

REVERSE LOGISTICS DIGITAL magazine®

**Sustainability:
One Mission, One Team
- pg 12**

**RLA Conference
and Expo, Europe
Preview
- pg 31**



9th Annual RLA/RLTS Conference & Expo **AMSTERDAM**

**Over 400 RL Professionals
& 200 Companies will be
in Attendance**

Location:
Amsterdam, The Netherlands

Venue:
Mövenpick Hotel Amsterdam City Centre

Date:
Workshops - June 18, 2013
Conference & Expo - June 18-20, 2013



**Two concentrated
Days of RL Thought
Leadership, Innovation
and Networking!**



The Reverse Logistics Association Conference & Expo kicks off on Monday with workshops and committee meetings. Tuesday and Wednesday's events include the opening of the exhibit hall, the keynote address, sessions presented by RL professionals, leading academics and interactive panel discussions.

Session topics include "Controlled Reverse Chains for End-of-Life Products," "Returns Management and Asset Recovery" and "Challenges and Compliance with Cross Border Commerce." A wide range of Reverse Logistics companies will be in attendance from repair/refurbishing to recycling/e-waste and transportation logistics.

Be sure to visit the Exhibition Hall where OEMs, ODMs and Retailers will be looking for Third Party Service Providers that can manage Reverse Logistics in Europe and around the world. This is a rich opportunity for OEMs and Branded companies to identify future service partners among the many exhibitors showcasing their Reverse Logistics solutions.

For more information, visit: www.RLASHows.org



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On the Cover



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Sustainability: One Mission, One Team

Editorial Compilation by Laura Nixon, Editor, RLA

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RL Magazine will publish 12 issues annually — 12 new digital editions!

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Message from the Editor

SALARY OR SATISFACTION

I recently read an article published by Philips and wanted to expand on the findings. It's simply titled 'Satisfaction Beats Salary.' They conducted a survey and found that professionals and graduates alike expect their careers to provide additional substance besides just a paycheck. Certain factors such as happiness, personal interests, satisfaction, shared employer success, and overall well being are all important aspects of what is considered when finding a career or a job.



Personally, I have worked for various small companies up to a large corporation. In my work experience, I have had many different managers and all are different in each way. Some I love as family, and others not so much. There can be an unknown source of animosity between the manager and workers, and for whatever reason, this will never dissipate. This creates an undesirable environment. In turn, the happiness is not there, nor is the desire to stay at an unsettling workplace.

The workforce attitude is being shifted and redefined. Personal interests are what keep people engaged and committed. Climbing the corporate ladder seems like a statement of the past. I used to have a desire to accomplish this but was discouraged after working for a large corporation. I thrive in an environment that lets employees flourish and encourage achievable measures. This creates a satisfaction where salary has no implication.

The survey revealed that almost a quarter of workers would be willing to take a pay cut of 25 percent or more. This in itself implies a great deal and only confirms that overall well-being and happiness are the majority deciding factors. I can admit to taking a pay cut for happiness in several of my job choices, not just one. It has taught me a lot about myself by way of what I can tolerate, and what I will sacrifice for a higher salary.



Laura Nixon, Editor • Editor@RLA.org

OUR MISSION

Our mission is to educate and inform Reverse Logistics professionals around the world. RLA focuses on the reverse logistics processes across all industries. No matter the industry — High Tech, Consumer Electronics, Automotive, Medical/Pharmaceutical, Food and Beverage, Apparel, or other — our goal is to provide RL process knowledge to all industries. We want to educate everyone about the Reverse Logistics processes that are common to all industries and to

be a catalyst for innovation in developing and implementing new RL processes. We have been and will continue to provide our services to the industry at a moderate price.

