



KEY TRENDS SHAPING THE DISTRIBUTION CENTER

EXTERNAL FORCES OF CHANGE IMPACTING SUPPLY CHAIN:

2009

1. Changing **raw materials** prices
2. Government **regulatory change**
3. Increased competition from **established competitors**
4. **Spot shortages** of key raw materials
5. Changing **customer requirements**

2019

1. Changing **customer requirements**
2. Government **regulatory change**
3. Supply chain **technology advancements**
4. Changing **raw materials** prices
5. Increased emphasis on **supply chain security**



Trend #1

Customer Demands and Requirements are Changing Rapidly and Supply Chains Must Adapt

Moving from in-store browsing to at-home and on-line (e-commerce)
End-customers expect faster, more accurate fulfillment at reduced costs

ECOMMERCE GROWTH



E-commerce growth driven by shifting consumer preferences



Companies changing the game



Consumers prefer omni-channel options



SECURE PAYMENT



CLICK



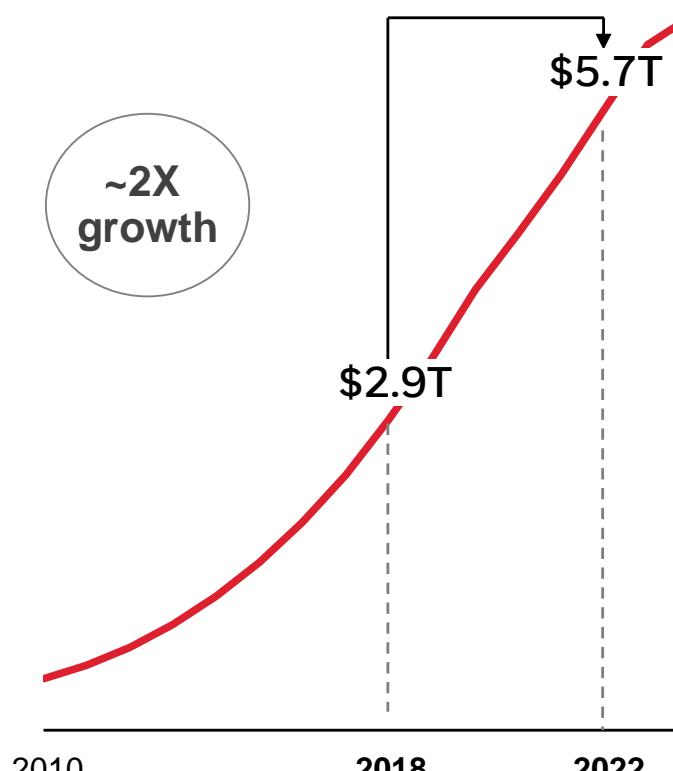
Online growth continues to outpace non-web growth – 13% vs. 3% (2013-18)

Favorable tailwinds drive further e-commerce growth

E-COMMERCE GROWTH AND DC IMPLICATIONS

Key Trend

eCommerce Sales



Implication

~3X

More logistics space required in e-commerce operations as compared to brick & mortar

\$1.75T

Value of lost sales from “out-of- stocks”, overstocks and returns worldwide

56%

B2B buyers expected to make purchases online

New Supply Chain Needs

- Achieve **real time inventory visibility**
- Improve Omni channel **accuracy of fulfilment and returns**
- **Better demand forecasting** to reduce costs / increase customer satisfaction



