



Helping make Bracknell Forest Council 'Smart' and save money

Building Smart Cities is now the only way that any urban environment can cope with the volume of traffic going through the roads of the UK. At the heart of the South of England, Bracknell Forest Council has to deal with the huge tidal flows in and out of London as well as being a commercial hub in its own right.

By thinking out of the box Bracknell is proving to be one of the most innovative councils in the UK. Over the last 12 months Bracknell have combined to previously separate technologies to reduce costs and to deliver the building blocks of a Smart City.

Bracknell Forest Council was faced with pressure to reduce their revenue budget, (that all Local Authority bodies have faced in the last few years) and deliver better service to the residents of Bracknell Forest.

Bracknell's solution used a sophisticated CCTV IP based system from Tyco and an Urban Traffic Management Control (UTMC) system supplied by Siemens, so that they could manage the traffic in real time. Although the two units are located side by side. Bracknell Forest Council previously had two separate channels to communicate the CCTV and on the street needed two-way fixed IP communications from the Tyco CCTV to the Central and the Traffic Light controllers

Speed of deployment and ongoing revenue costs were also greatly improved by using Mobius connect. It was deployed and working in minutes and has lower revenue costs so that Bracknell Forest Council could deliver a better system despite the cutbacks.

Mobius has over ten years' experience of supporting UTMC in the UK proving that reliability over mobile is deliverable. Indeed Mobius' record is so good that in 2015 Siemens Traffic picked Mobius as its preferred airtime provider. In terms of delivering fixed IP over Mobile, Mobius has more experience and runs more M2M Private Mobile Networks than any other Mobile Virtual Network Provider in the UK.

But there were still two issues. One that the Tyco and Siemens system required separate data and IP addresses. In a classic Mobile Private Network Solution that would mean two SIMs in two routers instantly doubling the cost and nullifying any savings made.

Secondly there was a short window for implementation that meant that both Siemens and Tyco didn't have enough time to develop and deploy a combined platform.

By using Mobius Connect, Bracknell Forest Council were able to address both issues. Mobius Connect is a system that takes a specification from the customer and delivers a turnkey solution. The Hardware is preconfigured and delivered to site with the SIM in and tested, the APNs and IP addresses already set. The only thing that Bracknell Forest Council needed to provide was access to the road side cabinet.

Given the specification Mobius were also able to draw on the Retail experience where credit card data and shop management data flow through the same pipe, but, have to be kept separate due to PCI DSS security requirements. This experience meant that Mobius could allow both Tyco and Siemens to use the same router and SIM running completely separate and secure data streams. Increasing the cost savings.

Again drawing from our Retail experience Mobius Connect offers a simple swap out service. This means that should any of the devices in the field fail Mobius will supply an exact 'clone' of the failed unit and 'swap out' by technical courier and can then be returned to our repair centre for analysis and repair. But having the clone in place means that the site is back up and running as quickly as possible and not dependant on any on site work which can be difficult and is often dangerous.

THE CHALLENGE

BFC had to find a way to improve on street performance and cut costs. Mobile connections had been tried before but difficult installation and low reliability meant that any possible savings were lost in higher maintenance costs and lower availability. Also supporting Tyco and Siemens would mean two SIMs, two routers and double the cost.

THE SOLUTION

Using Retail Security protocols Mobius delivered a system where two separate data streams go over the same mobile connection. To make implementation easy setup and configuration were all handled offsite so that all BFC had to do was provide on street access.

