



Available  
on  
Android

## Smarter Connected Logistics with Lydia Voice

# Expect More from Your Voice Solution

*“While the value proposition around applying voice technology for a warehouse worker has not really changed much over the last decade, the business environment, the shopping/buying experience, and technology options certainly have evolved and changed quite a bit.”*

Lydia Voice provides you with streamlined, best-in-class business processes to take your organization to the next level of operating efficiency. Our supply chain industry domain expertise has enabled us successfully onboard hundreds of thousands of mobile workers around the world where we excel at multi-site customer implementations. Lydia Voice is the leading native voice solution for SAP customers using eWM and WM. Direct integration is also available for more than 25 WMS solutions.

Lydia Voice offers unparalleled voice recognition with its deep neural network technology, the most important attribute of any voice solution, especially in the noisy industrial distribution center environment. Lydia Voice does not require obsolete voice-template training, a remnant from the 1980's.

Our Lydia Voice Co-Exist Solution enables companies to easily operate a two-vendor voice strategy without having to undertake any additional voice integration efforts. Lydia Voice provides a completely integrated enterprise voice solution that includes a modern graphical Workflow DialogueDesigner integrated development environment (IDE). Lydia Voice users are supported by a 24 x 7 staffed support center and has successfully scaled to more than 5,000 users on a single server instance.

Lydia Voice provides you the freedom to implement your solution how you want and on your preferred Android or Windows devices from suppliers such as Zebra and Honeywell. We provide traditional on-premise licensing as well as SaaS and Managed Hosted Service options.

Delivering results starts with our Value Engagement Process. Our team will learn more about your specific business objectives as we gain an understanding of your detailed operational and workflow processes. We meet with key management to better understand the prioritization of the business issues that you want to address. Together, we will physically walk-through one of your targeted facilities to document and observe workers executing various tasks. Our observations and recommendations go well beyond just where voice technology could add quantifiable business value. Our aim is to help you run a smarter connected logistics operation.

**“Our Lydia Voice solution adds to our overall profitability through improved productivity and greater picking accuracy. Overall, we’ve seen an increase in productivity. We track errors in terms of one per thousand, and since using Lydia Voice our errors have gone down.”**

**Vice President of Operations,**

## The Core Value Proposition for Lydia Voice

- **Increased Productivity:** More tasks completed in less time or lower costs per transaction
- **Improved Accuracy:** Enhanced customer experience and reduced returns management costs
- **Increased Safety:** Workers are hands-free and eyes-free and now, headset-free
- **Empowering Employees:** More confident workers are happier workers; reduces turnover
- **Faster New Employee Onboarding:** Reduced training time for full-time and temporary workers



