

# Calderdale benefits from new ‘converged’ digital transmission network and CCTV control centre from BT Security Solutions

BT Security Solutions is helping Calderdale Council to implement its strategic plan to not only link together the public space CCTV systems from seven towns in its region, but also to bring on board CCTV from local business and transport groups, using an innovative combination of IP, wireless and fibre technologies. At the same time Calderdale is making significant operational efficiencies in its new BT-installed command and control centre through converging its CCTV, IT and voice networks.

The new system is already directly contributing to more than one arrest per day, as well as delivering a whole raft of other community safety benefits

“BT Security Solutions were the only ones to come up with an inclusive solution. Nobody else came up with a detailed fully thought-through plan for how we could converge all of our systems and develop them for the future.”

**Nick Stevenson, Project Manager, Community Support, Calderdale Council**



Calderdale’s new monitoring suite

In Spring 2008, Calderdale Council implemented a £500,000 upgrade of its CCTV, telephone and IT communications systems. The project created a new CCTV network for the region’s seven main towns – Hebden Bridge, Mytholmroyd, Todmorden, Brighouse, Sowerby Bridge, Elland and Halifax – and brought together the management of CCTV across the Calderdale region within an all-new command, control and monitoring centre.

The project was funded by Calderdale Council, with an additional contribution by West Yorkshire Police. In a ‘first’ for a UK council, procurement was undertaken through the OGC – the Office of Government Commerce – using its ‘Convergent Solutions’ framework, appropriate given Calderdale’s plan to bring all of its communications –

voice, data, CCTV image data, radio, wireless and IP – together under a single new digital network.

BT Security Solutions was successful in winning the CCTV contract as principle contractor, partnering with Quadrant Security Group as its sub-contractor for some aspects of camera and control room systems installation.

### Calderdale’s vision

Nick Stevenson is Project Manager, Community Support, Calderdale Council. He says, “Our whole strategy with the project has been not just about crime reduction, but also about achieving our wider goals in developing safer communities. Crime reduction is a part of that, but it’s also about building a better environment which includes a whole range of activities, for example helping to control anti-social behaviour.

“It’s been very gratifying that, even though our project was developed before the publication of the ACPO/ Home Office National CCTV Strategy, our system dovetails almost exactly with its idea to develop local CCTV ‘hubs’ monitoring all types of areas where people congregate – transport, sports, leisure, education and health facilities,” says Stevenson.

### Innovative ‘converged’ solution

The new CCTV system comprises 47 public space surveillance cameras – mostly inherited from the previously separate individual council systems, a new fibre cable transmission network, and a new fully-digital monitoring control room.

The control room also includes an ANPR system, operated by West Yorkshire Police, as well as a dedicated police review suite.

Peter Woodhouse QPM is CCTV Manager of the new system. He brings a wealth of relevant experience to the role, having previously worked as a police officer, both as a Crime Prevention Officer and a Force Architectural Liaison Officer. He says: "BT Security Solutions has been heavily involved all the way through this convergence process to make sure that for each process we have the appropriate level of resilience built into the system architecture".

The heart of the new system is a high speed optical fibre digital data transmission network, bringing CCTV image data back from the seven towns in the Calderdale region to the new control room in Halifax. The network includes ten main points of presence for the fibre network, with each acting as a local hub for collecting and transmitting data from multiple cameras. Data is transmitted from cameras in the areas around each fibre hub via a variety of technologies including wireless, IP/LAN and both digital and analogue fibre. The control room is fed by two 100Mb data pipes to ensure resilience. If there is a problem with one, the system will automatically switch to the other.

Additional communications links allow the control room to view images from cameras operated by West Yorkshire Metro in the bus stations at Halifax, Todmorton and Brighouse. An additional 100Mb link means that West Yorkshire Police are also able to view the control room's primary image feed, live from their command centre. The new control centre is also able to help with traffic management, via a video link to Calderdale's Urban Traffic Control centre.



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## Great results

The whole project including ground works, building construction and then fit-out by BT Security Solutions took just three months from end-to-end. "Everyone has worked really well together," says Stevenson. "Even before the construction company made the official building hand-over, BT was able to get in and begin building the video wall and the main wiring. We had promised that we would be operational by July the first – and we were. It was brilliant."

So, after the first few weeks' operation of the new system and facility, how is it going? "The out and out answer to that is it's going marvelously," says Woodhouse. "Already the system has contributed to a number of arrests – either as a result of incidents being observed by the operators directly, or as a result of the operators following up police requests to assist.

"And it's not just criminal activity that the system is being deployed to tackle. So far we have found two missing people – one who went missing from a local hospital, and another, a youngster, missing in the town centre."

## Future expansion

The new system has been specified to be capable of being handling far greater camera and data volumes than those currently deployed. Explains Stevenson: "The control room system is capable of receiving and storing data from up to 100 cameras at 12.5fps for 31 days. That gives us plenty of scope for system expansion, but also means that, for the time being, we can record all the current 47 cameras at 25fps."

"Likewise, we have transmission capacity to attach up to 24 cameras to each of our ten main points of presence on the fibre network – giving us a maximum potential of up to 240 cameras. Now we want to strengthen our IP estate extending our presence via IP fibre, wireless transmission and dedicated fibre in partnership with BT. Our strategy over the next three years is to develop a common communications infrastructure with the members of the local CDRP covering railway and bus stations, schools, major health centres, sports venues and shopping centres."



## Why BT Security Solutions

Nick Stevenson, Project Manager, Community Support, Calderdale Council explains why Calderdale chose to partner with BT Security Solutions: "BT offered the best value for money. But that was probably only a third of the reason why we chose them. The main reason was that they were the only ones to come up with an inclusive solution. Nobody else came up with a detailed, fully thought-through plan for how we could converge all of our systems and develop them for the future."

## BT Security Solutions' technology offers:

- Complete CCTV systems – from camera to control room to data storage, retrieval and evidential quality image output
- Seamless integration with CCTV existing infrastructure – helping to get more from existing investment and push down cost-per-camera
- Easy-to-use, fully 'converged' systems – bringing CCTV, IT and voice networks together to help reduce costs and create a wide range of efficiencies
- Choice of highly secure and resilient transmission infrastructure solutions – fibre, wireless, microwave, WiFi, digital, broadband, IP
- Fully-managed and service-wrapped solutions – including remote diagnostics and a guaranteed four hour response time for faults.

To find out how BT Security Solutions can help you to realise your people safety objectives and release the benefits of digital convergence email [btsecuritysolutions@bt.com](mailto:btsecuritysolutions@bt.com) or call 0808 1000 218 Option 4