

Pixel-sharp navigation

Enhanced mobile routing and navigation facilities for mobile data solutions are due to go live towards the end of the year, a result of the collaboration between Arqiva and GIS specialist Imass. Head of Mobile Data at Arqiva's Wireless Access Division, Peter Harris, talked exclusively with BAPCO Journal about what this latest functionality on its police mobile data solution will bring to the table.

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■ Peter Harris,
Head of Mobile
Data,
Arqiva.



Previously it was only possible to show an address, but now not only will the incident and attending vehicles appear on a map, but also a series of audio instructions to guide a vehicle to the incident.

The critical factor, explains Harris, is the speed at which a vehicle's position information updates itself on the screen. With cars often travelling at high speed, the system needs to be able to keep up and refresh map details and instructions rapidly, in order for officers to arrive at incidents in the quickest time possible. "With the Imass solutions this is dependent on the vehicle speed, so however fast the officer is travelling the data will update accordingly."

The new solution, clarifies Harris, is part of the Arqiva mobile data solution so, although an upgrade is required, the current system does not need replacing, it is simply a case of installing the new software, and this can be done manually by Arqiva engineers when the vehicles are either out in the field or in the garage. "Neither does a vehicle have to be tested. However, each force will need to ensure that the new capability fits in with the way they operate. For instance, if the vehicle is single crewed, then the voice instructions would be permitted but the screen would not be visible whilst driving, for safety reasons."

The OS data is regularly updated to maintain as accurate an image of the UK landscape as possible. Once Imass has converted the road network data, Arqiva can use this to update information on the in-car mobile-data terminals. Updates to mapping can also be carried out simply through a secure Wi-Fi connection while a vehicle is at base. All police forces in the UK have an agreement with the OS, which ensures that they have access to the most accurate and up-to-date mapping information available at a reduced cost.

This latest upgrade is available through a licensing agreement per device, explains Harris, and it takes mapping technology to a new level. "Some forces just use OS mapping in the control rooms, others use publicly available mapping in their vehicles. The force we are currently working with already had OS mapping on its vehicles."

Whilst the benefits to the response vehicle driver are clear, there are also benefits for the supervising officer who can quickly see on a map what resources are available in the vicinity and of those resources, which ones have been assigned to that incident. Harris concludes: "You can run the incident from the vehicle, seeing clearly where available resource is and then deploying officers directly from the in-car terminal."

For those not directly involved with GIS emergency response equipment, mobile routing and navigation solutions mean commercial devices such as Tom Tom, Magellan, Garmin etc. Let's be clear that such devices have nothing in common with the kind of accuracy available here, and there are some fundamental differences.

The Imass mapping software is already a key component within Arqiva's police mobile data solution, but it has been enhanced with a function that converts mapping data into a physical representation on the screen – a first for mobile data terminals using OS mapping. "The conversion by Imass can link with other applications and systems on the device such as command and control and the voter's register to show an officer where a vehicle is in relation to incidents. The incident can be plotted on the map from the control room."

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