



Voxware VoiceLogistics[®]

Voice Solutions for Logistics Excellence

Voice capabilities are now recognized as essential components of fully optimized logistics management systems. Voxware[®] provides comprehensive and powerful solutions for Voice-Driven Logistics[™] when they will have the most impact in the supply chain.

Voxware's flagship solution, VoiceLogistics, is comprised of software, hardware, and services that optimize the full spectrum of warehouse operations for greater accuracy, productivity and flexibility in supply chain execution. The VoiceLogistics solution gives our customers enhanced operational control and equips their workers to operate "head up, hands free" and with greater speed.

Voxware's VoiceLogistics automates a growing number of labor-intensive logistics functions, including: picking, receiving, replenishment, put away, shorts, cycle count, cross docking, QA and returns. VoiceLogistics has made a major contribution to the success of leading customers across industries including:

7-Eleven

Kellogg's Snack Division

Argos

AutoZone

U.S. Foodservice

Somerfield

VoiceLogistics - Empowering

"Voice is a great solution for us. Last week we had 99.94% accuracy on 285,000 pieces - and that's phenomenal."

Craig Setter
Dunkin' Donuts MADC

"Our vision for voice technology goes beyond the simple picking solutions... it is a means to optimize the contribution of each worker across a wide range of activities."

Keith Boardall
Reed Boardall

The VoiceLogistics system (VLS) is comprised of the VLS suite of application software, the VLS-410 wearable computer or mobile computers Powered by Voxware™ and headsets. Voxware's client software, VoxBrowser™, utilizes opens standards such as VoiceXML and standard Internet protocol communications to achieve flexibility and scalability and the Voxware Integrated Speech Engine, VISE™. VISE is the strongest speech recognition engine designed specifically for use in demanding industrial environments. Additionally, devices Powered by Voxware intelligently allow any worker to use any unit in the facility - there's no assigning specific workers to specific devices.

Voxware's VoiceLogistics system integrates with either industry standard or customized warehouse management systems (WMS) and standard wireless networks. VoiceLogistics and its underlying client/server architecture may also be designed as a stand alone logistics solution.

People: The Voice Enabled Worker

The contribution of the workforce to logistics success is crucial. Labor is the single biggest cost factor in warehousing, yet it is the least leveraged by technology.

An increasing number of corporations are optimizing their distribution center workforces with VoiceLogistics from Voxware. By voice-enabling as many workers as possible in ways that are both flexible and reconfigurable, VoiceLogistics not only controls labor costs but even more significantly enhances and leverages workers performance.

The networked, wearable computer and headset issue workers a series of natural human voice prompts (or text-to-speech prompts if preferred by the customer) as instructions. Workers simply speak to report on the assigned tasks as they progress to completion. The system can also respond to requests for help, providing the proper guidance to set a worker back on course.

Power: Real Time Inventory Management

VoiceLogistics is unique in the industry because it unlocks the real power of "voice-driven logistics." The system goes far beyond the simple data collection tasks that were typical of the previous generation of voice-directed picking technology. It also helps workers recognize and react to exceptions such as shorts or mispicks.

A voice-enabled WMS means real-time data exchange that helps hone inventory management to more exacting levels. VoiceLogistics has an "open," standards-based architecture that integrates perfectly with a customer's information infrastructure investments and larger supply chain strategy. This approach allows customers to continue to leverage their investment in VoiceLogistics as their business grows and evolves.

Performance: Optimizing Distribution Center Operations

VoiceLogistics maximizes what your people can accomplish. Near-perfect accuracy levels are achieved. Productivity is boosted. Expensive operations such as order checking are cut back or even eliminated. Temps and trainees get up to standard more quickly, and employee turnover is often lowered. Management is provided web-based, real-time visibility into logistics processes as they happen.

VoiceLogistics optimizes the contribution of each worker, by taking into account many variables - such as a worker's native language, experience level, job role, and abilities - and mapping them dynamically to the job activities at hand. VoiceLogistics is readily configured to automate the full spectrum of logistics labor functions, including:

Picking	Receiving	QA
Shorts	Put Away	Cycle Count
Replenishment	Cross Docking	Returns

the Warehouse Workforce

Return on Investment

VoiceLogistics contributes on many fronts to an overall improvement in ROI. Voxware's expert Business Consultants, sales team and technical experts stand ready to demonstrate how your ROI will be enhanced by:

Productivity. More tasks per worker per shift. The voice-equipped worker performs tasks with his head up and hands free, unencumbered by tasks that tax productivity, such as scanning, reading pick lists, writing or keying in information. Voxware customers typically experience, on average, a 12% to 20% improvement in productivity -- in some cases much higher.