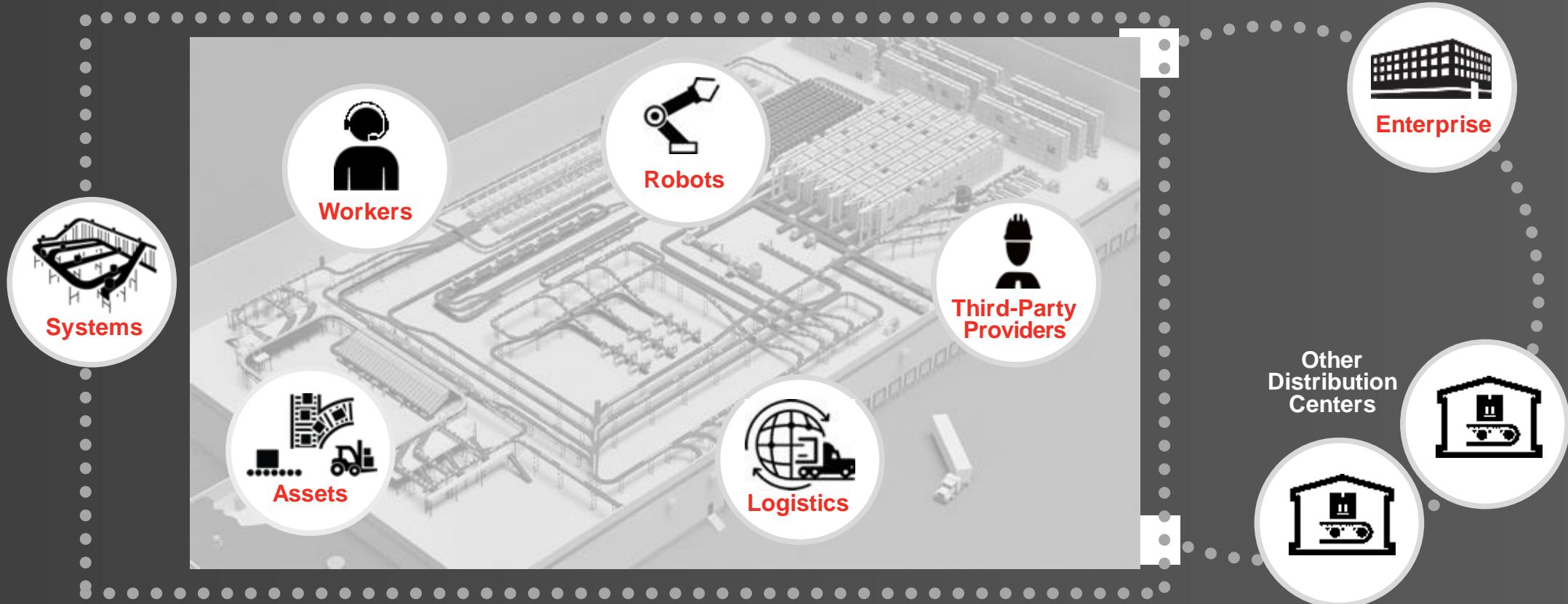
Trend #2

Greater Supply Chain Transparency is Becoming the Norm for Companies

Measuring data and increasing transparency are powerful tools for managing the risks and grasping the opportunities of global supply chains, contributing to a positive effect on the bottom line.

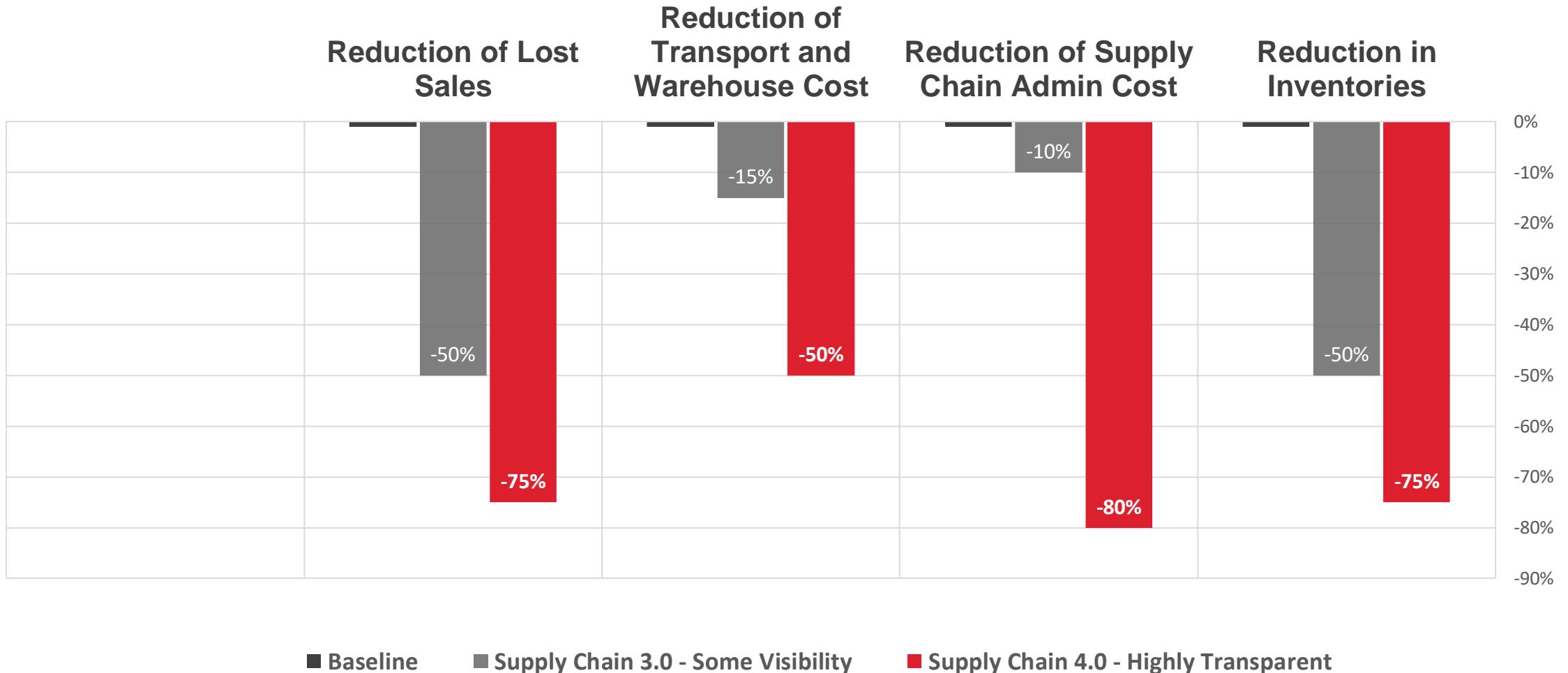
*“The internet of things (IoT) will change the supply chain.
Research IoT before you get left behind”
SupplyChainToday.com*

