



# Kent County Council uses Mobius to support Urban Traffic Management and Control

Kent County Council is implementing a wide reaching plan to join with Medway Council and integrate Real Time Bus Information into the UTMC systems of both authorities. Using GPS enabled electronic ticket machines passing location and journey data to the central database via GPRS. By using Mobile Private Networks and SIMs from Mobius, Kent can increase security, have true bi-directional data and cut costs. The processed information is then passed out to displays across similar Mobius-supplied Mobile Private Networks.

Urban Traffic Management and Control may sound like an abstract concept but it is very real and important in supporting the mix of public transport, pedestrians and private cars in our modern urban centres. Location information from buses helps with the understanding of traffic flow and alerts UTMC to incidents as well as providing the basis for accurate predictions to be displayed at bus stops and on mobile devices.

Kent are expanding that principle to include both simpler 'three line' bus stops as well as more complex information points. They are also collecting and pushing information from and to ticketing machines, delivering the travel information through the web, mobile phones, kiosks and screens including a standalone system at the local hospital.

Real Time Passenger Information is often cited as one of the key enablers for increasing the use of public transport in the years ahead. Passengers need the information to make the right choice before the journey begins as well as reassurance that they are in the right place at the right time as that journey progresses. Accuracy is vital in a real time system as wrong information quickly erodes any confidence on the part of the passengers.

Through its membership of the Real Time Information Group (RTIG) Kent CC has access to national framework contracts secured by RTIG following open competition under European procurement rules. Pricing through these contracts can represent a significant saving over standard voice and business rates when applied to RTPi applications.

Vodafone's preferred distributor for Machine to Machine (M2M) Data SIMs, Mobius Networks, also happens to be a specialist in both local government in general and RTPi in particular. One of the key requirements in this market is security and reliability.

Mobius is one of the few companies in the UK to offer a Private Mobile Network with no internet access making each connection isolated and secure. The two most common forms of mobile communication are random IP over open internet and fixed IP over open internet. The latter option in particular may represent a particular security risk as it is difficult to apply the stringent firewall requirements on a mobile point of presence that you would, say, on your main company servers.

Mobius will not allow any remote device to terminate on the internet through our tunnel. Nor will they allow any access from the internet through to a remote device- shielding these devices from the near constant attacks that occur on the open internet.

In addition the mobile private network will support a fixed IP connections over mobile enabling true bi-directional data flow from the centre to all the constituent parts of the Kent system. Since the RTI specification provides a standard format for data and Mobius provides a common platform for data delivery and connection it makes a complex system easier than it would be otherwise.

## THE CHALLENGE

Kent CC wanted to create a bi-directional data structure that was secure and reliable but needed to avoid the rising cost of fixed line. At the same time it needed to be part of an open standard that all the constituent parts could adopt.

