

EC SYSTEM Point to Multipoint wireless approach to crime prevention

Sector: Security/Surveillance Case Study

Growth in population and visitor numbers in the historic city requires increased security and crime prevention across the city. The most likely approach to achieving this goal would be to design and implement a city-wide CCTV monitoring system.



Requirements

- Absolute reliability
- High throughput
- Uninterrupted operation
- Real-time video streaming
- Support of different types of applications
- Fast and easy deployment
- Flexibility in the future expansion

Solution

- Redundant ring architecture with local aggregation and collection point onto the ring
- [EC SYSTEM Point-to-Multipoint](#) base stations and customer equipment
- [EC SYSTEM Free space optics](#) (FSO) with capacity 1 Gb/s Full Duplex

An architecture for the city CCTV system was developed and took the form of a 'redundant ring' architecture with local aggregation and collection points onto the ring from a number of EC SYSTEM point-to-multipoint CCTV collector units, where local CCTV traffic would be collected and passed on to the surveillance Head Office.

Innovatively, the redundant ring architecture was developed purely around wireless technologies - using both microwave broadband radio and EC SYSTEM Free space optics (FSO) as transmission media in order to provide speed to deployment, ease of adding new camera locations and a flexible approach to adding capacity in future expansion.

The aggregation of the camera video streams will be provided by EC SYSTEM Point to

Multipoint broadband wireless Base-Stations fully meeting the needs of the bandwidth network. Once data traffic is aggregated onto the microwave backhaul rings, it is then fed into the surveillance centre directly from the ring over a EC SYSTEM Free-Space Optic (FSO) link running at 1Gb/s Full Duplex.

Cameras will be located not only at the roadside and in the town centre square but across the city. All vehicles entering in the city will be automatically identified and checked against the police vehicle database and the totality of the camera coverage will give the police the ability to spot offenders and track them across the city in real time.

Benefits

- Easy and fast deployment
- Scalability
- High reliability
- High throughput network
- Uninterrupted operation
- Face recognition, models of cars and license plate numbers recognition/automatic identification of vehicles and checking them against the police data in real time

See more about EC SYSTEM [Point to Multipoint](#) and [Free Space Optics](#)
