

CASE STUDY

South Wales Trunk Road Agency choose Microbus end-to-end vehicle technology solution with video streaming

Agency Background

South Wales Trunk Road Agency (SWTRA) is responsible for the management and maintenance of approximately 436 kilometres of trunk road and 178 kilometres of motorway and its associated assets on behalf of the Welsh Assembly Government.

The Agency Area in South Wales covers virtually all the local authority administrative areas between Fishguard and the Severn Crossings.

The Challenge

South Wales Trunk Road Agency needed a full in-vehicle computer system to retrieve vital database information that would also provide control of emergency vehicle systems and be able to capture and stream video from the vehicle at incident scenes.

The system not only needed to comply with stringent PITO requirements and fit into limited boot space but also needed to be resilient and have the connectivity and performance to integrate with other vehicle equipment. Additionally, and in order for the Agency to operate effectively, the system had to support video image capture at the scene of an incident that could be streamed back to the control room to improve officer safety.



The Solution

Microbus fulfilled all of SWTRA's requirements with the high performance M-PC3 in-vehicle computer and surveillance cameras. The computer and its touchscreen was built into a Land Rover Discovery and linked to a host of mission critical technology to provide resilient emergency vehicle mobile data and control to the lights, radio, sirens and power management.



Microbus worked in partnership with SWTRA to design the system architecture and provide integrated DVR and Video Streaming sub-systems which are controlled by the M-PC3 in-vehicle computer. In addition, a comprehensive Electronic Management System (EMS) has been installed to provide power management, light and siren control all under the M-PC3's control.

The computer's touchscreen display provided the officers with a single seamless control point for all the vehicle's emergency-related technology using Microbus' unique Event Processing software capability.

The Benefits

This comprehensive touchscreen solution enables officers to access a full suite of mobile data applications including remote databases over the TETRA network and collect live video from the vehicle that can be streamed back in real time to the control room.

To aid officer workflow, the emergency lights, radio, sirens, digital video recorder and other equipment's power management are controlled through the computer touchscreen and for certain instances, triggered automatically for an 'event' that has been selected by the operator.

Using the Microbus Sabre 10 forward-facing zoom camera and a rear-facing compact observation camera, officers are provided with surveillance and remote video streaming for their arrival at scene. A new feature offered by the Sabre 10 camera is a survey function that videos and accurately measures damage to roadway features and crash barriers after an incident. Detailed footage can then be sent back to the control room to provide motorway maintenance workers with exact information on replacement materials needed.

The M-PC3 also supports Sepura's TETRA radio virtual handset and radio head to provide resilient control of the radio console through the touchscreen display.

SWTRA's IT Manager, Kashif Aziz, commented, "We are really pleased with the Microbus M-PC3 vehicle computer and video camera solution now being used in our cars. The technology has allowed us to develop a comprehensive vehicle-based mobile data and surveillance solution that can provide huge operational benefits and visibility for road incident management."



Microbus' Sales Manager, Bob Schimmelman, and the team at SWTRA