Addressing London’s congestion

Helios signals now better than ever
Siemens Traffic Controls has been awarded a £60 million contract by Transport for London to provide camera and automatic number plate reading enforcement infrastructure for the western extension of the Central London Congestion Charging Scheme.

Siemens will supply, operate and maintain the system, which involves the installation of over 850 automatic number plate recognition (ANPR) cameras at 127 sites. The cameras will capture details of an estimated one million number plates every day.

The Siemens solution represents a considerable technological step forward over the existing system. The vehicle number plate information will be processed at the roadside, reducing both the communications bandwidth required and the cost of the communications infrastructure.

The Western Extension Zone project will see London’s current congestion charge area extended in a westerly direction into Westminster, Kensington and Chelsea. Work has now begun on the new scheme, which is scheduled to be effective from February 2007. Siemens will operate and maintain the enforcement infrastructure until 2016.

Mayor of London Ken Livingstone commented, “Extending the existing zone will bring considerable benefits to this area of London. Congestion in the extended zone will be cut by 15-20 per cent. There will be 10-14 per cent less traffic within the zone during charging hours, meaning that a vehicle making a journey into and back out of the extended zone would typically save five minutes.”

Siemens Traffic Controls Managing Director David Carter said: “We are confident our proven technology and technical expertise will contribute towards the successful development of the scheme, and will further help Transport for London with their on-going efforts to reduce congestion in the capital.”

“Siemens secures congestion charge extension contract”
DUSC dawns in Baku

A Dial-Up Strategic Control system from Siemens will be installed in Baku, the capital of Azerbaijan, to help manage traffic in the rapidly expanding city.

Over 100 ST800 controllers, outstation monitoring units, and associated communications technology will be supplied to establish the system for the city which currently has no formal traffic management infrastructure in place. Baku is the political, economic and cultural centre of Azerbaijan - a former Soviet republic - whose economy is based on the country’s rich oil resources.

While fully-featured UTC systems are usually the obvious choice for complex networks of intersections, choosing the right solution for smaller networks can be less clear cut. In situations where infrastructure and running costs of fully-featured systems may prove unsupportable a DUSC system, with its less demanding instation requirements and very low communication costs, can provide an attractive solution.

Based on the Siemens highly successful Remote Monitoring System, DUSC features a full map-based operator interface. Communications are based on infrequent PSTN or GSM connections, avoiding high communications costs incurred with permanent instation to outstation links.

Maintenance extended

Siemens has been awarded the traffic signals maintenance contract for Perth, Angus and Dundee. The contract covers 165 intersections and pedestrian crossings, and involves the maintenance of all traffic signals, controllers, bus management equipment and car park signs until 2010.

Starring role

The production of Siemens traffic signals will be featured in a forthcoming programme in the ‘How do they do it?’ series, to be broadcast on the Discovery Network. A TV crew recently spent a day filming at the manufacturing facility in Poole, for a transport themed programme in the series, which focuses on everyday objects and attempts to explain how they are made or operate.

Driving down costs

Smartlink is to be installed in Northern Ireland for the first time. The implementation will help traffic managers link a pedestrian crossing site in Bangor with a nearby intersection without the need for costly ducting work, which will also reduce on-going running costs.

Essex extends ANPR

Essex’s existing ANPR system is to be expanded with the installation of a further 26 number plate recognition cameras from Siemens. The advanced system will improve the development of congestion and traffic management strategies.
Easing congestion in Lowestoft

The South Lowestoft Relief Road is a major scheme to boost regeneration and improve the quality of life for people in south Lowestoft and the contractor, Breheny, has now placed an order with Siemens for the supply and installation of a comprehensive technological solution.

Construction of the new South Lowestoft Relief Road will involve the company providing equipment for up to 15 new junctions. The new road is designed to ease congestion on the existing A12 by up to 50%, improve priority for pedestrians and cyclists and further enhance road safety for local residents.

A two-way single carriage way is under development, along with major road widening improvements in the area. Siemens’ latest high performance controllers and signal heads will be installed at all new junctions and additional Siemens’ equipment includes the pedestrian controllers and push button units. An Urban Traffic Management and Control (UTMC) system is also being developed to help manage congestion, provide highway network control and to avoid the need for future infrastructure schemes.

“Siemens’ expertise will improve safety.”

“Siemens Traffic’s expertise and modern technology will enable the new road to help deliver the required road safety improvements including priority and reducing traffic congestion,” commented Breheny Contractors Project Manager, Shaun Peachment.