# Lydia Voice Excels in Door-to-Door Workflow Performance

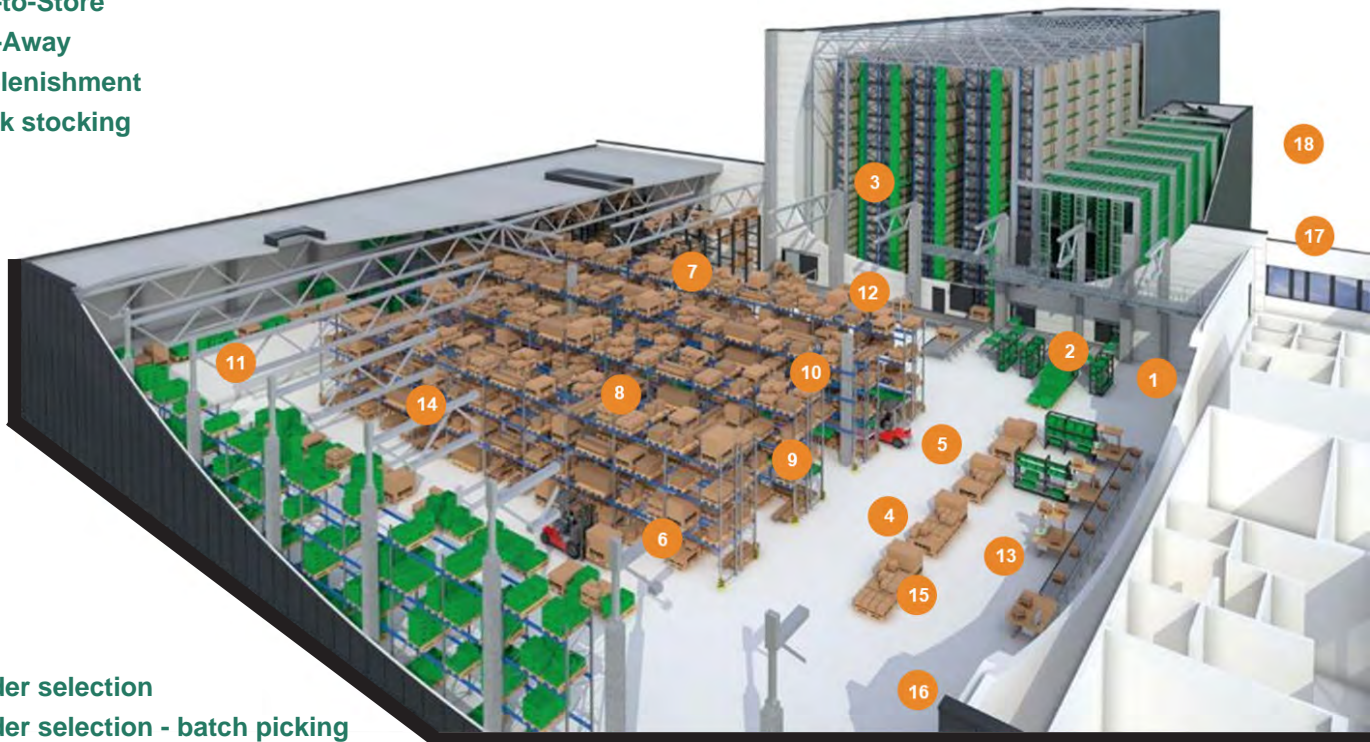
Lydia Voice offers a range of voice-directed workflows that enable warehouse workers to increase their productivity- Door-to-Door. Customers enjoy maximum freedom of movement while being able to fully focus on essential process steps, leading to a significant increase in quality and processing efficiency. As a result, switching to a voice-enabled solution typically pays for itself within as little as a year. Lydia Voice implementations typically all start with the application being applied to the order picking area, where about 60% of the floor workforce traditionally exists.

Once implemented and the business gains greater confidence, Lydia Voice use generally grows to touch other areas of the operation, as shown in the image below. A key advantage for Lydia Voice is our ability to inexpensively and quickly add additional workflow use cases without the traditional high integration costs, which has typically inhibited the growth and expansion of voice.

## Areas Where Lydia Voice Excels in Workflow Performance

1. Goods receiving area
2. Returns management
3. Automated High Bay Storage/Retrieval
4. Cross dock
5. Put-to-Store
6. Put-Away
7. Replenishment
8. Back stocking

*Green text highlights areas where Lydia Voice excels in workflow execution*



9. Order selection
10. Order selection - batch picking
11. Order selection - freezer
12. Line loading
13. Kitting with value added services
14. Bulk transfer
15. Packing and labeling stations
16. Management office
17. Truck loading
18. Yard management

# Key Voice Enabled Workflow Processes

**Case Picking:** The #1 use case for Lydia Voice is case pick to pallet or to conveyor. Although voice picking typically eliminates the need for labels, Lydia Voice also supports the use of optional labels, as typically required for the food service industry. Lydia Voice also supports two-stage picking processes for slow-moving cases (sometimes referred to as PIR picking – planned inventory reserve).

**Piece Picking:** The explosion of online order fulfillment has rapidly increased the use case for workflows that include piece picking to totes or cartons on carts, batch picking or on conveyors in a pick module. Variations include bucket-brigade pick and pass systems (zone less picking), pick-and-put for high volume items, and two-stage picking for slow moving items.

**Pallet Picking:** Full pallet picking, for outbound shipping, can be interleaved with other full pallet moves (cross docking, replenishment, put-away) to reduce so-called empty travel (when a lift truck is moving from one area to another with nothing on the forks).

**Put-Away:** Lydia Voice-directed put-away can be used for full pallets, mixed pallets (multiple SKUs put-away in separate storage locations) or using carts with mixed SKUs. Barcode scanning is commonly incorporated in the voice-directed workflow when identifying / verifying items for put-away.

