



Zebra Warehousing Solutions

# Ease Your Modernization Journey

Across every operational area

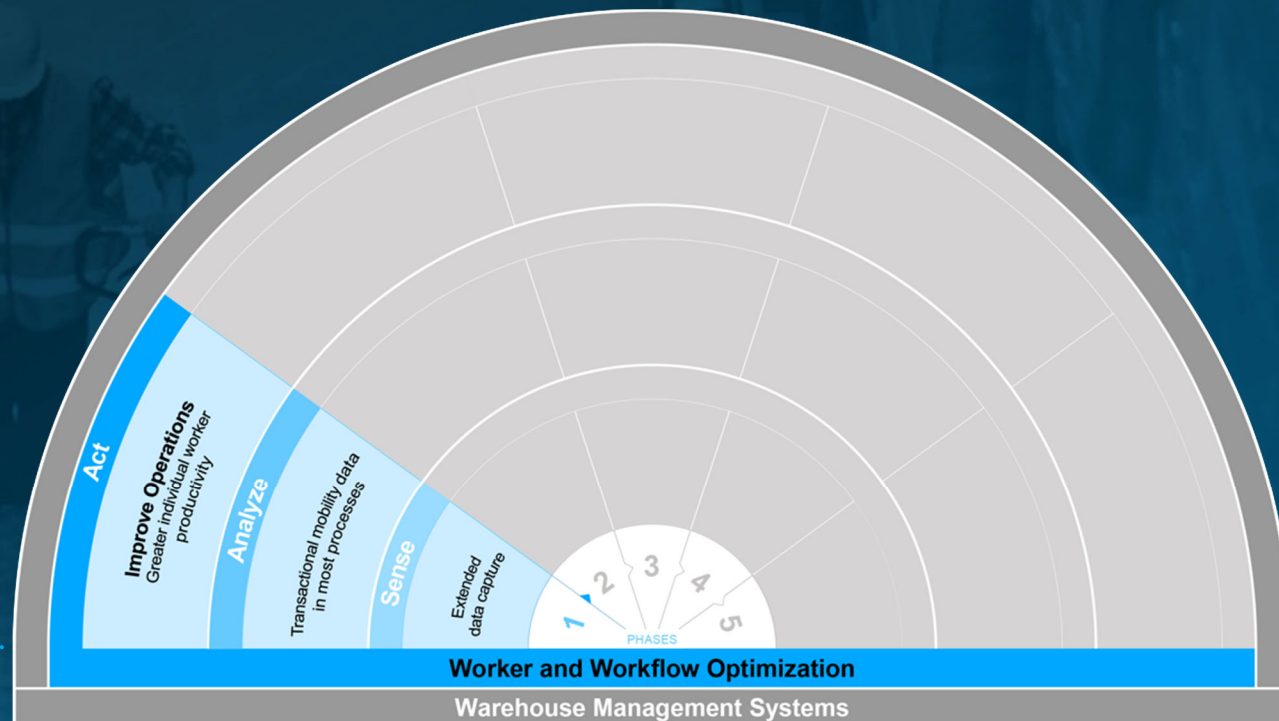
Presenter Name  
Date



# Accelerate Workflows with the Zebra Warehouse Maturity Model

## A strategic framework for modernizing

**Phase 0**  
Basic data capture  
.....  
**Siloed and Reactionary**  
Meeting static performance goals



**Phase 1**  
Gain basic control  
of business operations



**Phase 2**  
Optimize the  
use of mobility



**Phase 3**  
Target use of  
real-time visibility



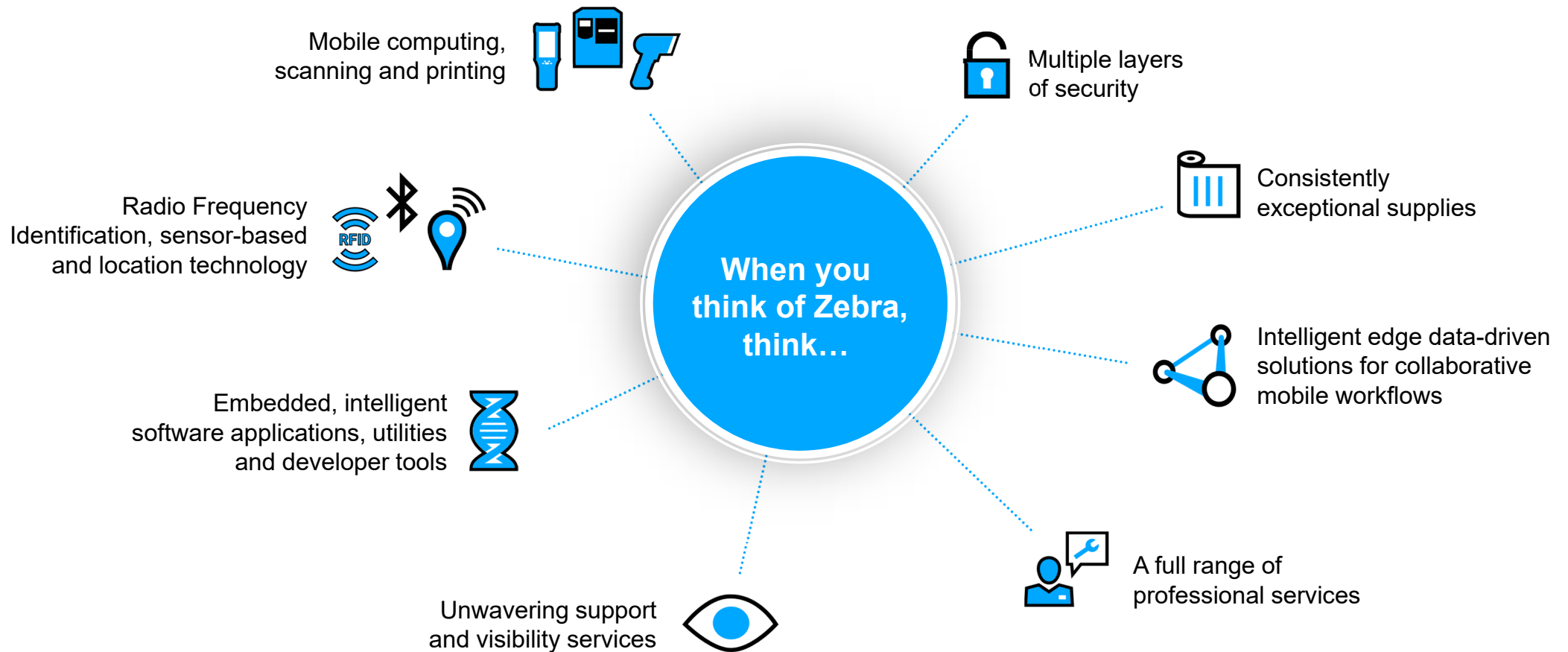
**Phase 4**  
Orchestrate wide-spread  
use of real-time visibility



**Phase 5**  
Achieve predictive and  
adaptive operations

# From Inbound to Outbound, Look to Zebra

## End-to-End Innovations to Modernize your Warehousing Operations



# What's Inside Hardware Matters

Built-in intelligence gives Zebra devices greater power and performance



## Mobility DNA

Mobility DNA makes Zebra Android devices enterprise-ready and secure out-of-the-box, as well as expands their development capabilities to integrate seamlessly with your business applications.



## DataCapture DNA

DataCapture DNA simplifies the scanning experience, from integration to deployment and ongoing management.



## Print DNA

Print DNA software tools make Zebra printers easy to set up, use, manage and secure.



## Zebra DNA

Software, Apps and Utilities

### Management Tools:

Dramatically simplify deploying, maintaining, securing and troubleshooting front-line mobile computers, scanners and printers.

### Productivity Tools:

Whether your warehouse workers use scanners, printers or mobile computers, help them get more done in less time.

### Development Tools:

Reduce time and risk, using tools that help you create native apps across multiple platforms.



