



# DELIVERING SAFETY SYSTEMS FOR ROADSIDE CONSTRUCTION WORKERS

ENSURING THE CRITICAL SAFETY OF  
YOUR WORKFORCE IN DYNAMIC AND  
UNFORGIVING ENVIRONMENTS

IN PARTNERSHIP WITH ADVANTECH

## INTRODUCTION

Construction workers need unparalleled levels of safety in hazardous locations. Multiple hazards make for a complex and high-risk environment with potentially fatal outcomes. Monitoring, awareness and threat assessment are time and resource intensive.

A comprehensive automated monitoring solution was required to provide worker safety in highly dynamic construction environments.

## SYSTEM REQUIREMENTS

Customer providing safety services in complex construction environments. Preventing accidents and keeping productivity high to achieve tight deadlines. Tracking of company assets to ensure correct location and orientation. A centralized control room solution was required to provide worker safety without intensive use of manpower resources.

## SYSTEM DESCRIPTION

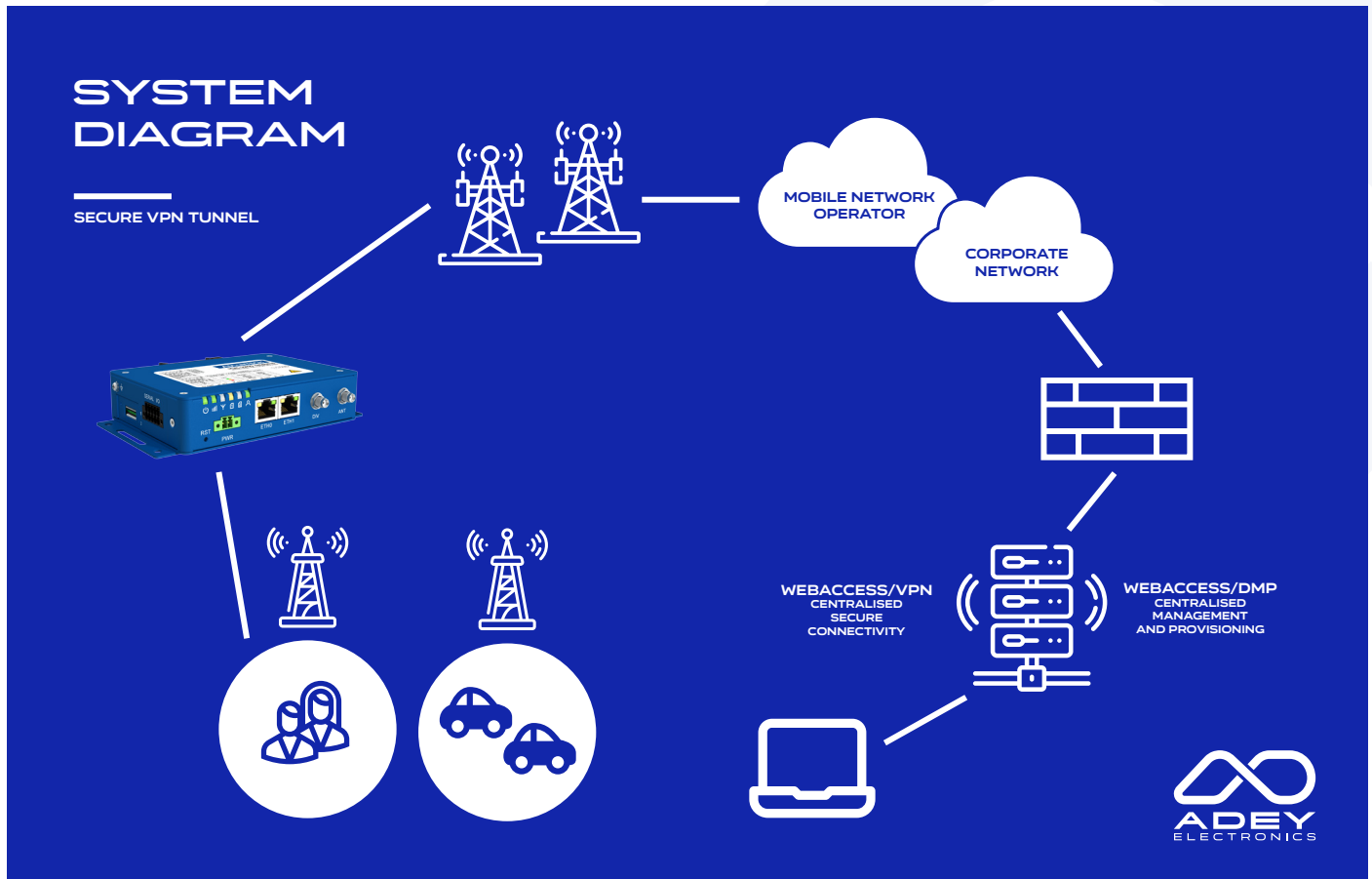
A specialized application software is used to set and monitor permission and exclusion zones. The Advantech ICR-3231W industrial cellular router was used for the secure and reliable transportation of remote data to the centralized control room at head office and locally on site.

- Local Area Network to Wide Area Network broadband connectivity
- Local connectivity for Serial RS232/485, Industrial PC and WiFi devices
- End to End secure transmission by using our WebAccess VPN application for simple deployment of complex virtual networks.
- Zero touch provisioning for easy deployment without requiring technical staff.



## PROJECT IMPLEMENTATION

- Industrial Cellular Router ICR-3231W for reliable remote connectivity
- WebAccess VPN application providing simple setup of complex Virtual Private Networks
- Centralised monitoring Application



## CONCLUSION

Advantech's Industrialised Cellular Router was selected by the customer because of these key factors:

- High resilience industrial platform for tough environments.
- Reliable communications with automated cellular radio connectivity and fail overbetween 4G LTE, 3G UMTS and 2G GSM. Dual SIM cards providing for multi network operator coverage.
- Easy to use WebAccess VPN application for the simple setup of complex encrypted networks from remote locations to central office.
- Fast broadband communications allowing the customer to provide high levels of safety to the workforce in an efficient and cost saving solution.

## WHY ADVANTECH?

- Cost effective upgrade and operation
- Superior reliability
- Secure communication of critical services
- Ease of management



## ABOUT US

### ABOUT ADEY ELECTRONICS

Adey Electronics are a UK based Value Added Distributor and Solutions Partner for Advantech and other major global IoT manufacturers. They specialise in 5G/4G Routers, Antennas and Industrial Connectivity Solutions, making your journey through M2M & IoT simple, reliable and cost effective.

### ABOUT ADVANTECH

Advantech is a major global supplier of industrial computing, communication and sensing platforms and solutions. It offers a range of communication and edge computing platforms capable of connecting to 5G, LTE, 4G and other wireless networks, together with solutions for AI training and edge inference, machine learning, computer vision and HMIs. Headquartered in Taiwan, and with offices and service centres in several European locations, Advantech is actively involved in a number of early 5G projects in the transportation, infrastructure and smart factory sectors.

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