

Top Notch in Chicago

Part two of our continuing coverage of WERC's annual conference.

The 31st annual WERC conference, held in Chicago this year, was one of the best yet. With high attendance rates, conferees found plenty of opportunities for networking. They also found a slate of sessions dedicated to warehouse and distribution management to meet all of their educational needs.

To ensure that all WERC members get a peek at the top-notch educational sessions, we've highlighted a few of the topics below.

Domestic Violence: Creating a Workplace Response

Most people, when they think of domestic violence, think it's a topic that is confined to the home. While it might originate in the domestic environment, to think that is confined to that arena is a mistake. Domestic violence can and does also affect the workplace.

That was the message Dennis Butler, vice president of workplace solutions for Liz Claiborne, Inc., North Bergen, N.J., and Kimberly K. Wells, executive director of the Corporate Alliance to End Partner Violence, Bloomington, Ill., delivered to attendees. "It's a difficult issue to talk about," said Wells, "but it does have an impact on your workplace."

Wells and Butler gave a definition of the type of domestic violence that can impact the workplace. Known as "Type 4," workplace violence involves "incidents in which the perpetrator may or may

"It's estimated that as much as 25 percent of workplace problems like absenteeism and low productivity are caused by domestic violence."

Kimberly K. Wells

not have a relationship with the workplace, but has a personal relationship with the intended victim." Wells pointed out that you never know when or who this type of violence might happen to. But "It can happen to anyone," she said. "You may think you haven't seen it, but you have."

The workplace

The important thing to understand is that domestic violence does affect the workplace, in many ways. Wells made

her case to the audience through the use of statistics and real-life examples.

Statistically speaking, according to Wells, domestic violence affects 23 percent of women and 11 percent of men. Productivity costs run as much as 8 million lost days of work each year, which is the equivalent of 32,000 F/T jobs. "It's estimated that as much as 25 percent of workplace problems like absenteeism and low productivity are caused by domestic violence," she said.

The number of workers affected by domestic violence might be surprising to many. Wells quoted a national phone survey of F/T adult workers. The results

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showed the following about domestic violence:

- 21 percent are victims
- 64 percent of those victims say their ability to work is significantly impaired

Among the coworkers of domestic violence victims, the survey showed the following:

- 31 percent felt obliged to cover for their co-worker
- 38 percent were concerned for their own safety
- 27 percent felt they had to do the victim's work
- 25 percent resented their co-worker

But while domestic violence is clearly a factor in workplace productivity, many workplaces have no formal policy addressing the issue. According to Wells, half of the largest workplaces (those with 1,000 employees or more) had an incident of domestic violence last year. Of those, only 4 percent have a formal training program in place.

"Why don't you just get rid of the victims and batterers in the workplace?" asked Wells. For a lot of reasons, she explained. "That makes the workplace less safe; you don't know who they all are; it's less expensive to keep a current employee; and in some states, it's against the law to discriminate against these people."

Establish policy

Clearly, the best approach is to establish a formal policy, as Liz Claiborne has. Butler told the audience about the company's program. "First you need to determine what the employer's role is in these cases," he said. "You need to recognize the signs of domestic violence and respond appropriately within the context of the

workplace. Then you need to refer to the professionals who can help these employees."

Some of the signs to recognize a batterer, according to Butler:

- He/she may bully others at work
- He/she may blame others for problems
- He/she may have defensive injuries
- He/she may often be absent or late
- He/she may call workers repeatedly
- He/she may be seen as perfectly normal to others

Butler said that it's key to have a plan for what you as an employer can say to the victim. You need to keep in mind the following:

- Have a plan for what you'll say
- Observe without judging
- Offer to help
- Recognize that leaving increases the danger, so stress the issue of safety
- Emphasize concern and support
- Do not provide legal or other advice that might be construed legally
- Do not try to solve the problem
- Provide information and referrals
- Understand that it takes time to leave a batterer
- Discuss options for temporarily adjusting workplace expectations if appropriate

Team approach

To create a formal workplace program addressing domestic violence, Butler suggested setting up a multi-disciplinary team to oversee the process. The team should include representatives from HR, legal, security and a subject matter expert. You also should have a formal domestic violence policy.

Also include a training program so people know how to respond to domestic violence. "Build awareness through communication," he said. "Use orientation, posters/brochures and departmental meetings to get the word out."