Managing the latest information in services such as repair, customer service, parts management, end-of-life manufacturing, service logistics, field service, returns processing and order fulfillment (just to name a few) can be a little intimidating, to say

the least. Yet that is exactly what the Reverse Logistics Association provides through our membership services. We serve manufacturers and retailers in a variety of settings while offering ongoing updates on market trends, research, mergers and acquisitions and potential outsourcing opportunities to 3PSPs. We have gained the attention of 3PLs like FedEx, DHL, USPS and UPS. 3PSPs like Teleplan, Foxconn, Flextronics, Canon, Sony and Jabil, along with small- and medium-sized service

providers have found that RLA resources help advertise their services to a regional and global audience. OEMs like Microsoft, HP, RIM, and Sony, along with Retailers like Wal-Mart, Canadian Tire, Tesco and Best Buy all participate at our events. Through RLA Events, RLA Connect services and our publications — RL Magazine and the Weekly News Clippings email — we help OEMs, ODMs, Branded and Retail companies find service partners and solutions providers that were previously unknown to them.

10th Annual

RLA Conference & Expo Singapore

Novotel Clarke Quay • September 24-26, 2013

Asia's premiere Reverse Logistics Event will bring three full days of Reverse Logistics. Starting on Monday, September 24, with RLA Workshops and continuing on Tuesday and Wednesday with sessions and exhibition.

A wide range of leading regional and global Reverse Logistics companies are in attendance from repair/refurbishing to recycling/e-waste and transportation logistics.

Be sure to visit the Exhibition Hall where ODMs and OEMs will be looking for Third Party Service Providers (3PSPs) that can manage Reverse Logistics in the Far East, along with identifying solutions for Europe and the Americas. There will be many exhibitors showcasing their Reverse Logistics services and solutions. This is a rich opportunity for OEMs and Branded companies to identify future service partners.



If you are a Reverse Logistics professional – don't miss this event!

For more information and complete details, visit www.RLASHows.com. Attendees may register online for Workshops and the Conference and even book flights and hotel. Exhibitor space is available for purchase as well.



Message from the Publisher

ARE YOU SUSTAINABLE

While I was driving across the USA visiting RLA Members prior to my final destination at the RLA Bentonville Seminar, in Arkansas, I realized something amazing; the roadways in America aren't sustainable! What you say, not sustainable, that is exactly what I thought. As I traveled during the day on 2 to 4 lane roads, I saw very few cars and trucks traveling on them. When night fall came around, no one was on the road.

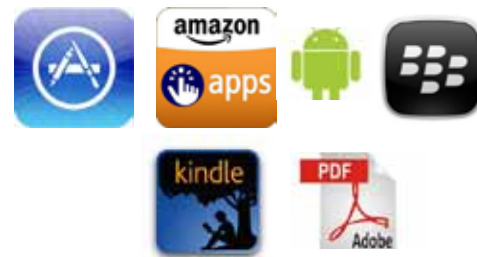
Well for you operations and accounting types, you know the issue, if your "brick and mortar" isn't being used 24 hours a day, 7 days a week, your overhead is too high, not sustainable. In this case, the taxes will consume the taxpayer. Now, I know what you will say, the roads are built for future growth and rush-hour demands.

The problem is that the convenience for a few hours of less traffic during rush-hour and the future use isn't sustainable for the taxpayer base. Civil and Mechanical Engineers did their forecasting and studies with a little help from voters demanding their legislative leaders to build the larger and expensive roadway. What is missing is a Sustainable Planner type that can look at the overall outcome and see the real cost of maintenance cost over the next 20 years.

This month our Editor has pulled together some great examples of social sustainability, please read this wonderful article on page 12, it will bring tears to your eyes and joy to your soul. I would encourage you to look at your operations and services in the same light. Are they being used for more than bringing in revenue? Are they truly sustainable?

With all the readers and tablets, e-readers have become a standard and so has RL Magazine, being published on Kindle, Kindle Fire and Android formats, and now for the first time you can read them on you Apple iPhone and iPads!

