

The background of the entire slide is a dark blue gradient with a white wireframe pattern of jagged mountain peaks.

RFID

JOURNAL

DIGITAL SUMMIT

MAY 10 - 13, 2021

Location & Tracking Technology Solutions: One Size Doesn't Fit Most

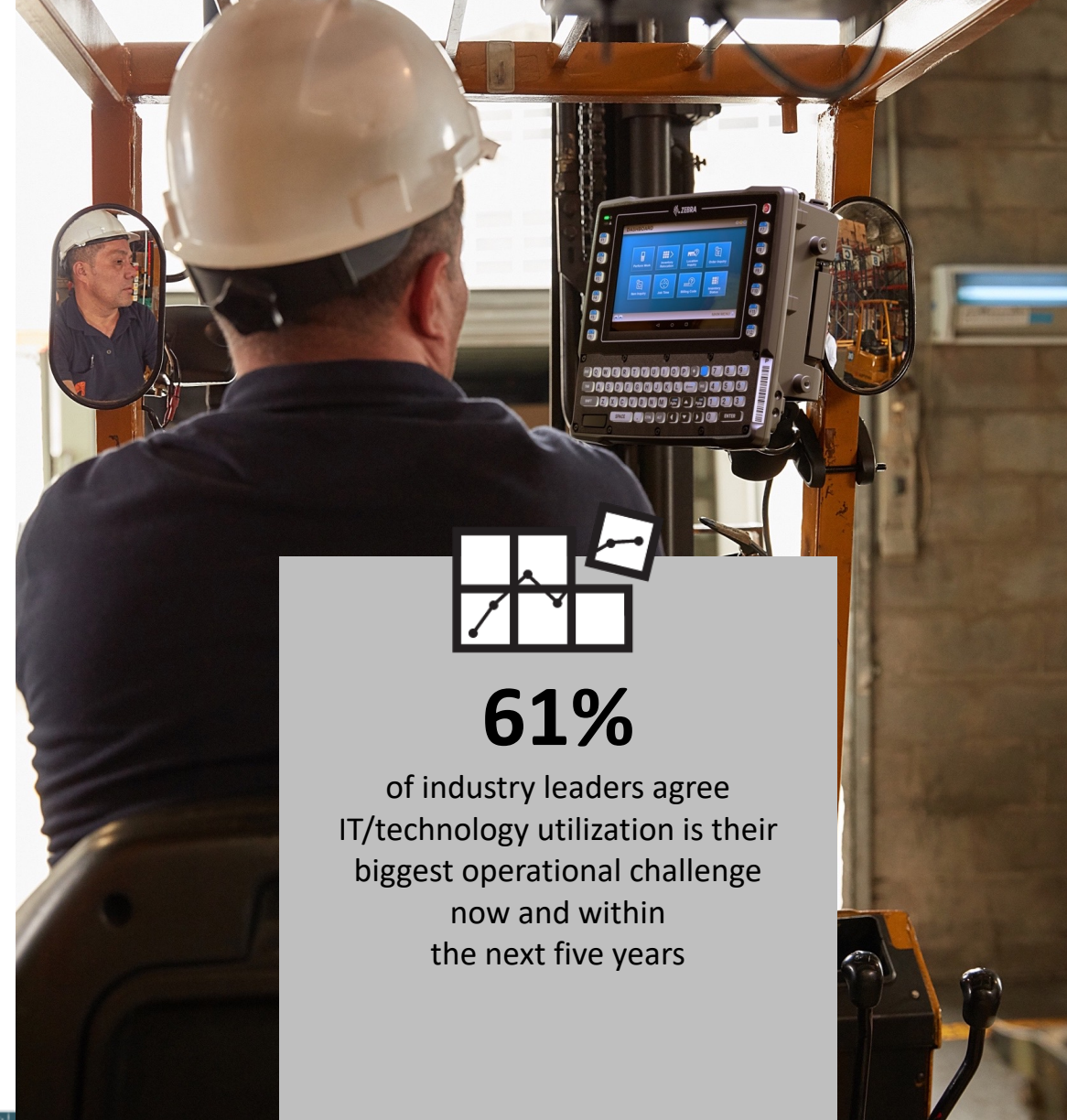
Steven Walsh

Director of Professional Services, Strategic Systems &
Technology Corporation

Supply chain challenges

Rising demand ushers in new operational challenges:

