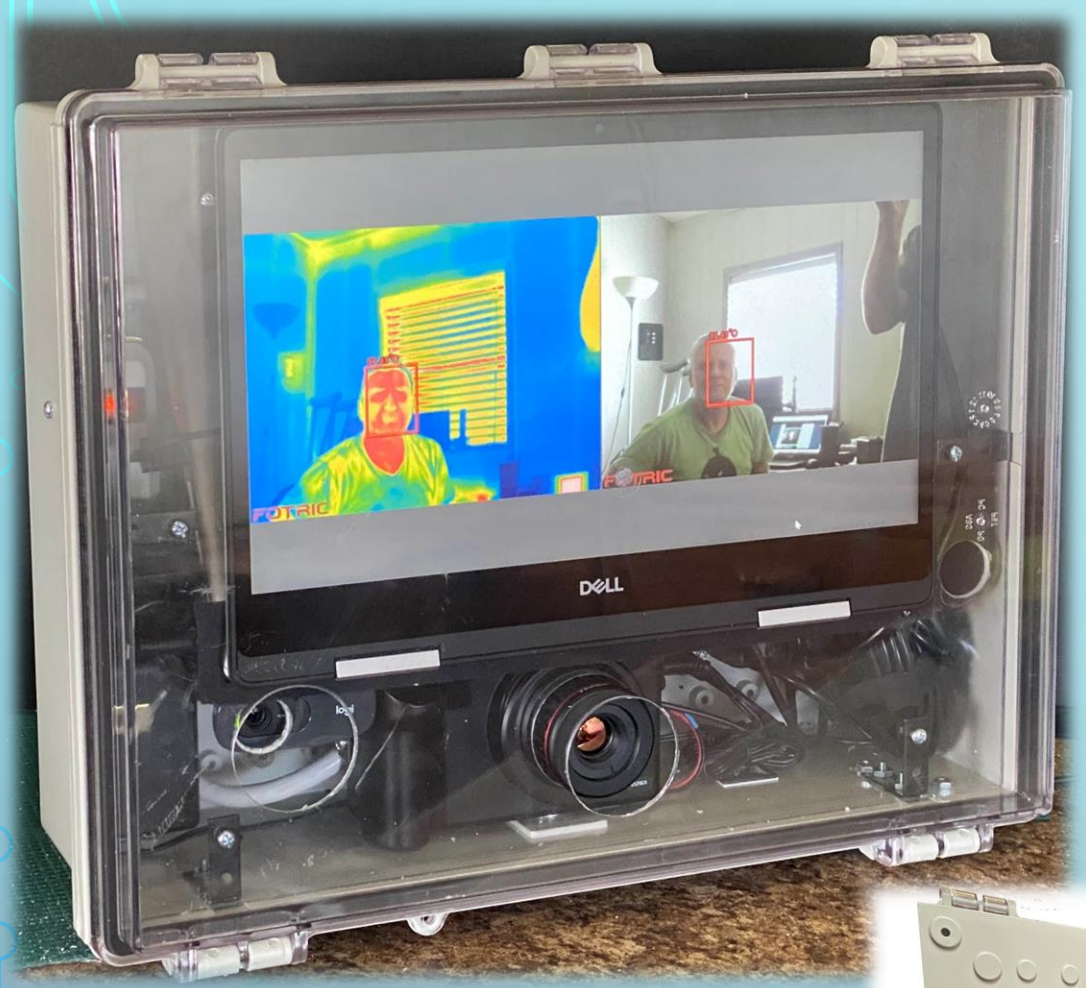
Innovative Technology for Safety

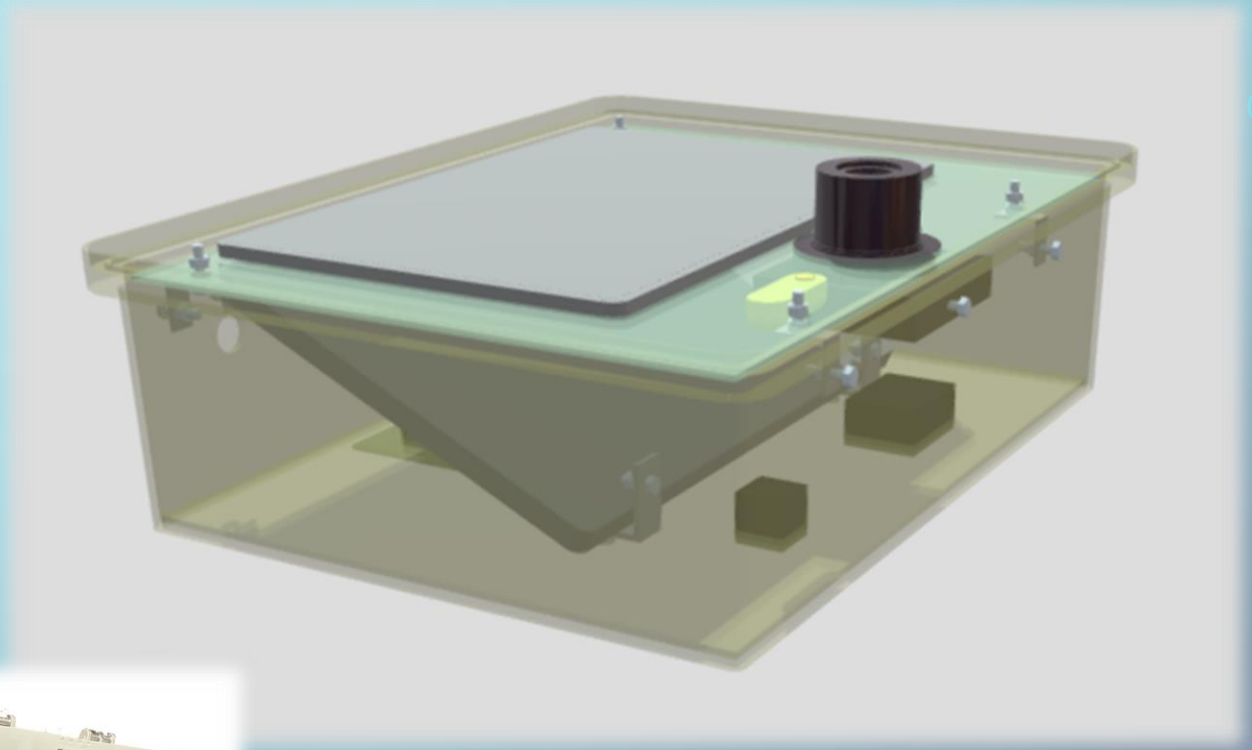
ARTIFICIAL INTELLIGENCE FOR HUMAN DETECTION

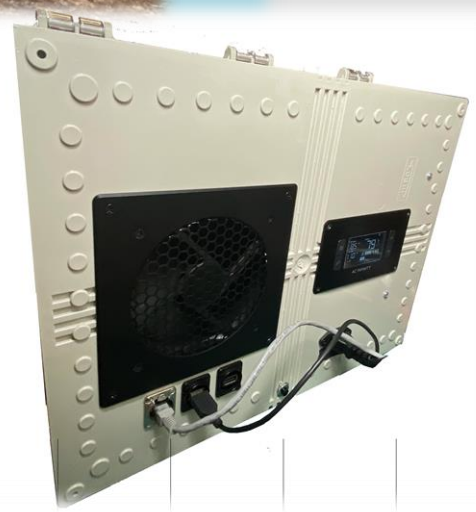
Next slide IoTUSA Thermal AI-M1-A Video

THERMAL AI-M1-A

PATENT PENDING







Click for Sample: https://youtu.be/b5TPFlEnyaE

Helping Your City And Shops Get Back To Work Safely

Non-Contact Thermal Monitoring with Fully Integrated Multi-Site Reporting

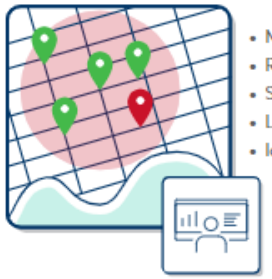
Cities and Businesses Working Together for a Safer Community

Protect City Workers

City Hall

All data. Protected. Secure.

City Map - Safe Shop Locations



- Multi-site Location DataHub
- Real-time Alerts
- SAFE SHOP Locations
- Live Reporting System
- Identify Community Hot Spots

DataHub
Monitor. Collect. Report.

Real-Time Temperature Detection

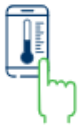
Protect Your Patrons

Local Business

Keep frontline staff and citizens safe

- Protect essential services workers
- Early detection of high temperature
- Real-time alerts and reporting
- Assist health officials to respond faster
- Ioticiti Connect™ IoT platform included
- Integrates with any legacy system
- Promote your city as a safe community

- Simple to install
- Same-day results
- Easy to use
- Hands-free
- Non-contact thermal monitoring



- Mobile App timestamps and logs temperature
