



“Logistics is both the art and science of moving resources. We saw the opportunity and we never looked back.”

Wong Shih Jon,  
managing director of  
V3 Smart Technologies

The team at V3 Smart Technologies. Through constant R&D, V3 wants to be at the forefront of Singapore's Smart Nation initiative. Thanks to its myriad of smart innovative solutions, the company is well positioned to meet its clients' requirements and be at the forefront of Singapore's digitalisation drive. PHOTO: V3 SMART TECHNOLOGIES

# V3 drives ahead with digital solutions

Through its spirit of innovation, this E50 winner trailblazes new frontiers with Singapore's Smart Nation initiative

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V3 Smart Technologies, which has been involved in technology since it started in 2003, is now one of the leading companies in Singapore selling digital solutions. For its efforts and multiple-year consecutive wins, the company first known as V3 Tech was given a special Enterprise 50 Five-Year Award last year.

V3 provides customers real time telematics to maintain and control resources – whether they are delivery trucks, cleaning teams or parking wardens – and enable them to monitor their movement and location for easy reporting.

Through its early success, V3 has been able to expand its Fleet Management Systems (FMS) software to include vehicle analytics, temperature monitoring for cold chain distribution management and driver behavioural score card and enforcement.

The company has also enhanced its Workforce Assignment & Mobility solution to allow multiple types of job templates to be created on the fly to meet the work processes of different industries and departments.

A workforce management system which it

developed for environmental services has enjoyed strong take-up by environmental services and facilities management service operators, building owners and governmental regulatory agencies.

One of its most notable recent projects involves the development of a workforce management system for the Tampines Town Council. The system is especially efficient geographically as it manages human resources through a central application.

V3's innovative patent-pending technology, the Vertical Positioning Technology, takes attendance automatically. Workers are tracked by using existing infrastructure to determine the floor, speed and exact location of each worker.

## Cloud robotics

To expand its range of solutions, V3 had researched and invested in cloud robotics. It is currently one of the leading companies in this field.

Cloud robotics involves the use of a central cloud system to control and manage the robots. Thanks to a centralised information collection method, decision-making capabilities are enhanced.

Cloud robotics has been applied in tray collection, cleaning robots and even autonom-



ous guided vehicles for warehouses.

V3 has developed a cleaning robot in close collaboration with Karcher, a German cleaning equipment and supplies company which produces manually operated mechanical cleaners. By retrofitting the mechanical clean-

ers with smart sensors and a “brain”, V3 has transformed them into autonomous intelligent machines.

The robots can analyse the routes they have taken and autonomously choose which routes they need to take. There is a manual override to ensure there is no loss in efficiency when the robot faces issues with its routes.

As cloud robotics technology is still in its infancy stage, the potential is limitless. V3 aims to develop and provide cloud robotics solutions for a wide array of industries which will put it ahead in machine learning.

## Improving existing solutions and researching for new ones

Through constant R&D, V3 wants to be at the forefront of Singapore's Smart Nation initiative. Currently, its areas of interests include better management of data flow, optimisation of structured data and machine learning.

Even while it is developing into new areas, V3 is undertaking research on how it can improve its existing solutions.

The Tampines Town Council project builds on V3's existing solutions to better manage the efficiency of the workers in the town council's manpower.

V3 was also able to combine existing solu-

tions into one solution, the Common Enforcement System, to enable the Housing Development Board, Urban Redevelopment Authority and Land Transport Authority to better deploy their parking wardens.

This has strengthened the system as a whole, fostering coordination across the three government agencies as well as increasing velocity and management of deployed resources.

With its current roadmap developing and adapting technologies to anticipate future needs, V3 has a head start in Singapore's Smart Nation initiative to transform the country through technology. As a digital solutions company, it is ready to provide the appropriate digital solutions companies need in their push to digitalise and improve their technological capabilities, vital in today's fast-moving business landscape.

Through digitalisation, V3 believes companies can boost response speed, enhance decision making and reduce unnecessary costs. With increasing government emphasis on digitalisation to deal with the reality of a shrinking work force, V3 is in a good place.

Thanks to its myriad of smart innovative solutions, the company is well positioned to meet its clients' requirements and be at the forefront of Singapore's digitalisation drive for many years to come.