Butler also recommended letting employees help. "They know what's going on and you need to give them the tools to respond," he said. "Broaden your communication to the community—industry stakeholders and relative organizations."

Finally, Butler said to keep in mind these key points:

- Focus on safety for the victim and the workplace
- Integrate the program
- Company representatives should not act as counselors

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- Managers will not know what to do in all situations
 - Have an open environment.
- “Employer action is effective—it will increase productivity,” Butler said. “This is a business issue.”

Smoothing the Road to Choosing a WMS

Selecting a new WMS, whether as a replacement to an existing system or for the first time, can be an intimidating experience. So much is riding on the selection of a system and partner. Make the wrong move and you might face operational, morale and financial issues. Select the right system, however, and you can look forward to a series of improvements and a potential long-term relationship with a trusted provider.

Arthur Barrett, president of Barrett Distribution Centers, Franklin, Mass., has been down the road of WMS selection and implementation. His 3PL company was able to successfully partner with a tier-one WMS provider reaping the benefits that a strong relationship and the right system can provide. He shared his story, along with his advice, with attendees looking for a similar experience.

Barrett pointed out that a WMS selection and implementation is not for the faint-hearted. “On average,” he said, “an implementation takes two times as long and costs three times as much as expected.”

But if handled correctly, he explained, those “extras” can be avoided. Barrett recommended following a 10-step search process for success:

1. Define essential competencies– Barrett explained that the first step in the process is to lay out what needs to be achieved by implementing a new WMS. At his 3PL, for instance, those needs included

improved productivity, automated data processes, an order management system, and various advanced features.

- 2. Compare notes with your 3PL colleagues**– Barrett said that by collaborating with peers, you can save both time and money. “There are many vendors,” he explained. “Determine who should be on your short list; also collaborate on the RFP. You can benefit from each other’s questions.”
- 3. Write the RFP**– For Barrett, this meant defining 13 or 14 critical areas of function within a WMS that were necessary. “Focus on your ‘make or break’ competencies,” he said.
- 4. Select targeted vendors**– “Talk to vendors at industry events; talk to their customers. Move quickly to a short list, but leave no stone unturned.”
- 5. Assess vendor responses**– Barrett sent out 18 to 20 RFPs and traveled to 7 vendors for demos. He recommended that you evaluate and tabulate the responses with your selection team and warned that the process will take longer than expected. He also warned to expect to hear from vendors you didn’t originally contact.
- 6. Schedule demonstrations**– At this point, Barrett was down to five finalists. He explained that the demo should showcase rich features yet be easy to grasp. “There should also be a short ramp for bringing on new accounts,” he said. “And resist the temptation to eliminate a vendor based on price, but don’t end up on an island.”
- 7. Invite finalists to present to management team**– For Barrett, this amounted to visits from five finalists. “This gives the selection team a second look at these systems,” he explained. “The vendor gets to meet the management team and tour your operation.”
- 8. Conduct due diligence**– At this stage, Barrett was down to two final vendors. He recommended that you check references and conduct site visits. “Prepare a good list of questions, visit existing site installations and include a financial check of the vendor,” he said.
- 9. The gut check**– This is the point, said Barrett, where you need to ask what your gut is telling you about whether or not the vendor will be in this niche for the long haul; your access to key decision makers; the vendor’s resources to ramp up for significant projects; and the entrepreneurial culture.

On average, an [WMS] implementation takes two times as long and costs three times as much as expected.”

Arthur Barrett

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Smoothing the Road to Choosing a WMS *continued from page 3*

10. The \$250,000 question– Barrett posed a question to both the vendors and their existing clients. To the vendors: “If I handed you \$250,000 of new capital, how would you further develop your product?” To the existing customers: “If you could spend \$250,000 on enhancements with this product, what would you have the vendor improve?” Barrett looked for alignment to these two questions.

To the Nth customer

Once Barrett had made its final decision, the implementation began. To the audience, he recommended planning out the implementation “to the Nth customer.”

In spite of having well-laid plans, not everything ran smoothly, according to Barrett. “We underestimated the resources required to load inventory into the new system,” he said. “The units of measure conversions were confusing and tedious to repair when we made errors.”