## THE SOLUTION

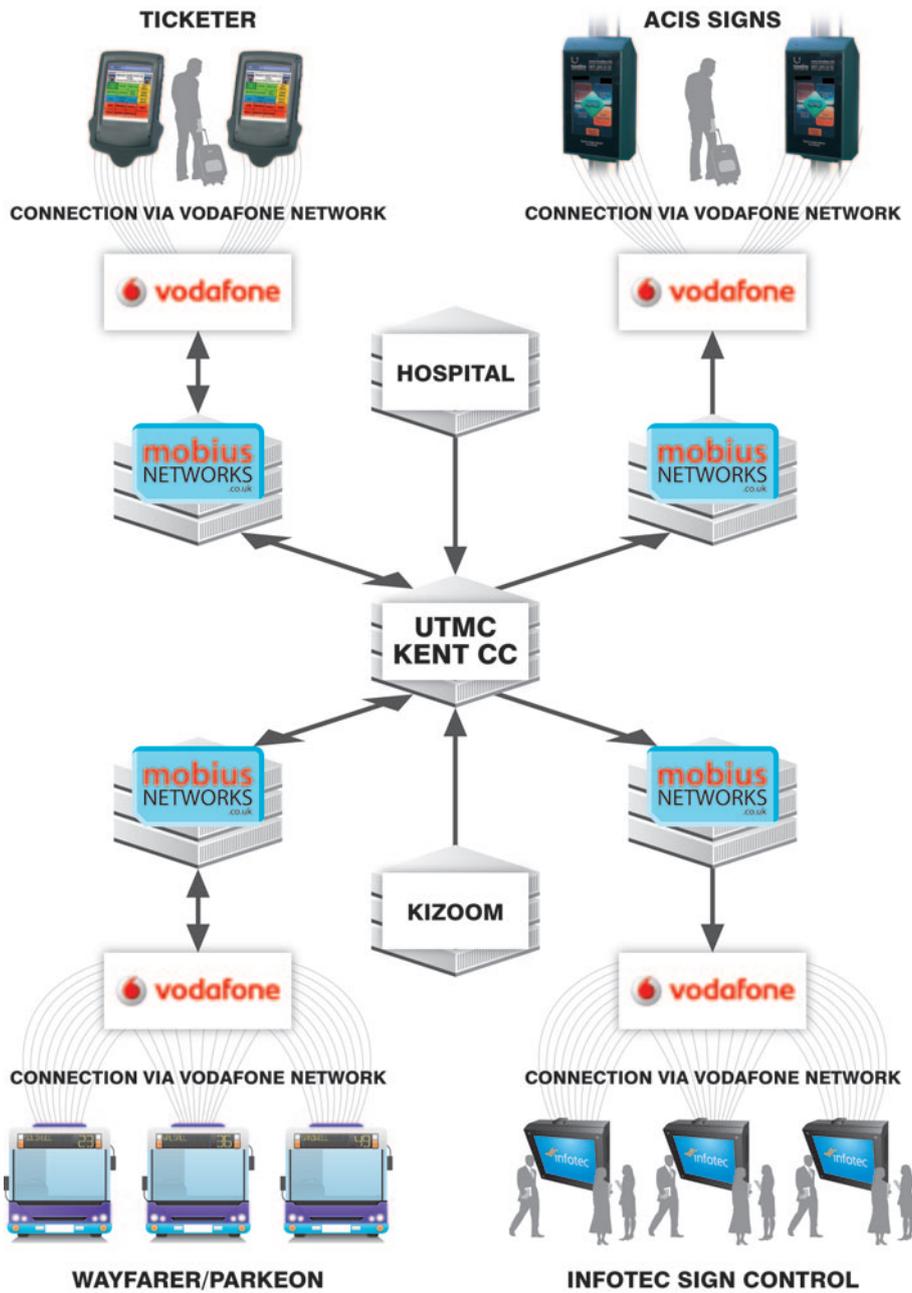
Mobius, supported by Vodafone, had already worked with the Real Time Information Group following open competition under European procurement rules. Their Private Mobile Network has been used in over thirty similar applications across the UK and around the world.

- Private Mobile Network with no internet access
- Fixed IP over mobile for flexibility and control
- Framework pricing already in place

## THE BENEFITS

By using Mobius and Vodafone, Kent CC are able to use the broadest and deepest mobile network in the UK with the additional advantage of specific industry skills and understanding.

- Better security both at SIM and network level
- No interruption in service
- Reduction in costs



## THE PROCESS

### RTIGInform

A working group of 24 people from 16 RTIG members including Mobius discussed and formulated a standard for passing information from buses via GPRS. The result, the Digital Air Interface Protocol (RTIG Library Reference RTIGT030-1.0) is being used by Kent, Parkeon and Envitia to develop effective bi-directional communications between ETM and UTMC. Return messages to the bus will include which bay to serve in the new Medway Council Dynamic Bus Station in Chatham.

Kent, with Mobius, is currently monitoring trials, which will be followed by implementation and reviews, the results of which will be shared with the work group and the wider RTIG membership in order to develop best practice.

The next part of the process will be:

- Trials
- Implementation
- Reviews
- Sharing of the information

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

[www.mobiusnetworks.co.uk](http://www.mobiusnetworks.co.uk)  
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