COMPLETE SUPPLY CHAIN TRANSPARENCY IS TRANSFORMATIONAL



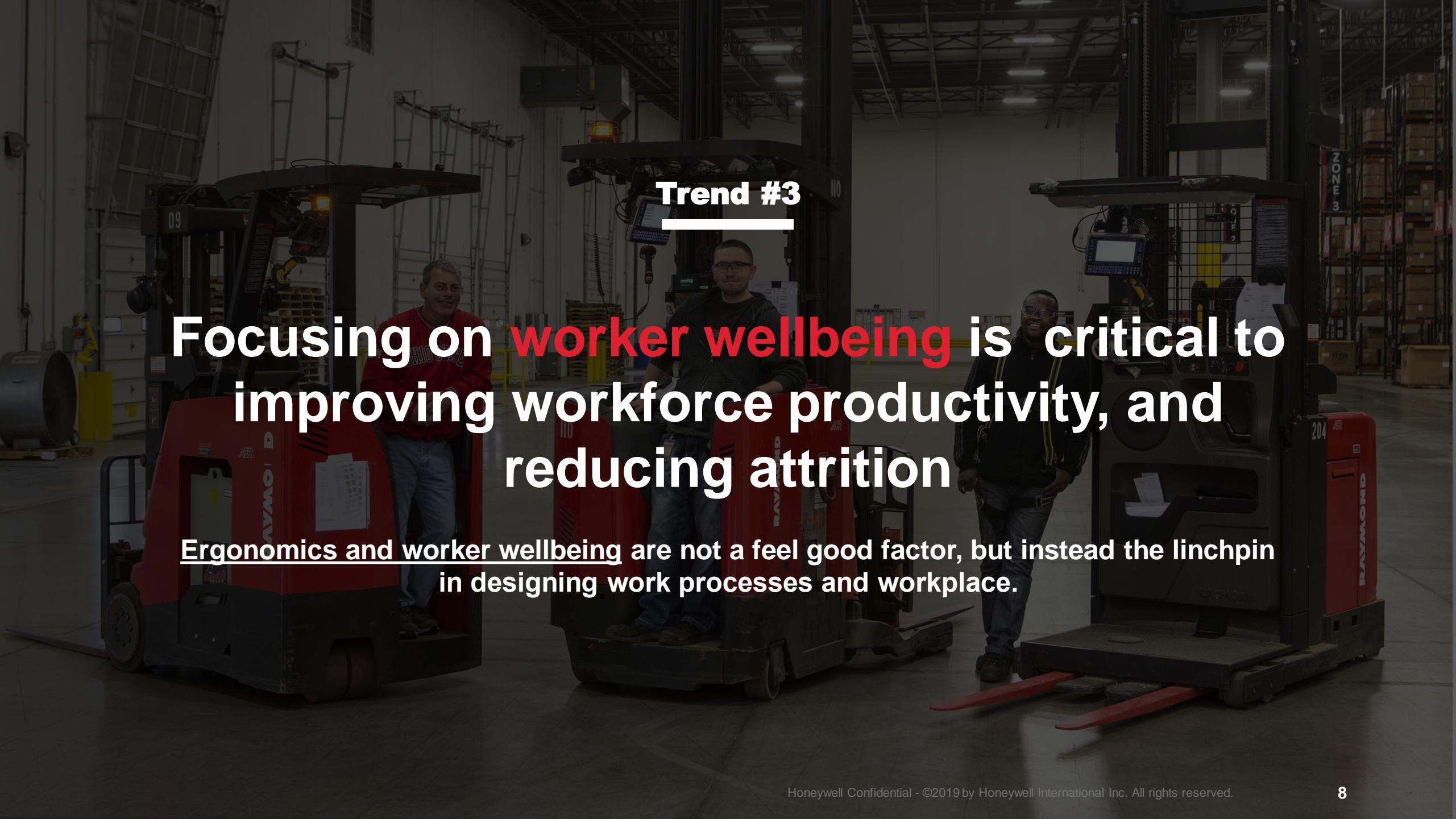
An accessible, end-to-end capability designed to drive efficiency and optimized decision making with unparalleled visibility and agility across the entire value chain