But many things went according to plan, he said. “We had an implementation team dedicated to the project and we refused to allow them to be pulled away from the project,” he said. “We also established a rigid timeline and stuck to the plan. We started with our moderately complex customers to develop a working knowledge of the system and interfaces and spent a lot of time training customers on our new Web functionality.”

In the end, the overall experience was a good one for Barrett, something he chalks up to a dedicated, hard-working team and a great deal of planning.

Damage Avoidance at the Loading Dock

“Damage has no redeeming value—it’s just money out the door.” That was the message Patrick Higgins, distribution operations analyst at the Hershey Company, Hershey, Pa., had for attendees when he discussed his company’s comprehensive plan for avoiding damage on the loading dock.

Hershey’s strategy is all about giving loading dock associates the tools they need to make better decisions in the loading of trucks. The program centers on a seven-step, load integrity approach. “These are the steps your loaders can take to avoid damage,” Higgins explained. “They must understand them and apply them correctly for results.”

The seven-step plan

1. Inspect the load– do not load any damaged product; remove it and replace it.

2. Inspect the pallet– including slipsheets and stretch-wrap.

3. Inspect the trailer– Do this before loading any product into the trailer. Hershey has a list of items the loaders must check in the trailer during the inspection.

4. Plan the load for proper weight distribution– the objective is to load the trailer so that it does not exceed U.S. Highway weight limits. “The simplest way to balance the trailer is to put the heaviest part of the load at the mid-point of the trailer,” said Higgins. Hershey’s plan includes a list of six principles of weight distribution for the loaders to follow.

5. Load the trailer using a single-turn loading pattern– For Hershey, this means using a single-turn pattern as a defense against side-to-side motion. When coupled with airbags to prevent forward-to-backward movement, the bases are covered.

6. Secure the load with airbags– “Nothing works better, dollar for dollar, for Hershey,” said Higgins. “But there are a lot of ways to use airbags incorrectly. You must train your people to use them correctly.”

7. Close and seal the trailer– While this might seem simple, said Higgins, it is absolutely necessary.

In addition to following this seven-point plan, Higgins emphasized the importance of feedback in a successful damage-avoidance strategy. “Learning is ongoing,” he explained. “Expect it to take months for a new loader to really ‘get it.’”

When providing feedback, he said, make sure it is easy to provide and digest. “One picture can tell a story,” he said. “The feedback should reinforce your plan.”

Hershey developed a report that allows dock workers to fill in blanks to quickly report how and why damage occurred. The report is two pages long and always includes a picture.

Finally, Higgins suggested tracking results. At Hershey, for example, the company has seen big improvements since implementing its damage avoidance program—to the tune of a 58 percent reduction over five years. “Loading practice does make a difference,” said Higgins. “Follow the seven steps of damage free loading, remember the six principles of weight distribution, and apply the fundamentals of damage avoidance.”

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Stay current on industry laws and regulations

Green Legislation Voted Down

While the momentum is building to improve the environment through measures like cutting greenhouse gas emissions, recent legislation aimed at doing just that was voted down. Known as the Lieberman-Warner Climate Security Act of 2008, the legislation would have required that the U.S. cut greenhouse gas emissions to 18 percent below 2005 levels by 2020, and as much as 70 percent of current levels by 2050.

Because one-third of carbon dioxide (CO₂) emissions in the U.S. are produced in the transportation sector, the legislation would have targeted reductions from transportation sources. One part of the bill proposed that polluters buy permits to emit carbon dioxide. The sale of such permits could have raised more than \$5 trillion for the government, money that the bill proposed to distribute to affected industries, consumers and local governments.

The plan would have provided billions of dollars in subsidies for energy conservation and environmentally clean technologies. This, the bill's backers claimed, would create millions of new jobs while cleaning the atmosphere.

One of the largest points of contention on the bill was the treatment of goods from developing countries

that are among the world's biggest carbon emitters, such as China, India, Brazil and Mexico. The bill would have directed the president to negotiate agreements with those countries to ensure they are imposing binding limits on carbon emissions on their own industries. If they failed, the U.S. would impose tariffs on carbon-intensive products like steel and paper from those countries.

While the legislation failed this time around, it is likely to be resurrected after the November election.

Source: *The New York Times*, June 2008; www.nytimes.com.

DOT Border Congestion Proposal

In an effort to cut down on traffic tie-ups at some of the nation's most congested border crossings, the Department of Transportation (DOT) is seeking proposals for innovative new approaches to the issue. The DOT will select at least two projects each along the Canadian and Mexican borders.

