



## UNIFYING COMMUNICATION NETWORK & RESOURCING STRATEGY FOR AN EFFICIENT WASTE MANAGEMENT OPERATION

JJ Waste & Recycling (JJ) was established by Joseph Richards, who won his first refuse and sanitary kerbside collection contract in Murwillumbah Shire, Australia in 1932. The company today operates a fleet of over 1,800 vehicles and employs over 2,500 people. It provides residential and commercial waste management services in Queensland, New South Wales, Australian Capital Territory, Victoria, South Australia, Western Australia, Northern Territory, Tasmania and New Zealand.

### THE CHALLENGE: AGING HARDWARE, LIMITED COVERAGE

As JJ's business expanded, the technology in-use was beginning to struggle to keep up with its growth. Existing communication systems were under strain to support team collaboration – relying on a combination of dated analogue, digital radios and mobile phone technology as the only form of communications between control centres and fleet vehicles.

On the road, drivers were in constant communication with refuse and transfer station facilities. As drivers were using UHF CB channels, teams in station facilities ended up with having to use two radios to facilitate the communication. For fleet voice communication in Queensland, New South Wales, ACT and Victoria areas, teams were also using a mix of end-of-life analogue and disparate digital networks. As a result, the quality of team communication was unsatisfactory given the inadequate network coverage and poor audio quality of devices used.







JJ initially adopted a bespoke, state-by-state approach to update its communication systems. But it became evident that taking a unified communication approach across its entire operation would offer it the best opportunity to optimise its investment and productivity. The decision was therefore made to adopt a single supplier and solution across its entire operation across Australia and New Zealand. In addition to getting better management of its assets, JJ now have more flexibility in how its assets are transferred across states, if it became necessary to do so.

David adds, "Our search for a better network led us to selecting the Orion Network which was already utilised by JJ's fleet in South East Queensland. They have been receiving excellent service feedback from users, and support from the local Orion partner Queensland Communications.

"With the help of Orion partners in Queensland, New South Wales, ACT and Victoria, we migrated a number of our operational areas to the Orion Nationwide DMR Network. We now have wide area communication coverage in waste catchment areas, including the access to UHF CB application from one, easy-to-use device, the Motorola DM4000e radio."



## THE SOLUTION

- Migrating JJ Richards to the Orion Nationwide DMR Network, while retaining their UHF CB channels
- 800+ units of Motorola DM4000e series mobile radio terminals
- Including the UHF CB application into Motorola DM4000e radios
- Developing a fleet map to support JJ Richards' communications and work groups



*“As a business, we take pride in delivering excellent customer service. Enhancing the technology and our solutions are key to how we can empower our teams, and live up to our service promise to customers.*”

*In order to provide higher and better quality experience for teams and customers, we had to do more than simply replacing our aging equipment. Our newly installed communication network covers us across a much wider area and territories. This ensures we have the capacity to serve the customers we have today and into the future.”*

**David Middleton**  
**Commercial Analyst, JJ Waste & Recycling**

## GETTING UP TO SPEED

Personnel at JJ – drivers and operators at the control centres – have been receiving comprehensive training on their new systems, and have come to terms with all the benefits and responsibilities of the new solution. Quick reference cards have also been made available to support new users on the system, including other forms of learning support.

Today, JJ has the capabilities to keep in constant communication with its drivers across its entire operations in Australia and New Zealand. This has led to improvements in operational efficiencies, driver safety and customer satisfaction. More importantly, the new solution allows JJ to scale and grow its coverage in tandem with JJ’s business needs, allowing the company to future-proof its investment as it expands its services across different cities in Australia and New Zealand.



# BENEFITS OF THE SOLUTION

## THE BEST OF BOTH WORLDS:

The Motorola DM4000e radios give JJ access to both the Orion Network and its existing UHF CB channels.

## WIDE COVERAGE AND CAPACITY ON THE ORION NETWORK:

The new network allows JJ's fleet of vehicles to stay connected with the control centre wherever they are travelling to.

## ONE RADIO, ALWAYS IN COVERAGE:

Drivers no longer need to carry an additional CB radio, freeing up valuable space in vehicles.

## ALWAYS CONNECTED, AUTOMATICALLY TRANSITION FROM ONE NETWORK TO THE OTHER:

Geofencing technology in the Motorola DM4000e radios automatically detect when a vehicle is in an area that is covered by the Orion Network, and when it is time to switch to a CB channel. The radio performs this task automatically (going back and forth between the two networks) so drivers get to focus on their tasks, instead of worrying about the technology.

## MULTIPLE NETWORK OPTIONS:

The Motorola DM4000e radios support workgroup and private calls on the Orion Network. In certain areas where coverage is minimal, JJ Richards have been utilising the Orion Network WAVE PTX solution. This is achieved by connecting the DM4000e radio through the built-in Wi-Fi capability to a 4G LTE router and delivering communication via the cellular network.

## FAST IDENTIFICATION:

The display capabilities on the Motorola DM4000e radios enable easier, faster ID confirmation and integration of work group contact information.

## ENHANCED FLEET VISIBILITY AND RESOURCE MAPPING:

The new fleet map developed for JJ Richards supports communication between narrower role-based work groups and larger work groups reaching all of its +800 field fleet of vehicles.

## SAFETY REIMAGINED

Motorola Solutions offers the first and only end-to-end technology ecosystem that unifies voice, video, data and analytics on one, single platform – providing customers with the foundation of safety and efficiency you need by addressing the unique challenges of your organisation.

Safety Reimagined is delivered through our platform approach of building an operational ecosystem that removes the complexity of end point devices and network integration. This approach enables the seamless flow of information within your technology ecosystem, so teams are always connected and can remain focused on the job at hand at all times.



For more information, please visit [motorolasolutions.com](https://motorolasolutions.com)

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