# Inbound Operations



Receiving



Returns Management



Put-Away



Cross-Docking

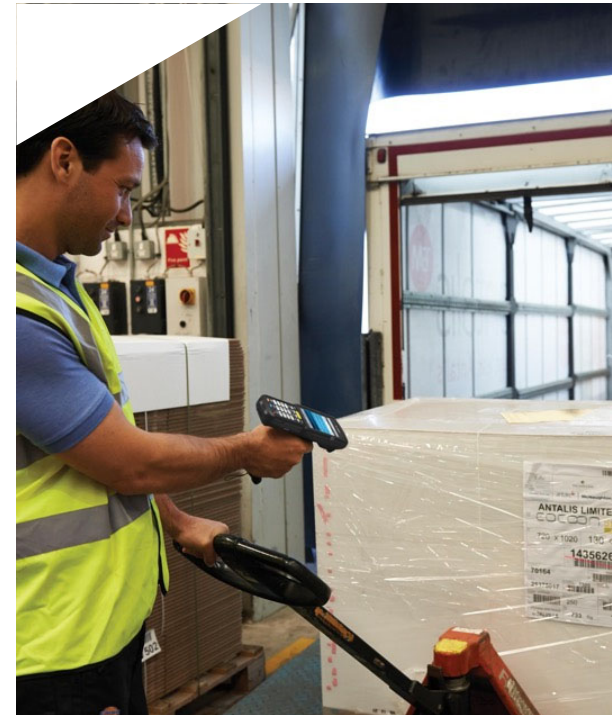
## Inbound Operations

Receiving  
Returns Management  
Put-Away  
Cross-Docking


# Open Your Doors to Higher Efficiency


## Put your inbound operations in our hands


- Pick up the pace with worker-driven or sensor-based data capture as goods enter the facility
- Ensure correct asset identification for proper put-away
- Positively impact downstream operations with accuracy and dock-to-stock efficiency



## Tips to improve accuracy from dock to stock

 Invest in supplier management for accurate one-touch or no-touch receipt.

 Match the technology to the workflow and mobilize workers whenever possible.

 Target inbound processes as a place to start utilizing RFID for automatic data capture.

## Inbound Operations

> Receiving  
Returns Management  
Put-Away  
Cross-Docking

# Optimize Your Receiving Process

## When racing against time, Zebra is your ally

Rapidly reconcile advance ship notices, sort materials and accurately locate goods with our intuitive devices and innovative sensors.



### MC9300 Mobile Computer

This versatile device enables workers with multi-barcode scanning and eight keypad options for faster receiving



### DS3600-HP Ultra-Rugged Scanners

Unstoppable performance for superior data capture of barcodes in any condition



### ZD620 Desktop Printer

Premium print quality and state-of-the-art features for high-volume, mobile workstation printing to label on the spot before put-away



### FX9600 Fixed RFID Reader

Achieve low-touch receiving and increased accuracy with the reader that has the highest throughput in its class



### ZQ630 RFID Mobile Printer

Free workers to print and encode RFID tags on the go anytime, anywhere



### Zebra Certified Supplies

Quality, service and expertise allows you to accurately label items prior to put-away

**Zebra**  
**MotionWorks®**  
**Warehouse**  
Powered by Zebra Savanna™

Eliminate at least two touchpoints from the unloading process.



Sensing  
Hardware



MotionWorks  
Warehouse Software



Business  
Application



Professional  
and Support Services

May not be available in all regions. Contact your local Zebra sales representative or partner.

## Inbound Operations

Receiving

› Returns Management

Put-Away

Cross-Docking

# Customers Expect Free Returns and Fast Refunds

## Satisfy demand with the right technology

Improve accountability to customers by accurately documenting receipt of every returned item.



**TC8300**  
**Touch Computer**

Document receipt and condition with one device



**TC72**  
**Touch Computer**

Speed up returns with a more sizable HD display screen and snap on trigger handle



**ZQ630**  
**Mobile Printer**

Print labels in motion as returned items are received and route them to the next location



**ZT230**  
**Industrial Printer**

Keep high-volume workflows going with clear labeling for next steps



**Zebra IQ**  
**Color Labels**

Quickly sort returns using on-demand color-coded labels



**ET51**  
**Enterprise Tablet**

Confirm complex returns with large touch screen



**DS3678-SR**  
**Ultra-Rugged Scanner**

Capture data from returned items the first time, every time



**MC3330xR RFID**  
**Handheld Reader**

Track returned goods in repair or refurbishment from receipt to shipping



**ZD500R RFID**  
**Desktop Printer**

One-touch printing/encoding of items for repair or refurbishment



## Inbound Operations

Receiving  
Returns Management  
› Put-Away  
Cross-Docking

# Put Items Away with Confidence

## Eliminate errors that impact your entire operations

Quickly and safely put everything in its proper place, so picking the right item becomes effortless.



### DS3600-ER Ultra-Rugged Scanners

Scan more per shift with long-range scanning that eliminates unnecessary vehicle dismounting

Ultra-Rugged  
Extended Range  
Scanners read  
barcode labels  
**60% closer** and  
**35% farther**  
than similar models  
in its class



### VC8300 Android Vehicle-Mount Computer

Lift safety and accuracy with a graphic touch screen and programmable buttons limiting keypad entry



### ZQ630 Mobile Printer

Label as you go with a printer mounted on your lift trucks and pair with a vehicle-mount computer via Bluetooth



### MC3390xR Long-Range RFID Handheld Reader

Locate stationary assets or put-away aisles and racks with less effort with the long-range antenna



### ATR7000 RTLS Reader

Error-proof put-away by tracking pallets and equipment in motion from receipt to put-away location

May not be available in all regions. Contact your local Zebra sales representative or partner.

