

Voice Logistics

Benefits in the Warehouse

Voice activated technology is fast gaining popularity - especially in the warehouse where companies are continuously striving to reduce costs and increase productivity in the supply chain.

What is it about voice technology that makes it so powerful? Essentially the technology allows staff working in labour-intensive jobs a hands-free, eyes-free environment. Wearing just a headset and a microphone staff can now receive orders and confirm their actions real-time. And the technology needed is fairly straight forward - radio frequency, local area network, warehouse management system and a communications server.

With the technology first appearing on the scene in the 1940s, it has been refined and tested to the extent that it's now something we take for granted. Industries at the forefront of adopting voice logistics are banking - with automated information dissemination, customer service and phone banking; and the automotive / airline industry - for vehicle navigation and safety alerts.

But no where is it making more of an impact on the business bottom line than in the warehouse. While it's being used for Stock Checks and Good Received, the benefits of voice logistics are firmly felt in the most labour intensive area of the warehouse - Order Picking.

Warehouse professionals consider order picking one of the most critical areas in their distribution operations.



Image courtesy of Vovware

Order picking is an area where receiving, storing, packing, shipping, order processing and customer requirements all converge - requiring the most resources and where accuracy and efficiency are vital in meeting customer demands. For many companies, order picking in the warehouse accounts for between 40-60% of the direct labour budget.

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Within the first year after implementing voice logistics to their operations, a company reported nearly US\$1.3million in savings, saw over 25% decrease in mispicks and inventory shortages dropped by 11%.

Supply Chain & RFID

Manufacturers, logistic providers and retail organizations are all firm propagators of RFID technology and its benefits to the supply chain. A true tried and tested technology, RFID can track a product through its entire lifecycle - from the time it's made through the shipping process and right up to when it leaves the store in a customer's shopping trolley.

Radio Frequency Identification (RFID) technology is nothing new - but for organizations with huge supply chains, it is revolutionizing their business.

Benefits To Realize From An RFID Implementation

- ▶ **Cost Reduction**
Because it's so easy to get full visibility of your inventory, cost can be saved along the supply chain as you stop hoarding inventory, reduce wastage and manual checks.
- ▶ **Increase Revenue**
Using RFID to drive sales, innovative solutions will see improved order fulfillment rates, lower out-of-stock merchandize and enhanced customer service in-stores.
- ▶ **Prevent Counterfeits**
With adequate tracking and tagging of all inventories, stores are less likely to fall for stock counterfeit inventory.
- ▶ **Theft Prevention**
Theft prevention can be detected across all levels of the supply chain - from the warehouse right through the store shelves.
- ▶ **Increase Productivity & Work Efficiency**
Identifying, tagging, order-picking and re-stocking in the warehouse is now made easier. With manually labour being cut, mistakes decrease and work efficiency increases.

- ▶ **Increase Speed to Market**
Both at the warehouse and point-of-sales level, your inventories can be turned over at a faster and more accurate rate.
- ▶ **Visibility of Inventory**
The ability to track your inventory is invaluable. RFID allows you to track an item of a specific manufactured batch down to the very last unit in a specific pallet.
- ▶ **Ease of Product Recalls**
Companies can lose millions in revenue, not to mention market share, when product scares occur. With RFID you can recall specific batches of products from individual store locations and regions without getting into a nationwide recall.

Focus:

Successful RFID implementations should result in the following:

- ▶ **Enhanced merchandize / asset management**
- ▶ **Reduced operating expenses**
- ▶ **Higher revenues and/or margins**

RFID tags achieve a read range of 3 to 7.5 meters, thus facilitating the total supply chain process to be totally automated with a 99% accuracy rate.

Symbol Technologies' "Seven Steps to RFID Sanity"

- 1 Understand your visibility requirements. What items do you want to read? Where? How often? From what distance?
- 2 Query other end users about recommendations for trials. What to do? How to do it? Recommended technologies? There are many experienced end users who are willing to share their knowledge.
- 3 Move into the action phase in a real-world setting. Put tags on things, and set up readers at the points you seek enhanced visibility - outside of the lab environment.
- 4 Evaluate technical performance. Do you get reliable reads? Does it properly update your application?
- 5 Assess the economic benefits. Is it better than what you are currently doing?
- 6 Understand the impact. How does the technology affect business processes? Are there integration issues with enterprise systems?
- 7 Make a decision. Decide whether or not to move forward with a larger scale implementation; refine the trial using different processes, technologies, items and/or read points; or cease activity.

Key to achieving success with RFID is found in clever implementations - understand the capabilities and limitations of the technology, and make the best fit of these capabilities within your operation.