Best Regards,
Gailen Vick, Founder & Publisher
www.RLA.org



Board of Advisors

A Board of Advisors comprised of industry experts has been set up to monitor and assist the Reverse Logistics Association management team in making informed decisions. Advisors include:



John Benardino - Comcast
John Benardino has 19+ years of multinational supply chain management. Moved production and call centers overseas, implemented new planning and procurement systems, transformed outbound deliveries, shifted terms

and conditions around returns/support, and direct management of third party manufacturing. 12+ years of experience managing first and second level managers, setting objectives, balancing workloads and managing performance. Over fourteen years of customer facing experience. Channel partners (Distributors, Consumer Electronics, Mass Merchant, Office Product Super Stores, and Clubs), Enterprise, and end consumer customers. Includes account programs, forecasting and enabling product placement tradeoffs. Over eight years of experience managing a profit and loss statement. Strong understanding of marketing/distribution channels within retail, enterprise and commercial. 8+ years of low mix/ low margin computing, 2+ years of high mix/ high margin test and measurement, 4+ years of service revenue, and 9+ years of annuity based product.



David O'Leary - UPS David O'Leary brings over 22 years of management experience through several key roles in Sales, Finance and Operations positions that he has held during his career at UPS. As Vice-President, Global Post Sales and Reverse Logistics, David

is responsible for the US and Canada operations while having strategic oversight for the product globally. Prior to taking on this role David was Vice-President of High Tech Sales. In this role, David was responsible for managing a group of High Tech sales executives who support internal and external sales cycles focused on UPS distribution and service part logistics products.

David began his career with UPS through the acquisition of Livingston Inc. in October 2000. Just prior to the acquisition, David had moved into a Service Parts Logistics (SPL) operations role and assumed more senior operational responsibilities within SPL at UPS. Prior to moving to operations, David spent four years with Livingston in various financial roles. His last financial assignment was Controller of Livingston, Inc.

David has a Bachelor of Commerce degree from the University of Toronto. In addition, he obtained his Chartered Accountancy (CA) designation in 1992 during his apprenticeship with Price Waterhouse. David worked for Price Waterhouse for five years performing roles in audit, tax and insolvency groups. David spent one year at Coco-Cola as a Finance Manager prior to joining Livingston.



Jose Garcia - Motorola, Jose Garcia joined Motorola as the Director of Reverse Logistics in September, 2012. Jose has been in the Consumer Electronics Industry for over 25 years holding leadership positions in Reverse Logistics, Repair, Refurbishing, Technical

Support Engineering Groups, Training Departments, and After Sales Support Policy. The last few years gave Jose the privilege to lead high volume Software Manufacturing and Games Operations for Microsoft as well as a Global program team that launched hundreds

of products around the globe through a regimen of "milestone gates" and sign offs.



Edwin Heslinga - Microsoft, Edwin is currently Director of Reverse Logistics Programs and Policies for Microsoft Devices. In his position Edwin is responsible for development and enforcement of policies surrounding returns and all related costs to the

returns and is also involved in the Customer Satisfaction Continuous Improvement Council. Working with Microsoft Call Center and the Microsoft Manufacturing Operations Edwin is driving the improvement of consumer satisfaction through agent assisted support and on-line support while managing the costs.

Prior to working for Microsoft, Edwin worked for Jabil Global Services as the Director of IT Solutions, where he worked with various teams on the proposal and implementation of reversed logistics services for various companies at the Jabil factories around the world.



Charles Johnston - Home Depot, Charles Johnston is Director of Repair and Returns at The Home Depot Chuck was with WAL-MART for the past 14 years and his responsibilities include Returns, Imports, Exports, Tires and Printing and Mailing

Distribution.



Hartmut Liebel - Jabil Global Services, Hartmut Liebel was named President, Jabil Global Services (JGS), in October 2004. He joined Jabil as Executive Vice President in July 2002 and was named Chief Operating Officer in October 2003.



Troy Kubat - Walmart, Troy is now the Director of Logistics Engineering-Grocery at Walmart having worked is way up from Director, Logistics Operations, Industrial Engineering Manager at Walmart - International Division and Japan Expatriate - Logistics

Operations Lead at Walmart - International Division

A strong Logistics professional with a deep understanding of the Retail operation and market place. Extensive Distribution Center (DC)/Transportation operations experience and vast International Logistics operations experience focusing on growth, integrations, strategic planning, innovation, and process improvements.