Accuracy. Near 100% accuracy is a reasonable objective and the typical experience with Voxware customers. VoiceLogistics achieves this objective by issuing workers exact instructions, confirming tasks and correcting errors as they occur. A single error incurs a series of costs in correcting that error: returns, re-picking, re-shipping, remedial customer service, loss of goodwill and, perhaps even, loss of business. Improvements of even a fraction of a percentage can represent tens, if not hundreds, of thousands of dollars in savings.

Reduced Warehouse Labor Costs. A safer work environment, decreased training time for new workers, less worker time spent on administrative tasks, and lower turnover are among the range of labor costs reduced by VoiceLogistics. In addition, higher levels of accuracy have allowed many customers to re-assign resources to other areas of the warehouse rather than adding to their labor expense.

Reduced Material Costs. Costs of printers, paper, and other material associated with alternate methods of order selection are reduced or eliminated.

Full Service Implementation. Professionals from Voxware's Business Consulting, Professional Services, and partner teams provide hands-on assistance to customers through entire project and with a commitment to success.

Superior Customer Support. Voxware's Professional Services organization trains an existing staff member at each site as an expert in system administration and user training. Customers have round-the-clock, round-the-globe backing of Voxware's Customer Support team. In addition, the "any unit for any user" feature of the VLS-410 or mobile computers Powered by Voxware and the Smart Battery Charger significantly reduces administration of the worker's (client) devices.

Platform Flexibility. Voxware's solutions exploit best-of-breed, open, standards-based technology that offers platform independence. This approach enables our customers to select the optimal price performance combination of hardware and software components, resulting in lower total cost of ownership of a logistics solution.

Versatility. Whether configuring the system or developing tailored applications, VoiceLogistics can automate multiple processes within the warehouse. In addition, VoiceLogistics can be easily reconfigured which avoids additional expenditures when a new warehouse layout or material handling equipment change is made to further optimize supply chain operations. This versatility provides the means to broaden the scope of a voice implementation to integrate with other "building blocks" that support the enterprise-wide objective of a flexible, demand-driven supply chain. Voxware's operational expertise and development resources help customers identify then realize these additional opportunities for return on investment.

"After evaluating alternatives we felt that Voxware had the best solution for our needs."

Robert Adams
99¢ Only Stores

"VoiceLogistics has delivered a 60-70% reduction in picking errors and a 50% reduction in late picks."

Simon Thorogood
Somerfield plc

"Kellogg's is capturing the value of increased picking accuracy and improved efficiencies in our operations."

Preston Tracy
Kellogg's Snacks
Division



Voxware's Vision – It's All About People

At Voxware, we've learned that only marginal improvements result from streamlining tasks. But breakthrough performance enhancements come from a focus on people. That's why our VoiceLogistics solutions are people-centric, addressing the full range of activities warehouse workers do.

Not all voice solutions will maximize and fully leverage the contribution of logistics workers. Winning voice solutions must account for:

- Varying Experience and Abilities
- Varying Education and Motivation Levels
- Varying Languages and Cultures
- Varying Job Roles and/or Multiple Job Roles

The Voxware vision is to leverage voice technology to maximize the contribution of each worker – whether he or she is a temp, a trainee, or an experienced expert. We are known for going the extra mile – passionate about customer service and relentless in delivering real value.

The Voxware solution includes a consultative approach and the rich experience of team members in the Logistics and Material Handling fields.

On all counts, Voxware provides the most viable option to companies who continue to invest in the technology and find new ways to improve their operations and serve their customers.

Voxware provides solutions for Voice-Driven Logistics™ comprised of hardware, software and services that optimize the full spectrum of warehouse operations for greater:

Accuracy... dramatically reducing errors and the expense of mistakenly selected and shipped product. VoiceLogistics collects exact, real-time data to track activity in the warehouse, correct mistakes as they occur and reduce order checking resources.

Productivity... warehouse workers operate with hands free and heads up, eliminating burdensome data entry tasks and enabling more tasks per shift. VoiceLogistics reduces training time and coordinates a rapid response to exceptions.

Flexibility... enabling your supply chain strategy to be reengineered without renewed expense. VoiceLogistics is standards based and platform independent to integrate with related IT infrastructure investments, accelerate application development and lower ownership costs.