The DOT says that over the past two decades, the value of freight shipments among the U.S. and its neighbors has risen by 170 percent, growing at an average of 8 percent per year. The increase is leading to longer delays at the crossings, some up to three hours

long, which costs businesses more than \$14 billion annually.

Source: *Transport Topics*, June 2008; www.ttnews.com.

California Air Quality Proposal

The California Air Resources Board (ARB) is circulating a proposed regulation to require heavy-duty tractors and 53-foot box trailers to be equipped with devices that would reduce drag and rolling resistance. The proposal is aimed at reducing greenhouse gas emissions.

Should the rule pass, California-based shippers and receivers would have to ensure that all freight transported by the affected tractors and trucks would have to comply with the operating requirements. Shippers who do not comply would face penalties.

Source: *Food Logistics*, June 2008; www.foodlogistics.com.

WERC Seminars

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SEMINAR	LOCATIONS	DATES
Achieving Warehouse Success: <i>Your Comprehensive Guide to Managing an Effective Operation</i> 3 days packed with solid information!	Houston, TX	September 16-18
Benchmark NOW!	Scottsdale, AZ	September 24-25
Maximizing Warehouse Space: <i>The Key to Productivity</i>	Chicago, IL (Oak Brook)	October 21-22
Lean Warehousing Essentials	Nashville, TN	November 13-14

For details or to register, go to www.WERC.org



Surviving the Slump

The industry is looking for ways to cope with rising costs, according to CSCMP's "Annual State of Logistics Report®"

Just as the economic news for the United States as a whole has been dismal over the past year, so too has the news about the state of the logistics industry. Such was the conclusion of CSCMP's Annual "State of Logistics Report®" (SoL), presented recently in Washington, DC by Rosalyn Wilson, an independent consultant with over 30 years' experience in the transportation field.

Wilson subtitled this year's report "Surviving the Slump" and reported that, for the first time since 2000, logistics costs in the U.S. exceeded 10 percent of nominal gross domestic product (GDP) (Figure 1). At 10.1 percent, 2007 logistics costs were at their highest percent of nominal GDP in a decade, totaling \$1.4 trillion (Figure 2). Costs were up from the 2006 rate of 9.9 percent of nominal GDP.

Wilson pointed out that the overall economy in 2007 slowed and even stalled at times. This has had its impact on the logistics industry. "Consumer spending grew at a 2.9 percent annualized rate in 2007, down from 3.1 percent the year before," she said. "As the volume of freight moved has slowed, the ability to raise rates for other than fuel recovery, has been very constrained."

A look at costs

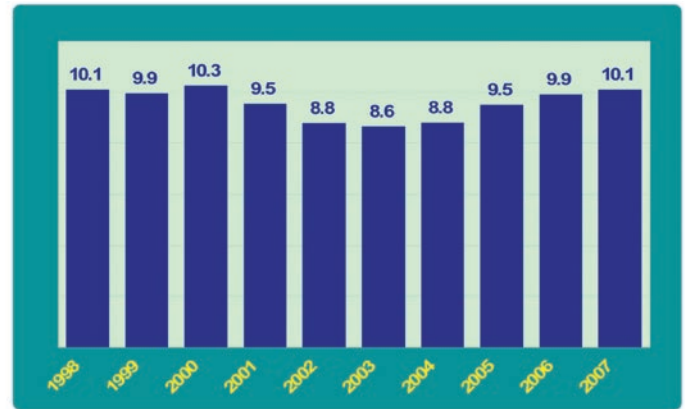
While total logistics costs reached a new high in 2007, it was a continuation of a trend—logistics costs have gone up in each of the last five years, rising 52.3 percent. In 2007, transportation costs accounted for 52 percent of the rise. Trucking, however, the largest component of transportation, was up only 5.6 percent compared to 6.7 percent in other modes.

For the fourth year in a row, inventory carrying costs have risen faster than transportation costs and accounted for 44 percent of the 2007 increase in logistics costs. In 2007, inventory carrying costs rose 9 percent. The growth in carrying costs was due to both an 8.7 percent rise in inventories and slightly higher interest rates.