- Record your personal temperature info securely

Retain customer loyalty - be a SAFE SHOP

- Identify patrons with a high temperature
- Receive real-time alerts
- Available multi-site reporting in real-time
- Enterprise-Grade for Franchises and National Brands
- Safeguard your reputation
- Promote your business as a SAFE SHOP
- Leverage Ioticiti's marketing package

ARTIFICIAL INTELLIGENCE FOR HUMAN TEMPERATURE DETECTION

- High-efficiency screening of elevated temperatures
- Safe, non-contact thermal imaging
- Real-time measurement and alerts
- No privacy issues – identifies temperature and not identity

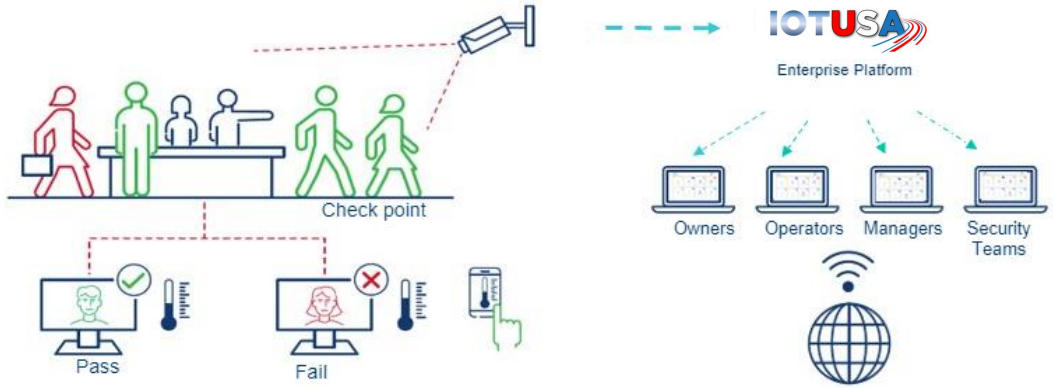
INDUSTRIAL GRADE THERMAL REPORTING SYSTEM

Fully Integrated Multi-Site Reporting

Iot platform for centralized reporting from anywhere to anyone.

Private Secure Remote Access for

- Owners & operators
- Managers
- Security teams
- Healthcare systems
- Site managers
- Residents



Our private network.
Your private data.
Protected. Secure.

INDUSTRIAL GRADE THERMAL REPORTING SYSTEM

- Screening – early detection
- Real-time temperature measurement
- No privacy issues – identifies temperature and not identity
- Early alert of potential infection
- Early isolation of potential cases
- Rapid and easy deployment

Private Secure Remote Access for:

- Owners
- Operators
- Managers
- Security teams
- Healthcare systems
- Site managers
- Residents

