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RFID and IoT in Europe 2021

How RFID and IoT Can Reduce Supply Chain Bottlenecks

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Agenda

- What's causing supply chain disruption
- What RFID can't address
- Issues RFID can address
  - Port delays
  - Shortage of parts, containers, etc.
  - Poor supply chain visibility
  - Shortage of workers

What RFID Can't Address

- Lack of truck drivers
- Shortage of semiconductors
- Power shortages at Chinese factories
- Ships docked at the wrong ports

What RFID Can Address

- Bottlenecks at ports

- Problems associated with matching assets to needs

- Issues caused by poor visibility

- Concerns workers have related to contracting COVID-19

Bottlenecks at Ports

- Many ports have backlogs of trucks waiting to pick up containers

- RFID systems can help speed trucks through registration, identification and entry process

Matching Trucks to Containers

- Hanjin Newport Co. uses UHF RFID to ID trucks at assigned loading areas and dispatch rail-mounted gantry cranes to meet vehicles and unload cargo quickly

- This improved throughput 20%

Shortages of RTIs

- Challenge is having assets available to ship items in

- Johnson controls struggled to track 508 different types of containers

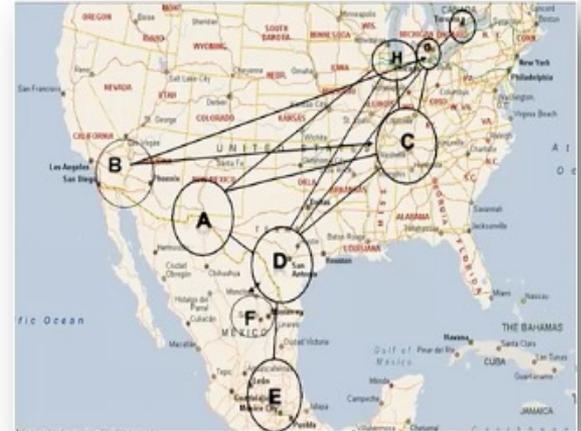- And to make sure each is available to when needed

Johnson Controls Tracks RTIs

- ## The Problem
  - Container loss
  - Lack of visibility
  - Production downtime
  - Freight inefficiencies
  - Quality issues

The Scope of the Problem

- No visibility of 4 million to 5 million containers

- Ongoing cost associated with replacing lost, stolen or unreturned containers

- Work slowdowns

- Safety issues (air bags)

The Solution

- Tag all containers and track through 37 NA facilities

- Track containers as they go outside of JCI's facilities

- If container not returned on time charge customer for the container

- Do cycle counts with handhelds in the customer facility

Improving Asset Utilization Rates

- JCI had 30% more assets than on books

- Hospitals that track medical equipment have similar results with RFID

- It means there are likely more assets available than companies realize

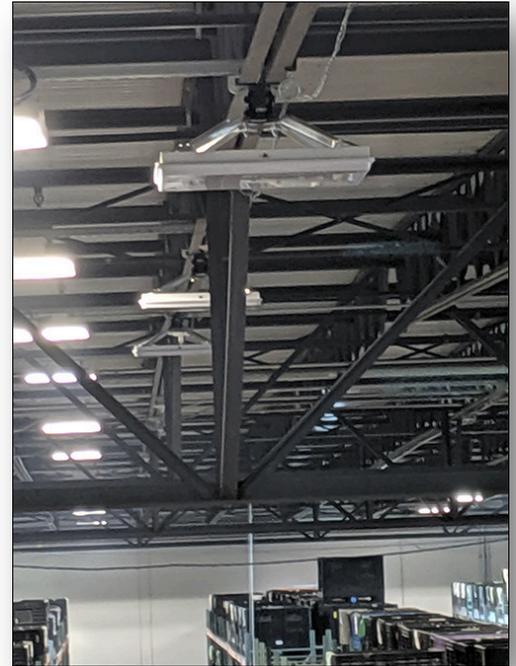- Better visibility can increase utilization rates

Improving Inventory Visibility

- Most companies don't know what they have or where it is

- Retailers typically have a 60% inventory accuracy rate in stores

- With some categories, the rate is 35%

RFID Lets You . . .

- See what you have in stock

- Know where it is

- Find it quickly

- Communicate more effectively the estimated time of delivery

In Hand But Out of Stock

- Often companies have items in stock but are not sure where they are or if inventory systems are accurate

- As a result, they tell clients the item is unavailable

- RFID lets you sell down to the last unit

RFID Cannot Eliminate Problems

- What it can do is help companies prepare for future disruptions RFID lets you sell down to the last unit

- 30% of companies already report disruptions due to climate incidents

- That is only going to get worse

RFID Could Help Monitor COVID-19

- Contact tracing can be done with RFID and other IoT devices

- Rapid response to positive tests could give employees confidence to return to work

Contact Tracing

- Swiss engineering company Oerlikon has deployed an UWB-based system to manage worker safety by providing proximity warnings and contact tracing in the event of a positive COVID-19 test result.

Questions?

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THANK YOU

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