

Police Station security in Iran

Teheran is one of the world's biggest cities, with over 12 million people, and covering hundreds of square miles. When the Police force decided to invest in a CCTV system covering all thirty police stations across the city, linked to a central control room, they turned to Vista technology and their local Vista distributor for the hardware and the implementation skills to make it happen.

Reflecting the importance of the occasion, and to the delight of all those who had worked hard to get the system up and running on time, January's launch ceremony was covered by national television, and attended by the President of Iran and the Police.

The requirement

Like all police forces, the Iranian police, the NAJA, strive for the maximum accessibility and accountability in their operations in order to maintain public confidence and support, and are constantly striving to make improvements to further this aim. As an important part of this policy of accessibility, a system requirement was prepared for a very advanced CCTV concept - placing CCTV colour cameras in each police station, and linking all the cameras over a city wide network into a central control room, giving both central and local viewing of the images. The communications methods used would be in part the existing police cable WAN, and in part new connections over wireless and microwave, using IP (Internet Protocol) transmission.

The concept is both ambitious and challenging – Norbain knows of no similar police CCTV system around the world that combines an equivalent scale and complexity.

The contract was awarded to the Teheran-based company Rah Roshd, who could provide the winning combination of excellent implementation skills, plus Vista brand products, for which they are the local distributor. One of the winning features was the Vista's Smart range of products feeding images to remote PCs over IP.

**Norbain knows of
no similar police
CCTV system
around the world
that combines an
equivalent scale
and complexity**

The design

At the heart of the solution is Vista's SmartTel system. With the capability to send live video pictures over any of the common communications networks – PSTN, LAN, WAN, ISDN, or GSM – SmartTel, together with the advanced implementation skills available locally, proved to be one of the key reasons the Rah Roshd/Vista solution was selected.

Each police station has a number of CCTV cameras – 6 or more – maintaining surveillance of the required areas. The cameras installed are Vista VPC9130 High Resolution Colour and Vista VPM8130 High Resolution Mono cameras.

The cameras all link together and feed the signal to a SmartTel PC, including Vista VLSLA and VLSTR units, which provides a console to control local viewing as required, and is the device that gives the system its wide area communications capability. In addition to the Police Stations, there are also four larger traffic control centres included in the network.

SmartTel can link to almost any communications network – PSTN, LAN/WAN, ISDN, or GSM – for sending images to remote sites. In this case the selected options – the existing cable WAN that NAJA was already using, and where there were gaps in the



The control room receives all image streams from the police stations.

network, new wireless and microwave communications – gave a highly cost-effective solution to the problem of covering communications across a very large city with minimum expenditure and effort. The microwave and radio links were particularly effective in reducing an otherwise heavy communications cost for those stations that were not already on the network – the alternative of new cabling would have been prohibitive in Teheran's busy metropolis.

The centre of the system is based at the Police HQ, using the Control Room that houses Teheran's 110 Centre – the public telephone emergency system that is already a communications hub for the NAJA. The control room receives all image streams from the police stations, and uses SmartTel to manage the incoming feeds, viewing live pictures in full, quad or 10 camera view. The system offers audible notification of any alarm situations, archives all received pictures to hard disk and provides an audit trail as required.

Implementation

As would be expected of such a groundbreaking system, the implementation presented quite a challenge. Surprisingly, the technology itself was not the difficult issue. Although commissioning state-of-the-art equipment can stretch the installer's knowledge, particularly when it includes digital technology, this part of the implementation went particularly well, because of the high skill levels of the installation staff. More problematic was the timescale, and the nature of the buildings. Many of the Police station walls through which cables were being run are over a metre thick, and the implementation plan allowed a very tight timescale of only one day per station. However, despite the considerable physical problems set by the many old buildings, the outcome was an elapsed time from goods clearing customs to system completion of merely 40 days.

When the dust has settled, the nationwide implementation of the network will begin. This second phase will cover the rest of the police stations in Iran outside Teheran – a further 50, to be installed throughout a country that is three times the size of Great Britain. A system that is already probably the biggest police system in the world will shortly more than double in size!