

Case reference
Teleste Video Security and Information

Hong Kong Area Traffic Control



HKATC

CCTV System for monitoring Hong Kong Island traffic

Video surveillance for HK Island traffic.

Case in brief

UniVision was awarded contract TD86/2003 to provide the Hong Kong area a traffic control CCTV system for monitoring the Hong Kong Island traffic. This was the first large scale CCTV system using digital compression and transmissions. There are a total of six control centres including the main control centre in Harbour Building Central, traffic control centre in Immigration Tower, regional command control centre of the Hong Kong police force in North Point, the regional office of the highway department in North Point, the regional office of the traffic engineer division in Immigration Tower and the traffic control division in the Harbour Building.

Teleste MPEG-4 video encoders and decoders are used for digital video compression and transmission. An Ethernet network is provided for the HKATC CCTV system. The network will link up all the associated equipment of outstation, instation and HBCC central equipment. All the video streaming, camera control data, and equipment status information are transmitted through the network.

AT A GLANCE
Hong Kong's roads are among the most heavily used in the world.

System features

- Over 60 cameras
- Cameras controlled by six control centres
- Remote digital recording & playback
- Remote PTZ controls of cameras

Transport in Hong Kong

Hong Kong's position as Asia's world city is built on its role as the gateway to the mainland of China and a hub for business in the Asia-Pacific region. With a land area of 1 108 square kilometres of which about 24 per cent is built up, Hong Kong has a population of about seven million. Every day, over 11.9 million passenger journeys, i.e., about 90% of total passenger journeys, are made on a public transport system which includes railways, buses, minibuses, trams, taxis, and ferries.

With a growing population and continuous development, moving people and goods around in Hong Kong has always been a great challenge. Hong Kong's roads are among the most heavily used in the world, with about 630 000 vehicles on 2 086 kilometres of roads. There are about 300 licensed vehicles for every kilometre of road, and the dense development and difficult terrain make it increasingly challenging to provide additional road capacity to meet traffic demands.



Objectives

- To improve traffic safety, prevent accidents and use CCTV cameras as an effective decision-supporting tool.
- To achieve better co-ordination between different authorities.
- Ability to quickly deliver public traffic information.

Solution

- There are two monitoring CCTV systems under the provision of the primary monitoring system and the secondary monitoring system. The primary monitoring system (the main control centre in the Harbour Building) is a CCTV console centre of the whole system.
- All signals from every camera will be transmitted to the main control centre via IP video codec.
- Selected camera video signals will be recorded by the Network Video Recorder.
- The secondary surveillance centre(s) include all the remote control centres except the main control centre; it is only in charge of viewing the cameras or sequential viewing at full size/ playback/alarm.
- The heart of the HKATC video system is the Teleste VMX video management, recording and storage solution.
- Teleste MPX series MPEG-4 encoders and decoders for digitizing, compressing and migrating video from analogue CCTV cameras to the IP network.
- Figures:
 - Approximately 67 cameras.
 - 6 surveillance centres.
 - 2 NVR's one with 2 TB capacity and the other with 200 GB capacity.
 - 11 Clients (operator stations with GUI and SW decoding).
 - Redundant servers.
- System installation and maintenance by UniVision Engineering Limited Corporation.