newly developed Airbus Defence and Space LTE products Multi-Standard Base Station (eNB 400) and High Power (HiPo) Modem, as well as the Alcatel-Lucent product Micro Core.

A highly mobile LTE (Long Term Evolution) solution developed by Airbus Defence and Space and Alcatel-Lucent performed far beyond expectations during experiments as part of the Safe City Test Bed Project in Singapore. The general aim of the test bed project in Singapore is to evaluate state-of-the-art technology that can increase situational awareness of several involved agencies by using flexible access to real-time information in the city.

The solution consists of the newly developed Airbus Defence and Space LTE products Multi-Standard Base Station (eNB 400) and High Power (HiPo) Modem, as well as the Alcatel-Lucent product Micro Core. They were tested and approved in a real situation. Multi-Standard Base Station and High Power (HiPo) Modem are to be launched at CCW 2014 in Singapore.

As part of these tests, a car belonging to the Singapore government agencies equipped with a vehicle-mounted CCTV (Closed-Circuit Television) solution and the HiPo modem allowed officers to control the camera (e.g. pan, tilt and zoom controls) and capture high-quality video. At the same time, the video was sent in real time to the control centres for decision support using the 400 MHz frequency band operating in a 1.4 MHz channel. Even when entering a multi-storey car park, the quality of the transmitted video was above expectations. In addition to the real-time transmission, a video stream was recorded locally in the vehicle and was then exported to a laptop for investigation. The video encoding was adapted in real time to the available data transmission rate depending on propagation factors at the time (e.g. position of the car at the time, high buildings). This made it possible to permanently optimise the use of radio resources in order to always get the best video quality.

“As the world becomes more complex, public agencies will increasingly need to work hand in hand to address any given issue effectively,” explained Damien Moscetti, Programme Manager of the Safe City Test Bed at Airbus Defence and Space. “The Safe City Test Bed Project in Singapore focuses on upgrading and enhancing infrastructures with alert systems and sensors providing earlier warnings of incidents, so that the public agencies can be prepared in the best way.”