

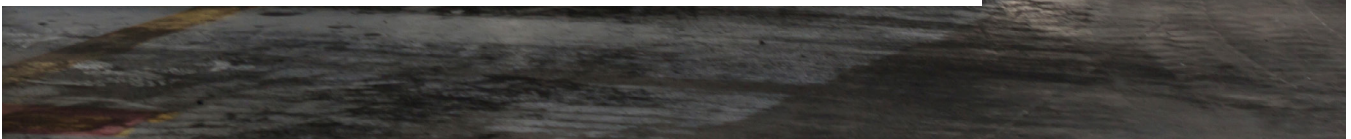


**ZEBRA**



# Smart Factories. Seamless Operations.

Manufacturing solutions that take your operations to the next level.



# Zebra helps you build the factory of the future.

**TECHNOLOGY IS PUSHING MANUFACTURING INTO MORE VISIBLE, MORE AUTOMATED OPERATIONS. ZEBRA HELPS YOU GET TO THE EDGE OF SMART FACTORY TECHNOLOGY.**

Manufacturing is in a fourth industrial revolution: a revolution driven by technology. Technology makes huge plant floors manageable from a tablet. Technology makes logistics dynamic and flexible. Technology takes the factory floor, once driven by paper and pencil, and enables its adaptation to new business realities faster than ever before. You already know technology is changing everything. Zebra is here to make sure your factory changes with it.

Zebra's innovative technology solutions provide manufacturers with total visibility into their operations, giving them the real-time information they need to respond quickly to shifting business priorities and economic conditions. When you can see every asset, person and process interacting in real time, it's simple to optimize your line and service, meet rising production complexities and transform your factory into a profitable, seamless operation.

## Smarter Factories

Today, you need to know more than ever about what's happening on your factory floor.

With over 40 years' experience providing innovation to 95% of Fortune 500 companies, Zebra can transform your factory into an environment that provides actionable, real-time insight to help you choose the best course of action and future-proof your operations.

## Dynamic Logistics

Business moves fast. Your factory needs to be able to react even faster.

Zebra gives you the status of your materials, people and assets in real-time, plus the status of your operation at the factory, on the dock or in the field so you can respond to customer inquiries and react to changes immediately.

## Superior Service

When there's a problem, you can't afford to waste time pulling together a solution.

Zebra keeps service representatives connected with colleagues, customers, management and the tools they use across the supply chain while lowering costs per interaction, flawlessly.

# Visibility That's Visionary Helps Manage the Entire Supply Chain

With Zebra, you have unrivaled visibility into every corner of your operations with Enterprise Asset Intelligence that helps you future-proof your operations with smarter factories, achieve flexibility with dynamic logistics and provide superior service.

**2x**

**Fully-connected factories are expected to double, with over one-third of those surveyed anticipating having this capability by 2022.<sup>1</sup>**

**50%**

**50% of respondents cite flexibility to adjust to fluctuating market demands as a top business strategy.<sup>1</sup>**

**46%**

**46% of respondents say increased visibility across their operations will support growth.<sup>1</sup>**

**58%**

**58% of respondents identify supplier quality as an issue.<sup>1</sup>**

<sup>1</sup>Zebra Manufacturing Vision Study 2017

# Zebra Plant Floor Solutions

OPERATE AT PEAK PRODUCTIVITY.

Plant floors are more complex than ever. There's more to manage and less time to manage it. Zebra's plant floor solutions can help you get the job done right. We give you the knowledge and agility to optimize every process, asset and resource with end-to-end accuracy. With Zebra's solutions, your plant will be capable of consistently producing product on cost, on plan and on spec.



## PROCESS COMPLIANCE

Zebra's solutions make sure your workforce complies with regulations and processes, keeping quality high, your workforce safe and your operation compliant.



## ASSET & FACILITY MANAGEMENT

Placing mobile barcodes and sensors at key points in your facility helps you respond quickly to alerts and alarms, optimize maintenance and keep downtime to a minimum.



## STAFF COMMUNICATIONS

Connecting your workforce to each other, on and off the plant floor, is essential to keep your operations running smoothly. With Zebra's Workforce Connect-enabled mobile computers, your workers are in constant contact so they can focus on fast throughput, instead of tracking each other down.



## TRACEABILITY

Zebra helps you create an audit trail from materials to the field. Sensors, readers and scanning technology allow you to create a complete record of every product as it moves through every step of your manufacturing facility and beyond.



## MOBILE HUMAN MACHINE INTERFACE

Custom interfaces and Zebra tablets give you and your workforce a real-time view of your operations from every corner of your plant floor, boosting accountability and reducing the errors inherent in paper records.



