Welcome...

to our latest edition of Streets Ahead.

Firstly, I am very pleased to report that SafeZone, our average speed enforcement solution, has now gained Home Office Type approval. With this final "stamp of approval" in place, customers are now able to enforce with the SafeZone solution. With a range of flexible deployment and funding options also available, we believe SafeZone is now well placed to play a key role in school and road safety schemes. More details opposite.

We are also very pleased to announce the arrival of GreenZone, the world’s first cloud-based Low Emission Zone solution on page 7.

Further embracing the benefits of ‘the Cloud’ - efficient, scalable, secure and cost effective solutions that require little or no customer-hosted IT infrastructure - is our brand new Fault and Asset Management System, InView, which replaces Prefect. For more information turn to page 6.

Elsewhere in Streets Ahead, you’ll find news on further product developments and customer activity.

Calling all engineers

Entries are beginning to arrive for a new annual award scheme sponsored by Siemens this year. Launched by trade publication Traffic Engineering & Control (TEC Magazine), The Traffic Engineer of the Year Award 2012 is open to any traffic or transport engineer in the UK that has demonstrated excellence in his or her field of operation.

Matthew Vincent, the company’s Deputy Sales and Marketing Director said: ‘This award is important for the industry right now and confirms our commitment to supporting excellence in the sector’.

Supported by traffic engineering training organisation JCT, the award scheme has been designed to help promote the good work of traffic and transport engineers in the UK at a time when there is a shortage of engineers entering the industry. Entries will be judged in August by an independent panel and the winner will be announced at the annual JCT Symposium conference and exhibition in September.

Nominees are reminded to include a CV and a 1,000 word summary of achievement over the past 12 to 24 months together with any supporting literature and recommendations - anyone interested in entering should contact TEC editor, Adrian Tatum on: 01935 374013 or a.tatum@hgluk.com by the end of July.
Award-winning technology approved

SafeZone™, Siemens’ innovative approach to average speed enforcement, has now been approved for deployment in the UK by the Home Office.

A breakthrough in technology and deployment, SafeZone’s advanced system and multiple deployment options make it ideal for average speed enforcement in residential, city and rural environments.

Designed, developed and manufactured by Siemens, SafeZone™ is a modular system which combines proven ANPR technology with advanced data processing and back-office systems. Using Siemens’ Sicore cameras, SafeZone’s compact and unobtrusive design minimises impact on the street. Each camera can monitor two lanes of traffic in both directions, dramatically reducing the cost of deployment and system complexity.

Minimal infrastructure, wireless communications and compact cameras means that a system can be continually re-deployed into other areas. In terms of evidential security, SafeZone pushes encryption technology past any other current speed camera: the system uses three layers of encryption to ensure that the data transferred to the remote instation is secure.

Significantly, the distance between each camera outstation has been approved to a minimum of just 75 metres, which means that average speed can be deployed as an effective alternative to existing analogue fixed speed camera sites and for larger deployment in networks and urban zones.

In 2011, SafeZone™ won the Highways Magazine Excellence Award for a Road Safety Scheme. This followed a successful six month trial aimed at reducing vehicle speeds outside Springdale First School in Poole, UK. In addition to reducing the number of speeding vehicles from 64 to as low as 16 (at speeds above 40mph in each hour before and after school), the trial gained the full support of the local community including the school, parents, local residents, Borough of Poole, Dorset County Council and Dorset Road Safe.

Innovative Finance

Siemens is pleased to offer innovative and competitive finance through its banking operation known as Siemens Financial Services (SFS). Such schemes include customised lease or rental arrangements to assist in providing equipment prior to budgets being made available or by stretching available funds. Within the SafeZone environment, the goal is to construct an individual and ideally self-financing solution based upon locally retained residual funds arising from Driver Awareness course participation.
From the first research projects, one of the key goals of UTMC was to facilitate the integration of data from different systems using open specifications to increase flexibility – and competition in the market – in the delivery of traffic management solutions.

In Barnsley, this concept has been developed using the Comet UTMC system linked to the SCOOT UTC system, variable message signs and automatic number plate recognition (ANPR) cameras for journey time monitoring. Traffic information from the SCOOT system is combined within the Comet system to provide automatic strategic control for the traffic signals as well as information dissemination using VMS. This integration of systems in Barnsley adopting UTMC has supported the development of advanced traffic management strategies which provide reliable, accurate information to the travelling public with little or no operator intervention in recognition of the scarce resources available.

Overall system design
The overall goal of this project was to manage queuing on strategic routes throughout Barnsley by influencing signal timings in SCOOT and disseminating status updates via free text variable message signs automatically without human intervention.

Whenever excessive queues occur, the UTMC system automatically adjusts SCOOT validation parameters in order to significantly reduce the queue on an approach or along a specific traffic corridor. As well as the automatic adjustments made to SCOOT configuration when queuing is detected, the system also displays preset messages on free text variable message signs installed at strategic locations in Barnsley, providing accurate and up to date information for road users.