**Replenishment/Letdowns:** Replenishment can be implemented with Lydia Voice for moving full pallets or mixed pallets from reserve or bulk storage to forward picking locations. In some instances, replenishment can be included in picking workflows or interleaved with other tasks.

**Put Wall/Sortation:** Warehouses that do not have automated sortation systems can use Lydia Voice to assemble multi-line orders that have been picked in multiple zones or batches. Barcode scanning can be incorporated to identify/verify items. Items may be sorted to locations in a put wall.

**Cross Dock:** Lydia Voice supports various types of cross dock processes including full transfers from receiving to shipping or moving and sorting to outbound staging destinations.

**Inventory Control/Cycle Count:** In some instances, cycle counting can be included in picking or other workflows, or it can be a separate task. Lydia Voice supports opportunistic cycle counts (directing a picker to count a location after they picks from it).

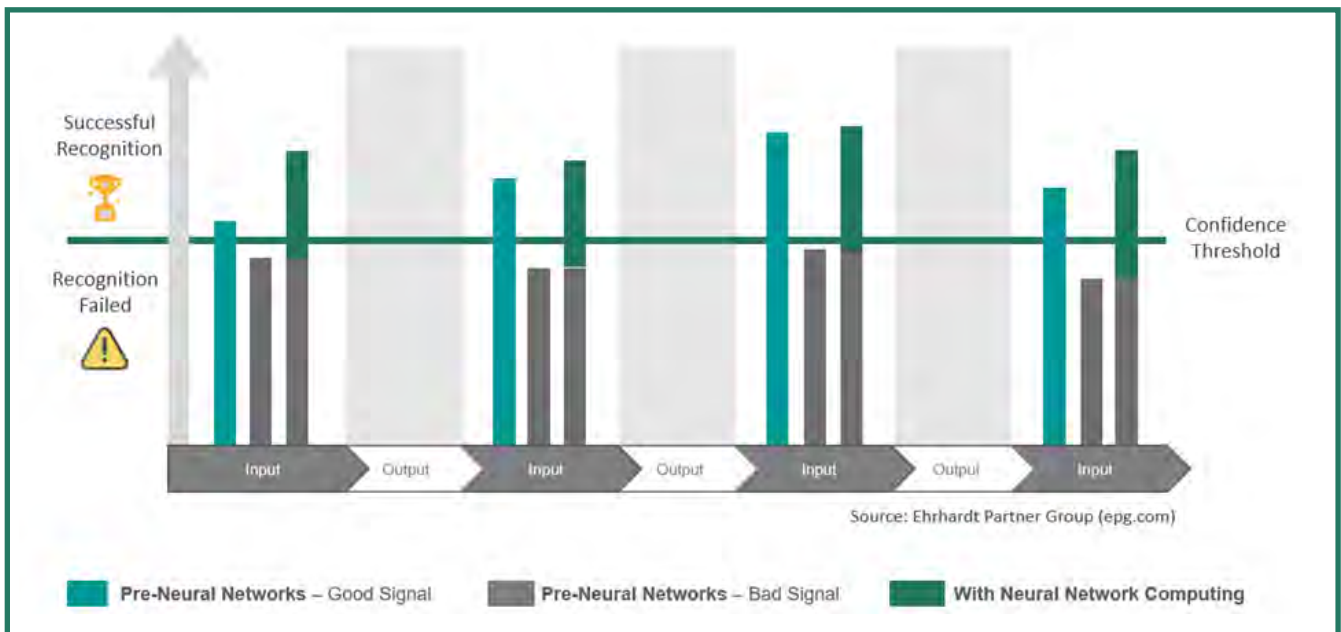
**Truck Loading:** Lydia Voice supports loading pallets for optimized route-stop delivery. The workflow process can also include user directed loading and may include safety and other inspection steps (HACCP, for example).



# Lydia Voice - Deep Neural Network Voice Recognition

The #1 reason why businesses prefer Lydia Voice is due to its market leading voice recognition and the ability to successfully address the age-old problem of difficult worker dialects. Lydia Voice and its Deep Neural Network Acoustic Learning platform enables customers to benefit by providing market leading voice recognition capabilities. EPG joins industry leaders Amazon, Google, and Microsoft to offer solutions based on the next wave of AI, except that Lydia Voice has been optimized for the noisy distribution center.