Most Common RFID Applications

- ▶ **Shipping & Receiving**
 - Incoming goods can be quickly identified, sorted and re-directed
- ▶ **Compliance Tagging**
 - Able to create chain-of-custody record useful for traceability
- ▶ **Material Handling**
 - Mounted on forklifts or conveyor systems, tagged goods can easily be recognized and sorted
- ▶ **Inventory Control & Replenishment**
 - Eliminates identification errors leading to out-of-stocks and access inventories
 - Real-time data capture leads to more accurate forecasts
 - Due to unattended monitoring, labour costs can be cut for inventory counting and auditing
- ▶ **Production Tracking**
 - With the tags able to withstand even the harshest conditions, the entire production process now can be tracked
- ▶ **Warehousing**
 - Business rules set to create alerts on stock movement and storage locations helps to reduce errors and save labour
- ▶ **Asset Management**
 - Tags are a durable and permanent identifier; with the ability to store inspection records and service information
- ▶ **Check-in, Check-out**
 - Most commonly used for theft detection in libraries, bookshops and video stores
- ▶ **Product Security**
 - Secure lifetime tracking assists with warranty authorization and anti-counterfeiting protection
- ▶ **Access Control**
 - Hands-free and pamper-proof identification
- ▶ **Cashless Payment**
 - A retail application, most commonly used for electronic toll collection

Meeting Challenges:

Maximizing Picking Productivity with the Symbol WT4000 Wearable System



Powerful hands-free flexibility and convenience

The WT4000 Series Wearable System empowers warehouse workers to achieve new levels of productivity and efficiency through hands-free voice and text-based picking. The system offers maximum application flexibility, with headset support for voice picking, a keyboard for text entry, as well as mix and match connectors on either side of the terminal for right- or left-handed scanning.

The ability to utilize this single system for voice-directed picking, text-based picking or a combination of voice and text enables you to meet a wide variety of needs in your warehouse, including the ability to override errors and handle exceptions on the fly, while providing the functionality to automate and dramatically reduce errors in picking operations.

The system's rugged design ensures reliable operations in challenging warehouse environments – from the dusty warehouse floor to the freezer. Ergonomic innovations offer user comfort and safety, protecting your workers from fatigue and injury throughout the shift. And the system offers removable, washable pads, gloves and finger straps to improve user hygiene, even when devices are shared between shifts.

Key Benefits

- ▶ Increases warehouse worker productivity with unparalleled freedom of movement and fewer workflow disruptions
- ▶ Improves picking accuracy by providing real-time feedback and eliminating manual data entry errors
- ▶ Improves worker safety with ergonomic design and hands/eye-free operation
- ▶ Enables real-time exception/error handling
- ▶ Provides maximum application flexibility: voice-only, text-only and combination voice and text

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Common Errors with Order Picking

Human error remains the largest hindrance to optimizing order picking in the warehouse. Efficiency and effectiveness is compromised as basic human skill is pitched against rough and challenging conditions.

Even with the advent and use of technology such as barcodes allowing businesses to achieve up to 99% accuracy, challenges such as line of sight, dirty or smudged barcodes, dead zones in the warehouse all exist.

The Business Benefits of Voice Logistics

With installations increasing around the world, the robustness and maturity of the technology is proven. Companies are fast reaping the benefits - benefits like increased productivity, accuracy and task efficiency.

▶ Hands-free, Eyes-Free

By removing all manual operations such as writing or data-entry, operators are able to identify products for picking faster, able to confirm pickings whilst simultaneously loading them.

▶ Active Labour Instructions

Understanding the capabilities of each operator in the warehouse, individual workloads and pace of work can be decided for each operator - and downloaded into their voice terminals. Each machine is also customized to recognize their speech intonations enabling them to work much more quickly. Orders can also be managed real-time in waves / batches to maximize picking efficiency.

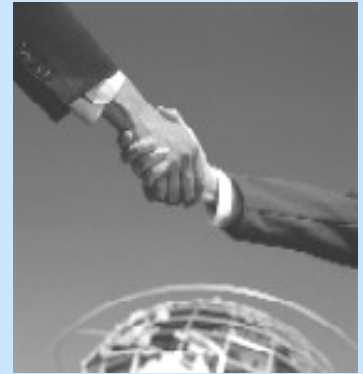
▶ Faster Picking

Check digits at each warehouse location can assist to verify that the operator is in the right shelf location before they proceed searching for the individual product items. If they are at the wrong location, the voice terminal doesn't issue a pick quantity.

▶ Real-time Feedback

Should there be any shortages on stock levels or empty shelves; operators are now able to alert the system. The system then will send an alert for the products to be re-stocked immediately. The system will also be able to re-route the operator's assignment - deciding if they should return to this location later in their route or re-assign this location to another operator.

For more information on how your business may benefit from the implementation of Voice Logistics, contact us at info@resmal.com



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