Network monitoring
SCOOT uses a network of detectors to make signal timing calculations based on traffic flow and congestion levels. Detectors are typically sited in advance of the stop-line and are often located at the preceding junction for reasons of simplicity in connection to the system. The SCOOT model contains a continually updating estimate of the queue at any junction which is used for the calculation of the green time. Congestion is monitored at all detectors and these values are available within the UTC system and also passed in real-time to the UTMC system for use within strategy management applications.

In Barnsley, this configuration has been supplemented by an innovative configuration of SCOOT detectors also being configured at the outstation as queue detectors so that an immediate indication is available to the system of localised queuing at a specific detector location. This is then integrated into UTC and Comet as a specific request which can trigger actions, either individually or when combined with other data.

Automatic strategic management
The initial implementation of SCOOT control is triggered from the Comet system using the strategic management application. This approach ensures that SCOOT control is only implemented when traffic conditions dictate – as opposed to the traditional timetabled approach.

The queue data from configured SCOOT detectors is also used to automatically activate and change the sign legends on Barnsley’s free text variable message signs. The strategy management tool within the Comet UTMC system automatically counts the number of times a queue has been present at any SCOOT detector. Whenever there have been 2 or 3 ‘queue occurrences’ over 5 minutes, the ‘queue’ legend is shown on an appropriate sign and if this frequency is maintained over 15 minutes, the ‘congestion’ legend is shown.

Since the original implementation, the strategic management tool in the Comet
According to NCC’s Graham Harbord, Team Manager, Intelligent Transport Systems, all new traffic signal installations in Norfolk are equipped with Siemens Extra Low Voltage (ELV) controllers and the benefits extend beyond energy and carbon savings.

‘Without the need to constantly replace lamps, maintenance costs are reduced and with no mains voltage on site every installation is safer. Overall, Norfolk will achieve significant long-term savings, taking into account the traffic management costs to provide and install the ELV equipment, the power and carbon savings as well as the cost to finance the project. Norfolk County Council worked alongside Siemens in identifying sites suitable for LED retrofit head replacement, the number of heads, the number and type of aspects and grouped the locations within the county so that a more efficient delivery programme could be agreed. This joined up approach will reduce the works period, reduces travel and therefore CO2 emissions while delivering the project,’ he said.

Richard Brown, Siemens Financial Services, explains that the finance facility offered to NCC helped enable the entire project to proceed as the savings generated help make the project ‘self-financing’ and more affordable.

UTMC system has been upgraded in early 2012 offering additional options for control with priorities to automatically manage conflicting requests for control of junctions and VMS. The configuration of strategies is now also streamlined; with visual configuration using flow-chart style presentation for easy understanding and testing prior to live implementation. This has extended the capability of the initial implementation and some new strategies are currently being developed to provide additional flexibility in the automatic display of messages on the VMS.

Benefits
The solution is fully automated and will operate 24/7 365 days a year with automatic consideration of both weekends and public holidays. The fully automated operation provides a cost effective solution as no additional operator resources are required to provide the enhanced management of the network and the solution is sustainable as it makes use of existing software and applications which exist in the majority of SCOOT UTC and UTMC systems already installed in the UK.

The use of standard applications helps Barnsley council deliver more Intelligent Transport Systems (ITS) for less by efficiency savings irrespective of any need for financial cut-backs. The benefits are available to the whole community – accurate and effective queue interventions and queue and congestion information is essential to all road users, emergency services, public transport operators, commuters, shoppers, events and the wider business community.

Commendation
The project was commended by The Institute of Civil Engineers at the ICE Yorkshire and Humber Awards ceremony in March.

According to the judges, the project demonstrated excellent value for money in obtaining maximum benefit from the integration of existing assets and technologies. The scheme shows demonstrable improvements to junction safety and congestion around Barnsley, reducing the need for civil engineering at road intersections and for control personnel, as well as increasing road safety and the speed of traffic flows.

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News

Norfolk invests in sustainable solution

A major programme to upgrade traffic lights at 78 junctions and 100 pedestrian crossings across Norfolk with new energy-saving LED signals from Siemens is due for completion this month. The retrofit project to supply, install and maintain all 178 sites is estimated to provide up to 78% power consumption and carbon savings for Norfolk County Council (NCC). The new contract includes an innovative cost benefit payback solution provided by Siemens Financial Services.
Product developments

Introducing InView

A new easy-to-use fault and asset management system hosted in the ‘cloud’ with secure access via the internet is being launched by Siemens this year providing traffic managers anytime, anywhere accessibility. Currently on trial in the UK, InView has been designed to provide guaranteed security of local authority data and offers no ongoing hardware maintenance costs as well as reduced communications costs.

According to Product Manager David Pregon, ‘InView allows seamless migration from the company’s existing Prefect fault management system with an additional number of extensive database management and reporting features - all accessed via a web-browser interface. New features will be released at regular intervals once the trial is completed. These include options to store a wide range of documentation from site drawings and photographs to maintenance and accident reports’ he said.