**Zebra**  
**FulfillmentEdge™**  
Powered by Zebra Savanna™

HD4000 Enterprise  
Head-Mounted Display



WT6000  
Wearable Computer



RS5100 Bluetooth™  
Ring Scanner

Take the guesswork and wasted time out of carton put-away processes. Present workers with a visual of racks.

May not be available in all regions. Contact your local Zebra sales representative or partner.

## Inbound Operations

Receiving  
Returns Management  
Put-Away

› Cross-Docking

# Orchestrate the Movement of Cross-Docking Operations

## Ensure the right shipments are on the right trailer at the right time

Every minute counts. Count on a digitized cross-dock operation to make the most of every minute.



### XPAD L10 Rugged Tablet

Instruct forklift drivers on their next move; integrated scanner for driver to detach tablet, dismount vehicle and continue capturing barcode data



### DS3600-ER Ultra-Rugged Scanners

Scanning certainty despite noise and dimly-lit trailers with three ways to confirm a scan



### MC3390xR Long-Range RFID Handheld Reader

Quickly locate assets near and far in fast-paced cross-dock operations



### ATR7000 RTLS Reader

Automate tracking processes and verifying shipping manifests as they enter or leave a trailer

May not be available in all regions. Contact your local Zebra sales representative or partner.



### ZT411 Industrial Printer

Print it all, print it fast as goods move from trailer-to-trailer; labeling keeps everything in its place



### Zebra IQ Color Labels

Use on-demand color-coding to eliminate guesswork and increase sortation and routing accuracy

## Zebra SmartPack™ Trailer

Powered by Zebra Savanna™

Monitor every dock door from a single dashboard to better estimate when each trailer will be full and ready to depart.

## Zebra MotionWorks® Warehouse

Powered by Zebra Savanna™

Receive alerts when nearby lift trucks are available to load and unload trailers.

May not be available in all regions. Contact your local Zebra sales representative or partner.

# Outbound Operations



Picking



Packing



Staging



Loading

## Outbound Operations

Picking  
Packing  
Staging  
Loading

# Increase Order Fulfillment – Not Your Workforce

Optimize and orchestrate outbound workflows from picking to loading

- Strengthen your workers' capabilities with hands-free and heads-up wearable technology and touch-optimized devices
- Save valuable time with mobile printers and supplies
- Uncover hidden opportunities with intelligent-edge solutions



## Tips to keep up with increasing market pressures



Reduce average training time from 4.5 weeks to days with an optimized mobile user experience.



Decrease non-productive walking by introducing autonomous mobile robots your mobile workforce.



Orchestrate operations based on the real-time location of your people, goods and assets.

## Outbound Operations

> Picking  
Packing  
Staging  
Loading

# Mobilize Picking to Increase Daily Throughput and Accuracy

## Optimize picking to achieve dynamic workflows

Expedite onboarding, verify accuracy with every scan and keep moving at a rapid pace.

### Zebra FulfillmentEdge™

Powered by Zebra Savanna™



**HD4000 Enterprise  
Head-Mounted Display**

**WT6000  
Wearable Computer**

**RS5100 Bluetooth™  
Ring Scanner**

**Increase picking productivity up to 24% with dynamic workflows.**

- Receive consolidated electronic work orders to fulfill multiple orders within a zone.
- Use the latest in wearable technology to see pick-orders in line-of-sight.
- Rich content such as step-by-step directions, flow rack layout and item photos promotes accuracy.
- No WMS upgrade necessary.

May not be available in all regions. Contact your local Zebra sales representative or partner.



#### **XSLATE L10 Rugged Tablet**

Drive pallet picking efficiency with touch-screen access to WMS



#### **DS36000-SR and -ER Ultra-Rugged Scanners**

Capture the right barcode data among multiple barcodes with each scan



#### **ZQ600 Series Mobile Printer**

Reduce errors and increase efficiency with on-the-spot labeling



#### **MC3390xR RFID Handheld Reader**

One mobile computer locates RFID tags and scans



#### **MC3300x Mobile Computer and HS3100 Headset**

Support voice-directed picking with scanning to confirm picks with a user-friendly interface



## Outbound Operations

Picking  
› Packing  
Staging  
Loading

# Confirm Contents. Pack with Confidence. Together, we can raise customer satisfaction

By digitizing packing operations, you can validate order accuracy and customer addresses.