Thomas Maher - Dell, Tom Maher joined Dell in 1997 and is the Executive Director for Global Service Parts. Mr. Maher is responsible for service parts life cycle support in over 100 countries. Mr. Maher's global service parts responsibilities include: planning, procure-

ment, distribution, returns, repair, inventory management, supplier management and parts disposal. These operations support 100% of Dell's warranty customers across all Business Units and all Product Lines.



Ian Rusher - Cisco Systems, 20 Years within Supply Chain Operations, of which the last 15 Years have been spent in reverse Logistics. Previous experience running 3Com EMEA Warranty/ Service Repair Operations, Responsible for both Internal

and 3rd party repair operational performance and Engineering support. Moved the operations from a predominantly In-House business to a total outsourced operational model. Last 3 Years at Cisco within Supply Chain Field Operations, setting up the EMEA non Service returns and Cost Avoidance Operations within the Netherlands. Responsible direct for EMEA Freight and Warehouse Operations. During the last 2 years has successfully set up Operational infrastructure to support the Teams Global Revenue targets.



Dale Rogers- Rutgers University, Dale Rogers is the Foundation Professor of Logistics and Supply Chain Management and the Director of the Center for Logistics Management at the University of Nevada. He is also the chairman of the Reverse Logistics Executive

Council (www.rlec.org), a professional organization devoted to the improvement of reverse logistics practices. He is the leader of the sustainable supply chain research project currently underway at the University of Nevada. (www.sustainable-supplychain.com) Dr. Rogers is the former cochairman of the RFID Users' Group, an organization researching the utilization RFID technologies in the supply chain. In 2001, he was the Paper Foundation Visiting Eminent Scholar Chair of Logistics at the University of North Florida.



Tony Sciarrotta - Reverse It Sales & Consulting, Tony Sciarrotta has held a variety of sales and marketing positions in the consumer electronics industry for over 30+ years, including the last 25 years at Philips Consumer Lifestyle. His

background prepared him in this developmental role as director for returns management activities, and he was responsible for implementing effective returns policies and procedures with a variety of dealers.



Ian Towell - Tesco, Responsible for end to end accountability for the non food returns business within UK Tesco, focussing on improving quality, policy application, asset recovery and logistical flow.



Susan Wackerman - Hewlett-Packard Company, Susan Wackerman is currently a Sr. Operations Manager in the Americas Supply Chain for HP's Imaging and Printing Group. In her position, Susan is responsible for the Recycling Operations for HP

Americas and the Returns Operations / Remarketing for HP Americas Imaging and Printing Group. This includes supply chain development, reverse logistics, disposition and processing, refurbishment, resale, channel management. For Recycling Operations her product responsibilities cover all HP product categories including inkjet and laser printing, digital imaging, supplies, scanners, shared printing, PCs, notebooks, desktops, servers.



Reverse Logistics Association Industry Committees



Industry Committees are set up to provide a standing forum for Reverse Logistics Professionals to meet on a regional and global basis and discuss common Reverse Logistics issues at the RLA Conferences & Expos. Industry Committees educate the industry on reverse logistics:

- “Best Practices”
- Consumer Satisfaction Issues
- Regulations on a Worldwide & Regional Basis Processes that can Reduce Costs

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- Charles Chappell, Genco ATC

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- Mark Delong, Arvato Services
- Regan Pasko, TESSCO Technologies, Inc.