‘Future features also include scheduling of periodic inspections and maintenance reports, and Elexon code management and reporting’.

Providing a cost effective method of tracking maintenance performance and the reliability of on-street equipment, InView can accept fault inputs generated automatically by other traffic control systems or entered manually by the operator. When a fault report is received the system will automatically inform the appropriate maintenance contractor and monitor performance.

Based around a powerful relational database that holds details of all street equipment on a site-by-site basis, each item of equipment can be referenced by a number, location, street name, landmark or other means of identity.

All-new traffic detector

Offering excellent detection accuracy with all popular traffic control equipment, Siemens’ all-new self-tuning SLD4 loop detector is now available.

Designed for maximum reliability and using the latest inductive loop detection algorithms, the SLD4 complements the company’s full range of traffic detection options which includes both Selective Vehicle Detection and above-ground detection of vehicles and pedestrians.

According to Head of Product Management, Keith Manston, the new detector offers fully automatic set-up features ensuring optimum performance without interference. This represents a significant improvement over manual setting of frequency and sensitivity parameters which can often be a challenge, with failure to achieve this correctly causing detectors to ‘chatter’ or otherwise fail to operate.

The new detector is fully compliant with UK specification TR2512 and provides four separate detection channels with full solid-state outputs for maximum reliability. For challenging or special applications, a new PC support tool enables many aspects of the detector’s functions to be accessed for specific deployment scenarios.

The new detector may also be powered from either AC or DC supplies. Its low power requirements, with operation possible at voltages as low as 10V DC, makes support within battery powered equipment a viable option where needed.

This latest development demonstrates the company’s continued commitment to the traffic industry enhancing proven traffic technology and delivering sustainable innovation to meet the demands of traffic managers and motorists.
Representing a world first, Siemens unveiled an all-new cloud-based low emission zone solution at Intertraffic 2012. Currently on trial in the UK, GreenZone meets an expanding need in the marketplace globally - helping cities, towns and national governments to improve the air quality for their citizens and providing an effective tool for meeting local, national and international environmental and climate change commitments.

Andy Gill, the company’s Business Development Manager, said: ‘the newly developed system is efficient, scalable, highly secure and significantly more cost effective than any currently installed system’.

Requiring no customer-hosted IT infrastructure and using visually unobtrusive roadside equipment, the solution combines proven enforcement systems, monitoring technology and communications. The system uses Siemens’ Sicore Automatic Number Plate Recognition (ANPR) cameras coupled with advanced data processing and back-office technology which is hosted on a cloud for the first time.

In addition to hosting the system, Siemens is offering innovative funding solutions to ease the cost of the deployment. These rental packages cover all equipment and implementation costs and ongoing maintenance.

Since 2008, the company has operated the London-wide Low Emission Zone, the first of its kind in the UK and the largest in the world. The scheme discourages the use of the most polluting lorries, coaches and buses in order to maximise improvements in air quality and health benefits. The system uses ANPR cameras at locations across the Capital to capture details of number plates, enabling Transport for London to identify those vehicles which do not meet the emissions standards of the Low Emission Zone.

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Events

New focus on cities

In response to the changing needs of our customers and in recognition of nationwide initiatives aimed at achieving sustainable cities, we are pleased to announce the appointment of Nigel Weldon, formerly Head of UK Product Sales, to Cities Account Manager from the beginning of April 2012.

In the new role, Nigel will focus on the company’s ability to meet the ever increasing transport and traffic challenges of major cities and the wide range of products and services we can offer cities to achieve their ambitions.

As a result of this management change, Steve Parsons, Head of Regional Sales will assume full responsibility for all UK sales.

Electromobility solutions on show

Exhibiting for the first time at GreenFleet Arrive’n’Drive at Rockingham Motor Speedway last month, Siemens is promoting the company’s increasingly popular electromobility solutions for the evolving UK Electric Vehicle market. On show is the Siemens CP500A fast charging point, which can provide fast charging facilities for two electric vehicles at the same time.

According to Mark Bonnor-Morris, Head of Electromobility UK and Ireland, the Siemens charging stations can fully charge vehicles in just one hour ensuring greater vehicle availability. ‘Siemens also provides a full supply, installation and maintenance service. As the UK’s largest provider of traffic control and signalling equipment, we have a specialist field service operation that is able to support EV charging infrastructure as part of a much larger portfolio of work. This ensures that the EV chargers are maintained to a high and consistent service level ensuring the highest performance in terms of availability and safety.’

Siemens’ solution for the UK market is built on four key components; industry leading fast charging technology, modular back-office management software, extensive contact centre capabilities and comprehensive service packages. All are tailored to meet individual customer requirements and ensure maximum system availability and safety.

Siemens has already delivered its first three phase EV charging points in the UK.

Fast charging units have been supplied and installed at the University of Lincoln as part of a collaborative work programme with the University to establish a new Engineering School. As part of a low carbon transportation solution for the City of Lincoln, the fast charging units are primarily being used by electric vehicles supplied by Nissan to transport staff, customers and students between Siemens’ Service business and the University.

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