- Current IT/technology utilization
- Labor recruitment
- Labor efficiency or productivity
- Capacity utilization
- Quality of warehouse management system data
- Inventory management

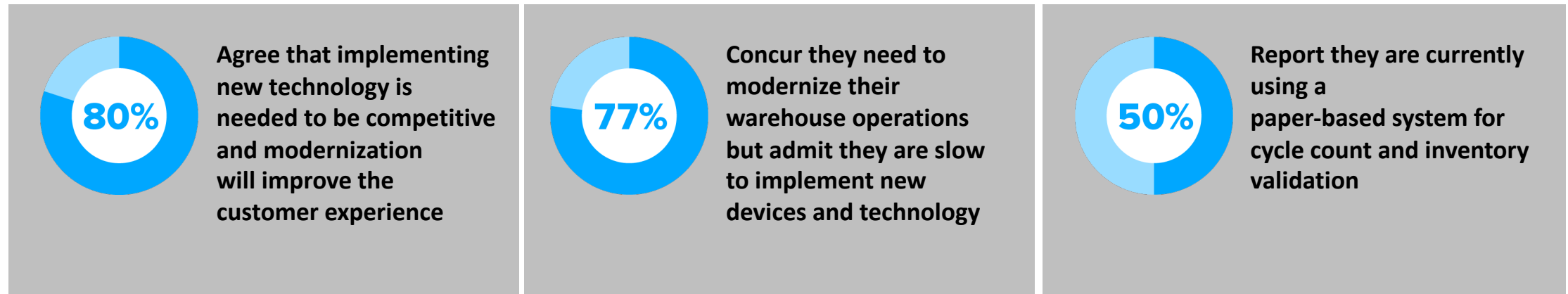


61%

of industry leaders agree
IT/technology utilization is their
biggest operational challenge
now and within
the next five years

The harsh realities

Industry leaders report that warehouse modernization is vital to transforming operations and addressing critical challenges:

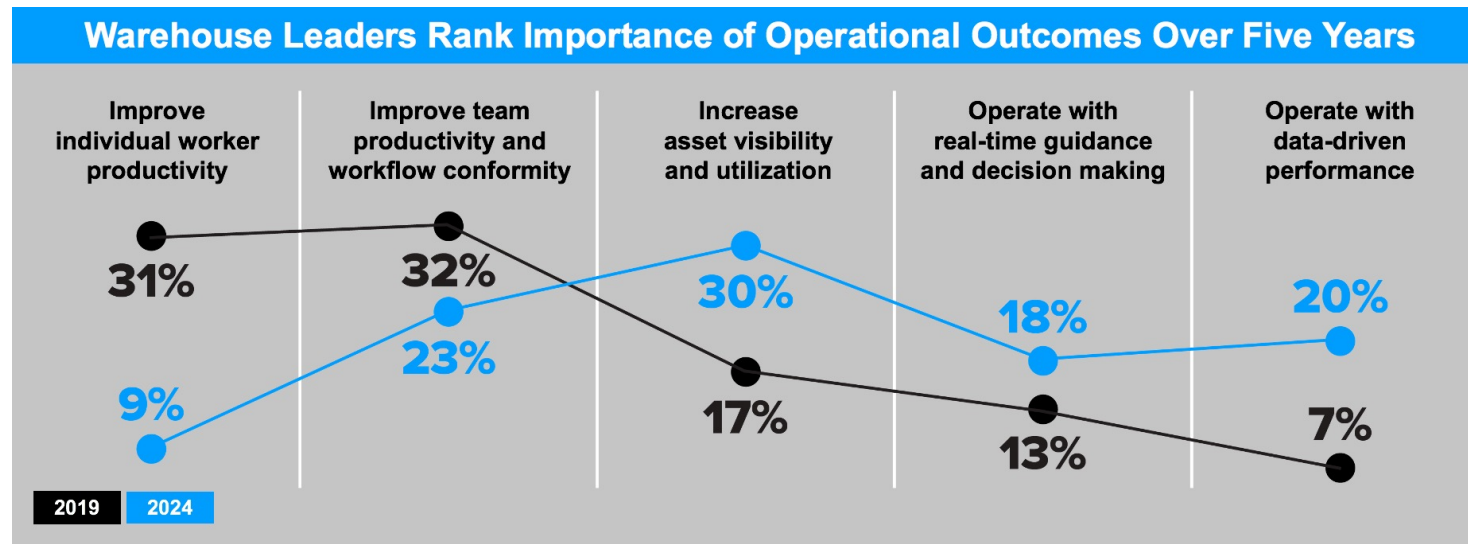


Source: Zebra, *Warehousing Vision Study*, 2019 ©2019 Zebra Technologies, Corp. All rights reserved.

The path to modernization

Modernization requires concentration and synchronization of three distinct areas:

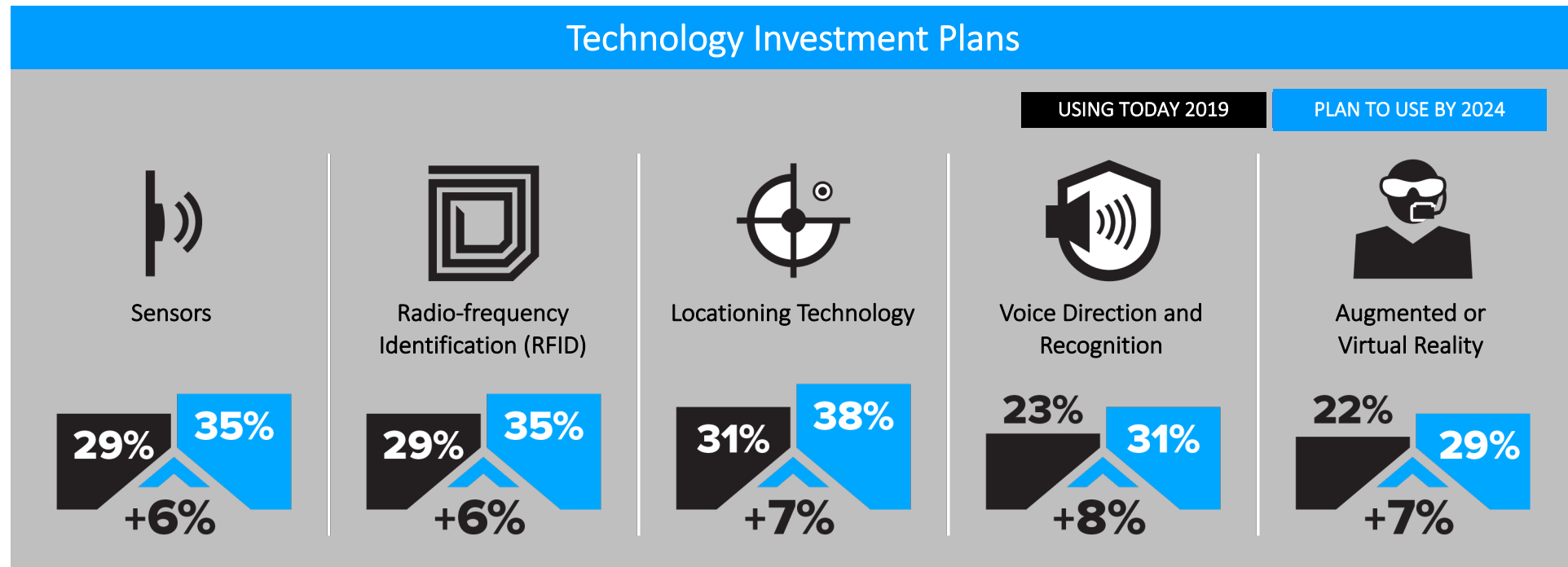
- The Warehouse Management System (WMS)
- The devices and infrastructure workers use to optimize performance
- Physical and data automation



Source: Zebra, *Warehousing Vision Study*, 2019 ©2019 Zebra Technologies, Corp. All rights reserved.