## QUALITY ASSURANCE

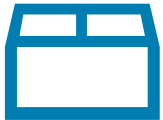
Sensor tags, readers and scanners can help you detect, isolate and eliminate quality issues before they damage your products—and your reputation.



# Zebra Warehouse Solutions

TAP INTO THE POWER OF THE SMART WAREHOUSE.

Having an integrated supply chain allows you to increase productivity throughout your warehouse—from receiving to picking to cross-docking and shipping. Whether your warehouse is for storage of raw materials and manufactured goods, cold storage, distribution, fulfillment or long- or short-term dock storage, Zebra solutions help you increase accuracy, boost efficiency, exceed operational expectations and achieve the agility to stay competitive and connected to your inventory at all times.



## RECEIVING

Get materials from dock-to-stock as quickly as possible to ensure inventory is always available and up-to-date. Accurately capture data, label cartons and reconcile details with your Warehouse Management System (WMS) with mobile computers, printers and scanners.



## CROSS DOCKING

Synchronize your cross docking operations. Automate scanning processes and track equipment movement with RFID, use long-range scanning to capture label information in harsh environments and minimize inefficiencies.



## PUT-AWAY & REPLENISHMENT

Ensure downstream operations like picking, cycle counting and reordering run smoothly with accurate and expedited put-away. Connect workers with mobile devices on the warehouse floor to your WMS to have real-time location, quantities and availability of new inventory.



## INVENTORY & MATERIALS MANAGEMENT

Have an accurate count and location of all your raw materials and finished goods by performing essential cycle counts quickly and more often. Scanning, mobile computing, printing and RFID solutions reduce time and increase accuracy.



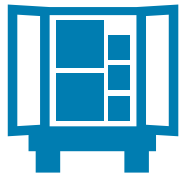
## PICKING

Experience both speed and accuracy whether you are specializing in pallet, case or high-velocity picking. Workers are completely mobile and hands-free with their voice-directed, wearable scanning and computing devices.



## PACKING & STAGING

Confirm order accuracy, provide traceability and dynamically stage to ensure error-free outbound loading. 1D and 2D scanning, RFID, wearables, printing and locating technologies provide the right mix of data capture and tracking necessary to complete order fulfillment flawlessly.



## SHIPPING

Verify shipping details, trailer assignments and optimize space utilization to ensure flawless fulfillment. Mobile scanning, RFID technology, locating and 3D sensing technology provide you with the automation and traceability you require to increase efficiencies at your dock.



## REVERSE LOGISTICS

Add visibility to your returns process and streamline your workflows. Mobile computing and printing capabilities help you document the receipt, condition and resolution so you can quickly restock, refurbish or discontinue goods to control waste and salvage useable inventory.



## COLD CHAIN MANAGEMENT

Be more productive when operating in extreme temperature conditions. Increase productivity with devices that are engineered to provide reliable operation, regardless of dramatic temperature and humidity swings. Mobile and vehicle-mounted computers, wearables, 1D and 2D scanners, and printers alleviate common cold chain challenges.

# Zebra Field Operations Solutions

TRACK OUTSIDE YOUR FOUR WALLS.

Field representatives are ambassadors of your enterprise. They need to be equipped with the tools and information to ensure a positive customer experience. Zebra's field operations solutions empower your workforce in the field so your representatives can be flexible, knowledgeable and reliable while ensuring customer satisfaction the first time, every time.



## DIRECT STORE DELIVERY

Zebra's mobile computers and printers make sure deliveries are accurate, on-time and up to expectations with accurate inventory counts, shelf-utilization and proof of delivery.



## FIELD SALES AUTOMATION

Zebra's mobility tools let your workforce start, complete and invoice jobs on location. And with automated scheduling and dispatch, your field representatives will arrive on time for appointments, boosting customer satisfaction.



## MERCHANDISING

Zebra's mobile computers allow management to compare product on shelf against the merchandising planogram, ensuring every product is exactly where it's supposed to be, and the merchandising plan is executed accurately.



## FLEET MANAGEMENT

Zebra's solutions help manage routes and monitor your assets while they're on the road to maximize efficiency and visibility. Plus, you can easily communicate with and monitor the compliance and performance of your fleet.



## PROOF OF DELIVERY

Give customers peace of mind and complete visibility into the delivery process. Zebra's solutions allow your workforce to take photos for proof of delivery and package condition and location.



## FIELD SERVICE

Zebra gives your technicians access to technical specifications, inventory information and direct customer communication on the go, improving repair rates and reducing repeat calls.

# PRODUCTS, SOFTWARE & SERVICES

BUILD YOUR MANUFACTURING SOLUTION WITH THESE COMPONENTS.