The Lydia Voice neural network solution has been modeled specifically for the challenging industrial environment, where near-perfect voice recognition accuracy is required and it also eliminates old-fashioned voice template training. It is self-learning, as the data model continues to improve performance over time. Our neural network developed sound models address industrial environment sounds, such as: forklift beeps, pallet drops, fan/freezer noise and miscellaneous conversations, which helps enable unmatched voice recognition accuracy. The Lydia Active Adapt™ environmental voice recognizer, also enables automatic gain control (AGC) and noise control volume (NCV) for additional voice recognizer performance with the optimized neural network from EPG. The image below shows the worker benefits obtained with a modern deep neural network driven voice recognition solution.



## No Voice Template Training Required

Our neural network helps provide extreme accuracy for those with challenging speech patterns and mixed dialects, without the requirement to train the associate with a set of in-vocabulary speech words, which often requires about a 30-minute training, as well as a monthly voice template retraining due to declining voice recognition performance. Lydia Voice has consistently provided customers moving from handheld scanning solutions a 25% to 35% productivity. In addition, customers moving to Lydia Voice from a competitive voice solution have gained an additional 8% to 12% improvement in worker productivity. Our superior performance can quantitatively be attributed to the elimination of voice template training and ongoing retraining activities as well as less repeating and fewer missed recognized words and numbers.





# Key Voice Enabled Workflow Processes, cont.

## Lydia Voice is Supported on a Wide Range of Devices- Including Android

Lydia Voice runs on most mobile devices, and forklift terminals. Over 50 devices from various manufacturers have already been tested for use with Lydia Voice including Zebra, Honeywell and Datalogic.

## Lydia Voice and Scanning

Lydia Voice seamlessly works with ring scanners for businesses that require/desire a scan confirmation or serial number/lot tracking as part of their standard operating procedures.

## Lydia Communicator

Lydia Communicator allows “calls” between your floor supervisors and workers. This integrated telephony function is a perfect tool for easy communication that greatly reduces or eliminates unnecessary delays or travel time, resulting in additional savings and worker efficiency.

## No Expensive Licensing Required

Lydia Voice does not require an expensive software license transfer fee when you want to install an existing Lydia Voice license to another device. This provides you with a lower TCO and further protects your investment if the business decides to later transition to any other device. This is vital as more companies move to newer Android devices.

## Strong Data Security Standards

Lydia Voice supports the highest security data standards for WPA2 data security encryption standard for wireless networks including 802.11a, 802.11b, 802.11g and 802.11n and 802.11ac and secure data transmission via HTTPS.

## Support for Web Services

Lydia Voice offers an open RESTful API to enable easy data integration and data access. REST is a logical choice for building APIs that allow users to connect and interact with cloud services because the calls are stateless.

## Lydia Voice VoiceWear - Hands-Free, Eyes-Free and Now Headset-Free

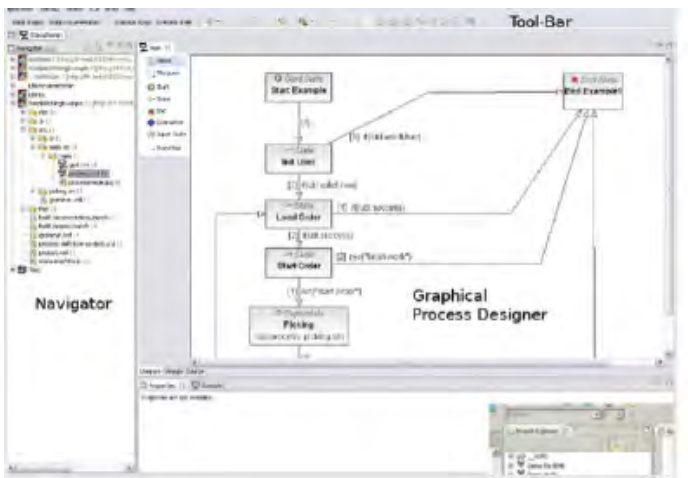
Thanks to Lydia Voice VoiceWear integrated speakers and microphone, workers no longer need a headset when using voice. This increased freedom of movement creates a distinct advantage for the worker.