Smarter warehouses take center state

The new, smarter warehouses will continuously capture information through sensors, analyze data to provide actionable intelligence and act on those insights in real time

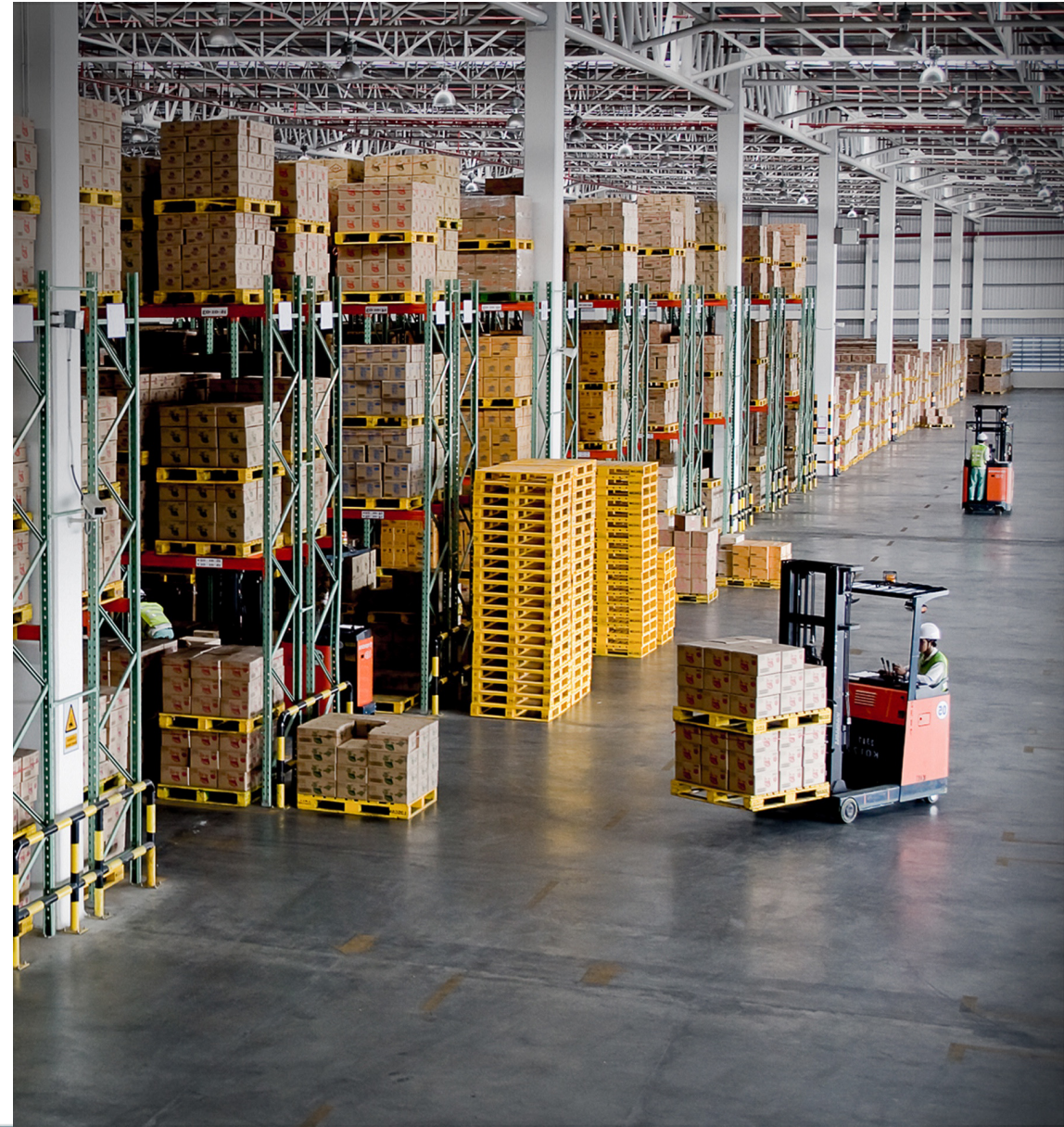


Source: Zebra, *Warehousing Vision Study*, 2019 ©2019 Zebra Technologies, Corp. All rights reserved.

Benefits of RFID

RFID offers exciting possibilities, because with it you can:

- Scan hundreds of tags simultaneously
- Locate, authenticate and track items quickly and more efficiently
- Reduce time to complete tasks, e.g. inventory counts reduced from hours to minutes
- Complete tasks with more accuracy
- Collect data for increased efficiencies



Typical Solution components - Hardware

FIXED READERS & ANTENNAS



FX9600



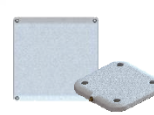
FX7500



ST5500



ATR7000



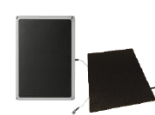
AN510 & AN520



AN720



AN440 & AN480



AN610 & AN620



SR5500



SP5500

HANDHELD & HANDSFREE READERS



MC3330xR



MC3390xR



MC3330R



MC3390R



RFD8500



RFD2000



DS9908R

PRINTER ENCODERS, INLAYS, LABELS & CARDS



ZT400R Series



ZE500R Engine



ZD500R



ZXP7, ZC350 and UHF Card



ZT411R On-metal



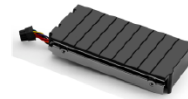
ZQ520R



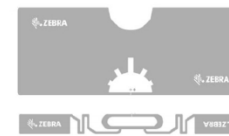
ZQ630R



ZT600R Series



RFID Upgrade Kits



RFID Inlays and Labels



Typical Solution Components - Software

SaaS Software



Easily setup, manage, and monitor your fixed RFID readers. StrategicRFID™ is powered by the secure, high-performance Google Cloud.

Handheld Support



Use RFID-enabled, Android OS handheld devices to encode, locate, and read tags when mobility is necessary.

Web APIs



Easily share your data with other applications using REST APIs.

Email Notifications



Receive automatic email notifications when predefined situations are detected.

Configurable Dashboard



Enjoy an easy-to-read, single page, real-time interface, showing a graphical presentation of the current status of your organization's items.

Global Settings



Get up and running quickly and configure settings that are applied globally to all readers.

Potential use cases

Some proven areas RFID can help increase productivity and efficiency include:

- Materials management
- Work-in-process
- Warehouse, vehicle, and yard management
- Resource utilization/tracking and analysis
- Shipment validation
- Pickup and put away
- DSD route accounting/field service
- Fulfillment/replenishment
- Tool tracking
- Theft prevention
- RFID aided forklifts



Shipment Validation

Some common problems include:

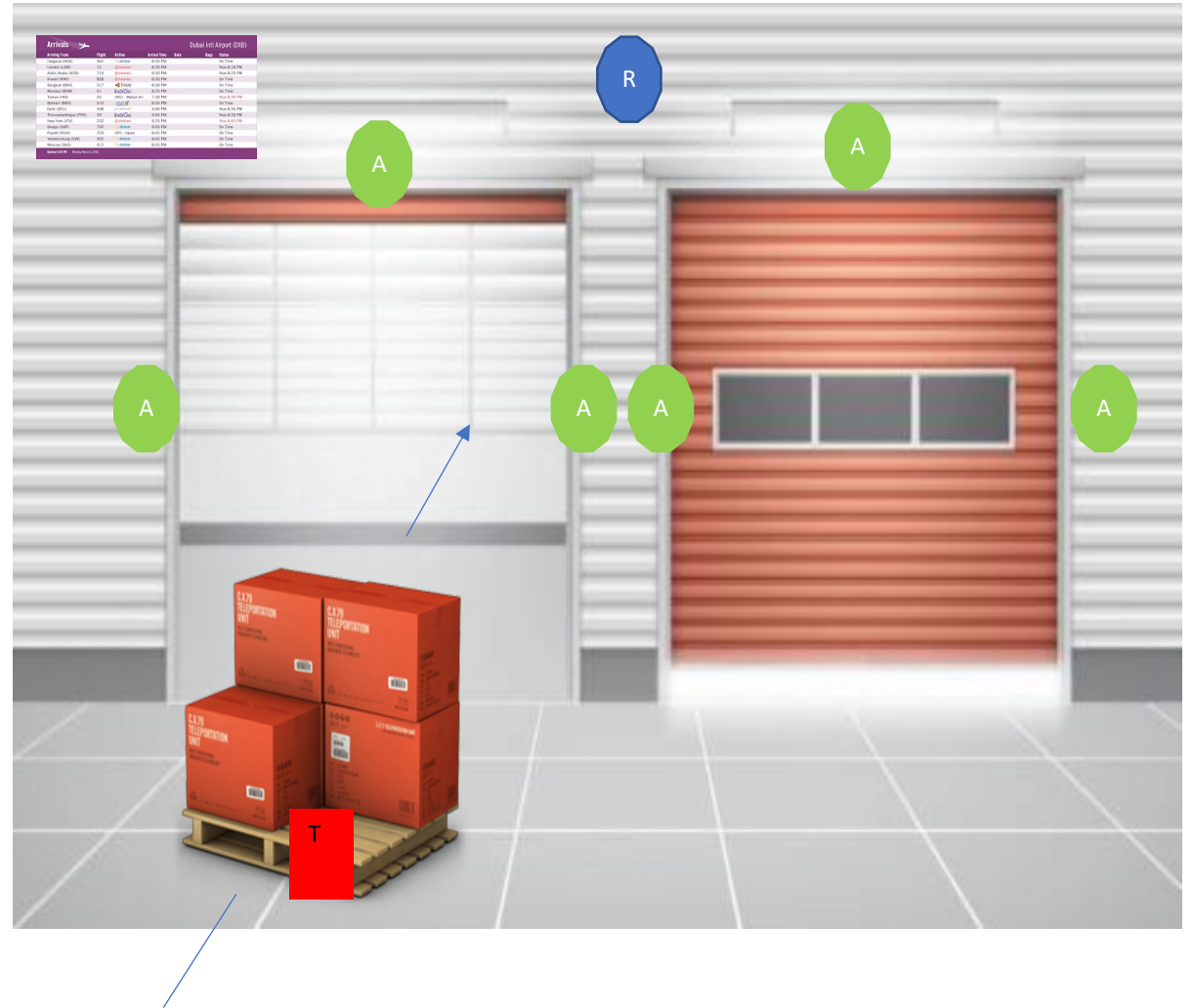
- Short loading
- Cross Loading
- Over Loading
- Trailer Validation
- Labor intensive scanning



Solution Options

Applications of technology

- Trailer tagging and door association
- Positive loading confirmation
- Operator audible/visible notification
- Automated shipping notification
- Business rules-based notifications



Resource Utilization

Some common problems include:

- Monitoring productive vs non-productive time
- Validating attendance
- Capture labor cost vs product or process
- Aligning resource with demand
- Forecasting required resource
- Capturing cycle time.