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Sustainability: One Mission, One Team

Editorial Compilation by Laura Nixon, Editor, RLA

Whether made by man or by nature, a disaster leaves distraught and displaced people in its wake. Any time there's a natural disaster in this country, the local heroes tend to be ordinary citizens, rescue personnel and ... retailers? Companies like Home Depot, Lowe's and Wal-Mart are first on the scene with truck loads of emergency supplies. In the case of Hurricane Katrina, the retailers had their stores reopened before the Federal Emergency Management Agency (FEMA) arrived on the scene. The retailers were able

to get water, food and other necessities to the hardest hit areas. Home Depot used buses to transport 1,000 employees into the area to help with relief efforts. Wal-Mart provided free merchandise, including prescription drugs, to evacuees at the Houston Astrodome and the Brown Convention Center. During the Florida hurricanes of 2004, Home Depot hired Kuehne & Nagel, a global logistics network, to manage an Orlando-based distribution center to support relief efforts. Both Home Depot and Lowe's were able to resupply their stores

immediately after Hurricane Charley hit southern Florida in 2004. Lowe's delivered 51 truckloads of batteries, 87 truck loads of plywood and other supplies within the first 36 hours.

As Hurricane Katrina was bearing down on the Gulf Coast, Wal-Mart CEO Lee Scott reportedly issued the following edict: "A lot of you are going to have to make decisions above your level. Make the best decision that you can with the information that's available to you at the time, and above all

else, do the right thing."

At least two Wal-Mart employees took him at his word. A Kenner, La., sales associate used a forklift to knock open a warehouse door to get water for a local retirement home. In Wavel and, Miss., a store manager ran a bulldozer through her store to collect undamaged goods, which she piled in the parking lot for local residents. Then she broke into the pharmacy because the local hospital was running out of drugs.

During disasters, Wal-Mart puts its own nationwide response center in motion, with

sophisticated communications and a state-of-the-art shipping network. Wal-Mart has an emergency management department comprised of four divisions that deal with preparedness, long-range planning, emergency operations, and mitigation and recovery. The Bentonville, Ark., team responds to all hazards, including floods, ice storm, blizzards and man-made disasters. When the Minneapolis bridge collapsed, Wal-Mart was there with bottles of water, sunscreen and power bars. Wal-Mart employees also brought supplies to the World Trade Center collapse in New York on Sept. 11, 2001.

"We have different levels of activation, depending on the situation," said Bryan Koon, the company's senior operations manager for emergency management. Koon pulls team members from merchandising, facilities maintenance, legal, finance, logistics and corporate giving. Meetings are sometimes held by videoconferencing. Wal-Mart also has its own meteorologist on staff and a proprietary storm tracking system that overlays its store locations. "We need access to real time weather data so we can prepare our facilities and employees and know where the safe areas are to put down equipment and supplies," Koon said.

PRODUCT LIFE CYCLE

Supply Chain

AfterMarket Supply Chain

FORWARD LOGISTICS

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Supply Chain			END USER • RETAILERS • RESELLERS	AfterMarket Supply Chain
New Product Development	Material Management	Manufacturing & Distribution		AfterMarket Customer Service
<ul style="list-style-type: none"> • Design Development • Technology Roadmaps • ASIC Development • Mechanical Design • PCB Layout • Prototyping • New Product Introduction 	<ul style="list-style-type: none"> • Vendor Relations • Planning • Procurement • Inventory Planning • Component Fabrication 	<ul style="list-style-type: none"> • PCB Assembly • Box Assembly • Volume Manufacturing • Integration • Configuration • Final Testing • Distribution to Customer • Customer Fulfillment • Fulfillment Transportation 	<ul style="list-style-type: none"> • Customer Service (HelpDesk) • Depot Repair • Service Logistics <ul style="list-style-type: none"> • Field Service • Transportation Warehousing • Spare Parts Management • RMA Management • Replacement Management • End-of-Life Manufacturing • Fulfillment Service • IT Process Management • Recycling • Refurbishment / Screening • Warranty Management • "B" Channel Management • Asset Management • Environmental Resources • Sustainability 	





When others ran out, he rushed in.

COURAGE

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But there are lessons to be learned. Wal-Mart, for instance, requires its top managers to sit together while coordinating its disaster response. “It’s the person from operations sitting next to the person handling logistics,” said Jason Jackson, the retailer’s director of business continuity. “So when the first person says, ‘I need ten trailers of water,’ the next person says, ‘I have it available,’ and the third person says, ‘I can get it there.’” Coordination must be like clockwork, with shipments delivered safely, securely, and on time. When you need an expert to focus on shipping and distribution, so the focus can be redirected to aid, UPS should come to mind.

