

Conwy's CCTV control room is streets ahead

Few CCTV installations cause a sharp intake of breath when first seen. However, this is exactly the reaction when Conwy's hugely impressive new CCTV control room is viewed. Covering the county of Conwy, centred on the delightful seaside towns of the north Welsh coast, the room is dominated by the huge video wall - 54 state of the art monitors set in three rows.



Viewed by shifts of three operators throughout the day and night, potential areas of concern are continually panned and zoomed to ensure a water tight surveillance umbrella is maintained within the district. The control room system, based around Baxall's Pyramid Matrix, is one of the largest of its kind in the UK. It is already proving highly effective in the pursuit of crime reduction, as well as assisting in other areas of improving public administration.

The major new CCTV system that covers Conwy County in part owes its scope and size to the success of the first Town Centre TV system for Colwyn Bay, installed in 1996. This first system of around 20 cameras, predominantly located in the town centre with a small number in housing areas, was extremely successful in addressing the issue of rising street crime. The system was Local Authority operated in a small control room, with video communication links to the local Police control room when required. This system was credited for a 25% reduction in street crime. Such success led to an additional 17 cameras being installed in Llandudno in 1997, aimed at reducing both street and retail crime. Such was the impact that other local areas were requesting inclusion in the system.

Rather than a continuing piecemeal approach to expanding the existing system, Conwy County Borough Council took a more strategic look at the longer term requirement and devised Project 2000, a proposal that was not just technically advanced, but highly innovative in its funding. A Crime and Disorder audit of the county identified that the levels and nature of local crime justified a CCTV system. On this justification the Home Office's CCTV Initiative was the source of 50% of the required funds. The balance came from town and county council budgets and the private sector - leading to the formation of a well balanced funding partnership.



The new project was built on a commitment to high quality equipment that had proved so successful in the earlier system. Gwyn Hughes, a highly experienced consultant appointed by Conwy County Council to design and project manage the system, takes up the story:

“We knew that high quality images were essential in a CCTV system that was to be used for crime prevention. To obtain images of the clarity required by the Police in investigating crimes and achieving successful prosecutions from CCTV evidence, high specification cameras and recording equipment was needed. For 24 hour camera operation, that means not just high resolution and day/night operation, but also infra red switching, integration functionality to build up pictures in poor light, and peak white

inversion for back-lit images. We also knew that digital recording was the right route to take because of its ability to capture high quality images with the additional operational advantages over analogue alternatives. It was imperative though that these machines were set to a high frequency. We decided to capture images at one picture per second on 10 channel recorders rather than the less expensive 16 channel option because our experience showed that the additional frequency of image capture was well worth the additional investment.”

The new control room links to 80 remote cameras by fibre optic cabling, with a few mobile cameras being radio linked via a local node point to fibre-optic. The three control room operators have workstations built around Baxall’s Pyramid video management system, with a similar fourth station being used for the playback and viewing of imagery. In addition to the two monitors at each workstation used for the detailed handling of incidents, the 54 screen video wall is constantly scanned by the operators to keep a broad view of what is occurring across the county. All control room communications are based on a stand-alone LAN to eliminate the possibility of somebody from outside hacking into the system.

The operators are continually linked to various Police departments so that any incidents – anticipated or occurring - can be dealt with accordingly. Such links to the Police are key to the system’s effectiveness. The operators can patch the signal through to the nearby Police control room and then maintain voice contact with the Police control room staff. They in turn direct their Police units on the ground as required to prevent or address the identified undesirable activity. It comes as no surprise that the centre’s operators are trained in the latest techniques to observe street crime using CCTV - both zooming in for identification purposes, and zooming out to ensure evidential coverage of the full area of the incident.

For those issues that don't directly involve the Police, for example public transport, trading standards or sea safety matters, operators have the facility to alert the appropriate local authority department directly.

Tim Rowlands of Street Cam, the installation company behind the delivery of the system, sums up: "I believe this is at present the most technically advanced public safety system in the UK. As well as the 80 cameras, there are the 4 Pyramid based control room workstations, the huge video wall, and 15 Digital Video Recorders – DTL 960E's and DTL 96CE's - each with 320 gigabytes of storage. For such a complex project we had to find a partner who could reliably supply and support the wide variety of equipment we needed. Given their range, stock availability, logistics and after sales service Norbain were the first, and last, distributor we approached."

