



Solution: Velocity EC-810 ■ **Industry:** Construction

Use cases: Edge computing | Node-RED | LMR integration

Australian construction company selects Velocity to deliver a reliable and effective alerting solution

BACKGROUND AND CHALLENGES

The construction company based in Australia has specialised in some prolific projects across Australia including sustainable architecture, public housing, and green buildings. The company is currently building a six-storey primary school in Melbourne, with the construction site located close to the Royal Melbourne Hospital. Due to the proximity of the construction site to the hospital, the large cranes needed are a potential hazard to the air ambulance. As such when the air ambulance is operational the cranes need to lower to a safe height so not to interfere with the flight path.

SOLUTION

Using revolutionary edge computing, the Velocity EC-810 intelligent communications platform was deployed in conjunction with a Simoco digital radio to build a reliable and effective alerting device that is located in the cranes and the hospital's emergency department. The solution provides a highly reliable alerting system that adheres to the existing safety protocols already established at the hospital. Operating the system is easy with reliability and speed in mind due to the critical nature of the air ambulance.

BENEFITS



Edge Computing

The construction industry is emerging as a strong beneficiary of a shift towards Edge computing. Construction processes are complex, and this is clearly prevalent in the scenario here whereby edge computing is at the heart of the solution. The Velocity platform provides the construction company a secure, reliable, and critical communications coverage platform.



No additional training required

The new system has been designed for simplicity and ease of use with no additional training required to be given to nurses and staff.



Cost effective

The solution provides a cost-effective way to avoid telco network outages and no ongoing costs. Furthermore, it provides a better experience, through moving to a precision-based system.



All in one intelligent communications platform

By utilising Velocity, the company was able to quickly deploy a highly reliable alerting system. Velocity is now at the heart of the company's communication system and has provided operational efficiencies and cost benefits. The customer is delighted with the solution and now reviewing the use of additional features within Velocity such as Wi-Fi hotspots and Bluetooth interconnectivity.



Greater security and scalability

Beyond the standard benefits of edge computing, edge computing networks enable a greater protection against cyber threats, for one simple reason; when data is collected and processed locally, it never goes across the Internet, eliminating Internet-associated data exposure and attack possibilities. Velocity is designed with security in mind and includes the use of advanced security protocols as virtual private networks (VPN). A whole host of security features such as Demilitarized zones (DMZ), MAC filtering, IP filtering, port filtering and port forwarding provide a standards-based security solution for connecting and managing remote assets, enabling the safeguard against malicious access to sensitive data.

BENEFITS



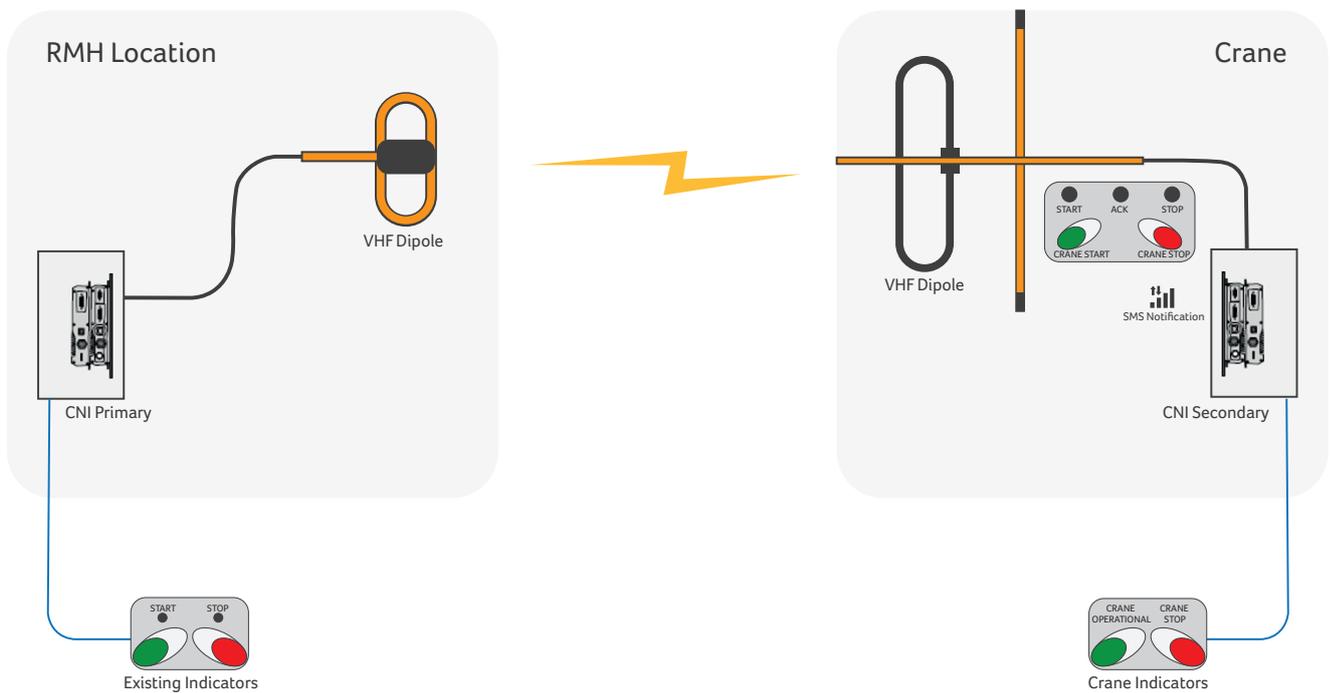
Leveraging IoT to enhance business operations

The Internet of things (IoT) is having a major impact on the construction industry. Connected sensors are allowing facilities managers to track a wide range of parameters from resource consumption to temperature and weather alerts. By being better informed, this is a great opportunity to reduce costs.



Alerting system

Combining the reliability and robustness of Simoco digital radios in conjunction with the power of edge computing using Velocity, the construction company is able to utilise a highly effective alerting system. Using NodeRED workflows, construction workers can be informed of any movement in the cranes. Furthermore, text messaging or emails can be sent to prescribed recipients. The use of NodeRED allows programming of future enhancements.



For more information, please visit <https://www.simocowirelessolutions.com/products/velocity/>