Exterior High Resolution Camera with Advanced AI

COVID 19 response Camera Human Temperature Detection Camera with Advanced AI

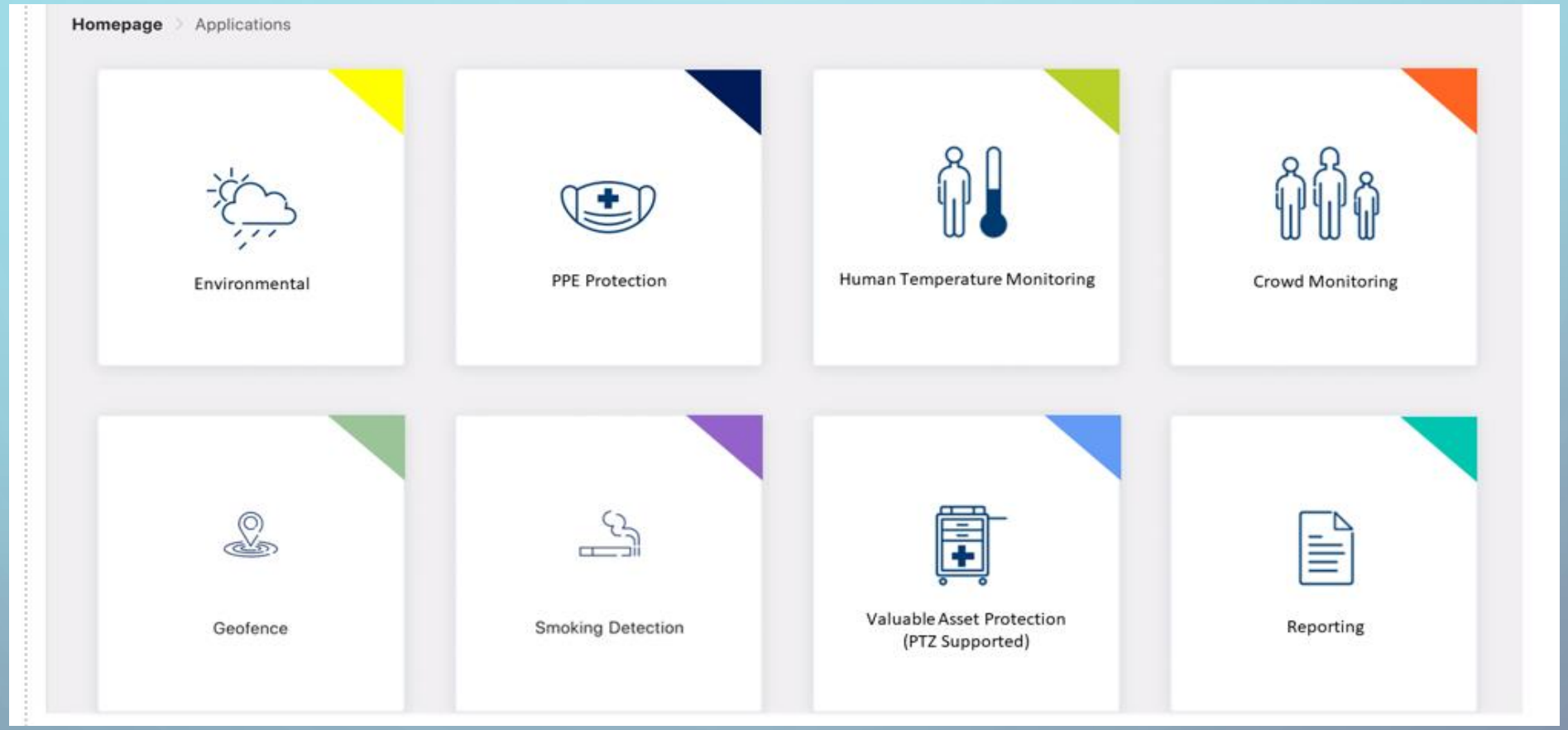
THERMAL REPORTING DASHBOARD SNAPSHOTS

Measure a line of people

Measure a crowd

Dashboard provides Real-time alerts

THERMAL AI DASHBOARD



SITECENTER HQ

CONSTRUCTION JOBSITE CHALLENGES

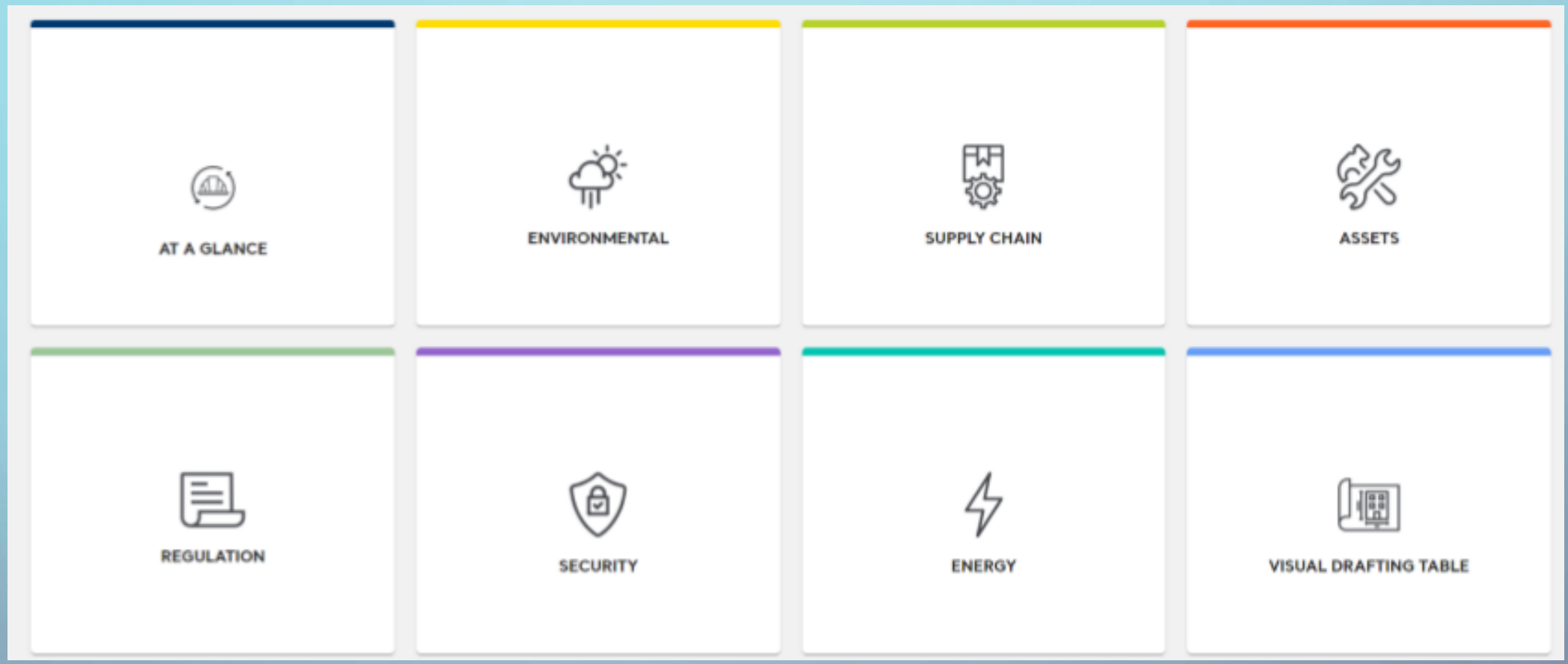
Safety Requirements
- Workforce
- Safety equipment – site location
- Man-down awareness
- Workforce arrival & departure

No Visibility
- Equipment & tool location
- Third-party supply chain
- Head office
- Jobsite
- Global access

No Real-time, Local Environmental Data
- Wind levels
- Air quality (noxious gases)
- Noise levels
- Water quality & testing

Reporting Information
- Third-party supply chain deliveries
- Weather & environment
- Workforce incidents
- Unauthorized access

SITECENTER HQ DASHBOARD



ARTIFICIAL INTELLIGENCE

Dumpster / Bin Monitoring

- Fill level (0-100%)
- Dumpster color / #
- Abnormal object detection
- Logging & statistics reporting (timestamp & dumping events)

Valuable Asset Protection

- Geofencing valuable assets
- Monitor & alert when vehicles or people are near assets