## HARDWARE



### WEARABLE SOLUTIONS

Give your workers hands-free accessibility to data and information with ring scanners and headsets connected to arm-mounted mobile computers for voice-directed multi-modal tasks to increase safety and productivity.

#### APPLICATIONS INCLUDE

- Picking
- Loading
- Sortation
- Packing



### VEHICLE-MOUNTED COMPUTERS

Increase productivity of your forklift drivers by making every second count. Give them mobile access to desktop applications to complete tasks quickly and accurately without leaving their lift truck. Pair with long-range scanners to increase efficiency.

#### APPLICATIONS INCLUDE

- Asset tracking
- Picking
- Putaway
- Shipping & receiving
- Inventory management
- Cold chain management
- Cross docking



### ULTRA-RUGGED HANDHELD SCANNERS

Experience fast and accurate 1D and 2D standard- and extended-range scanning and effortless deployment, connectivity and management. Superior performance, ultra-rugged design and unrivaled manageability tools combine to redefine the scanning experience.

#### APPLICATIONS INCLUDE

- Receiving
- Shipping
- Cross docking
- Cold chain management
- Traceability
- Quality assurance checks



### HANDHELD MOBILE COMPUTERS

Increase productivity, accuracy and efficiency to give workers reliable access to enterprise systems for customer service, inventory access and technical information in the plant or in the field.

#### APPLICATIONS INCLUDE

- Receiving & putaway
- Field Services
- Order fulfillment & deliveries
- Shipment & asset tracking
- Asset maintenance
- Staff communication
- Proof of pick-up & delivery
- Production alerts



### TABLETS

Provide workers with a rugged enterprise-grade tablet that is made to run your business applications with the durability to withstand the harshest environments. The large screen, integrated scanning, Wi-Fi and cellular connectivity, extended battery life and purpose-built accessories keep workers productive through an entire shift.

#### APPLICATIONS INCLUDE

- Inventory management
- Proof of pick-up & delivery
- Dock & line haul management
- Asset management
- Device management
- Merchandising
- Human-machine-interface



### RFID READERS & PRINTERS

Streamline your operations with less manual scanning of individual items, maximize asset utilization and error-proof asset-related data using fixed and handheld readers and printers to optimize productivity across your factory floor.

#### APPLICATIONS INCLUDE

- Cycle counting
- Asset & facility management
- Cross docking
- Inventory & materials management
- Sortation
- Traceability





## REAL-TIME LOCATING SYSTEMS (RTLS)

Have complete visibility of assets to optimize flow throughout your operations and the supply chain. RTLS provides fast and accurate fulfillment, improved efficiency, wide-area asset traceability and better bottom line results.

### APPLICATIONS INCLUDE

- General asset management
- Material flow replenishment
- People tracking - time & productivity
- Yard management
- Traceability
- Tool control



## DESKTOP & INDUSTRIAL PRINTERS

Get high-quality printing with space-saving desktop or rugged industrial high-speed printers that are built to last and can handle the fast pace of any factory or warehouse floor. With Zebra's barcode and RFID printer solutions, you can produce labels, receipts and documents.

### APPLICATIONS INCLUDE

- Packing slips
- Shipping labels
- Receiving carton & pallet labelling
- Sortation
- Assembly & sub-assembly
- Inventory & materials management
- Quality assurance labeling



## ADVANCED DEX

Eliminate wired accessory failure without changing your existing DEX workflow by replacing cable DEX systems with Zebra's Wireless DEX solutions.

### APPLICATIONS INCLUDE

- Direct store delivery
- Receipt verification
- Replenishment
- Returns verification



## CARD PRINTERS

Get clear, sharp images to identify employees and visitors easily. Zebra card printers deliver outstanding performance and quality every time. RFID badges allow for automatic identification in busy or harsh environments where hands-free is necessary.

### APPLICATIONS INCLUDE

- ID cards & badges
- Electronic timecards
- Workforce compliance
- Secure card entry
- Asset tracking
- Traceability



## MOBILE PRINTERS

Equip your workforce with compact printing solutions that put printing in the palms of their hands whether on a plant floor or in the field. Boost productivity and accuracy by printing labels, receipts or tags on-demand.

### APPLICATIONS INCLUDE

- Receiving
- Putaway & replenishment
- Reverse logistics
- Assembly & sub-assembly
- Order confirmations
- Receipt printing
- Proof of pick-up & delivery
- Dynamic staging
- Quality checks



## INDUSTRIAL ETHERNET CONNECTIVITY

For true integration of scanning and printing on the production line, Zebra provides Ethernet IP integration for print and apply processes and transmits scanned barcode data over industrial Ethernet systems by supporting the most widely used protocols for automation and process control applications.