SUPPLY CHAIN TRANSPARENCY UNLOCKS SUBSTANTIAL BENEFITS



Source: McKinsey & Company, "Supply Chain 4.0 – The Next-generation Digital Supply Chain" 2016

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Trend #3

Focusing on **worker wellbeing** is critical to improving workforce productivity, and reducing attrition

Ergonomics and worker wellbeing are not a feel good factor, but instead the linchpin in designing work processes and workplace.

THE MATURED MARKETS LABOR CHALLENGE



84%

of those trying to hire reported few or no qualified applicants for the positions, market at “full employment”

340M

square feet of global warehouse space added each year



Millennials’ labor participation at historic lows, salary expectations gap



175K

U.S. truck driver shortage by 2024



15%

of workforce are supervisors and managers, **25%** are 55+



SPS Groveport Distribution Center
6766 Pontius Rd, Groveport, OH 43125 (OH96)

Fixed Printers **33**

Reporting Period

11/30/2018 11:00:00 AM – 1/16/2019 8:00:00 AM

< FILTERS

Labels Printed

592,395

Least Utilized

10321745095

0 Labels

23321645010

7 Labels

28521645020

7 Labels

Most Utilized

23321645008

154,425 Labels

05021645005

79,215 Labels

05021645007

33 Labels

Disruptions

439 Trend #4

Disruptions and Disruption Type by Day

DisruptionType ● Out of Media ● Out of Ribbon

Supply chains are facing a wave of technology innovation with the power to drive operational changes

Disruptions and Printers In Use

● Disruptions ● Count of Printers In Use

DisruptionType ● Out of Media ● Out of Ribbon

Within this climate, data is king, and businesses increasingly find themselves needing solutions that make it easier to collect information and make it actionable to users.



