



UPGRADE FOR RACV IMPROVES DRIVER EXPERIENCE & PERFORMANCE

UPGRADED IN-VEHICLE MOBILE WORKSTATION EXPECTED TO IMPROVE RESPONSE TIMES



A Melbourne mum's station wagon recently broke down outside her son's childcare centre on her way to work. She headed inside to read her son a story while she waited, but to his disappointment the Roadside Assistance arrived even before the end of the story!

Many thousands of motorists like this Victorian mum have come to rely on the Royal Automobile Club of Victoria (RACV) to get them out of trouble, 24 hours a day, seven days a week. By calling the RACV Roadside Care number, members have access to roadside assistance, repairs, parts, windscreens, petrol or towing services. The service has even extended to include assistance for bikes, wheelchairs, caravans and motorcycles.

Motorola Solutions has been able to help RACV improve its performance by installing in-vehicle mobile workstations. With simple push-button functionality, better coverage and on-screen access to vehicle manuals, drivers can easily and quickly access the information they need.

CUSTOMER PROFILE **ROYAL AUTOMOBILE CLUB OF VICTORIA (RACV)**

Industry Name
Fleet management

Product Name
• MW810 mobile workstation

Solution Features

- Improved functionality
- Programmable soft-keys
- Rugged units
- Potential for future developments

Key Benefits

- Enhanced usability
- Improved coverage
- Easy access to vehicle database
- Outsourced management
- Redundancy



THE CHALLENGE:

The RACV was established in 1903 to serve the Victorian community by promoting and advocating for motor cars, and provide facilities and services for members.

Today the RACV is Victoria's peak advocacy body on all motoring and mobility issues and takes a leading role in motor-related educational and environmental issues. There are currently over two million members.

Colin Pearce, manager, metro road service at RACV, describes the situation that led the RACV to go to tender:

"We had Motorola units in the vehicles before but they had been introduced in 1997. They had been fantastic units but understandably they were past their end-of-life stage,

given that they were 15 years old. The units were no longer meeting our needs, and we had experienced some unreliability issues. With spare parts no longer available, we had to go with a full solution for the whole fleet. We needed an upgraded version of what the previous system had provided."

THE SOLUTION:

RACV selected the Motorola MW810, a fully-rugged fixed-mount mobile workstation to replace the existing units. The MW810 purpose-built in-vehicle computer provides reliable, secure wireless connectivity and sufficient computing power for the RACV's critical applications. The units provide better coverage and range, increased throughput, higher availability and better access to information.

The configuration of the MW810 meant that despite a range of vehicles being used by the RACV, all vehicle types utilise the same central processing unit (CPU), which simplifies the maintenance and management of the equipment.

The decision to award the tender to Motorola Solutions was based in part on its analogous experience in the emergency services sector.

"I had confidence in dealing with Motorola Solutions because their people knew what they were doing. They had done it all before with the emergency services of Victoria, and their experience came through. Along the way small problems popped up but Motorola people always knew how to deal with them. There was a strong feeling of 'this is what we do'," says Pearce.

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The installation process went particularly well, with over 220 units installed into a variety of vehicles prior to the deadline.

“From beginning to end this was a good project. The aim was to complete installation by 30 June 2012, and the fact that it was finished two days early demonstrates the professionalism of the team. I was very pleased with the planning and preparation stages. Not surprisingly we experienced some minor teething problems with the first few vehicles, but this was sorted quickly. Once in full production, we were completing five or six vehicles a day, and sometimes more, because of the thoroughness of the preparation and planning stages. The Motorola team did a first class job.”

Extensive software customisation was undertaken to enable the in-vehicle computers to communicate with the RACV dispatch solution and provide simplified in-vehicle interactive control as well as advanced features for drivers.

With the solution in place, when a customer calls RACV, the information is entered into the computer aided dispatch (CAD) system, then sent out via the MW810 in-vehicle computer according to CAD dispatch rules, such as which vehicle is closest and best able to assist.