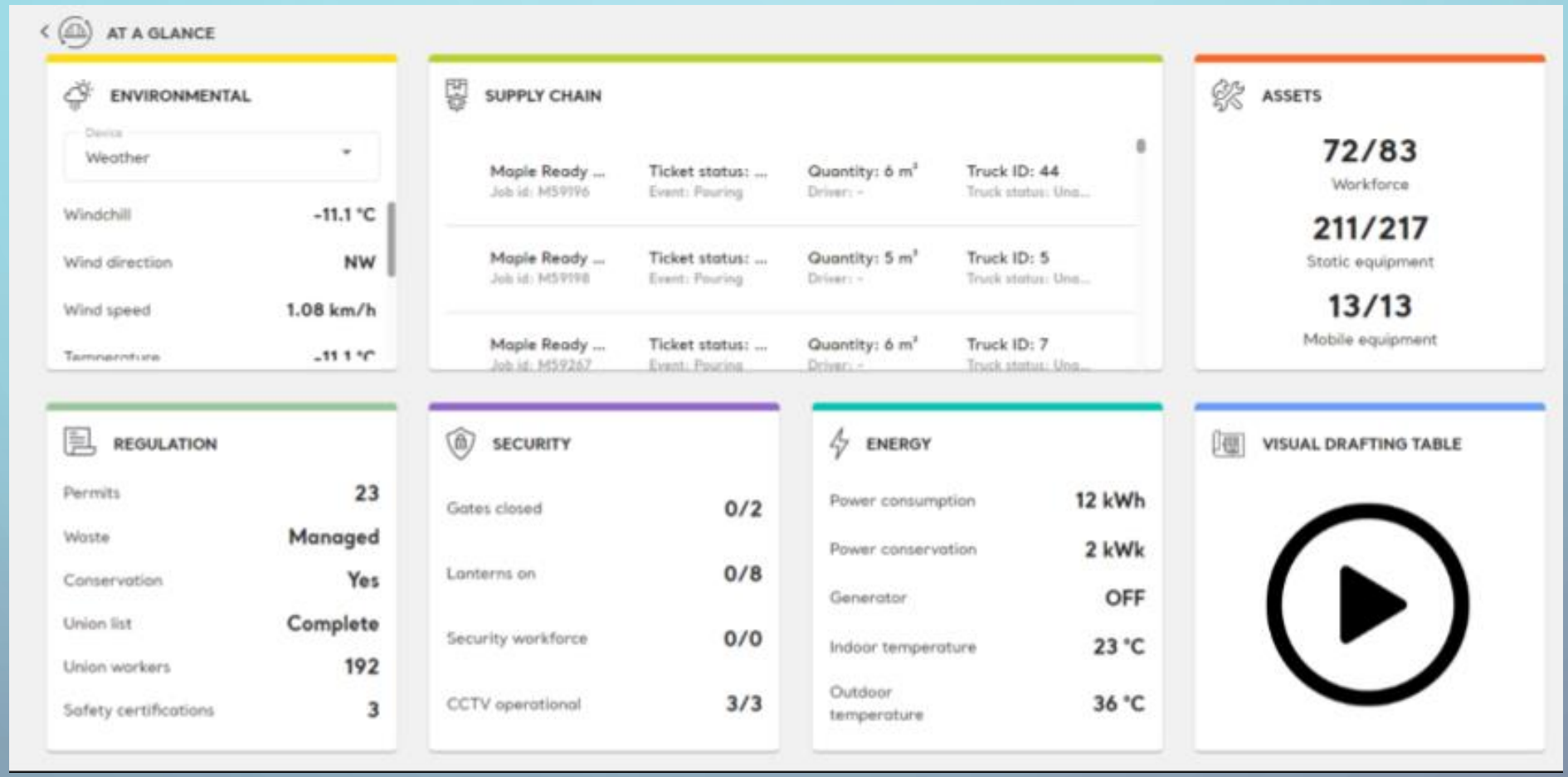
Monitoring & Reporting

- **Type:** Dump truck
- **Vendor:** Charter Way
- **Model:** Mercedes truck
- **Model:** BICW4151
- **Load:** Soil
- **Action:** Loading
- **Driver #:** 1
- **Passengers #:**1
- **Direction:** In
- **Time:**11:38 AM
- **Total # of Loads:** 5
- **Average Load/Hr:** 0.7

Worker Monitoring

- Workforce counting
- # of workers on jobsite
- # of workers in each zone
- Workforce danger zone alerts
- Event history logging
- Safety wear detection (i.e. hard hat, safety vest & boots)

DASHBOARD DRILL DOWN



WEATHER MONITORING

Weather Reporting:
Provides real-time localized weather information 24/7.

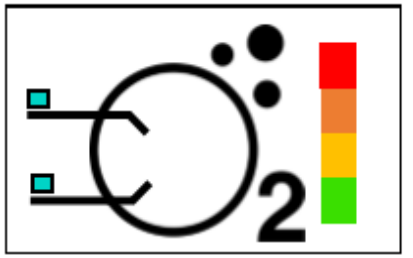
Air Quality Sensor System:
Connects on site weather station monitors air quality in real-time with 24/7 alerts reporting pollutant concentrations that are excessive.

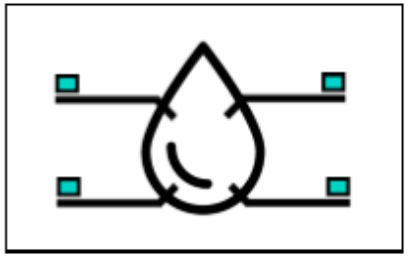
Wind Monitoring:
Provides current wind information and wind progression alerts at various heights for site operations applicable to crane operations and open floor conditions.

Water Testing:
Real-time monitoring and reporting as required by governing agencies with respect to standards regarding E. Coli, manganese, Zinc, or other contaminates.

Real-time secure remote access for authorized personnel

- Operational Loss Prevention
- Critical Alert Awareness
- Safe Work Environment 24/7/365