Solution Options

- Resource tracking via fixed portal passive UHF
- Resource tracking via RTLS RFID
 - Passive UHF
 - Ultrawideband
 - BLE
- KPI's enabled can include
 - Productive vs non-productive time. (Supply Chain, Manufacturing)
 - Wrench time (Utilities)
 - Timesheet Reporting (Sub contractor management)
 - Worker time analysis (Manufacturing)
 - Cycle time (Manufacturing, Supply Chain)
 - Resource vs demand (universal)



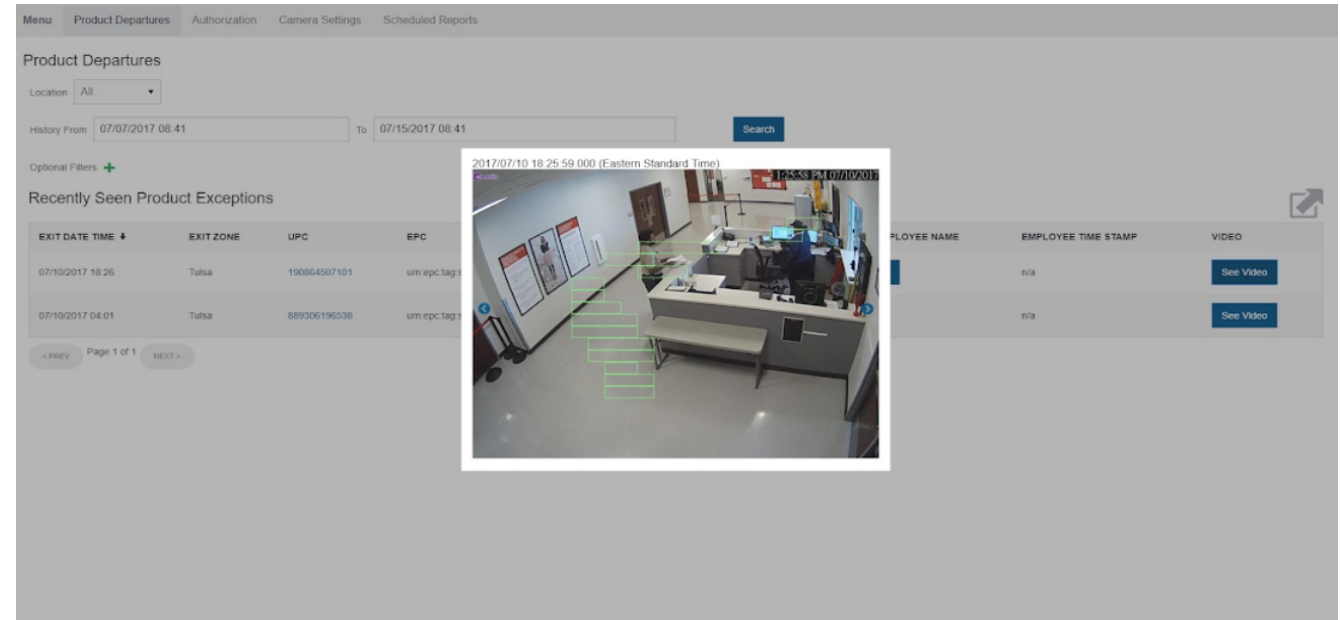
Theft Prevention

- 95% of all business experience employee theft
- 3 out of 4 employees admit to stealing from their employers at least once
- 32% of employee theft is in the form of the theft of products
- 30% of employee theft is in the form of theft of time
- Non-cash property theft nearly doubled in the period between 2002 and 2018 from 10.6% to 21%
- A typical business loses 5% of its revenue annually to theft



Solution Options – RFID Enabled ‘Smart Exit’

- Utilize tagged inventory and employees to reduce shrinkage
- Integrate fixed portal with on site camera systems
- Use Notifications Engine to trigger alerts
- Optional audible and visual alerts
- Tie tagged asset and individual data with camera recording from 20 seconds either side of event.



Getting started

- RFID solutions are not one size-fits-all
- Every environment is different
- Things to consider:
 - Your current technologies, environment, and workflows
 - Objectives you hope to achieve with RFID
 - How RFID might contribute to your future-state vision
- An in-person, on-premise RFID site survey is critical to project success



Next steps

- Consider leveraging RFID to improve your supply chain operations
- Use a proven method to systematically determine if RFID is right for your company, both technologically and from a business standpoint
- Work with an RFID specialist to develop a viable solution



THANK YOU