### WT6000 Wearable Computer RS5100 Ring Scanner

Work this hands-on job hands-free for greater focus, accuracy and productivity



### ET51 Enterprise Tablet

Large screen offers versatility to verify order quantities and contents; WorryFree Wi-Fi ensures constant connection to WMS and printers



### DS3678-SR Ultra-Rugged Scanner

Scan barcodes the first time in virtually any condition to ensure accuracy and avoid bottlenecks to meet increasing customer demands



### FX9600 Fixed RFID Reader

Validate outbound shipments to avoid disruption and chargebacks with a final record of the UPCs for irrefutable proof of delivery



### ZT610 Industrial Printer

Keep up with high order volumes with the best-in-class registration output of 4" crisp quality shipping labels



### Zebra Z-Slip

Save time with all-in-one packing slips that you simply print, peel and apply to the outer carton or shrink-wrapped pallet

**Zebra**  
**FulfillmentEdge™**  
Powered by Zebra Savanna™

HD4000 Enterprise  
Head-Mounted Display



WT6000  
Wearable Computer



RS5100 Bluetooth™  
Ring Scanner

Enable workers to quickly and effortlessly sort multiple orders and correctly consolidate them for shipment.

May not be available in all regions. Contact your local Zebra sales representative or partner.

## Outbound Operations

Picking  
Packing  
› Staging  
Loading

# Avoid Disruption and Customer Dissatisfaction

## Stage the right items in the right lane

Advanced technology gives workers the advantage to stage with confidence and reduce errors.



### MC3300x Mobile Computer

Direct and confirm pallet movements with this versatile mobile computer, customizable with four different form factors to work your way



### VC80x Android Vehicle-Mount Computer

Give operators mobile access to staging instructions and pair with a rugged scanner for fast, accurate data capture



### DS3678-ER Ultra-Rugged Scanner

Cordless, long- and standard-range scanning with PowerPrecision+ batteries to stage orders efficiently without disruption



### Zebra IQ Color Labels and ZQ600 Series Mobile Printers

Avoid shipment mistakes or lost orders, printer color labels on-demand and stage by color



### ATR7000 RTLS Reader

Instantly cross-check trailer assignments in real time to ensure orders are properly placed for loading

May not be available in all regions. Contact your local Zebra sales representative or partner.

**Zebra**  
**MotionWorks®**  
**Warehouse**  
Powered by Zebra Savanna™

Automatically identify outbound shipments in real time in each staging location.



Sensing  
Hardware



MotionWorks  
Warehouse Software



Business  
Application



Professional  
and Support Services

May not be available in all regions. Contact your local Zebra sales representative or partner.

## Outbound Operations

Picking

Packing

Staging

> Loading

# Load Outbound Shipments with Accuracy and Efficiency

## Let us help guide your best-next-move on the loading dock

Keep pace with the rising volume of packages and shrinking delivery schedules.



### VC80x Android Vehicle-Mount Computer

Empower drivers to easily view clear instructions and execute multiple steps with a single touch using the 12 programmable keys for timely and accurate pallet loading



### DS3678-SR Ultra-Rugged Scanner

Cordless Bluetooth® scanning without interfering with the wireless network. Wi-Fi Friendly mode lets workers scan and confirm every parcel and pallet loaded.



### FX9600 Fixed RFID Reader

Get the flexibility you require to validate shipments while loading—directly connect to Wi-Fi networks and Bluetooth enabled devices. Rugged mount available for forklifts.



### MB4000 Ruggedized Bluetooth® Beacon

Make this part of your solution to verify the right carton or pallet is on the correct trailer, this waterproof, durable beacon withstands the elements and provides a location in less than a second

**Zebra**  
**MotionWorks®**  
**Warehouse**  
Powered by Zebra Savanna™

Eliminate the need to manually confirm trailer load accuracy by automatically creating an electronic manifest.

**Zebra**  
**SmartPack™**  
**Trailer**  
Powered by Zebra Savanna™

See what is happening inside every dock door from one dashboard to better manage trailer fullness, load density and load quality for reduced transportation costs.

May not be available in all regions. Contact your local Zebra sales representative or partner.

# Inventory Management



Cycle Counting



Cold Chain Management

## Inventory Management

Cycle Counting  
Operations

Cold Chain  
Management

# Manage Inventory Smarter

Make every transaction count. Automate for accuracy.

- Forgo missing or low stocks that impact fulfillment
- Ensure data capture at every touch point
- Make cycle counting more productive for faster, more frequent counts



## Manage inventory with the right tech for your environment and workflow



Replace manual counting with mobile computers and handheld scanners that help workers verify inventory count efficiently, locate discrepancies and update upon manager approval.



Deploy devices built to withstand harsh environmental conditions to ensure inventory is managed in all areas of your warehouse.



Utilize real-time data capture, machine learning and artificial intelligence to predict preferred slotting location of incoming inventory for future accessibility.