The information appears on the driver’s screen, who accepts and travels to the job. The driver can access vehicle information from the technical database of the particular make and model which resides on the hard drive.

THE BENEFITS: **ENHANCED USABILITY**

Six programmable soft-key buttons situated across the bottom of the screen of the MW810 can be customised to give drivers instant access to frequently used programs or functions. An easy-to-use button gives drivers control over settings such as brightness, volume and contrast.

“For the users the difference between the systems is like chalk and cheese. Where previously there was an old monochrome screen, now it’s a colour screen which is easy to operate. In their feedback, drivers have indicated that they like the hard-coded buttons,” says Pearce.

A console which is simple to operate means that minimal training is required for newer drivers, and greater acceptance by those drivers who are less technically adept.

“Now that the RACV has patrol vans as well as battery replacement vans and a contract network, we also tend to have less experienced, newer drivers in those environments. So the system has to be simple to use, which it is. When you’re at the job you press this button, and when you’re finished, press this button. Very simple,” adds Pearce.

In speaking with Ian, an RACV driver, this view is confirmed. Ian also really enjoys the convenience of the electronic database of car makes and models:

“When we had manuals, we’d have to refer to the index volume to see which book to look up, then look up the actual book. And whenever a supplement arrived it would have to be filed into the right manual, until the whole thing was replaced by a new version.”

“Looking up this information is much better and quicker. I prefer to have everything on the MW810 screen. The buttons are simpler, and there are less button pushes. The bigger screen is good too.”

The MW810 is built to withstand heat, cold, moisture, dust, vibration and anything else required of a rugged in-vehicle solution that is constantly on the road.

Finally, although thankfully it is rarely used by RACV drivers, an emergency button is located at the top of every display. This lets a driver send a distress call without typing or saying a word for quick access to remote assistance – eliminating the need for keyboard or radio use in a crisis situation.

IMPROVED COVERAGE

As Ian describes it, every time he previously went into an underground car park – a frequent occurrence for a roadside assistance service – or to the Dandenongs in the outer east of Melbourne, coverage would drop out. Drivers had to remember to push the status button when going into an underground car park, and remember to push it again on leaving.

“We have much better coverage now. Before we had limited coverage but now we could go to Mildura [about 450km away] if we wanted to!” says Pearce.

MANAGED SERVICES

Management of the system has been outsourced to Motorola Solutions’ Network Operations Control Centre (NOCC). The NOCC is a dedicated service centre which monitors and manages critical networks around Australia, including the RACV. Staffed 24 hours a day and seven days a week on every day of the year, the NOCC’s experts are on hand to help with any of the RACV’s issues with the MW810 in-vehicle computers.

“Everything is now outsourced to the NOCC and Motorola Solutions, so if someone has a problem they can simply call and it’s sorted out,” says Pearce.





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REDUNDANCY OF COMMUNICATION CONNECTIONS TO VEHICLE

The prime communications from RACV's CAD centre to the vehicles is sent out via the public cellular 3G network. The vehicles roam between different radio towers, always selecting a suitable radio signal to use. If the 3G network is not available then the RACV private radio network (PRN) will be used to transfer dispatch messages.

The benefit of carrier redundancy is something that the RACV lacked before this solution, as previously the RACV only used the PRN. Each MW810 in-vehicle computer now has a subscriber identity module (SIM) making the connection to the public network. In the pilot performed with Motorola Solutions, the 3G public carrier solution performed better than the PRN, providing a faster update with greater bandwidth.

THE FUTURE:

The solution gives the RACV enormous capacity for future developments and enhancements, such as:

- providing drivers with access to the company intranet and company newsletter content, a valuable way to engage a potentially isolated workforce;
- providing drivers with a company email account;
- moving the technical database of makes and models to the intranet;
- GPS mapping to enable drivers to view locations on the MW810 screen; and
- portable printing so drivers can print receipts for customer payments taken in the field.

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