C A S E S T U D Y



# Workforce Safety and Efficiency Solution for Leading Global EPC Provider

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#### **Key Challenge**

In this case study, we explore the challenges faced by a client managing a vast workforce of over 10,000 employees and subcontractors within a sprawling fabrication yard spanning more than 1 square kilometer. The site, characterized by its complex, steel-intensive layout, harsh environmental conditions, and ever-changing construction activities, presented significant logistical hurdles. Managing such a dynamic environment required innovative solutions to ensure efficient operations and worker safety. This case study sets the stage for understanding the deployment and benefits of Real-Time Location Systems (RTLS) in overcoming these industrial challenges.

#### Solution

Litum's comprehensive workforce safety and efficiency solution employed Ultra-Wideband (UWB) technology for pinpoint accuracy in real-time location tracking. The system was intricately integrated with the client's HR systems, streamlining processes such as timekeeping, payroll, and safety compliance. The deployment included sophisticated monitoring and alert systems, enhancing site safety by addressing potential risks like free-fall incidents and unauthorized access to restricted areas. The inclusion of a business rule engine and a dynamic workforce management dashboard enabled the extraction of actionable insights and supported informed decisionmaking through detailed analytics.



#### Deployment

The initial setup spanned over 22 designated zones, equipping 5,500 assets and employees with tags to monitor various operational activities. The system was designed to adapt continuously, adjusting to the specific requirements and dynamic conditions of the site.



#### Features



Automated Time and Attendance: Streamlining the logging of employee hours directly into the system



**Payroll Integration:** Automating the calculation and processing of payroll based on accurate work time data



**Safety Monitoring:** Including emergency buttons and detection systems for falls and immobility, crucial for rapid response in accident scenarios



**Workforce and Resource Monitoring:** Real-time tracking of employee locations and assignments, along with resource tracking and allocation for ongoing projects



#### **The Results**

## Annual cost savings of approximately \$2.8 million

The implementation of Litum's RTLS solution significantly boosted operational efficiency and safety standards at the site. The improvements in process accuracy and compliance with safety protocols led to a notable reduction in operational errors. **Financially, these enhancements translated into annual cost savings of approximately \$2.8 million**, underscoring a substantial return on investment and enhanced operational productivity.



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