This award provides further evidence of Siemens’ capability to work in partnership with both a leading contractor and a large local authority on a major scheme of this kind and scale.

Improving traffic flow in county town

An extensive range of traffic technology from Siemens Traffic is being supplied and installed as part of a major re-development scheme in Taunton, Somerset.

The project includes the construction of a new road bridge to replace an existing level crossing and a 600-space park and ride site near the railway station in Silk Mills Lane. All improvements aim to reduce traffic congestion along the A3056 route by up to 30%.

On completion of the major works, Siemens’ technology will contribute significantly to the overall improvement of the traffic flow. The company’s existing UTC system is being extended across the network by three kilometres to accommodate all the new installations including four signalised junctions and two pedestrian crossings, as well as modifications to existing junctions, the introduction of a park and ride scheme and bus priority.

The new scheme will provide an acceptable circulatory route around Taunton, avoiding the more direct routes through the town centre and enable the removal of all but essential traffic from the town’s main shopping centre. More significantly, the new bridge will provide a safer rail crossing point, by reducing the likelihood of traffic accidents.

Siemens’ proven Telscan CCTV traffic monitoring cameras will be installed at all new junctions and as part of a new ‘bus gate’ priority scheme designed to prevent a local difficulty associated with ‘rat-running’. Additional Siemens’ equipment includes the installation of ST800 controllers, ST700 pedestrian controllers, and integrated to advanced versions of both MOVA and SCOOT systems.
Plain sailing for cruise passengers in Southampton

With over 200 cruise ships calling annually at the port of Southampton, the arrival and departure of around half a million passengers regularly creates high volumes of traffic to and from the port’s cruise terminals.

Thanks to a new Siesign from Siemens, the direction and flow of road traffic arriving at the port has improved enabling passengers to locate the correct embarkation points quickly and effectively.

According to Ray Facey, Assistant Port Manager at Southampton, Siesign provides a crucial contribution to the smooth movement of an increasing number of the port’s cruise passengers often at peak times. "The port of Southampton is an extensive complex with cruise terminals located in different areas. The need to ensure that cruise passengers arrive safely and on time helps the whole operation run efficiently for both passengers and cruise ship operators."

Siemens to lead the way in ‘culture capital’

Siemens’ COMET and Siespace systems will be installed in Liverpool as a key part of the city’s major investment in infrastructure. Liverpool’s professional services partner, 2020 Liverpool Ltd, will manage the project which also involves the supply of 30 monopole variable message signs to display traffic and travel information generated by the new systems. The equipment will be operational by early summer 2006 and will significantly improve the quality of information available to both traffic managers and motorists in the city.

Liverpool is investing more than £3bn over the next decade in the renewal of its infrastructure and the regeneration of its community. In 2007, the city will celebrate its 800th anniversary and in 2008 will become European Capital of Culture.

“Significantly improving the quality of information to both traffic managers and motorists”
What is it?
The Siemens Gemini unit is a powerful outstation platform able to be used in a wide range of traffic applications. Using the latest PowerPC™ technology this small, compact unit provides outstation applications for Siemens’ highly reliable and successful Urban Traffic Control, Remote Monitoring and Siespace systems.

What can it do?
The Gemini platform supports a wide range of applications dependent on the system environment in which it is employed:
- **In RMS systems Gemini provides:**
  - OMU functions
  - DUSC
  - MOVA
  - Sieclass
  - Sietag bus processing
- **In UTC systems Gemini provides:**
  - UTMC OTU functions
- **In Siespace systems Gemini provides:**
  - Car park counting applications

What are the benefits?
The use of a common hardware platform provides very efficient on-street implementation, whilst minimising the requirement for large spares holdings and simplifying maintenance requirements. The outstation is fully compatible with all expansion cards from Siemens OMU, allowing current installations to be upgraded to Gemini whilst re-using existing interface cards.

A key feature of Siecom is that it is compatible with any equipment offering a TR2210 style handset port so it is not restricted to Siemens products. It offers standard handset functions with user programmable quick keys and has powerful scripting features which means it can be used to automate many routine tasks such as PI timing uploads.

Are you sitting comfortably?
Siecom - a safe and sound maintenance system

With the growth of traffic management systems, there has been a proliferation of traffic controllers, outstation transmission equipment and signs, all of which need to be accessed ‘on site’ for set up, commissioning and maintenance. While these operations are in progress, not only is the engineer at risk, the door of the controller is open to the weather, and the process could be obstructing the footway.