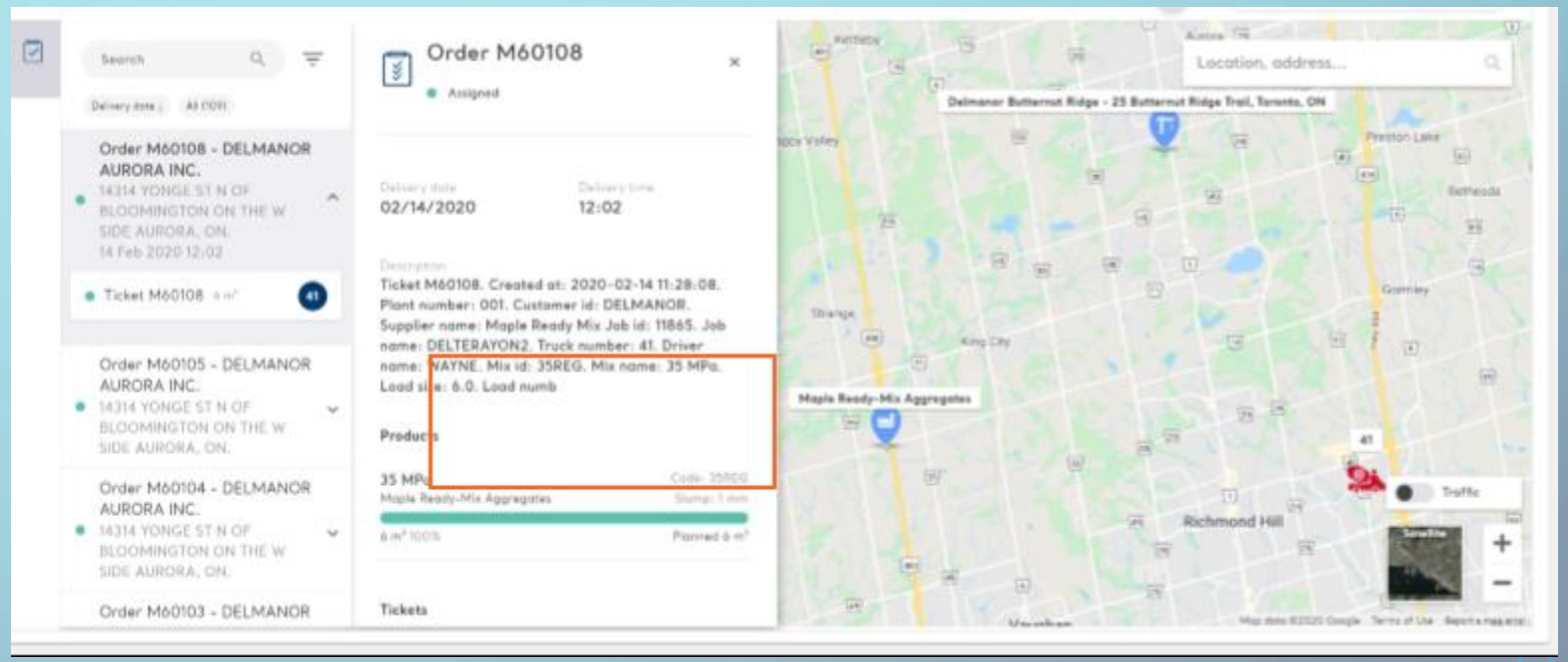


REAL-TIME SUPPLY CHAIN INTEGRATION

Visibility into Third-Party Subcontractors Systems

(Example, ready-mix supplier)

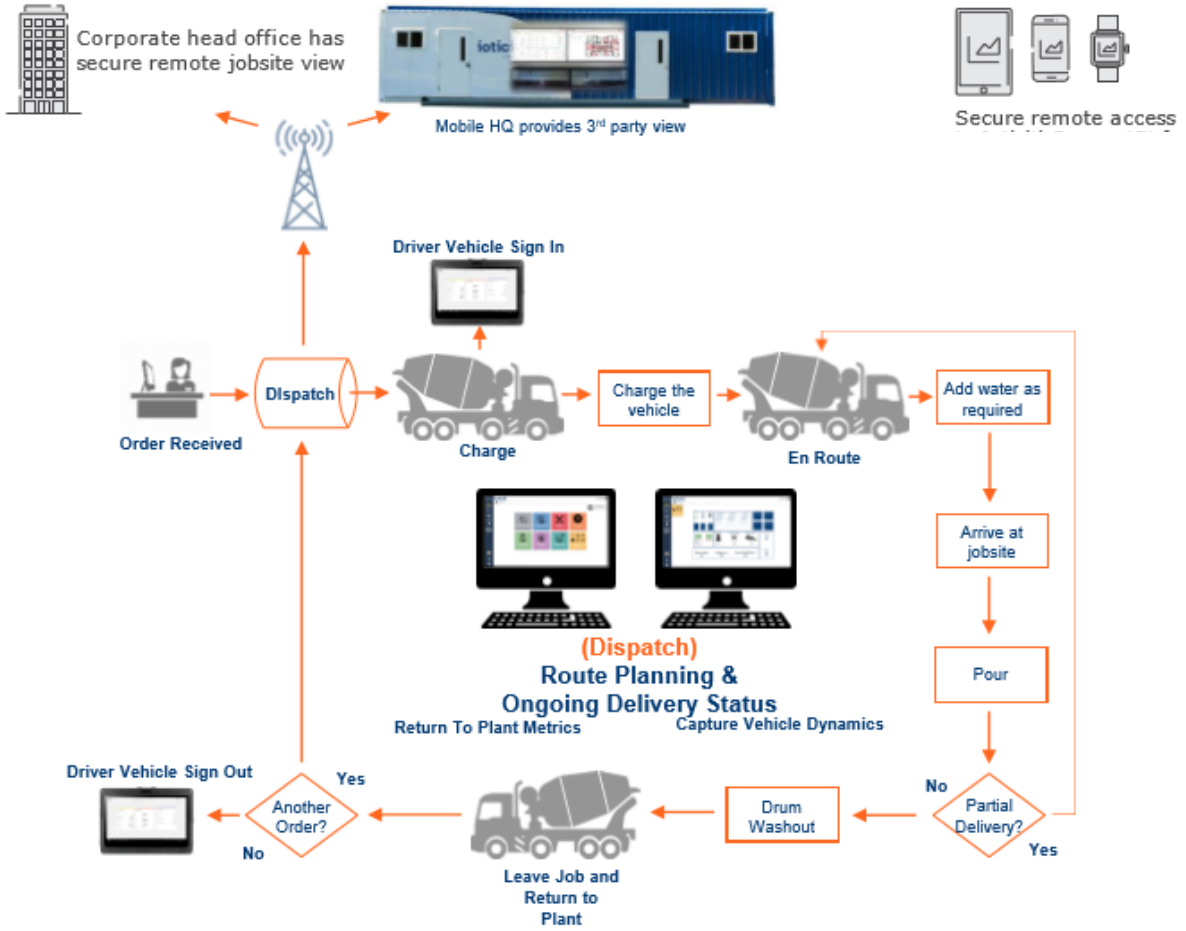
- Location and ETA of the ready-mix delivery
- Amount of concrete on-board
- Amount of water added to the load/discharge time
- Amount of concrete poured
- Quality of mix
- Arrival & departure time-stamped
- Driver ID, location & man-down alerts
- Delivery confirmation
- Route & schedule optimization



SUPPLY CHAIN WORKFLOW

Visibility into Third Party Subcontractors Systems
Example, third party ready-mix company

- Location and ETA of the ready mix delivery
- Amount of concrete on-board
- Amount of water added to the load at discharge time
- Amount of concrete poured
- Quality of mix
- Arrival & Departure time stamped
- Driver ID, Location & Man Down Alerts
- Delivery confirmation
- Route & schedule optimization