The average investment in all business inventories in agriculture, mining, construction, services, manufacturing, wholesale and retail trade surpassed

Figure 1

Logistics Cost As A Percent of GDP



\$2 trillion 2007, gaining \$163 billion. Growth in wholesale inventories outpaced that of retail inventories again this year.

"We continue to manage that inventory efficiently, as the trend in the U.S. inventory-to-sales ratio shows," she said (Figure 3). "The inventory picture was not quite as rosy in 2007, particularly the final quarter, as inventory turnover rates began to fall. While much of the recent

Figure 2

The U.S. Business Logistics System Cost is the Equivalent of 10.1 Percent of Current GDP in 2007

	\$ Billions
Carrying Costs - \$ 2.026 Trillion All Business Inventory	
Interest	103
Taxes, Obsolescence, Depreciation, Insurance	273
Warehousing	111
	Subtotal 487
Transportation Costs	
Motor Carriers:	
Truck - Intercity	455
Truck - Local	216
	Subtotal 671
Other Carriers:	
Railroads	58
Water (International 33 Domestic 5)	38
Oil Pipelines	10
Air (International 16 Domestic 25)	41
Forwarders	30
	Subtotal 177
Shipper Related Costs	8
Logistics Administration	54
TOTAL LOGISTICS COST	1,397

increases in inventories is attributable to changes in the way we are handling stocks in the global environment, in 2007 we began to see inventory buildups attributable to unsold inventories as the economy slowed."

Like inventory, the cost of warehousing rose again in 2007, up 9.9 percent. "As more inventory spends more time in warehouses, companies are looking for ways to cut costs," said Wilson. "The switch from pallet style deliveries to individually picked items has pushed warehouses to look to more automation. Labor shortages are becoming a problem in the industry as companies report difficulty in recruiting and retaining laborers in the lower-end wage jobs."

Transportation costs rose 6 percent in 2007. All modes posted very modest gains as carriers continued to weather the economic storm, according to Wilson. "In 2007, the transportation sector was plagued with high fuel costs, lower demand, adequate capacity, and intense competition for available loads," she explained. "This resulted in severe rate constraints, with fuel surcharges once again being one of the major contributors to revenue gains."

While the trucking industry continues to shoulder much of this burden, Wilson says that other modes have been affected as well. "Average length of haul has fallen for both trucks and rail, as shippers work to remove ton-miles from the system," Wilson said. "Less cargo has resulted in lower pay for many transportation workers."

The biggest factor in the rising costs in the transportation industry was, not surprisingly, fuel prices, said Wilson. "Fuel is close to or has surpassed labor as a trucking company's top expense," she explained. "At these

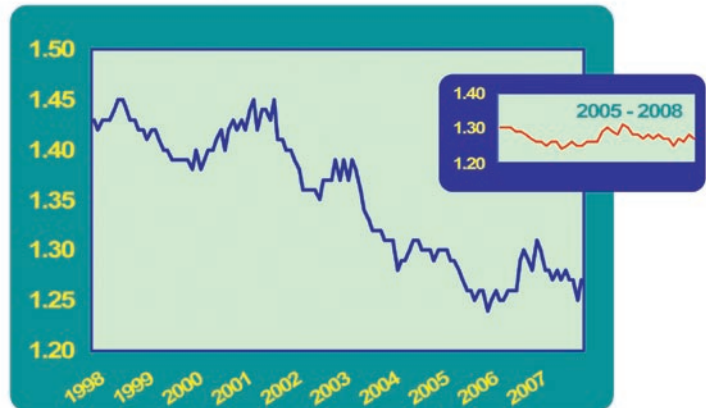
prices, fuel is eroding profit margins in an industry with historically lean margins to start with."

Looking ahead

Wilson's prediction for the year ahead is that there are not many signs indicating things will improve much in 2008. "A number of economic indicators and other data have been released in the last week or so that can

Figure 3

The Inventory-to-Sales Ratio Has Been Declining for the Last 10 Years



Source: U.S. Department of Commerce, Census Bureau

give us some insight into where the numbers will end up for 2008," she said.

A snapshot of that data includes:

- Rising inflation— prices are 7.2 percent higher than a year ago and this is the eighth consecutive month that prices were more than 6 percent higher than a year ago.
- Home builders' confidence is down— the leading index on such sentiment was at 18 percent, and anything below 50 percent indicates that more builders think sales conditions are bad.
- Industrial production rates are below expectations.
- Unemployment rates are at 5.5 percent and recently made their biggest one-month jump in 22 years.
- Midwest floods have led to crop losses as high as 20 percent in some areas, which will ultimately result in still higher food prices.

