

Norwich City Council is saving money – and lives – with its community safety wireless CCTV from BT Security Solutions

Norwich City Council is using BT Security Solutions' Wireless Extensions CCTV technology to extend the coverage of its existing fibre-based community safety town centre CCTV network

“Using wireless transmission has proved to be the most price efficient solution for adding additional cameras in the vicinity of our existing CCTV transmission infrastructure”

Gary Hewett,
Norwich City Council



Norwich City Council needed to extend its existing city centre community safety CCTV coverage into a number of new areas. However, budget was limited and the new cameras were required in locations that posed difficulties to reach with a traditional fibre CCTV transmission link.

Wireless solution

In 2007 Norwich began considering alternatives to fibre transmission. Gary Hewett is Parking Manager (Operations) for Norwich City Council, responsible for the city's community safety CCTV system. He explains, “We experimented using Broadband for CCTV transmission but discovered that the picture quality wasn't good enough for a community safety application. That prompted us to consider the use of wireless.”

Norwich opted for BT Security Solutions' Wireless Extensions technology – using an analogue radio link from camera to the nearest point of presence on the city's main fibre CCTV network.

Riverside

The first wireless camera that Norwich installed was a riverside camera on a path next to the River Wensum near the Yacht Station in the town centre. The Yacht Station had just been refurbished and the site had had a history of vandalism.

The need for a CCTV camera at the Yacht Station site was also important because the adjacent area is the city's main night-time entertainment district.

The camera would cover one of the popular routes used to leave the city at night. “At least five people had lost their lives through accidental drowning by falling in the river early in the morning,” says Gary. “We'd also had incidents of vandalism to boats moored along the river side near the Yacht Station.

Funding was provided as part of Norwich City Council's improvement strategy for the waterfront area. However, the budget of just £25,000 needed to cover not only the purchase and installation of the camera but also to supply a range of additional physical security measures designed to protect the Yacht Station.

Gary says, “The BT Security Solutions Wireless Extensions link was cost-efficient to install – it meant we wouldn't have to do any trench work – and also, being wireless, meant lower on-going operational costs.

“Since the camera was installed at the Yacht Station it has saved at least one life,” says Gary. “Our monitoring staff were able to see a person who had fallen into the water and alert the police and fire services – and that person was successfully rescued from drowning. So the system is actually saving lives.”

Historic district

After the success of the first installation, a second BT Security Solutions wireless camera was installed in the Pottergate area of the city centre – a network of pedestrianised historic lanes and one of the town's main shopping areas. However, it was also an area where there was a problem with shoplifting and where groups of people were loitering, causing a nuisance.

Funding was provided by Norwich City Council Planning Department's Heritage Fund – used to improve historic areas of the city. "Here again, we decided that wireless was the most cost effective solution – the budget for the camera was just £18,000," explains Gary. "But also, wireless offered us significant advantages because of the special historical nature of the site. It was important that the installation be as unobtrusive as possible and, also, excavation for fibre cabling in the historic area would have been difficult and perhaps even impossible."

Says Gary, "In terms of shop theft, the camera has been operating as a deterrent and it's also reduced the levels of anti-social behaviour in the public areas."

Future expansion

The use of wireless transmission is saving money, making smarter use of existing infrastructure, and is also enabling CCTV cameras to be located in critical areas that are hard to reach with traditional fibre transmission.

After the success of the two installations, Norwich is now planning new wireless PTZ cameras at both locations with a second camera being added near the riverside site and two more cameras being added in the historic district. With the BT Security Solutions system, up to four cameras can be connected to each analogue fibre node, helping to reduce the cost per camera.

"This enables us to make better use of our existing investment," explains Gary. "The cost for the main transmission link has already been absorbed – but with BT's Wireless Extensions we are able to bring back more data from more cameras using the same existing infrastructure."

Great results

Gary explains why Norwich City Council chose BT Security Solutions Wireless Extensions: "The wireless transmission frame rate is the same as for our fibre transmission – 25 fps – and the picture quality is good, certainly comparable with that from fibre. And so far, since they were installed in 2007, both wireless transmission links have proved to be trouble-free in operation.

"Using wireless transmission has proved to be the most price efficient solution for adding additional cameras in the vicinity of our existing CCTV transmission infrastructure," he concludes.

BT Security Solutions' Wireless Extensions technology offers:

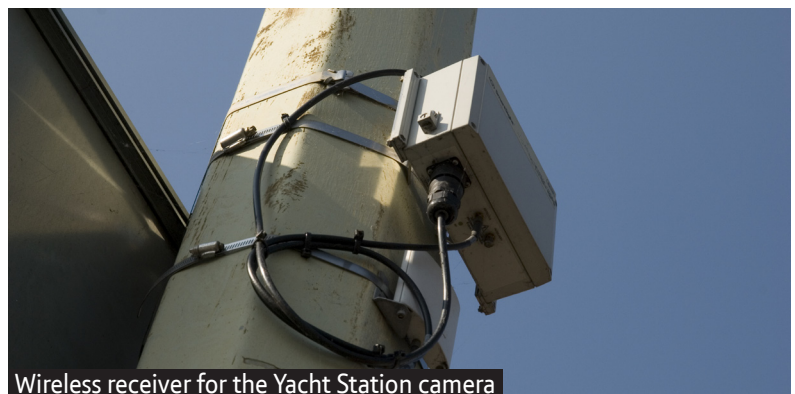
- Seamless integration with the existing analogue or digital fibre infrastructure
- Evidential quality image delivery
- Works existing infrastructure harder, getting more from existing investment and pushing down cost-per-camera
- Full solution option includes camera, housing and installation and power supply – plus wireless transmission link
- Easily redeployable/repurposable technology to address changing requirements
- Lower running costs than traditional fibre-based CCTV transmission
- Transmission capacity over short/medium range for:
 - » up to 3 additional cameras at Broadcast quality (linking to analogue fibre)
 - » up to 24 additional cameras (linking to digital fibre)
- Flexible infrastructure – either point-to-point or multipoint-to-point WiFi transmission
- Secure communication – OFDM highly-directional transmission and AES encryption
- Telemetry channel – for PTZ camera control transmission
- Fully-managed and service-wrapped solutions – including remote diagnostics and a guaranteed four hour response time for faults.



Offices Worldwide

The telecommunications services described in this publication are subject to availability and may be modified from time to time. Services and equipment are provided subject to British Telecommunications plc's respective standard conditions of contract. BT and the BT logo are trademarks of British Telecommunications plc.

© British Telecommunications plc 2008
Registered office: 81 Newgate Street, London EC1A 7AJ
Registered in England No: 1800000
Produced by BT Redcare
PHME No. 55581



Wireless receiver for the Yacht Station camera

To find out how BT Security Solutions' Wireless Extensions can help to cost-effectively and flexibly extend your CCTV scheme's reach email btsecuritysolutions@bt.com or call 0808 1000 218 Option 4