WEATHER & ENVIRONMENTAL REPORTING

BLUEPRINT EDITING & REPORTING

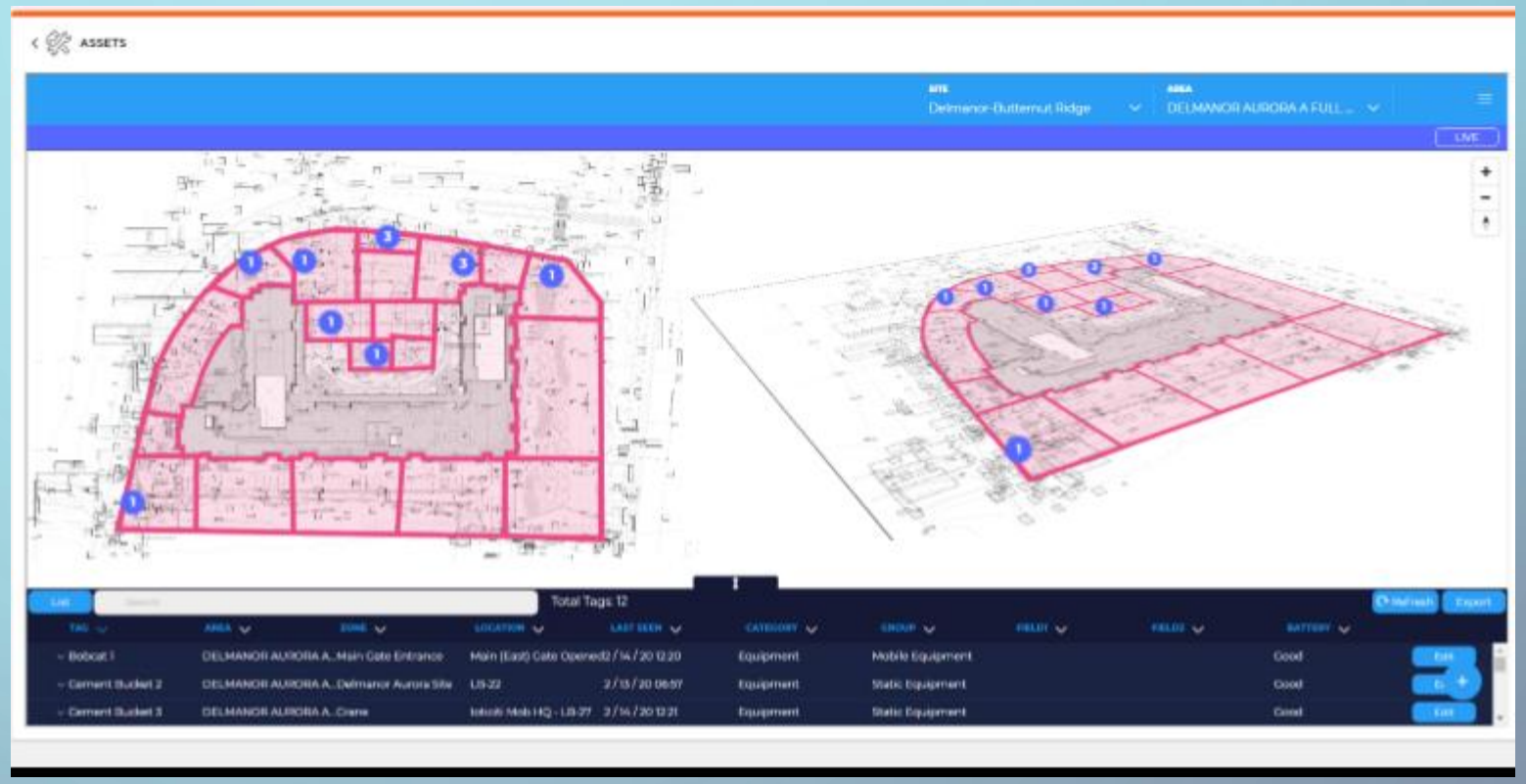
- Eliminate delivery cost
- Reduce response times
- Increase project planning
- Increases productivity
- Reduce down-time
- Reduce risk of building mistakes
- Update multiple parties instantly
- Increase transparency
- One common data environment
- Record historical changes

JOBSITE LAYOUT – FLOOR BY FLOOR

Automatic Precision Locating:
- Assets
- Workforce
- Equipment
- Safety stations

In the event of an emergency:
- Locate your workforce
- Reduce response times
- Reduce evacuation times

Full Visibility – 360° Performance:
- Improves jobsite safety
- Increases productivity
- Reduce lag times
- Complete jobsite visibility

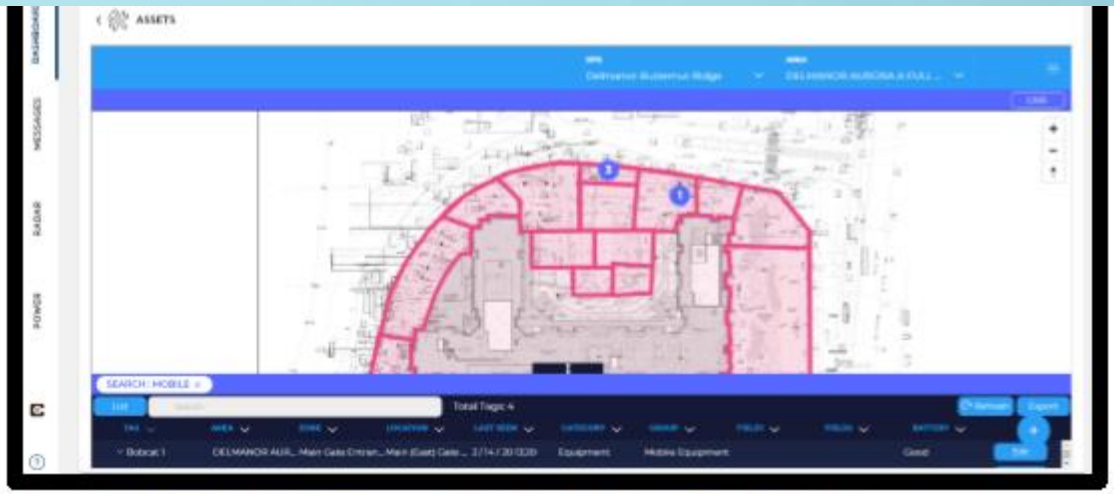


EQUIPMENT & TOOL MONITORING

Authorized Use Protocol
- Unauthorized detection/alerts
- On board operator recognition allows only authorized use of equipment

Theft Prevention/Equipment Round Up
- All tools that require monitoring will have IoT Tags
- Alerts will be created for equipment that leaves the job site

Equipment Round Up
- Site supervisor initiated command to check if all equipment is secure at the end of the day
- During the various phases of construction all equipment will be monitored for mission critical data and alerts
- Precision location monitoring
- On/off monitoring and alerts



