ATOLLOGY

Making Smarter Operations Visible

CEMEX

CEMEX is a global building materials company that produce, distribute, and sell cement, ready-mix concrete, aggregates, and related building materials in more than 50 countries, and maintain trade relationships in close to 100 nations. CEMEX's U.S. network includes 11 cement plants, more than 50 strategically located distribution terminals, 50 aggregate quarries and nearly 270 ready-mix concrete plants.

CEMEX CHALLENGE

Many of CEMEX's customers send their trucks or 3rd party trucks to pick up purchased aggregate & material from CEMEX sites. **Many of these sites have legacy ERP systems and manual processes** for tracking load out operations and truck cycle times. As customer volume grew, an increasing number of trucks were visiting CEMEX sites at different times on a given day, creating challenges in **keeping track of multiple, simultaneous moving parts, ensuring regulation, safety and efficiency**.

OUR SOLUTION

CEMEX needed a solution that could seamlessly digitize their loadout operation by tracking areas of interest and loadout weights, identifying anomalies and exceptions in real-time. Atollogy's sensor devices were self-installed in minutes without the need for IT support, changes to existing processes, and machine downtime. Atollogy installed all the necessary equipment at multiple CEMEX sites. Based on CEMEX staff feedback, Atollogy's system began capturing all the necessary information on truck entry, exit, linger time, location, tare scale readings, and gross weight readings without the need to integrate with any internal IT system or impact any "as is" process.

Atollogy's solution:
- Watched & identified truck movement via machine vision techniques
- Tracked truck movement by license plate and other identifiers
- Identified truck weights including tares, under/over weights
- Connected automatically to Atollogy's operations cloud to feed AI processes
- Provided actionable insights via situational, composite analytics

INDUSTRY
Manufacturing & Mining

OBJECTIVE
- Track 3rd party truck entry, exit & location without any retrofitting or change management
- Improve load out operations, cycle times & operational throughput
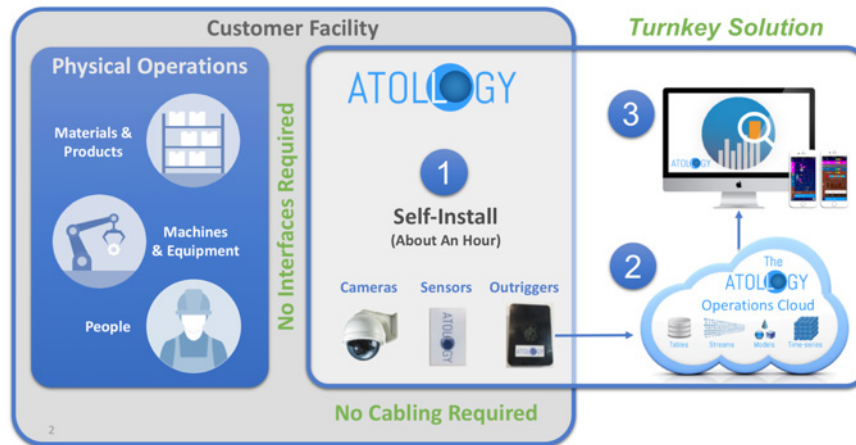- Digitize a manual process and provide real-time insights

TECHNOLOGY
- Computer vision
- Real-time data processing
- Cloud and edge computing

BENEFITS
- Real-time tracking of truck locations & weights
- Flag anomalous truck visits, unusual linger times, and vehicles at incorrect locations
- Flag anomalous scale readings and identify overloaded trucks (safety hazard)
- Real decisions based on real time data (Dashboard / Visit Log)

The ATOLLOGY Smart Operations Solution

RESULTS & IMPACT

Atollogy's Yard Operations Solution digitized CEMEX's load out operations, reduced manual tracking, and helped improve load out operations cycle time.

Our solution:

- Built a digital twin of all trucks, leveraging computer vision and artificial intelligence capabilities
- Captured truck entrance & exit times in real-time
- Flagged anomalous linger events
- Flagged overloaded or underloaded trucks in real-time
- Alerted on safety hazards & breaches to regulatory weight requirements
- Leveraged data to provide insights on process/flow changes in facility, e.g., speed up check-out
- Empowered Loader Operator and Weigh Master to make real-time decisions to improve customer experience

For more information about Atollogy's Yard Operations Solution, contact us:
atollogy.com or 650-460-7325