



Case study

## WINTER ROADS GETS THE TELEMATICS TREATMENT FROM APLICOM AND PSR IN SUFFOLK

Aplicom's unique and fully programmable, professional vehicle computers have been combined with a tailored software application from PSR to provide highly efficient management of the winter highways maintenance fleet at Suffolk County Council.

PSR, one of the world's leading designers and manufacturers of telematics for transportation and, in particular, highways winter maintenance has developed this solution for Suffolk County Council. PSR selected Aplicom's ICA 1004 vehicle computer because it is fully programmable, and because of its proven effectiveness and reliability in operation.

Aplicom's professional vehicle computers provide software developers and system integrators with an ideal open platform. Independence from vehicle chassis manufacturers and wireless networks, and an open platform architecture, offers PSR a unique computerised opportunity to devote its expertise to developing a practical solution, based on common industry standards, but which is also able to handle specially written software.



### No driver involvement

The four serial ports of the Aplicom ICA-series vehicle computer allow data communications with a wide range of other devices. PSR's application in Suffolk obtains information from the gritting vehicle's 'spreader control box', including data on when it is being used, the amount of salt or grit being spread on the road, and the different quantities of material in the mixture, as well as vehicle position, speed and direction. This is securely logged within the vehicle computer and data is then available for automatic transmission and downloading at the fleet manager's request.

The vehicle computer is discreet and can be hidden unobtrusively within the cab of the vehicle without hindering or obstructing the driver. Once installed it requires no input or action by the driver, and can be programmed to transmit any data required, automatically.

The ability to fit Aplicom computers to any vehicle, regardless of chassis type, means that the PSR solution can be used in fleets where there is a mix of vehicles. In Suffolk, the council operates gritting machines and hoppers manufactured by Econ and Epoke, but it is also a simple procedure to ensure that the interface is just as clear and reliable with the equipment of other manufacturers.

When the role of the vehicle changes – for example, a salt spreading vehicle can become a general purpose tipper during Spring, Summer and Autumn – the Aplicom vehicle computer can support other operating programmes. Therefore the same levels of improved productivity and cost control can be utilised throughout the seasons.

In the UK there is a continuing drive by central government for more efficient and effective electronic communications at all levels – often known as E-Government. This filters down to the local authorities' needs for 'Best Value' for the council taxpayers, to clearly demonstrate that public money is being spent for the benefit of the community. There is also a legal requirement for councils to record where roads have been treated for ice and snow – minimising driver risk and resultant claims.



Suffolk County Council chose the PSR solution – the Wintranet system, designed and developed by PSR – because it not only covers their current needs, but is also capable of handling anticipated future needs.

"The system gives us confidence that our thorough planning for salting and snow clearing operations is being followed in practice," says Andrew Guttridge of Suffolk County Council.

"It allows us to investigate, and where appropriate rebut, claims against us. It also gives support to our drivers as it can be proved that they have followed routes conscientiously and disputed accounts of events can be resolved. In severe snow conditions, the ability to quickly pinpoint the location of a vehicle is an important safety measure, particularly if radio contact has been lost."

## **Automatic download of data**

The PSR application software solution follows a logical sequence. The software handles detailed route planning, which can be made available to others via the council's system controller, involving highly accurate satellite communications with GPS positioning. The software then automatically gathers and logs data within the Aplicom vehicle computer on the amount of salt being spread and the way that it is being spread, and this information is then available to download to the server via wireless networks, such as GSM.

PSR's Wintranet software can be configured to include automatic dial-up via GSM. At pre-set time intervals or at the end of the route the computer will automatically dial up the server at the Department's Central Administration office and download all the stored data. This means the fleet manager can have all the required information while the operation is happening as well as when the driver/operator returns. Automatic dial-up is simply a configuration process, so the local authority can make full use of the flexibility of the system by tailoring the solution to its own requirements - requesting downloads when, how and to whom it wishes.

Suffolk County Council has also locked in to a consortium set up to maximise the efficiency of winter roads treatment nationally. Information on the use of salt – where and how much – is shared by the salt producers, salt stock holders and the deliverers of salt to local authorities and contractors. This enables a full salt-stock management programme. Using the PSR system, data is transmitted with more efficiency so that correct stock levels are maintained without fail.

## **Close control of operating budgets**

Suffolk County Council may have vision, but it is still under the same budget pressures as other local authorities. The data obtained by the Aplicom and PSR solution provides information for fleet management and close budget control, and this ensures the highest possible levels of cost-effectiveness.

The system in Suffolk has been developed by PSR specifically for the local authority application environment. Whilst it is dependent upon the power, wireless communications ability and full programmability of Aplicom vehicle computers, the PSR system is still in its infancy. For the future, the combination of PSR application software and Aplicom vehicle computers looks likely to expand into a wide range of other local authority applications, such as gully maintenance, street lighting, emergency response services, street cleansing and refuse collection – all key municipal functions.

PSR and Aplicom are pushing forward the technology of vehicle telematics. Even now Aplicom vehicle computers can handle the new GPRS wireless communication networks. At the same time the demands of local authorities for the clear benefits of this communication solution are proving the 'pull' for even more advanced and effective solutions for transportation efficiency.

Further information on Aplicom can be found at [www.aplicom.com](http://www.aplicom.com), and information on the PSR system is available at [www.dmswintranet.com](http://www.dmswintranet.com).