Selecting a WMS in an Uncertain World

Presented by:
Scott Deutsch, President, North America
Ehrhardt + Partner Summary

- >1,000 Customers globally
- 500+ people Dedicated E+P logistics team
- 24-hour support ‘AlwaysOn’ customer support center
- 2nd largest WMS provider in Europe
- 35% Increase in productivity with Lydia Voice
- >100 million Picks per day
- License friendly Perpetual, SaaS and hosted
- >15% Improved space utilization
Question: Why a New WMS?
Business Growth
Change in Unit Mix
Contract Commitments
Move to Automation
MAKE YOUR BUSINESS FUTUERPROOF.

Working capital

Reliable processes

Higher quality

Short lead-times

Process Improvement

MHI. THE INDUSTRY THAT MAKES SUPPLY CHAINS WORK®
Achieving Perfect Order Fulfillment
MAKE YOUR BUSINESS FUTUREPROOF.

PRODUCTIVITY

MHI
THE INDUSTRY THAT MAKES SUPPLY CHAINS WORK®

MODEX 2018
GROUNDBREAKING TECHNOLOGIES
FOR A SOBERING WORLD
ATLANTA | APRIL 9-12
WWW.MODEXSHOW.COM
Enhanced Resource/Labor Management
Direct Store Delivery
Inventory Information

Review inventory put away by Available Quantity, FIFO, or Best-Before Date
OLD WAY
NEW WAY
Discussion Points

- The Way it Was
- Today’s Reality
- Things to Look For
- Top 3 Takeaways
Selecting a New WMS Used to Executed with “White Gloves and Attention to Every Detail”
Very Expensive WMS Company

March 15, 2018

$1,200,000.00

One Million, Two-hundred Thousand Dollars and No Cents

First Check that will be Never Ending
And You Mostly Became “Handcuffed” by Your “Old” WMS Provider
If You Have a Global Footprint: Regional Silos
Often Technology from a Different Technology Generation
WMS Systems are Aging Rapidly
We Now Operate in a World Where Agility is Just as Imperative as the ‘Perfect Order’.
Consider the Growth and Integration Challenge of Automation and Robotics
Computing Power is Changing What is Possible.
Think of Impact with Responses Reduced to 1 Millisecond.
Consider that until this decade, mobile devices, the Internet of Things (IoT), and big data and analytics platforms weren’t critical components to effectively compete.
A Changing Supply Chain Mindset

*From Thinking...*

"Supply Chain based on lowest costs"

*To Thinking...*

"Supply Chain based on Customer needs"
The rise of the digital age economy is putting pressure on management ... who has been comfortable with a neatly organized and a well-documented project plan that has gone through years of iterations and fine tuning.
Think of the Business Plans Being Thrown Out the Window that Day!
“What if we don’t change at all ... and something magical just happens?”
Adopt New Technologies Effectively or Face Competitive Obsolescence.
The Worker Shortage is Challenging EVERYONE.
Add Keeping Millennial Workers...
Average wages for warehouse associates by area, 2016

<table>
<thead>
<tr>
<th>Area</th>
<th>Average Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrisburg-Carlisle, Pa.</td>
<td>$15.34</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>$14.41</td>
</tr>
<tr>
<td>Houston</td>
<td>$14.40</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$14.35</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>$13.77</td>
</tr>
<tr>
<td>Chicago</td>
<td>$13.51</td>
</tr>
<tr>
<td>Memphis</td>
<td>$13.26</td>
</tr>
<tr>
<td>Atlanta</td>
<td>$13.06</td>
</tr>
</tbody>
</table>

2016 average: $13.81

*According to an employee pay analysis by ProLogistix, a logistics staffing firm.

**Average hourly wage earned by workers who move freight, stock or other materials by hand.**

Sources: ProLogistix (entry level); Labor Dept.; CBRE Group (areas)

THE WALL STREET JOURNAL.
The parcel shipping market is being driven primarily by growth in ecommerce with an increasing number of online shoppers around the world.

“With the index estimating parcel growth will continue to rise at a rate of 17 to 28 percent each year between 2017 and 2021”

31B parcels shipped in 2015 which was a 2.9% increase in parcel volume over 2014*

5-7% annual growth rate in parcel shipping volume through 2018

20% increase in global parcel shipping volume by 2018 forecasted by Pitney Bowes

With more than 11.8B parcels shipped and $85B spent in 2015, the U.S. remains the largest market* for parcel shipping.