## Inventory Management

> Cycle Counting Operations

Cold Chain Management

# Forgo Out-of-Stocks and Low Stock

## Achieve inventory accuracy with constant and consistent visibility

Employ regular cycle-counting practices that best fit the size and volume of your business.



### MC3300X Mobile Computer

Accelerate cycle counting with Mobility DNA All-Touch Terminal Emulation with an intuitive graphical user interface



### XSLATE L10 Rugged Tablet with RS5100 Bluetooth Ring Scanner

Conveniently work from a mobile workstation with a mounted tablet; hands-free scanning makes moving inventory easy when counting



### DS3600-ER Ultra-Rugged Scanners

Accelerate cycle counts by capturing virtually any barcode in any condition – farther, faster and the first time, every time



### MC3390xR Long-Range RFID Handheld Reader

Gain control of critical inventory using automated data capture with RFID handhelds to find and verify tagged goods more than 60 ft./18.2 m away



### ZT400 Series RFID Industrial Printers

Encode RFID tags and barcode labels for added product identification to verify contents accurately during cycle counting



### Z-Perform 1500T and 1500D

Depend on quality labels, rigorously tested for consistency to deliver exceptional, long-lasting product identification accuracy

Supplies names may vary by region. Contact your Zebra sales representative or partner

## Inventory Management

Cycle Counting  
Operations

> Cold Chain  
Management

# Increase Consumer Safety and Reduce Inventory Waste

## Enter and retrieve data even in freezers and refrigerators

Get the job done with devices made for the cold.



### VC8300 Android Vehicle-Mount Computer

Track inventory moves in extreme temperature changes or humidity with smart temperature sensors and internal heaters



### DS3600-SR Ultra-Rugged Scanners

Capture every inventory transaction with these cold-rated scanners that can even read labels covered with frost



### MC9300 Freezer Mobile Computer

Keep inventory in check, even in extreme temperatures as low as -30°C (-22°F), with integrated heaters for accurate data capture



### FX9600 Fixed RFID Reader

With this highly sensitive RFID reader outside freezer portals, workers have less exposure to cold and inventory movements in and out of freezers are tracked automatically



### ZQ500 Series Mobile Printers

Print labels on-the-go, even in cold environments, with cold-temperature compensation for optimal speed and quality



### Zebra Certified Supplies

Depend on durable, cold-temperature labels that adhere in temps as low as -40°C (-40°F) and stay put if temps dip to -54°C (-65°F)



#### Cold-rated Devices

Designed for working in a single temperature zone and minimal movement between cold and warm environments. Temperature shock and condensation are not an issue.



#### Condensation-resistant Devices

Designed to withstand moderate temperature shock and condensation, ideal for constant movement between refrigerators/ cooler and temperature-controlled, less humid areas



#### Condensation-free Devices

Designed to withstand severe condensation occurring from the constant travel between the freezer and warm areas with high humidity

### Use Cases and Deployment Environments

Before you select a device, assess how and where you will be deploying it.

# Worker Safety in the Warehouse



Worker Safety  
in the  
Warehouse

# Turn Work Zones into Safe Zones

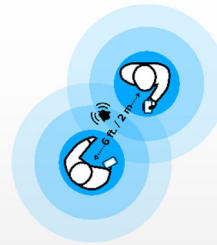
Tools and technology to keep your business operational

Zebra  
**MotionWorks®**  
Proximity

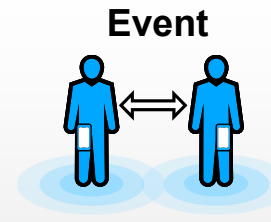
Powered by Zebra Savanna™



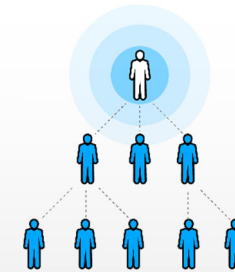
Device  
Disinfection



Proximity  
Alerts



Proximity  
Events



Contact  
Tracing

## Use these supported devices you may already have in your warehouse



MC9300 Handheld  
Mobile Computer



MC3300x Handheld  
Mobile Computer



TC8300  
Touch Computer



TC72/TC77  
Touch Computer



EC30  
Touch Computer



MB6000\*  
Mobile IoT Bridge



Haptic/Vibration alert



Audible alert

**Note:** Mobile Computers require Android O, M and N OS

Solution may not be available in all regions. Contact your local Zebra sales representative or partner.

## Worker Safety in the Warehouse

# Protect Your Most Valuable Asset – Your Workforce

## Social distance, sanitize devices and communicate remotely

Trust the first name in front line performance for worker safety.



