The IT and Installer Crossover

By Sonia Blizzard

For many CCTV installers, it appears that a crossover in jobs is occurring. Internet security expert and MD of Beaming, Sonia Blizzard, explains why.

There was a time when an installer's job was just to fit a camera on site, but times have changed. Not only has the development of technology changed, it has driven the demand for more sophisticated cameras and as a result the pressure is on the installer to keep up.

Surveillance has grown to be an important part of our everyday security and since the 1980's in the UK there has been a huge growth within the sector – so much so that it now leads the world in the use of CCTV.

Its roots lie within crime and disorder. The rise in crime rates in the 1980's was followed by the installation of visible cameras, which reflected the image of the government at the time as being "active" on cracking down on crime. A lot of money was spent implementing CCTV through the nineties and beyond, with a commonly quoted estimate of £500 million being spent between 2000 and 2006.

Of course, this rise in the number of installations lead to a demand for installers and during the early 90's there was a sudden rise in the number of people needed to be trained. At the time, installation only demanded a basic knowledge of the camera and how to fit it to a building.

Analogue CCTV is designed to be closed; it was originally connected to a VCR for recording and all it took was a coax cable and a video tape. The frame rates were also not ideal, because the lapse mode of analogue only enabled the recording of every second, fourth, eighth or sixteenth image – if you wanted a higher frame rate, it meant adding quads to allow inputs from four cameras, which created one video signal output to show different images on one screen.

Although analogue systems functioned well, the drawbacks included limitations in scalability and the need to maintain VCRs and change tapes manually. In addition, the quality of the recordings deteriorated over time. The cameras, for a long time, were also black and white. Today, most analogue cameras are in colour.

However, times have now changed. There is growing pressure for cameras to be constantly rolling so they have had to become ultra-reliable. There has also been a change in the use of CCTV as it is no longer simply a monitoring tool, but is also a vital piece of safety equipment. Cameras can be installed in rooms where humans cannot enter and they can even be used to monitor other equipment. CCTV provides a cheaper alternative to staff, and it prevents the need for security personnel to attend areas or premises, which is particularly handy for remote locations or anti-social hours.

With regard to security in general, it is a given these days for public places to have CCTV installed. Public safety is paramount and CCTV provides an all-round, all-

hours security team. It has also grown as an area of importance to the police, who can trace victims of a crime, or criminals themselves, through exact locations and last steps – all through the CCTV camera.

This has led to a greater demand for constant surveillance, and with it constant, reliable connectivity. For the police who are using CCTV to help catch criminals, they also need footage to be as clear as possible.

In order for CCTV footage to be in high definition, the connection needs to improve – this is where IP technology comes in.

Whereas previously, cameras were connected by analogue cables, which linked up to a VHS tape, cameras can now be linked via the internet.

An IP camera, or a network camera, is as its name describes, a camera with an IP network connection. In a camera-based digital system, video is transported over an IP network via network switches and is recorded on to a PC server or Digital Video Recorder. This is likely to have video management software installed and creates a network where no analogue components are used at all.

IP CCTV opens up all sorts of doors, because it means ARCs and/or security personnel can see images more clearly. When it comes to IP, and regardless of a camera's image quality claims, the video signal is only as good as the connectivity. The signal and the connectivity rate is more than likely to impact on the clarity of the image that is transmitted by the camera. Consider this: A 1.3

megapixel IP camera is nearly 4 times the resolution of full D1 analogue. A 3 megapixel camera is over 9 times the resolution of analogue. This provides so much more additional detail and becomes a much more attractive alternative to more traditional, analogue CCTV cameras for this reason.

So, when it comes to face-recognition, which is the latest stage in CCTV technology, quality connections are the way forward.

This comes back to our humble installer, who now has to know the technical specifications of many different cameras in order to advise customers on the best kit to install. In fact, installers are likely to be finding that as opposed to knowing how to place cameras on a building, they should be becoming versed in all the latest technology, including motion sensors, IP connectivity and high definition with facial recognition also on the cards too.

One thing is for sure, the crossover in IT skills and installer proficiency is something that is only going to become more prevalent in the years to come as cameras become higher spec and the demand for CCTV usage increases.

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Sonia Blizzard is the Managing Director of Beaming – a company that provides secure internet connectivity and data back-up services to a number of businesses across the UK. Coming from a corporate background in the telecoms industry, Sonia worked for a firm which is now known as BT Global Services, setting up Beaming in 2004. The company bridges the gap between actual business needs and IT; specifically the broadband and telephone connectivity that's vital for running a business day to day.

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