With VoiceWear, headsets have become obsolete. Lydia Voice VoiceWear even works in virtually all high noise environments (less than 93 DB). Lydia Voice VoiceWear is the perfect choice for users in hot and humid environments. The vest is available in two options: one-size fits all (the aqua version) or the full-length safety vest version in sizes XS to 4XL.

# Lydia Voice DialogueDesigner - Integrated Development Environment (IDE)

Lydia Voice DialogueDesigner is our integrated development environment (IDE) software platform. With it, customers and certified partners can expand the capabilities of their Lydia Voice solution using rapid application development (RAD) techniques. DialogueDesigner is an open, flexible and extensible modern IDE supporting the design, coding, testing, deployment and maintenance of customer-defined voice software solutions using standard Eclipse™ based XML tools. The IDE makes it easy to creatively add seamless integration with various data sources using RAD development and testing approaches.



Lydia Voice also provides a Microsoft .NET Assembly Library for businesses that prefer this development environment vs. Java. At EPG, it is important that customers have the freedom to support their own IT infrastructure strategy.

## Highlights include:

- Stand-alone tool for the graphical design of the voice dialogue
- Syntax and error handling, syntax-check and auto-completion
- An interactive shell as a test environment
- A JavaScript or .Net Library LibPDL (Process Definition Language) for the development of voice workflow dialogue with Lydia Voice
- Stand-alone tool for the graphical design of the voice dialogue
- Arithmetic computations for differences between picked and target amounts
- Avoids copy and paste or programming of redundant code
- A version management client
- A remote debugger
- Automatic generation of the grammar of the dialogue
- Configuration editor using XML standards
- Integrated help and tips
- Testing editor and validation of configuration and grammar
- Application testing before loading onto devices



# Business Analytics

For essential performance insights into how you can run your DC more effectively, Lydia Voice offers advanced business analytics specifically designed for Lydia Voice customers. Our solution uses data collection, aggregation and predictive modeling techniques for detailed and powerful data analysis – making sense of the vast amount of data available from a workflow environment. It's operational intelligence for a more efficient, more productive business. The following are examples of data that Lydia Voice customers can obtain using our business intelligence (BI) tools.

## User Productivity

Sort how many picks a user completed overall by Company, Year, Month, Week and/or Date



## Inventory Information

Review Inventory Put-Away by Available Quantity, FIFO or Best-Before Date



## TimeSquare Cloud Analytics

EPG also offers TimesSquare Cloud Analytics with the benefits of integrated BI, planning and predictive capabilities – available through the EPG cloud. Our solution provides everyone in your logistics organization the ability to discovery actionable insights, eliminate silos, and easily explore information from across the organization, with intuitive self-service features. It also delivers insights to stakeholders, at the point of decision, with dynamic interactive-stories:



# Integrate with Lydia Voice Quickly

While thousands of organizations are successfully using Lydia Voice technology, recent Peerless research about the voice market space asked some interesting questions which have helped to clarify many core reasons for not adopting voice technology. One of the questions asked was, "What do you envision as barriers to adopting voice technology?"

The study respondents were quite clear in that having to lean on IT resources to make changes to the existing WMS/ERP infrastructure was their number one issue. Upon further probing, Peerless Research confirmed that the lack of access to internal IT resources needed to support such a project was also a great limitation to widespread voice adoption.

Lydia Voice takes the pressure off your IT team. We offer the flexibility you need to fit your IT architectural strategy, while reducing your project risk and meeting your desired go-live date. We offer the industry's fastest integration with minimal IT time needed. Whether you desire a native voice interface (for SAP eWM and WM customers), a real-time direct interface (for Tier 1, Tier 2 and Tier 3 WMS solutions), or a near real-time interface (for in-house developed and older customized legacy solutions), Lydia Voice offers you choices and multiple approaches. Another key point your IT team will note, integration with Lydia Voice typically requires only days of effort vs. the traditional three to six-month project other voice providers require.

