

VANGUARD

How 3G got into the security business

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Much has been said over recent years about how appropriate mobile could be for surveillance applications. Now increasing data speeds and a lot of still underused 3G capacity have helped bring to market a number of vendors willing to fill that gap with monitoring capabilities.

According to research by Informa.com, vendors like Wireless CCTV, a designer and manufacturer of redeployable CCTV equipment, the products allow end users to remotely control and monitor live and recorded evidential quality video footage from two separate cameras.

Why is the time right for such a product? One good reason, it seems, is frame rate. As the company's marketing manager Gregory T'Kint, says: "2G networks allowed some kind of real-time monitoring but the frame rate in real-life situations was not always sufficient.

The speed of current 3G HSDPA networks, however, not only allows good quality real-time monitoring at 15 frames per second but also allows Wireless CCTV to add additional data, such as bidirectional audio on the data channel." That is not to write off the preceding generation, however. 2G networks do allow downloading of evidential quality images from WCCTV devices to any laptop or PC.

This is an advantage when a CCTV operator knows which time sequence he needs, or when law enforcement agents need to be careful not to compromise covert operations. Such agents can easily download the full evidential quality sequences without needing to physically extract the stored data from the covert device. "So, 2G offers some real-time remote monitoring but the major advantage is related to the remote 'archiving' of evidential quality images," T'Kint.

But the potential of surveillance equipment goes beyond law enforcement, as converged video solutions specialist Dilithium Networks can prove. Mitch Lewis, the Senior Vice President & General Manager, service providers business unit and corporate marketing, says that as well as the use of 3G cameras or IP cameras by police departments there are several other areas of video surveillance that have helped drive uptake for this application.

"One," Lewis says, "is around entertainment, such as broadcasting access to Big Brother shows in Finland and Belgium. Using 3G access, it allows subscribers to view house cameras, interact with guests or casts and view or download related clips.

“The second area is around home security cameras or so-called nanny or pet cams. This is being used today by Singaporean operator SingTel so that subscribers can view various cameras in their house from broadband or a cellular phone using a security code, see their kids at school or check up on their pets.”

Beyond the usefulness of 3G itself, the advantages of using cellular networks for monitoring services are clear. “Cellular networks obviously offer an almost unrestricted geographical coverage,” T’Kint says, and adds: “Cellular networks technology around the globe is pretty much standardised, allowing Wireless CCTV to easily export its solutions on a virtually global scale.” Thus, even though 3G specifically is not yet global the company’s equipment automatically falls back on to GPRS networks, when 3G is not available.

This ubiquity also allows the WCCTV equipment itself literally to be on the move, as proof of which T’Kint mentions the recent provision (together with Balfour Beatty Infrastructure Services) of 3G vehicle-mounted systems for the UK Highways Agency Incident Support and Winter Maintenance vehicles.

The Highways Agency also deployed 3G Wireless Domes which do not require fixed cabling and thus can be easily and rapidly deployed. “If the agency in question deploys a WCCTV Dome on a lighting column, power can be taken from the lighting column and no extra cabling is necessary, making this a cost-effective CCTV solution,” says T’Kint.

Dilithium’s Lewis cites simplicity, ease of use, quality of service and known tariffs as the key advantages of cellular but also points out that new 3G cameras take 3G SIM cards. They are also, incidentally, night-capable, as is being demonstrated by 3Italia’s Pupillo service currently being rolled out and utilised in Italy.

This technology doesn’t sit still of course. WCCTV has plans for continuous miniaturisation and integration of additional data to the core video data. The company is also keeping a close eye on 3G HSUPA developments and EV-DO products are being developed to exploit the US marketplace.