ENTERING A NEW TECHNOLOGY ERA

CLOUD

Consolidates data storage
and online applications

DIGITAL TWIN

Enables virtual testing
and commissioning

DIGITIZATION

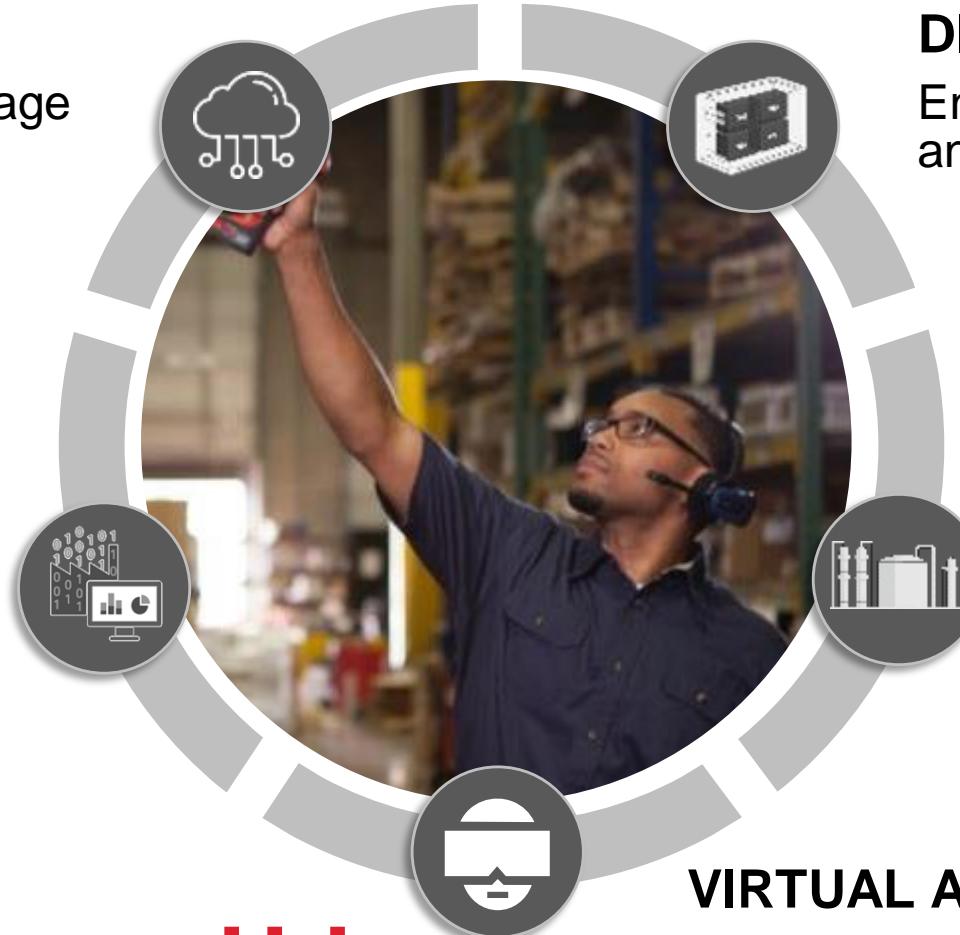
Simplifies processes
across business
activities

CONNECTIVITY

Gives access to advanced
insights from data



**How do you know which
technologies will have the most
business impact? And value?**



VIRTUAL AND AUGMENTED REALITY
Enhances user experience and efficiency

THE POTENTIAL PITFALLS AND HIDDEN COSTS OF NEW TECHNOLOGY: WHAT YOU DON'T



Green Logistics

- + Affordable electric vehicles
- Infrastructure requirements



VR + AR

- + Huge improvements to accuracy and productivity
- New worker safety and wellbeing challenges



Industrial-Grade IoT

- + Maximum transparency
- Increases in counterfeit components and risks



HOW CAN DISTRIBUTION CENTERS ADAPT – AND THRIVE?

FUTURE-PROOFING YOUR DC

IS THIS WHAT SUPPLY CHAIN LEADERS NEED TO PREPARE FOR THE FUTURE?



Standard, reliable **hardware** that *provides the best product at a fair price*



Software application & implementation services that *ensure fast and sure availability*



Global offer with product, application, operational and solution services to *over ease onuse and optimal ROI*



Outsourced service that assists with the operations of the supply chain to *expand competitive advantage at a lower cost*

THE COST OF UNPRODUCTIVE TIME IN YOUR DC

22

Average number of unproductive **minutes** per 8-hour day per worker

134

Average number of **mispicks** per week reported by the average DC

\$400k

Annual cost of **mispicks** reported by the average DC

80%

Of managers have been tasked with **finding cost savings** from existing operations

WHAT SUPPLY CHAIN LEADERS REALLY NEED...