## WMS/ERP Lydia Voice Integration Possibilities

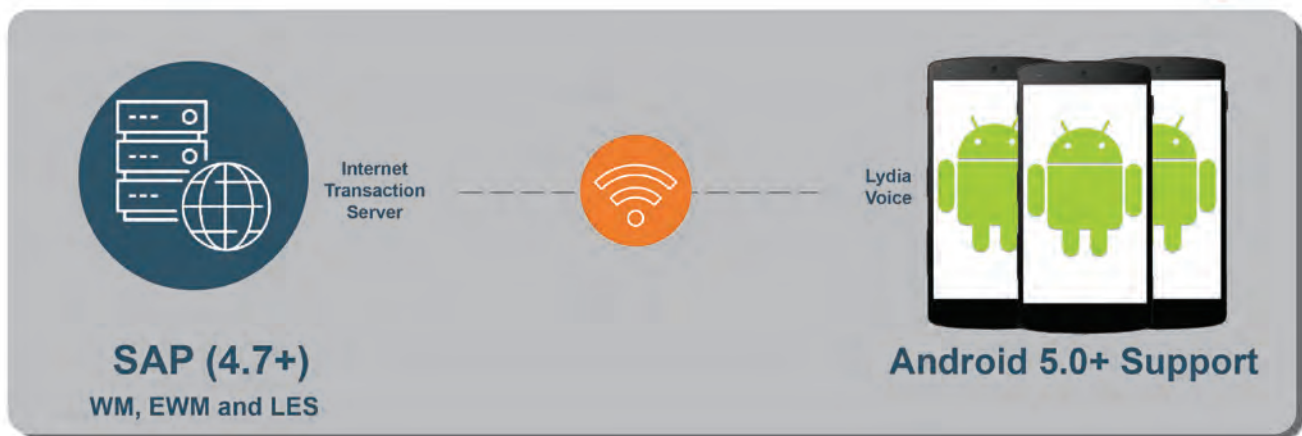
**Direct Interface for SAP eWM**  
**Direct Interface for SAP WM**  
**Lydia Voice PickManager Middleware**  
**Direct Interface for HTML**  
**Microsoft.Net Object Library**  
**Microsoft.Net for Tecsys**  
**Real-Time Interface - Web Services/HTTP**  
**Real-Time Interface - Telegram Client**  
**Real-Time Interface - Aptean Catalyst**  
**Real-Time Interface - Epicor**  
**Real-Time Interface - Epicor Prophet21**  
**Real-Time Interface - HighJump**  
**Real-Time Interface - HighJump Accellos**

**Real-Time Interface - Infor A+**  
**Real-Time Interface - Infor MAPICS**  
**Real-Time Interface - JDA Red Prairie**  
**Real-Time Interface - Manhattan pKms**  
**Real-Time Interface - Manhattan WMoS**  
**Real-Time Interface - Microsoft Dynamics**  
**Real-Time Interface - Microsoft Navision**  
**Real-Time Interface - Netsuite**  
**Real-Time Interface - Oracle Apps**  
**Real-Time Interface - Oracle JDE**  
**Real-Time Interface - Retalix**  
**Real-Time Interface - Retalix Triceps**  
**Real-Time Interface - SAGE**

# Lydia Voice is a Native Solution for SAP EMW and WM

One of the biggest changes that has occurred to the voice market has been the growth of SAP and their successful eWM offering. The latest industry reports show SAP as the leading supplier of Supply Chain software solutions with almost 30% market share. This strong market position has helped break down barriers to voice adoption because eWM includes a seamless interface for voice solutions.

While SAP may have made it easier to integrate voice solutions, most voice suppliers have not used this opportunity to leverage the architectural benefits SAP provides. Unfortunately for the SAP customer, most voice suppliers continue to either use a middleware solution or they have overly complicated the interface activities that require an SAP partner as well as voice partner. Neither option is desirable - businesses know managing a project with a single partner is hard enough, it becomes too complex when two partners have to be engaged. This is probably the main reason why other voice suppliers struggle to successfully penetrate the SAP market opportunity.



Lydia Voice is different than other voice suppliers because our solution integrates with SAP 100%. The Lydia Voice Enterprise Connector for SAP allows native integration of Lydia Voice solutions into SAP. Our entire application logic resides within SAP, enabling the customer to use all standard SAP functions and eliminates the need for a complex engagement process requiring two different partners. The advantage? You can carry out all adaptations and extensions to your Lydia Voice application with your own SAP team.