"My expectation is that we will not see a return to prosperity for sometime," said Wilson. "There are not enough positive indicators that we have started back up, or for that matter are even standing still."

Wilson's take, therefore, is that logistics costs will continue to rise. "The U.S. economy will show a very small growth rate in 2008, while logistics costs will be on the increase," she said. "I think we can expect to see logistics costs claim an even bigger share of GDP in 2008." 📊

For more on the State of Logistics Report®, see:
<http://cscmp.org/resources/sol.asp>

"The U.S. economy will show a very small growth rate in 2008, while logistics costs will be on the increase."

Rosalyn Wilson



Yard Management: The Missing Link

Greater yard visibility can enhance the effectiveness of WMS and TMS applications.

“When yard is part of the WMS all the activities going on inside the dock and outside the dock are synchronized.”

Tom Kozenski



Leading distribution centers, who’ve invested in warehouse management systems (WMS) and transportation management systems (TMS) to improve their performance now are looking toward yard management solutions to complete their logistics supply chains. “Now that we have efficient warehouse and distribution management systems, the flow into and out of the facility can have a direct impact on the efficiency of that operation,” comments Lonny Avital, CEO, Made4net LLC, Paramus, N.J. “Managing that yard around the DC is very critical for the overall operation of the facility and supply chain.”

“The yard sits between the TMS and WMS, and in most cases, when trucks come off the road and enter the facility, the goods and trailer drop into a black hole,” describes Michelle Meng-Hsiung Kiang, founder and head of marketing, PINC Solutions, Berkeley, Calif. “There’s no visibility in the yard and it’s causing a lot of issues. But people are becoming more aware that what happens in the yard does have a very profound impact to their overall supply chain efficiency.”

Tom Kozenski, vice president of product strategy, RedPrairie Corporation, Waukesha, Wisc., says, “Yard management is part of the maturity model of the logistics software that DC management is considering. It’s an affordable solution now, either as a standalone or integrated with a WMS and/or TMS.”

State of the yard

For the most part, yard management methods are still manual processes. According to an Aberdeen Group research brief (“The Key to Getting the Most Out of Yard Management Systems”), 58 percent of survey respondents use a manual system (clipboards and spreadsheets) to manage inbound and outbound trailers in the distribution center yard; 24 percent

use a commercial yard management system that isn't integrated with the WMS; and only 12 percent use a YMS module of the WMS.

Poor yard management creates many pain points for DC operators. Avital mentions congestion. "Poor management and scheduling can cause bottlenecks in the dock and yard that create a problem in having the appropriate resources available."

Kiang describes trailer tracking as an issue. "The existing manual process is resource intensive and time consuming, and must be repeated several times a day as someone must travel the yard and note where trailers are located. It is a very inefficient and inaccurate process."

"Lost trailers or trailers that are still sitting in the yard for too long leads to demurrage fees that can get to be expensive," states Kozenski. "In addition, if I can't find the trailer, I don't know what inventory is on them and available to me."

Improvement "opportunities"

However, with an effective yard management solution in place many opportunities are created. Avital describes yard visibility as one of the major opportunities. "Knowing what you have in the yard before you have it in the warehouse allows you to do things such as cross-docking and improving the planning of new orders for shipping," he explains.

Kiang states, "Yard operations with real-time visibility are more efficient than yard operations without real-time visibility." For example, she cites no more yard checks, less time looking for trailers, less time in the check-in and check-out process, and less money spent on demurrage and detention charges.

Kozenski mentions the benefits of integration of a yard management system with a WMS. For example, synchronization. "When yard is part of the WMS all the activities going on inside the dock and outside the dock are synchronized," he explains. "When a trailer is backed into the dock a signal is given so warehouse employees can start loading it or unloading it, which facilitates throughput. Similarly, when a trailer's done loading or unloading, the system can tell the yard jockey to pick it up and move it."

"Lack of synchronization can lead to costly operational bottlenecks that negatively affect throughput and customer service," according to Avital. "Another opportunity with yard management and integration with the WMS is the virtual extension of warehouse visibility to include yard inventory."