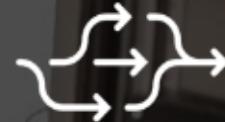
On-time
delivery to
customers



Lower
inventories



Accurate
order
deliveries



Agile and
responsive
supply chain

HOW WE DELIVER MISSION-CRITICAL TECHNOLOGIES ACROSS THE VALUE CHAIN



T & L



D C



RETAIL



TRACK &
TRACE



DRIVER/DSD



VOICE
DIRECTION



WAREHOUSE
AUTOMATION

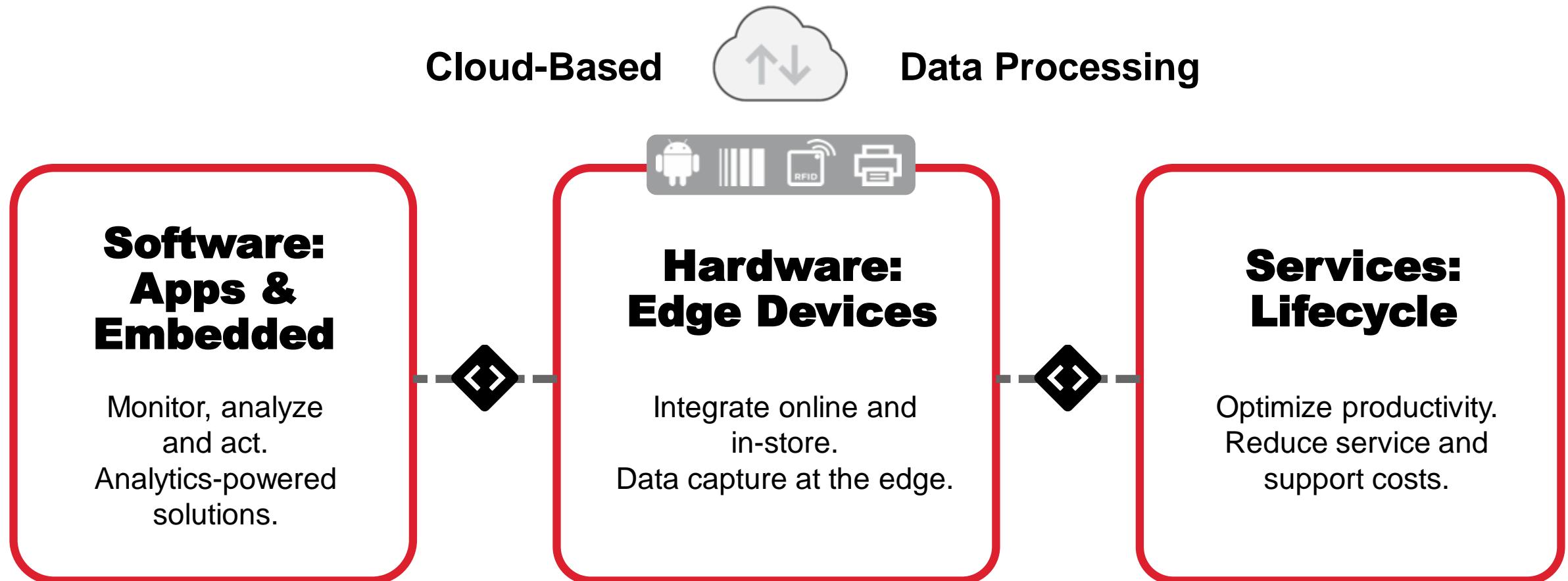


WAREHOUSE
EXECUTION



CONNECTED
RETAIL

PILLARS OF A DISTRIBUTION CENTER SOLUTION



HONEYWELL SUPPLY CHAIN | AT A GLANCE

MOBILITY	SCANNING	PRINTING	VOICE DIRECTION	3rd Party Software
<p>Full Touch Rugged</p> 	<p>Rugged Tablet</p> 	<p>Rugged VM</p> 	<p>Wearable</p> 	<p>FarEye</p> 
<p>RFID</p> 	<p>Ultra Rugged Field Mobility</p> 	<p>Mobile</p>  <p>Desktop</p> 		<p>workforce optimizer</p> 
<p>Ultra Rugged Long Range Scanner</p> 	<p>Kiosk</p> 	<p>Heavy Duty / Precision Printing</p> 	<p>Guided Work Solutions</p> 	<p>Spoors® Transform Now</p>  <p>SafeUEM By Linxdeep</p> 

MOBILITY EDGE

A UNIFIED PLATFORM FOR MOBILE COMPUTING



ACCELERATE DEPLOYMENTS

The average deployment cost of IT staff is over **\$700 per device¹**



OPTIMIZE BUSINESS PERFORMANCE

An average of one mobile availability problem per shift can reduce productivity per mobile worker by **\$20,000 per year²**



EXTEND LIFECYCLE

Extending device refresh from 5 to 7 years lowers total cost of ownership by **over 50%³**



STRENGTHEN SECURITY

In 2018, the average cost of a data breach was **\$3.8 million⁴**

MOBILITY EDGE | A UNIFIED PLATFORM FOR MOBILE COMPUTING



Common system-on-module hardware “SOM”
Common OS software image and tools
Common software ecosystem

Minimize cost, effort and risk
Future-proof investment
Accelerate time-to-value

SOLVING THE MOST DIFFICULT IT ASSET CHALLENGES



Recovering lost devices



Eliminating bad batteries



IT Asset utilization



Is my network healthy?