These four countries round out the top five markets by parcel volume in 2015:

9.4B Japan
3.0B Germany
2.2B UK
1.5B France

* Source: Pitney Bowes Parcel Shipping Index, which measures both volume and spend for business-to-business, business-to-consumer, consumer-to-business and consumer consigned shipments with weight up to 31.5 kg (70 lbs.) in 17 major markets, including the U.S., Canada, Brazil, Germany, UK, France, Italy, Norway, Sweden, Japan, Australia and India.
Your Workers are Tired, They are Worn Down. We Need to Help Them.
Selecting a WMS in an Uncertain World...
Tight Real Estate Market. EVERYWHERE.
The 80% Challenge.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Class</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Number of Items</td>
<td>10%</td>
<td>20%</td>
<td>70%</td>
</tr>
<tr>
<td>Value, $</td>
<td>70%</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Stock Control</td>
<td>Strict</td>
<td>Moderate</td>
<td>Loose</td>
</tr>
<tr>
<td>Delivery Cycle</td>
<td>Weekly</td>
<td>3 months</td>
<td>6 months</td>
</tr>
<tr>
<td>Control Report</td>
<td>Weekly</td>
<td>Monthly</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Importance</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Forecast</td>
<td>Accurate</td>
<td>Estimate</td>
<td>Roughly</td>
</tr>
<tr>
<td>Control Effort</td>
<td>Max</td>
<td>Moderate</td>
<td>Min</td>
</tr>
<tr>
<td>Sources</td>
<td>Max</td>
<td>&gt; 2</td>
<td>2</td>
</tr>
</tbody>
</table>

![Graph showing value vs. quantity distribution across classes A, B, and C.](image)
Better Space Utilization. The Final Frontier.
Dynamic Slot Management

Automatically calculate the quantity of put-away and replenishment movements based on the capacity of the bin location at the receiving point.
Smart Dimensioning.
Better Bin Utilization.
Why can’t established companies move as quickly as their Internet-born competitors?
easily distracted by shiny objects
The Explosion of LARGE Data Centers
Freedom to Make Changes
Seamless System Integrations.
Without Complexity and Voodoo.
EVERYTHING IS CONNECTED
IoT Order Buttons: Immediate Demand Signals

More than 50% of Amazon orders through Dash Buttons in six months

Dash Button orders consistently growing by 70% per quarter
Gini Warehouse Order Button
WCS Freedom in a Heterogeneous Automation World.
Automation and Robotics is Changing the Infrastructure Landscape
Fast Enablement of Temporary Workers
“Voice Directed” Workers Provide Immediate Productivity Results
Most common languages

Counties where at least 10 percent of people speak a language other than English at home:

- Spanish
  708 counties
- Native American languages
  29 counties
- German
  21 counties
- French
  15 counties
- Pacific Island languages
  12 counties
- Other languages*
  11 counties
- English is spoken in at least 90 percent of homes in 2,347 counties.


*Other includes Chinese, Portuguese or Portuguese Creole, Hindi, Hmong, Other Indo-European languages, and Russian. This category was added to the map on Aug. 20.
Deep Neural Networks: A New Technology Revolution Happening…

Amazon Echo
Powered by Amazon Alexa

Google Home
Powered by Google Assistant
Neural Networks in Logistics Means: No Voice Template Training Required
Selecting a WMS in an Uncertain World…

3 Takeaways
Feature Checklist Comparisons are so 2010…

The 2018 E+P WMS RFP Template: Functionality

<table>
<thead>
<tr>
<th>Functionality</th>
<th>R: Required</th>
<th>D: Desired</th>
<th>S: Standard Configuration</th>
<th>If (M) is required, what is the cost?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yard &amp; Appointments</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Ability to schedule inbound and outbound docks</td>
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<tr>
<td>2. Ability to manage electronic appointment requests</td>
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<td>3. Ability to allow carriers to set their own appointments through a portal</td>
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<tr>
<td>4. Manage dock door assignments and exceptions (i.e., late)</td>
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<tr>
<td>5. Support for RF/PC yard gate check in/out</td>
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<td></td>
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<tr>
<td>6. Ability to direct yard moves via RF or paper</td>
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<tr>
<td>7. Ability for system to direct yard tasks by priority and/or proximity</td>
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<tr>
<td>8. Ability to track demurrage/detention by owner or carrier</td>
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<tr>
<td>9. Configurable rules for assigning dock doors and yard locations</td>
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<tr>
<td>10. Trailer visibility</td>
<td></td>
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<tr>
<td>10.1. Trailer position in yard or dock</td>
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<tr>
<td>10.2. Trailer contents</td>
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<tr>
<td>10.3. Pending trailer moves</td>
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</tbody>
</table>

Focus on Having Possible Suppliers DEMO Live a Configuration that Aligns to YOUR Desired “To-Be” State
2.
The Default Has Flipped
Apps Today are CLOUD FIRST...
Cloud is NOT About Cost
3.
we need each other
For More Information:

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Website: www.EPG.com
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