"For companies managing large numbers of trailer entering, exiting or being stored in their yards, an effec-

tive yard management solution is a powerful proposition," maintains a white paper ("Six Ways Yard Management Solutions Drive Operational Excellence") from HighJump Software LLC, a 3M Company, Eden Prairie, Minn. "It brings new levels of visibility to key activities and inventory information, optimizes work direction and space utilization, and allows you to run your inbound and outbound operations on schedule and with an eye on overall facility security."

Determining ROI

As with every capital investment, yard management solutions must pass ROI scrutiny. Kozenski suggests, "Not all yards require an automated yard management solution. Their throughput and the number of trailers they have to manage and how they deal with the yard jockey will dictate whether a yard system is even appropriate."

He also advises, "Clarify the value proposition the yard solution brings to the organization. Don't look at it as only a headcount thing." He insists when determining the ROI for a yard solution, "don't look at this as a labor savings initiative. Even in the largest yards with more the 100 trailers, there may only be a couple of individuals per shift working as yard drivers."

Instead the focus should be on the increase in throughput in the facility resulting from having better and timely information about the trailer locations, what their loads contain, and how it will enable you to move them into place much quicker. It also provides inventory visibility into the yard which can eliminate out-of-stock situations. Another aspect, which is increasing in priority, is in improving the security of the yard and assets.

In determining ROI there are some elements that do have a dollar value attached. Avital mentions hours of service. "Basically, if you hold a trailer longer than necessary, or if you make a trailer wait, you'll be paying a fee for this," he explains. "Calculate how much of that is happening on a regular basis, and how much it can be reduced when better managed and monitored with a yard system."

Another, which may be more difficult to calculate, is the improvement in customer service. "For this, look at your metrics and determine the percentage of short

"...the focus should be on the increase in throughput in the facility resulting from having better and timely information about the trailer..."

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RFID: Going For the “Green”

Environmentally friendly initiatives
a new focus for RFID applications.



“AIM Global views the current utilization of RFID technologies in green-related applications as one of the most promising market segments in the industry today.”

Dan Mullen

To date, supply chain and distribution center applications of RFID technology have been directed at increasing operations efficiencies and improving performance measures. According to a new ABI Research (New York) forecast, RFID market growth will be “robust,” with “closed loop applications continuing to lead the charge, with asset management (reusable/returnable containers, spare parts, tools, work-in-process, and yard management) in the forefront.”

Meanwhile, a new dimension for RFID technology is projected by AIM Global, Warrendale, Pa., the worldwide industry trade association and authority on automatic identification and mobility solutions. Dan Mullen, president, announced, “AIM Global views the current utilization of RFID technologies in green-related applications as one of the most promising

market segments in the industry today.” He cites, as an example, RFID applications providing greater visibility into the supply chain by helping companies more efficiently track and manage inventories, thereby reducing unnecessary transportation requirements and fuel usage.

Mullen also mentioned how RFID is being used to advance the efficiency and effectiveness of several environmental programs. Among them:

- RFID labeling technology is undergoing testing on 3,000 reusable plastic containers used to ship produce from three states to Wal-Mart stores in Texas. The testing is being conducted to ensure that the RFID labels and tags can withstand multiple shipment cycles and effectively be reused.
- RFID tags identify packaging materials and enable refuse sorting to turn waste material back into raw materials.
- RFID deployed to identify electronic subcomponents of PCs, mobile phones and other consumer electronics products to increase the reuse of these parts and reduce e-waste.

Improved visibility

“The rationale for supporting RFID in the supply chain is to increase visibility of products as they move through manufacturing to the warehouse and on to the retail outlet or end use,” explains Mullen. “By having more granular detail, more accurate information, you’ll be more efficient in managing the products through the supply chain. That improved efficiency, he maintains, “will fall out as benefits in terms of less redundancy in transportation, reduced emissions to the atmosphere, and a savings in fuel, among other savings.”

Similarly, in the warehouse, RFID working together with other technologies will pay dividends in terms of moving and locating products and inventory more efficiently. “If you’re not wasting time and energy and other resources trying to track something down, it’s going to have a positive impact,” he explains.

Enhanced technology

Two concerns many supply chain managers share even today relate to RFID standards and technology. Mullen assures that they have been resolved for the most part. “The standards have been put in place for a family of RFID technologies,” he says. Standards have been


defined for low frequency, high frequency, and ultra-high frequency technologies, all of which are typically found in a warehouse environment.

