

## Statement of Work

Implement a digital capability to track the physical movements of mobile equipment and cranes at an aircraft manufacturing campus.

Physical equipment scope includes **24 pieces of equipment** used to support manufacturing operations:

- Installed and calibrated tracking sensors on 10 motorized forklifts. Make and Model of selected forklifts for this SOW will include appropriate diversity to validate the sensor technology is scalable across the client's fleet of equipment.
- Installed and calibrated tracking sensors 10 motorized tugs. Make and Model of selected tugs for this SOW will include appropriate diversity to validate the sensor technology is scalable across the client's fleet of equipment.
- Installed and calibrated tracking sensors on 4 overhead cranes.

Geographic scope includes both indoor and outdoor locations.

The solution must record data for 'asset locations' consisting of the following minimum fields, with telemetry data (location, direction, speed) updated at minimum every 10 seconds, and maintaining historical records for a minimum of 24 hours:

- Longitude location coordinate at less than 2-meter tolerance, represented in standard decimal degrees.
- Latitude location coordinate at less than 2-meter tolerance, represented in standard decimal degrees.
- Height or altitude measurement to identify the level or floor of the structure with which the asset is located (e.g., Floor 2 of a 4-floor building) and represented in decimal meters.
- An indicator for asset is in movement or stationary.
- An indicator for asset if power is on.
- Direction of travel.
- Speed of travel.
- UTC Coordinated Universal Time Timestamp for data record.
- Unique identifier for individual piece of mobile equipment tracked.

The solution must record data for 'asset history' consisting of the following minimum fields, with telemetry data (location, direction, speed) updated at minimum every 5 minutes:

- Time in motion during period (seconds).
- Distance travelled during period (meters).
- UTC Coordinated Universal Time Timestamp for data record.
- Unique identifier for individual sensor.
- Unique identifier for individual piece of mobile equipment tracked.

### **Performance Requirements:**

The solution must generate alerts that indicate any impairment to sensor performance within a 30-minute time window after such impairment is observable. The vendor shall provide troubleshooting guides to perform basic issue resolution at time of alert to re-establish sensor connection and device data.

In the occurrence of a network outage or other loss in connectivity, sensors and/or digital platform will have the ability to internally store data for up to 4 hours and upload stored data to the digital solution when connectivity has resumed.