Active IoT tags provide precision location of equipment & tools

WORKFORCE MONITORING & PRECISION LOCATION

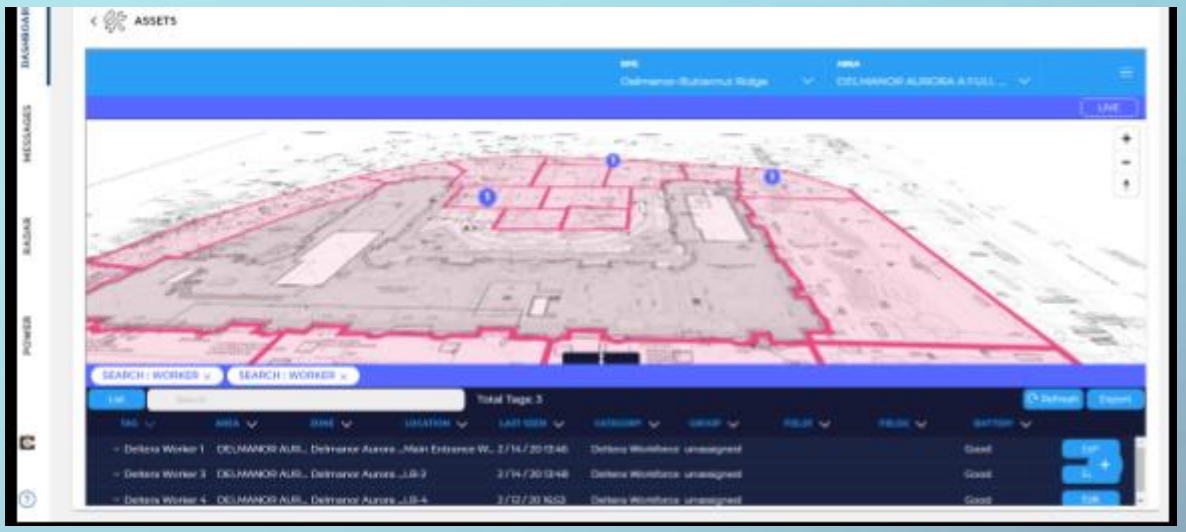
Tag for workers

- Live count shows how many workers are on site
- Arrival & departure of workers
- How long a worker has been on site
- Location of workers on site
- Man-down alert
- Centralized worker data

Real-time secure remote access
to Ioticiti Connect Mobile HQ services for authorized personnel from anywhere in the world.

- Operational loss prevention
- Critical alert awareness
- Safe work environment 24/7/365

Safe, Secure, Efficient



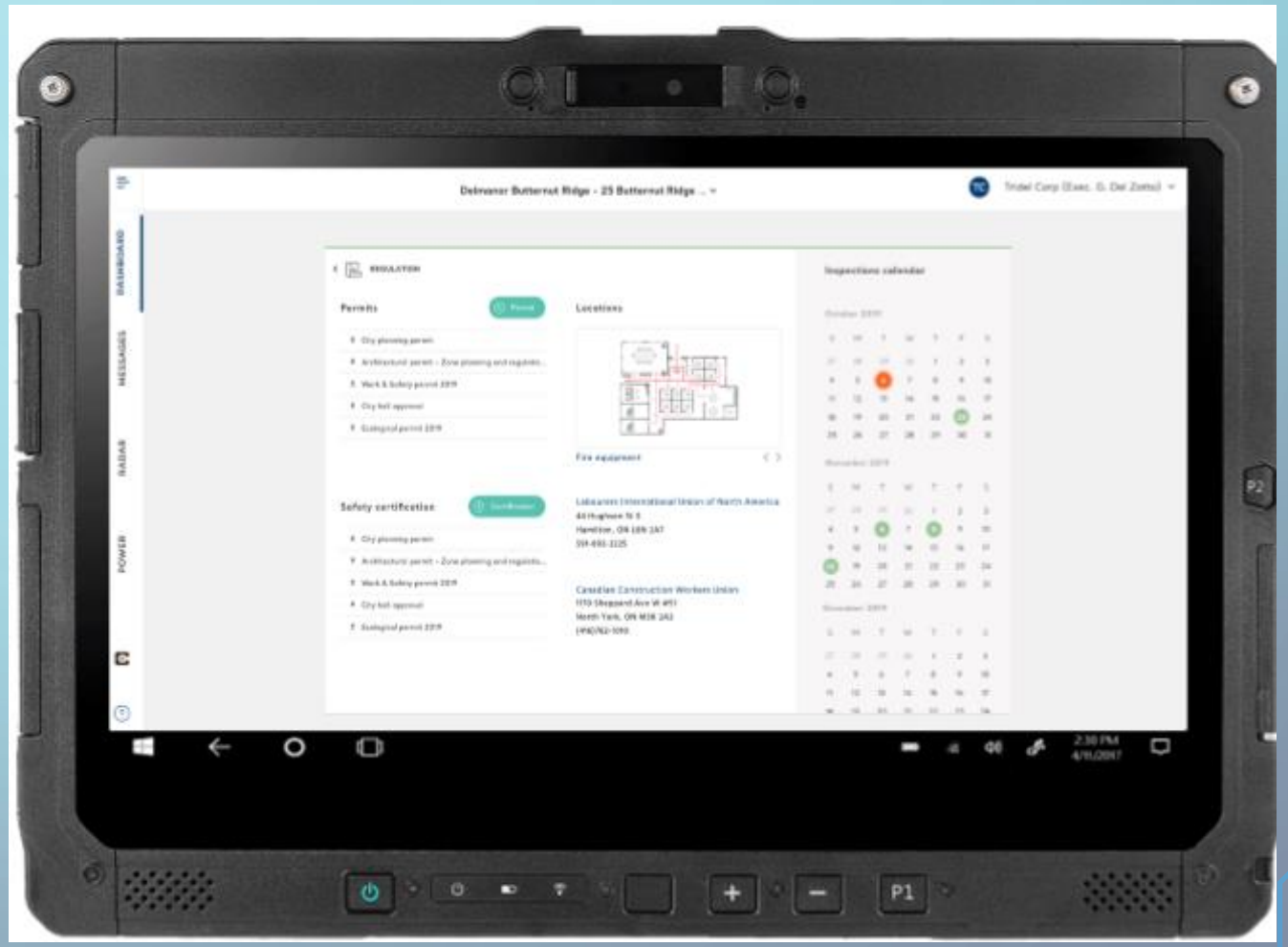
SITECENTER HQ MOBILE DIAGNOSTICS

Real-Time Rugged Jobsite Viewer
Wall mounted and portable display to centralize all data on the jobsite.

Live count:
- Workers
- Equipment
- Material
- Third party subcontractors
- Incident reports
- Delays

Portable scanning capabilities:
- Documents
- Union cards

Environmental:
- Weather monitoring
- Wind reporting
- Air quality control
- Water testing/reporting

