

Bedfordshire and Hertfordshire Police Mobile Data Project

Case Focus

The Challenge

Bedfordshire & Hertfordshire Police were looking to develop technology to allow officers to spend more time on the road and tracking criminals.

The objective was to reduce the need for officers to return to the station to file a report after visiting a crime scene or dealing with an incident.

To enable this, officers would be issued with Panasonic FZ-G1 "Toughpads", and vehicle docking station connected to a touch screen display with secure internet connectivity via a 4G router device.

They needed an antenna that would provide 4G, WiFi and GPS functions to support their new "Toughpads" even in possibly low coverage areas.



The Client

Between them the Bedfordshire and Hertfordshire Police services are responsible for over 2 million people and operate over nearly 2,000km² of central England.

The system integrators, Westbase Technology, are leading distributors of hybrid networking solutions across the UK and Europe. They have unparalleled product and industry knowledge and often utilise Panorama's antennas as a perfect fit for customers' requirements.

"I am really proud. It has been really well recieved and all the hard work we have put into it is kind of paying off now, so I am really pleased"
 - CI Damien Kennedy, Hertfordshire Constabulary¹

The Antenna

LGMM-7-27-24-58



Panorama's LGMM-7-27-24-58 is a rugged low profile combination antenna that houses five isolated, high performance elements. It has been designed to support the new generation of vehicular LTE routers.

The antenna contains: two ultra wideband elements covering 698-2700MHz with MiMo support at 4G/3G/2G LTE frequencies, a high performance GPS/GNSS antenna with 26dB gain LNA, and two dual-band WiFi elements covering 2.4/5.0 GHz.

The antenna is ground plane independent and therefore can maintain a high performance even when mounted on a non-metallic surface.

All the antenna elements are housed inside a durable weatherproof and ruggedized housing that provides the antenna with strong protection against the elements and vandalism.

The LGMM-7-27-24-58 is ideal for mounting on any vehicle, requiring only one hole to mount it can be easily installed at minimal impact to the vehicle. The antenna can also be attached with a purpose-designed flexible spacer that allow the antenna to be accommodated on uneven or ribbed roves.

The Solution

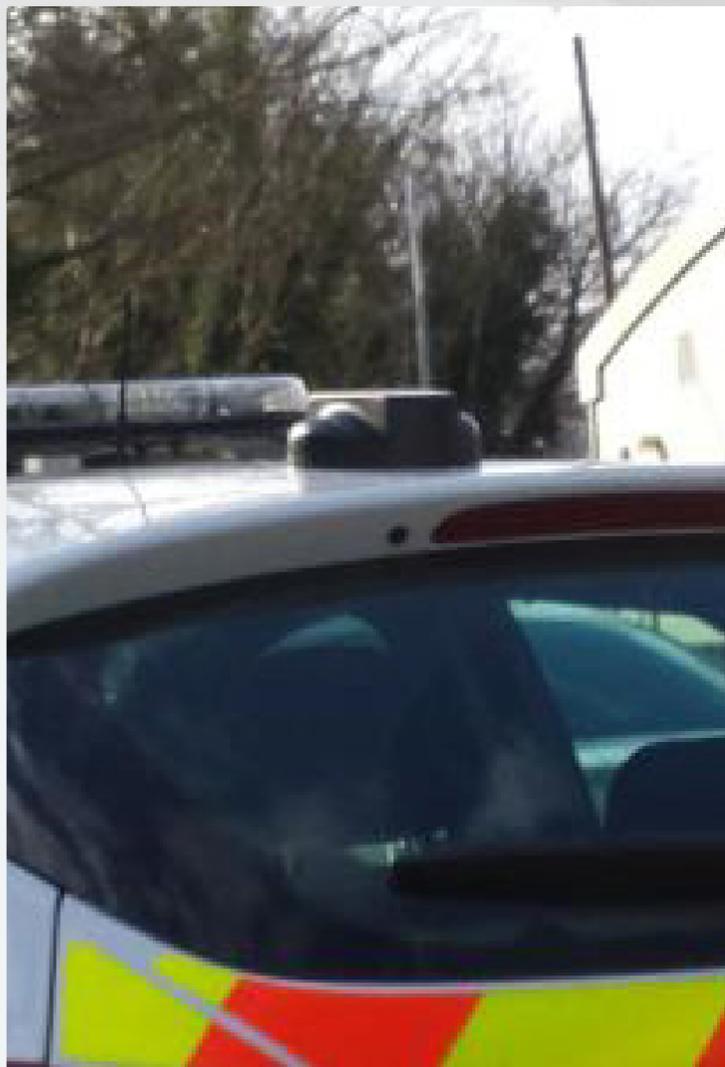
After extensive testing by Vauxhall Special Vehicles, Westbase and the Hertfordshire and Bedfordshire Mobile Data Team, the antenna proved to greatly improve the performance of the 4G connectivity and provide WiFi coverage with a range of 30m around the vehicle and was incorporated into the final build specification.

This mobile data system has now been installed into 93 of the county's police cars with the Panorama Antenna, affectionately nicknamed "The Jellyfish", providing the vital link between the "Toughpad", router and network.

This was the first installation of this type in the country, with the Hertfordshire Constabulary being the first police service to utilise mobile tablet technology in this way in a police car.

This allows the Police Officers to work remotely and enables the police service to become completely mobile.

The Hertfordshire police are even looking to implement this technology to their other units, including its helicopters, dog vans, and traffic teams.



¹ Snowdon, K. (2014). Hertfordshire police turn the tablets on criminals with wireless technology. Borehamwood & Elstree Times. [online] Available at: http://www.borehamwoodtimes.co.uk/news/11263072.Hertfordshire_police_turn_the_tablets_on_criminals_with_wireless_technology/.