THE BENEFITS

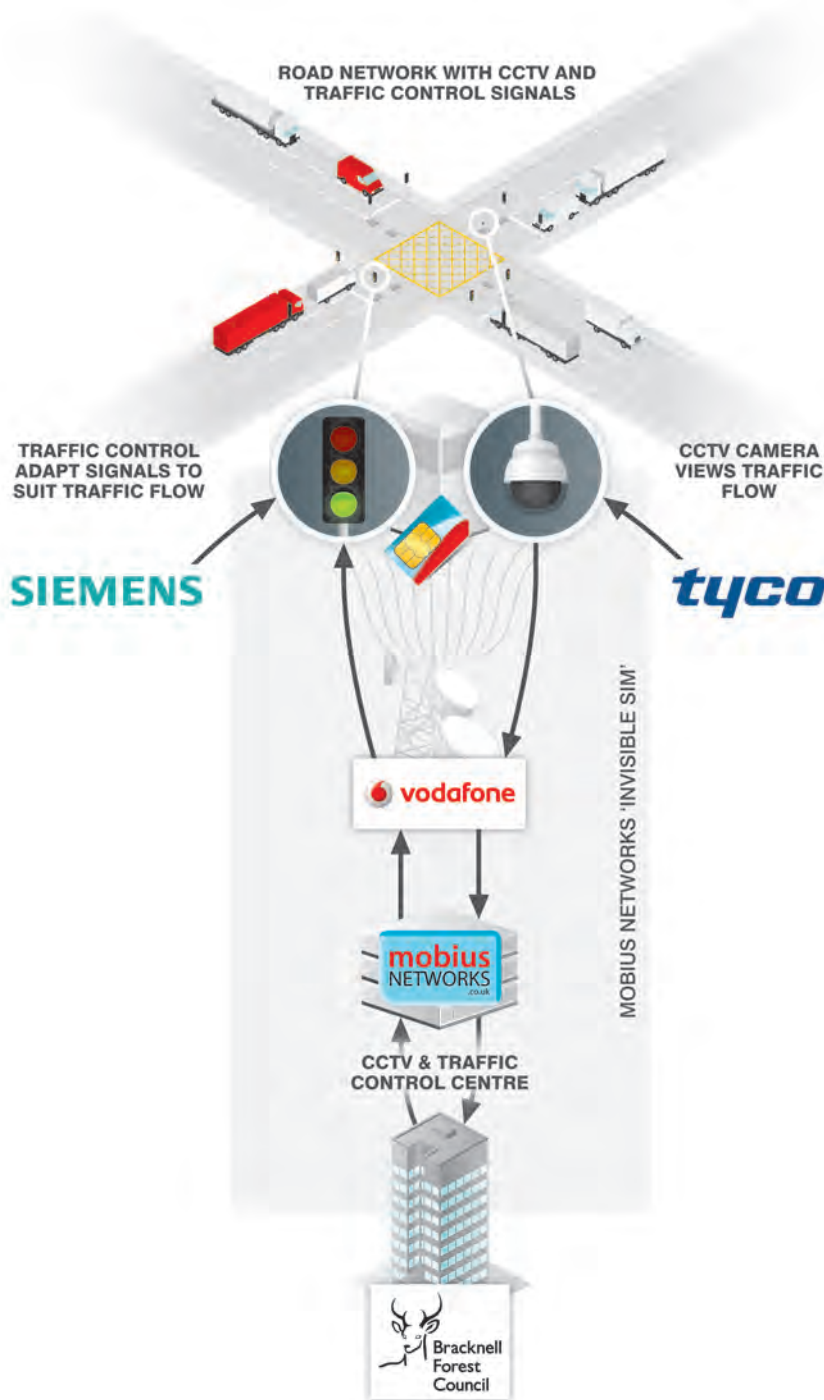
In terms of reliability both Tyco and Siemens recognise that a Mobius Mobile Network has proven to be more reliable than a fixed line system.

By building a network that could support both Traffic Systems from the same SIM, Mobius halved the operating cost of the site.

The 'Retail swap-out' model reduces costs further for roll out and reduces maintenance time and costs. BFC have the option now to safeguard their existing UTMC and even expand it.

Mobius Connect has meant benefits for all the parties involved. Tyco and Siemens have been able to retain business and implement an effective Mobile Solution with very low integration costs while

Bracknell Forest Council has been able to keep their innovative UTMC in place and can even look forward to use the saving made to expand the system in the coming years.



THE PROCESS

The first part was to establish that Mobius could meet the very high availability that SCOOT demands. In a live UTMC project with Siemens, Mobius proved that mobile could consistently outperform twisted pair for the level of availability consistently over a period of two years.

The second was that Mobius could provide the low latency and high speed in order to support cameras on the street. With low latency, control of the cameras becomes an issue and if speed drops jitter can make the cameras unusable. By working on projects with Tyco, Mobius were able to prove that latencies were 50ms typical end to end and with 4G ALPs support unique to Mobius throughput is never an issue.

Having proved that Mobius could deliver availability, speed and latency the stage that was integrating both parts and making it easy to implement. Mobius have been working with Tyco and BFC on a project called Mobius Connect. Using their retail experience the routers were pre-configured meaning that the technical courier just needed access to the road side cabinets for a few minutes at each site. In the likely case of a failure the same process means that swap outs can be very quickly actioned.

The close cooperation of Mobius, Siemens and Tyco under the project management of BFC meant that BFC have been able to roll out a reliable mobile system while saving revenue costs.

For more information about how Vodafone, Mobius, Tyco and Siemens can cut costs and improve services

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