Printer & Scanner Management

$F = F(x_0 + \Delta x_0) - f(x_0)$

$\frac{(\sqrt[n+2]{})^3 - (\sqrt[n]{})^2}{(\sqrt[n+2]{})^3 - (\sqrt[n]{})^2}$

$(\lambda_1, m_1)(\lambda_2, m_2) = (\lambda_1 \lambda_2, m_1 m_2)$

$\lim_{n \rightarrow 0} f_n(t) = f(t)$

$\int_{x_0}^{x_1} f(x) dx$

$\text{Volume of pyramid} = \frac{1}{3} \times \text{Base Area} \times \text{Height}$

$\text{Empowering IT Team or Operation Manager able to manage devices for better response and increase productivity}$

Honeywell Operation Intelligence

OPERATIONAL INTELLIGENCE “SWEET SPOT”



Help/Service Desk
Ticketing



SMART TALK - ALL-IN-ONE COMMUNICATION SOLUTION

PTT

Calling, Voicemail, Call History, Call Recording

Video Call, Instant Messaging, Group Messaging

Supports backend systems, Call park, Transfer, Call Pickup



User Presence, Contacts, Favorites

User Provisioning

User Experience Metrics & Reporting

Help Desk Access

LAST MILE SOLUTION BRIEF: CONTACTLESS DELIVERIES

Spoors®
»Transform Now

The Problem

The cost of lost inventory and deliveries creates operational challenges to manufacturers.

The Impact

Secure Deliveries, With POD, capturing digital signatures and images, there is never a consignment that's lost and therefore the total cost on lost goods is completely reduced. EFFORTx helps companies unify all the applications onto one platform, providing a single-window of operation and reporting



The Solution

Honeywell CT40/CT60 with EffortX

Proof of attempt, proof of visit, proof of completion are of utmost importance. EFFORTx can help allocation of service tasks to the representative closest to a customer, recording customer disposition viz., Customer Unavailable, Not Picking Calls, Door Locked Etc. and the ability to re-plan the visit. Recording proof-of-visit using geo-coded images and also capturing the customers signature digitally.

- Store Collections
- Employee activity tracking
- Store Availability
- Dealer and Distributor visits

IN STORE / LAST MILE SOLUTION BRIEF: CONTACTLESS DELIVERIES

The Problem

Managing big workforce poses an issue of being understaffed during peak days/ hours due to poor rostering and Scheduling errors.



The Impact

- Not enough staff to attend the customer
- Decline in customer satisfaction
- Errors in stock take and stock in due to lack of experienced man power
- Unplanned leaves and inefficient rostering



The Solution

Honeywell CT40/CT60 with WFO

Workforce Optimizer is a AI enabled workforce management solution .

Workforce Optimizer provides increased adaptability, flexibility, openness, and cost-efficiency by optimizing your critical resources, giving you the edge over others in providing reliable and prompt service to your customers.

- Workforce Manage
- Labor demand forecasting
- Scheduling ,Time & Attendance
- Workforce Analytics
- Employee self services

IN STORE / DC / WH SOLUTION BRIEF: END POINT DEVICE MANAGEMENT

The Problem

With increasing number and variety of mobile devices and endpoints in a warehouse / DC:

- How to monitor devices and obtain real-time data to support management?
- How to maintain mobile applications and cooperate documents?
- How to secure data in mobile devices?
- How to minimize mobile device costs and provide efficient support?
- Centralized management over all the devices
- Administrator level mobile device management
- Full set of mobile security management policies and apps
- Remote support with remote control

The Impact

An intelligent Enterprise Mobile Management solution, provides full lifecycle device management portfolio. Using cutting-edge technologies to support both SaaS cloud services and on-premise implementation.

The Solution

- Device Enrollment - Scan a group QR code or enrollment password
- Device Management - Disabling Wi-Fi, camera, or Bluetooth; Assigning Kiosk mode, etc.
- Application Management - App blacklist & whitelist; Pushing apps; Silent installation; Enterprise app store
- Content Management - Pushing data to specified devices; Uploading logs to the server; Creating secured Enterprise folders on devices
- Behavior Management - Geo Fence, allowing devices to be used in specific geographic areas
- Device Recycle - End a device lifespan or start a new cycle



LEARN MORE

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