WT6000  
with accessories



RS5100 Single-Finder  
Ring Scanner



RS5100 Detachable  
Trigger Only

### Zebra Workforce Connect™

Powered by Zebra Savanna™

#### Stay connected at a safe distance

Use push-to-talk voice and data communication to communicate with individuals, groups or for training

### Zebra FulfillmentEdge™

Powered by Zebra Savanna™

#### Minimize congestion by optimizing workflows

Give workers a consolidated electronic work order to fulfill multiple orders within their zone to keep them socially distanced

May not be available in all regions. Contact your local Zebra sales representative or partner.

#### Video on Device Remotely train workers

Eliminate the risk of large-group training in a single room, load application training and “how-to” demo videos on workers’ mobile computers

#### Zebra Disinfecting Guidance and Accessories

Refer to Zebra for instructions on how to sanitize shared devices, as well as add an extra layer of protection with personalized accessories for wearables to minimize the risk of infection



# Global Services



# Modernize with Ease

## Let our professionals show you how

### Zebra Signature Services

Exploit new opportunities by unlocking intelligence from your data and putting it to work.



Software  
Integration



Learning  
as a Service



Workflow and  
Design Consulting



Program  
Management



Solution  
Jumpstart



Solution  
Validation



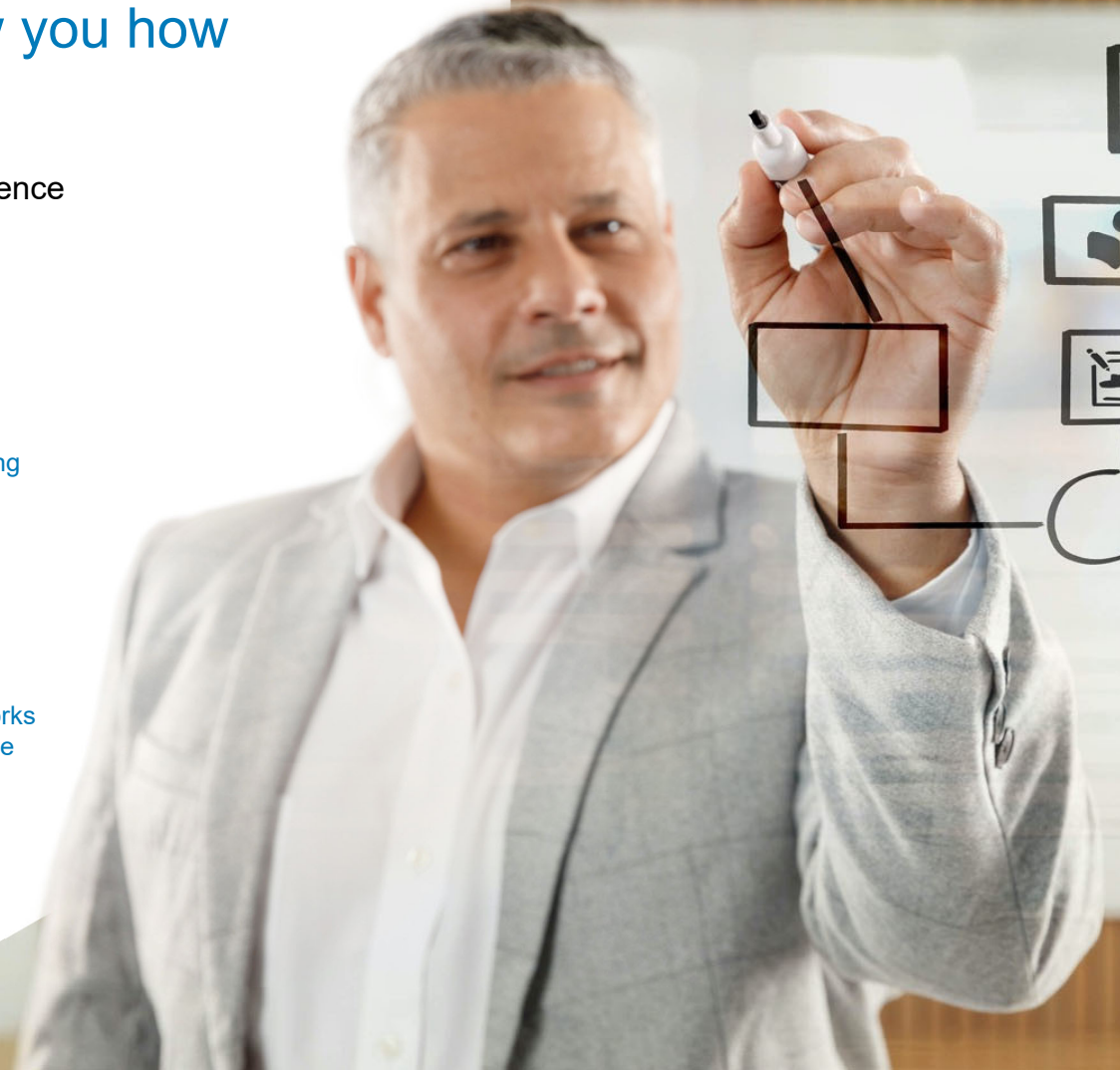
RFID Design  
Signature Service



Voice Enabled  
Signature Service



Zebra MotionWorks  
Signature Service



# Zebra OneCare™ Support and Maintenance Services

## Maximize uptime and ROI

**Constant, peak performance and a fast return on investment**—eliminate unexpected disruptions and unbudgeted repairs.

Choose the Zebra OneCare Support Services right for you:

### Zebra OneCare Essential

- Comprehensive repair services