They have proven experience, innovation, and commitment. From the Midwest to the Middle East, Africa to Japan, we use our logistics expertise—and sometimes our volunteer base—to anticipate possible problems and customize the perfect solution.

UPS has collaborated with the World Food Programme (WFP) to create Logistics Emergency Teams (LETs). This cross-company partnership relies on employee volunteers with warehousing, transport, and logistics expertise. Based all around the world, these teams are deployed within 48 hours of a humanitarian crisis. Similarly, a partnership has

been created with the American Red Cross to establish Logistics Action Teams (LATs) in eight states. These teams are comprised solely of employee volunteers who work with non-governmental organizations (NGOs), FEMA, and state governments to mobilize hurricane and tornado relief more efficiently. Efforts include:

- Distribution of clean-up supplies
- Pickup and delivery of meals to feeding sites
- Transportation of shipments from warehouses to service delivery sites
- Consultation on warehouse design to optimize space

and improve distribution

These big corporations and their partners assist in helping the damaged communities repair in time of need. It’s also important to remember the people of these communities and the resources that are available from local agencies that volunteer their time and efforts. During emergencies, whether caused by tornadoes, fires, floods, earthquakes or something else, if there is a Mormon congregation close by, members of The Church of Jesus Christ of Latter-day Saints are often among the first to provide resources or to help in other ways. Latter-day Saint congregational communication lines and the Christian principle of helping your neighbor drive Mormons’ effectiveness in mobilizing volunteers and supplies in crisis situations. During disasters, other church programs pay for needed supplies. Mormons simply give of their time, the commodity most often in short supply in any community. The

primary focus is to be good citizens and to make a difference in their communities.

Catholic Relief Services (CRS) respond to both natural disasters and complex emergencies. The approach of CRS’ emergency response programming is through a framework of saving lives, supporting livelihoods and strengthening civil society.

The tornadoes that struck the Midwest this week, killing dozens and destroying hundreds of homes and schools in the Oklahoma City-suburb of Moore, likely caused more than \$1 billion in damages. And it’s not just tornadoes that wreak this kind of havoc. From wildfires to hurricanes, the country has suffered dozens of natural disasters that have left billions of dollars of damage in their wake.



There are so many organizations that contribute to the well being of Americans during a crisis, that it’s impossible to name each and every one. The importance of this story lies with each effort put forth to help a person in need, to create a sustainable environment and dependability. From small

From the very beginning of a disaster, CRS works with the affected community with the ultimate goal of moving from relief to reconstruction. The agency also supports programs that prepare communities for natural disasters.

acts of kindness to monetary donations, all can benefit from any assistance during a catastrophic event or disaster.

Take a moment to consider how many professional doctors, nurses, paramedics

and EMTs were on the scene before the Boston Marathon tragedy struck. Because of the large number of participants and spectators, Massachusetts officials consider this event to have been a “planned mass casualty event.” The planning goes on all year and requires deployment of an impressive number of medical personnel. Considering the types of injuries caused by the blasts, these people undoubtedly reduced injury and saved lives.

Yet there are also amazing stories about bystanders as heroes. Volunteers and spectators provided aid and comfort to the people around them. They became an impromptu part of the EMS system.

A man who lost one son in Iraq and another to suicide helped stop the bleeding of a man whose leg was blown off. Runners, who only moments earlier finished the race, rushed to apply makeshift tourniquets to the injured, carried people toward first aid tents, or comforted the people around them.

How can bystanders get ready for a disaster like this? Learning first aid, CPR and risk awareness definitely can help prepare you to help others – friends, family members, and strangers. But

you don’t always need formal training to save someone’s life or provide them with the care they desperately need at that moment. Sometimes you just need to be willing to help carry someone who is hurt to safety, provide comfort to someone who is frightened, or help someone find the medical care they need.



Prepared individuals are aware of potential risks, understand where they can turn for help, know what their personal responsibilities are, and are willing to help their neighbors and community members.