With reference to the concern about RFID tags and their application in media such as liquids, glass and metals, Mullen states, "A lot of innovation has occurred so that you can have specific tags that work quite reasonably around different materials." In fact, he mentions, "Some interesting innovations have been developed around embedding the tag in a label that has a buffer that enables it to be close to these materials while still being able to be read at a fair distance."

Challenges

Mullen insists that one of the challenges to more widespread adoption of RFID is the amount of education that is still needed in understanding that RFID is a range of technologies. For example, RFID technology that is used on a case that's going to be in a warehouse is far different than that which might be required for a shipping container in a port facility.

Another challenge is in the managing of the data. "Ensuring you have, if you are working with other partners, some sort of integration so the data can be used effectively," he explains. "We're seeing an eco system environment that is developing software and integration solutions to make better use of the information, sort through it, and convert it into actionable information."

Mullen's advice: "Continue to track and stay abreast of the developments taking place in the industry, especially in open system applications. Also continue to look for internal opportunities because RFID can be very helpful in the warehouse." 

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AIM Global, www.aimglobal.com

deliveries that are being made and how it impacts the bottom line, and how that would change with a YMS in place," explains Avital.

Add RFID


Kozenski, in bridging ROI and technology, says, "Don't discount RFID because RFID can very easily justify itself in a closed loop environment of managing assets, and that by definition is what yard management solutions need to do. RFID can provide additional value to pay for itself, much less the YMS."

RFID in a yard management system has the ability to identify lost trailers or know where trailers are to reduce demurrage. RFID technology can be included in a yard management solution. "We've embraced RFID and have all of the APIs and interfaces in our system," says Kozenski. "Our solution can 'talk' to that RFID as much as it can 'talk' to the typical RF device."

"They're very accurate," he maintains, and adds, "In Wisconsin in the winter using bar codes is impossible if not just difficult. The big benefit of RFID is I don't need to scan or read a line of sight to get the information on the trailer, I can pick it up because of the RFID signal," says Kozenski.

Another example is the PINC RFID solution. Kiang explains, "We tag all of the trailers with passive tags (which can be permanently attached or temporarily attached at check-in and removed at check-out). Their location and movement is determined by outfitting the yard tractor with an RFID reader, GPS, and additional sensors and communications devices."

The tractors are constantly "pinging" the tractors and recording their location in real time and reporting that information to the yard office. The Web-based solution can be deployed as a standalone, hosted solution or it can be integrated with other IT systems.

Avital concludes: "Without an effective yard management solution, your WMS and TMS cannot be utilized to their maximum efficiency." 

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At WERC

Here are some things to keep you up-to-date on what's happening at WERC

www.WERC.org

If you haven't checked out the WERC website lately, we encourage you to give it a try. There's lots of warehousing-specific articles posted or you might try the Forum (www.werc.org/ResourceCenter/Forum), where you can ask a question and have others in the industry reply.

WERCouncils

WERCouncils have been busy this spring. Chicago awarded two scholarships and Northeast Ohio will award at least one scholarship. We thank all our WERCouncil volunteers.

And mark your calendars for the North Texas Annual Convention on September 10. Check it out at www.werc.org and go to the North Texas WERCouncil page.

Thanks

To all those who responded to the "Retaining Employees" survey. We expect the report to be out at the end of July.

Save the Date

Sounds like it's a long way off, but we're already planning for **Conference '09**. If you'd like to submit a proposal for speaking, go to www.werc.org/conference. In any event, make sure you save the dates: **April 26-29, 2009 in Atlanta, Georgia.**

China Conference

At the **2008 China Warehouse Annual Conference and Exposition**, (September 23-24, 2008, Beijing, China) leading warehouse and distribution professionals in China and from abroad will meet together to share their resources in business and knowledge. The exposition on logistics real estate and warehousing service and software will be held at the same time and in the same venue. The reports to be released include the "2008 China Warehousing Report" and "2008 Annual China Warehousing Development Report."

Correction

Several members pointed out that the cover photo for the May issue should have shown the forklift operator wearing a seatbelt. We apologize for this oversight. For further information, go to www.osha.gov where you'll find documented interpretations of the Powered Industrial Truck regulations.

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