Siemens’ comprehensive and effective solution to these challenges is Siecom, which provides the traffic engineer with a wireless connection to a controller or other equipment. With a range of up to 100 metres, it allows engineers to sit comfortably in their vehicles, out of the way of people and the rain, and carry out tasks that would previously have been done standing in the open.

Siecom uses a Bluetooth wireless connection so it can be used with PCs or PDAs with compatible Bluetooth capability. A dedicated Bluetooth module is fitted to the controller, or other equipment such as signs. The issue of security has been carefully addressed in Siecom, with the equipment-based module being configured as ‘undiscoverable’, which prevents other Bluetooth users from seeing them.

Siecom - a safe and sound maintenance system

Fast facts

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Each application supports a range of communication options matched to the specific system in which it is used.

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Green signals the way ahead

The Helios CLS

Following its introduction earlier this year, Siemens’ Helios CLS (Central Light Source) is rapidly becoming the signal of choice for traffic managers.

The CLS offers a new improved head, which retains all Helios features including the SIRA lens but uses a central cluster of 12 high-powered LEDs, offering a major advance on existing LED technology. If one LED fails, the other 11 take over and give more light. It takes several LED failures to cause a switch off.

Most importantly the Helios CLS also offers reduced power consumption, which at 13W for the non-lamp monitored version, is less than one quarter of a standard tungsten halogen lamp. And of course, Siemens can support the CLS with proven technology to allow cable, termination and light source failures to be directly monitored safely and effectively.

The combination of lower cost, greater reliability and a solution to the lamp monitoring problem makes LEDs more affordable and means that Local Authorities can benefit from all the political benefits of promoting their green credentials.

“Lower cost, greater reliability and a solution to the lamp monitoring problem means that environmentally conscious local authorities can now move to LED signal heads.”

Graphos signs, which were launched at Traffex this year, are the first from Siemens to display pictograms and are activated by the approach of vehicles exceeding the speed limit.

The signs address a dilemma that is common in existing Vehicle Activated Signs which are increasingly being used outside schools, such as in West Meon. While there is a need to reduce speeds at the start and end of the school day, at other times the restriction is unnecessary and during school holidays clearly inappropriate. Because the Graphos sign can be remotely programmed to vary its message automatically by time of day to suit local requirements, it solves the problem easily and effectively.

Graphos signs also have the ability to log activation so there will be a record of how many times the sign has been triggered. The signs can be used with loops which will measure and record speed so that it is possible to produce a record of before and after speeds for every vehicle.

Over 120 local authorities already have Siemens remote monitoring systems in place and for them the addition of a Graphos sign is effectively like adding an additional traffic controller to their network.

Two of Siemens’ innovative Graphos Vehicle Activated Signs have been installed on the A32 in West Meon in Hampshire.
Big attendance at User Group Meetings

Over 100 users of Siemens systems recently gathered in Bournemouth to attend the company’s annual user group meetings. The sessions, held from 4 - 6 October, focused on the development of the company’s Siespace, COMET, UTC, RMS and Prefect systems with the majority of time dedicated to discussing future plans and user experiences.

Richard Berry, Chair of the Siespace user group, kicked-off the first session of the three-day schedule, which was followed by a meeting of the rapidly expanding group of COMET users. Interactive break-out sessions provided valuable feedback and areas for debate on the following day, during the UTC meeting.

One of the most valuable elements of the meetings, is the opportunity they offer to all who attend to network with other users and colleagues in the industry.

Throughout the week, the evening dinners and hotel bar, ensured discussions continued long after the meetings formally closed!

Looking ahead, with the ITS World Congress taking place in London from 12-14 October, next year’s user group meetings will be held in early November.

Chris Parkes to take over UTC support

Following Jim Ayres’ retirement, Chris Parkes assumes responsibility for the support of the Siemens UTC system. Having worked alongside Jim in the system development team, Chris has extensive knowledge of all urban systems and will become the main point of contact for all UTC and Siespace support enquiries.

If you have a query regarding one of the Siemens systems you are operating, please contact:

UTC, Siespace and TC12
Chris Parkes on 01202 782440

RMS, Prefect and JTMS
Kevin Loader on 01202 782326

or contact the helpdesk by e-mailing: systemsupport.stc@siemens.com

Events for 2006

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