At the core of a resilient nation are individuals who know what they can do to protect themselves and are willing and able to do it. Health, safety, and security cannot be left to the professionals but should be recognized as everybody’s responsibility. We must shift our national culture to recognize

the essential role of community first aid during an emergency. Community planners across the country must incorporate the bystander-as-responder into emergency management plans.

Success in preparing for and responding to any large event rests in the ability to harness the immense potential of the community. We saw this exhibited by those Boston heroes, formal first responders, and those who simply took action when faced with unimaginable tragedy and helped their fellow citizens in the moment of greatest need.

Simply put: bystanders didn’t stand by. They saved lives. We should learn from their bravery and plan on ways that we, as part of our community and our nation, can be better prepared to help out in the next disaster, so we truly have one mission, one team. RLM

The information presented in this cover story has been a compilation of contributions from Wal-mart, UPS, Mormon Helping Hands, and the Catholic Relief Services.

Reverse Logistics Association Focus Committees



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Innovating to Unlock Value in the Reverse Supply Chain

by Bill Angrick, Chairman and CEO, Liquidity Services, Inc.

OVERVIEW OF THE REVERSE SUPPLY CHAIN

The reverse supply chain - or the process for managing, evaluating, and disposing of surplus or idle assets for organizations - has historically been considered to be a cost of doing business and has received little attention as a source of competitive advantage by corporations. A company's approach to managing returned goods and surplus and idle assets can impact its total supply chain costs, brand image, and sustainability efforts. Leading organizations across all sectors from business to government now have available to them trusted and proven solutions with the focus and market data to more efficiently manage this "non-

core" aspect of their operations in lieu of spending additional employee time and expense.

Retailers and manufacturers from various industries all generate surplus and idle assets and have key opportunities to differentiate themselves from competitors through their use of best-in-class reverse logistics strategies. For example, we have implemented sustainable surplus initiatives that have enabled retailers, manufacturers, and government agencies to move to a zero-waste model; a powerful statement in an economy that encourages green growth. To date, we have deterred more than 2 billion pounds of scrap material from landfills through our client solutions.

THE UPSIDE TO SURPLUS INVENTORY FOR RETAILERS AND OEMS

Overstock and returned inventory sitting on store shelves or in warehouses means dollars lost to the bottom line for retailers. Similarly, many OEMs who end up with surplus product - either through returns from retailer partners or through their own sales channels - experience a drag on profitability due to lack of data and effective strategies for proactively managing surplus and returned goods. However, the introduction of technology and multi-channel sales strategies is changing the game and retailers and OEMs are beginning to embrace innovation in the area of reverse logistics as

a strategic imperative. Players throughout the supply chain can take advantage of solutions that return value through increased recovery while also protecting their brand and reputation. In many cases, clients actually improved consumers' perception of their overall brand image by centralizing and improving their management of how goods move through the secondary marketplace. These gains can have a profound impact on overall enterprise value.

CASE STUDY: LARGE OEM

A large OEM discovered nearly \$500M of their consumer electronics product was selling on eBay through third party sellers. The company's resources were wholly dedicated to selling new merchandise to retailers and realized that designing and executing a plan to manage the resale of refurbished and returned product, was not in their breadth of expertise. The OEM's historical sale of their products on secondary marketplaces without centralized oversight, customer engagement, or controls was a noticeable risk to brand perception. In working with this client, we were able to utilize our expertise in running online secondary marketplaces for resale to set up and manage a branded eBay Store for the OEM. As part of this solution, we took the returned and refurbished inventory off the client's hands and into our warehouse network for maximum velocity and quality assurance. While many retailers and OEMs have not historically seen a need to focus on consumer engagement in these secondary markets, with the advent of social media as a resource for customers, this buying experience has equal importance

with traditional retail channels. We provided dedicated customer service for any customer inquiries from their eBay Store, customizing each step of the solution to fit their needs.