### APPLICATIONS INCLUDE

- Print & apply
- Assembly & sub-assembly
- Quality assurance
- Traceability

# CERTIFIED SUPPLIES



Improve operational efficiency and productivity with the highest quality labeling, tagging and receipt printing. Zebra Certified Supplies are pre-tested to ensure they withstand harsh environmental conditions, are readable for your scanning devices, workers, and customers every time, as well as replace easily to reduce downtime.

## APPLICATIONS INCLUDE

- Carton & pallet labeling
- Shelf labeling
- Equipment & asset tagging
- Assembly & sub-assembly labeling
- Security ID cards
- Receipt printing
- 1D and 2D barcoding
- RFID

# SOFTWARE



## PRODUCTIVITY & OS SOFTWARE

Improve employee, network and data security performance with software designed to connect, protect and enhance your IT infrastructure, customer data and mobile device solutions. Zebra provides:

- Mobility extensions that add features that make Android™-based devices enterprise-ready
- Mobile device management applications
- Productivity apps
- Robust administration utilities & app development tools
- Voice & messaging connectivity
- Printer connectivity
- Support for Android™

## APPLICATIONS INCLUDE

- Proof of delivery & pick-up
- Shipping & receiving
- Direct store delivery
- Barcoding
- Push-to-talk communication
- Scanning



## INDEPENDENT ZEBRA VENDOR NETWORK

Zebra's global network of Independent Software Vendors (ISVs) offers innovative software applications for Zebra devices and systems. Our ISVs can help you identify the best applications for your business or develop custom software to address your unique needs.

## APPLICATIONS INCLUDE

- Proof of delivery
- Inventory & materials management
- Voice-directed picking
- Serial number management
- Traceability systems
- Navigation & route optimization
- Fleet management & scheduling
- Payment
- Sales force automation
- Warehouse management



## ANALYTICS SOLUTIONS

Pairing your mobility solutions with an analytics engine helps you look at your data in a way that allows for smarter, more informed decision making. Offering enterprises the ability to see data in a meaningful context in real time, Zebra provides innovative software analytics solutions that integrate with your enterprise systems to support specific operational areas of your business—enabling you to make impactful improvements on productivity and profitability.

## APPLICATIONS INCLUDE

- Trailer Optimization\*

\*Not available in all countries, contact Zebra for more information.

# SOLUTION SERVICES



## SOLUTION CONSULTING

Wherever you are in your enterprise intelligence journey, Zebra brings proven methodologies, tools and vertical expertise to help accelerate achievement of desired business outcomes. Offering a wide range of consulting services, we help you evaluate your current operations, identify pain-points and optimize your business processes.



## SOLUTION INTEGRATION & APPLICATION SERVICES

Zebra can manage your transition with application services, including design reviews, code development, application porting, ERP integration and testing/validation, as well as integrate your entire communications system from networks to devices to applications using our Six-Sigma program management team.



## LEARNING & ADOPTION WITH ZEBRA KNOWLEDGE CENTER

Zebra's award winning Knowledge Center is at the forefront of learning innovation, helping customers with user adoption and change management to optimize their solution investments. Zebra also offers programs that validate competency and provide accreditation in advanced deployment and technology skills through your choice of delivery format: onsite or offsite instructor-led, self-paced online, virtual instructor-led, video and webinars.



## DEPLOYMENT

Zebra offers a portfolio of services to help you with deploying technology across your operation. Starting with implementation and operational planning for pilot, Zebra sets you up for success – from staging and installations to audit and troubleshooting.



## SUPPORT & VISIBILITY SERVICES

Availability and visibility of Zebra's products are keys to the success of your business and the performance of your critical business processes.

[Zebra OneCare Support Services](#) maximize availability and business operations while helping you avoid unexpected repair expenses. Multiple service levels and options available to meet your requirements.

[Zebra Visibility Services](#) maximize uptime, performance and ROI of your critical assets and help you optimize your business operations. Asset Visibility Service (AVS) and Operational Visibility Service (OVS) give you the tools to gain insight into asset location, inventory and performance to help you improve business outcomes across your enterprise

# ABOUT ZEBRA TECHNOLOGIES

Zebra provides unparalleled operational visibility for enterprises to become as smart and connected as the world we live in. Real-time information – gleaned from visionary solutions including hardware, software and services – gives organizations the competitive edge they need to simplify operations, know more about their businesses and customers and empower their mobile workers to succeed in today's data-centric world.

FIND OUT MORE ABOUT OUR MAUFACTURING SOLUTIONS AT [ZEBRA.COM/MANUFACTURING](https://www.zebra.com/manufacturing)



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