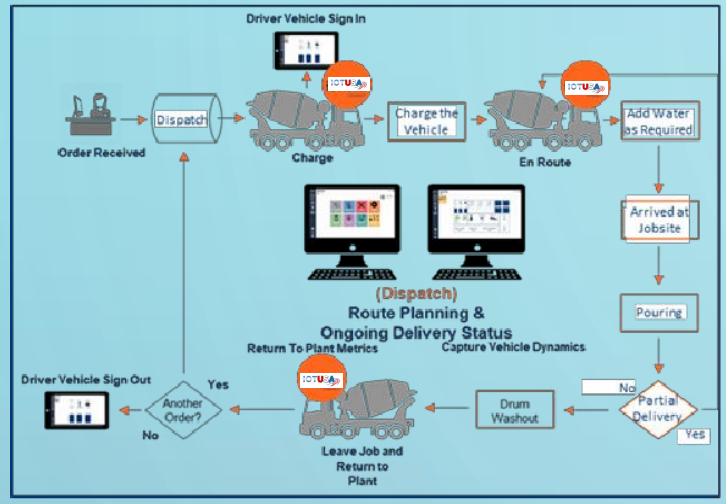


APPENDIX 1: CONSTRUCTION INDUSTRY FACTS

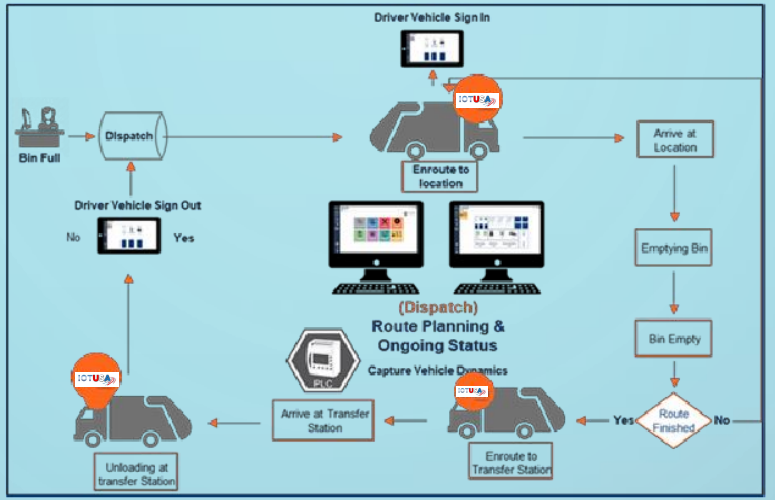
1. Workforce Safety "Mobile HQ" - About 64% of all on the job fatalities in construction is due to the "Fatal Four" hazards: falls, electrocution, being struck by an object, and being crushed. [Bureau of Labor Statistics]
2. 37% of firms are experimenting with drones — up 10% from 2016. [JBK]
3. 57% of companies are considering job-site employee tracking. [JBK]
4. 11% of general contractors are using wearable technology. [JBK]
5. 39% of companies cite "lack of IT staff" as the most limiting factor in adopting new technology. [JBK]
6. 90% of all global infrastructure projects are either over-budget or delayed. [FMI]
7. 15% of construction firms reported having a staff of over 1,000 individuals. [JBK]
8. The average hourly wage of all construction employees is $29.95 USD. [Bureau of Labor Statistics]

APPENDIX 2: APPLICATIONS, WORKFLOW & VERTICALS

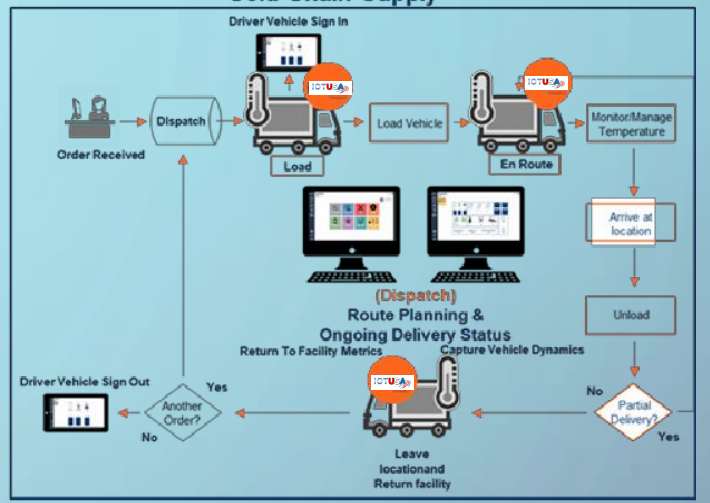
Ready Mix



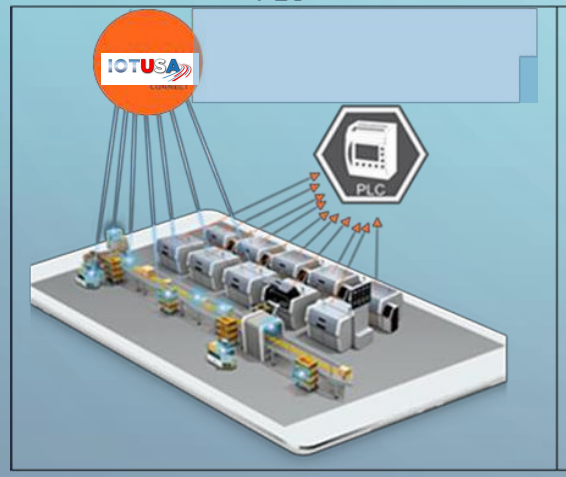
Waste Management



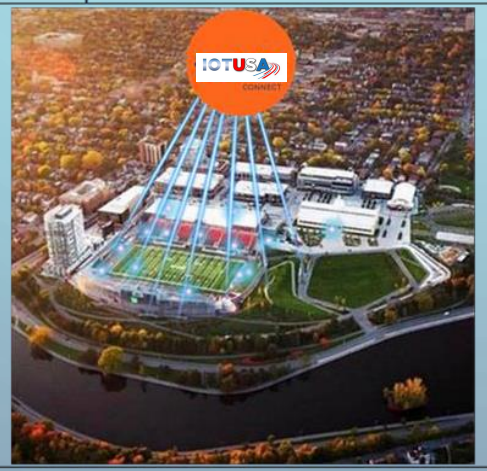
Cold Chain Supply



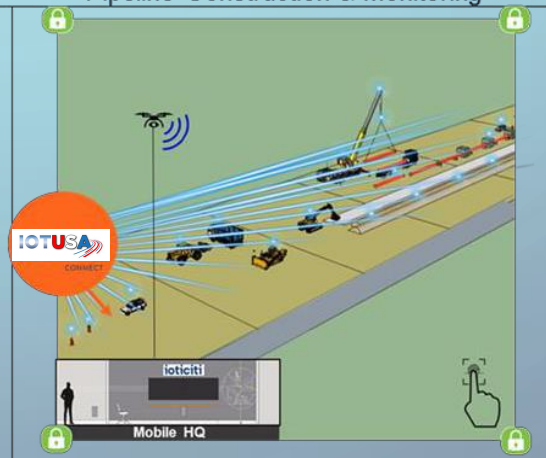
PLC



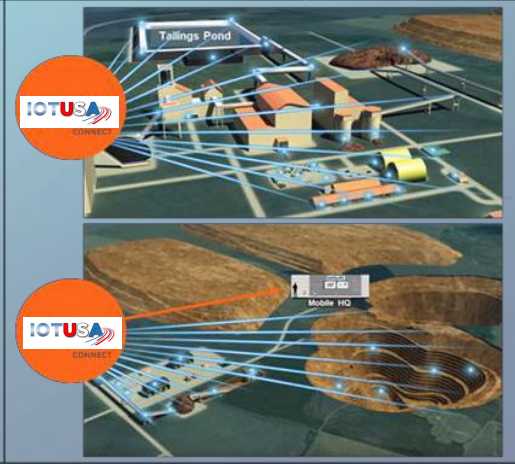
Sports & Entertainment Venue



Pipeline Construction & Monitoring



Mining



THANK YOU