The Lydia Voice Enterprise Connector for SAP results in faster and more efficient data capture, a smoother workflow process and a significant increase in worker productivity. Warehouse operators receive their work instructions via voice on a mobile device enabling users to confirm, step by step, their work orders via speech. Quite simply, Lydia Voice works like a microphone on SAP. The Lydia Voice Enterprise Connector works seamlessly with barcode scanning, RFID scanning and manual keyboard entry. The Lydia Voice Connector is the best solution for SAP customers wanting to add voice capabilities to their workflow processes in their SAP technology environment. For those who are operating in older SAP environments, we also offer a native interface using RFC Gateway.



# Lydia Voice Prove It! Program

The Lydia Voice Prove It! Program is for businesses actively evaluating adding voice technology to their distribution center warehouse workflow processes. They won't find an easier or more affordable way to do so than our Prove It! Program, a 30-day engagement that enables customers to validate Lydia Voice's deep neural network voice recognition performance in their operating environment. The Prove It! Program also provides fully functioning voice integration with their existing WMS solution.



- Opportunity to 'try before you buy' Lydia Voice
- Two Approaches:
  1. Integrate Lydia Voice with an existing WMS (New voice user)
  2. Run Lydia Voice with Vocollect Voice - EPG's Co-Exist Solution

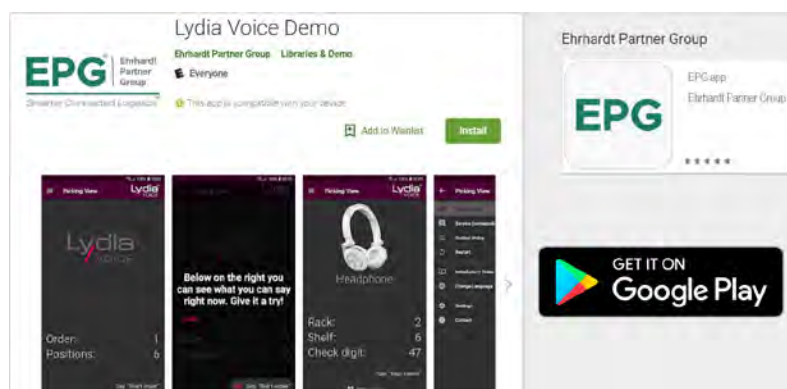
## Lydia Voice Co-Exist Solution

### Run Lydia Voice and Vocollect Voice™ Together

Lydia Voice Co-Exist is the ideal solution for Vocollect Voice customers who want to add Lydia Voice along-side their existing voice deployment. The solution enables companies to easily operate a two-vendor voice strategy without having to undertake any additional voice integration efforts. The Lydia Voice Co-Exist solution can be fully operational in a very short-time and requires minimal customer effort. The solution has been successfully operating at select larger Vocollect Voice customers for more than two years.

Lydia Voice has consistently provided customers moving from handheld scanning solutions a 25% to 35% productivity. In addition, customers moving to Lydia Voice from a competitive voice solution have gained an additional 8% to 12% improvement in worker productivity. Our superior performance can quantitatively be attributed our voice recognition, the elimination of voice template training, workers having to repeat voice commands, and ongoing retraining activities.

## Lydia Voice Demo



**Download the Lydia Voice Demo - Search for "Lydia Voice"**

# EPG at a Glance



**>1,000**  
Customers globally



**500+ people**  
Dedicated EPG  
logistics team



**24-hour support**  
'Always On' customer  
support center



**2<sup>nd</sup> Largest  
in Voice**  
Lydia Voice



**>100 million**  
Picks per day



**License friendly**  
Perpetual, SaaS  
and Managed Services

## About EPG

Ehrhardt Partner Group (EPG) is the leading provider of comprehensive supply chain execution and voice software solutions for smarter connected logistics. EPG's highly configurable and scalable logistics solution, LFS, delivers Tier I functionality inclusive of: warehouse management, warehouse control and automation, resource management, transportation management, advanced business intelligence analytics and its industry leading iBrowser ensures ongoing support for all major browsers, delivering flexibility and platform independence. Our Lydia Voice solution offers unparalleled voice recognition with its deep neural network technology and eliminates the need for voice template training, while interfacing with a multitude of WMS and ERP solutions. EPG is the only company to offer a lifetime WMS integration guarantee to voice customers. To learn more, visit [www.epg.com](http://www.epg.com).



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