- Software support
- 8x5 technical support (plus 24x7 online support)
- 3-day repair turnaround service
- Device Diagnostics\*
- Access to cloud-based support dashboard and reports insight\*\*

### Zebra OneCare Select

All the features of Essential Service, plus:

- Next business day advanced “like new” device replacement
- Standard Commissioning Service (OS and LifeGuard levels, your applications and software so your devices are ready-to-go out of the box)
- 24x7 helpdesk support

### Zebra OneCare Specialized Coverage Options

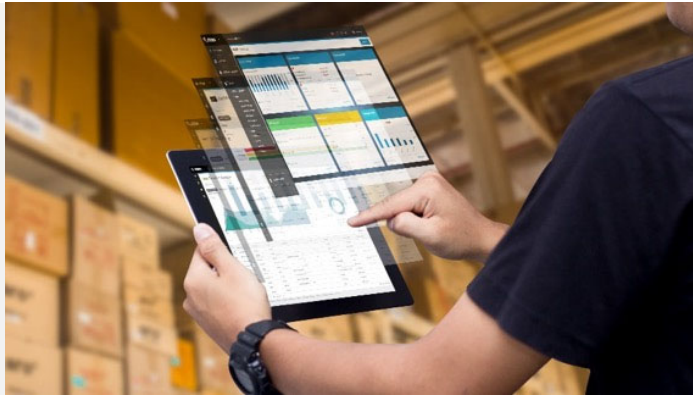
- **Technical and Software Support (TSS)**  
Standalone technical support services and software support
- **Zebra OneCare SV**  
Right-priced support for Zebra Value-Tier devices
- **On-Site Support**  
One call brings a Zebra-trained and certified service technician to your facility

\*Zebra Mobile Computers only

\*\*Zebra Mobile Computers and Scanners only. Cloud-based visibility into repair, cases, contract reports and more.

# Zebra Visibility Services

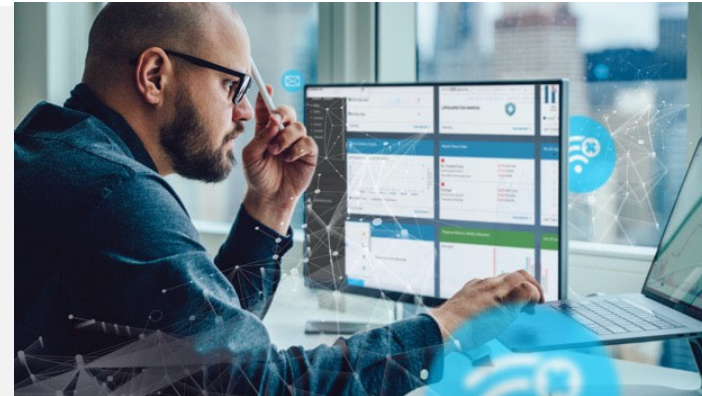
**Zebra VisibilityIQ™** gives you the data-driven, actionable insight when and how you need it. Get a clear view into how your devices are performing and know what next steps can increase productivity and decrease expenses.



## VisibilityIQ™ OneCare™

View status of device repairs, technical issues, contracts, case reports and software, and LifeGuard™ security status visibility.

Included with your Zebra OneCare support contracts for mobile computers and scanners



## VisibilityIQ™ Foresight

Cloud-based business intelligence tool combining multiple data sources to provide actionable insights in a single pane of glass to streamline workflows.

# Thank You

To learn more, please visit

[www.zebra.com/warehouse](http://www.zebra.com/warehouse)



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