In order to boost the success of the store, it was important to have an increase in customer growth, awareness, and engagement from the launch of the new online channel. We were able to successfully launch in a short 15-day timeframe to be ready for the holiday peak season and achieved "Top Rated Seller" status at a record pace. Thanks to this well-supported online sales channel for returned and refurbished products, the OEM is seeing an increase in overall brand perception that is lifting sales even in their primary marketplaces and furthering sustainability efforts.

MAKING THE MOST OF CAPITAL ASSETS FOR MANUFACTURERS AND LEADING COMPANIES

Similar to retailers and OEMs, who have an opportunity to turn a burden on their bottom line into a

silver lining; manufacturers across all sectors and any company or government agency with equipment and assets, can innovate through the reverse supply chain. The automotive industry, for instance, utilizes large and specialized equipment that will eventually reach the end of its useful life or may remain idle following its primary use. Setting this capital intensive equipment aside in storage or disposing of it in a landfill is not only inefficient, but can provide great risk to the company's brand or cost valuable revenue that may have been gained in effective asset disposition planning. Searching for buyers for niche equipment is a poor use of employee time, when there are companies that specialize in reverse supply chain planning and have a large base of buyers looking to purchase a range of capital assets. Additionally, when companies are considering selling off unique assets, or even relocating plants and equipment and assessing their market worthiness to make decisions; receiving expert valuations from a company with timely and relevant market information on the value of





assets is a key factor for long-term business planning. By working with trusted professional providers of asset remarketing services backed by liquid marketplaces and global valuation data, corporations obtain greater transparency, security, and compliance throughout the sales process, which is particularly important for energy, health care, and aerospace industries, as well as the public sector.

CASE STUDY: CONSUMER PACKAGED MANUFACTURER GOODS

The beer industry may have leveled off but the craft beer segment - which comprises 6% of the industry - continues to grow at 13% on a yearly basis. This bodes well for the future of beverage companies building upon this trend, but it does not provide stable indicators on the value of craft brewer equipment. When a U.S.-based craft beer brewer purchased a brewhouse from Europe, it confronted this lack of information in the effort to better measure the value of the asset.

The craft brewer engaged our team with GoIndustry DoveBid, a marketplace that provides asset valuation and sales solutions to multi-national corporations, financial institutions, and asset-based lenders throughout the world. With our global valuations team, we tapped our database of buyers and transaction data to provide a comprehensive view of the buyer market for a brewhouse and the asset's value. The brewer received an in-depth understanding of the brewhouse's actual market value; including a complete background on the factors that contributed to that overall valuation number (e.g. shipping the asset from Germany to the U.S. increased its value). To replace a full facility of that magnitude with the specialized equipment and filtration system in place would have been capital-intensive. As a result of this valuations work, the buyer completed the transaction and today the brewhouse is a valuable asset for the craft brewer's business, helping them to expand their business in a high growth market.

CONCLUSION:

The reverse supply chain has received little attention as a source of competitive advantage. There are clear opportunities to transform your supply chain, improve your brand image, and support sustainability programs through more effective management of your reverse supply chain with the right partners. Focused providers have invested in global marketplaces and professionally managed, data-driven services to manage, value, and sell every imaginable type of surplus equipment and inventory. By centralizing this historically fragmented and undermanaged process, Fortune 1000 corporations and government agencies have improved the image of their brand; which increases the value of their core business. In this manner, best-in-class companies have avoided the trap of being penny wise and pound foolish in the management of their reverse supply chain. RLM



Bill Angrick co-founded Liquidity Services, Inc. and has served as the Chairman of the Board of Directors and Chief Executive Officer of Liquidity Services since January 2000. Mr. Angrick holds an M.B.A. from the Kellogg Graduate School of Management at Northwestern University and a B.B.A. with honors from the University of Notre Dame. He earned his CPA certificate in 1990. For information on Liquidity Services, visit Liquidityservicesinc.com.

WHAT IS THE REVERSE LOGISTICS ASSOCIATION?



At this year's RLA Conference & Expo in Las Vegas you may have noticed a television crew roaming around. The crew was there to capture response to the conference and make a video that displayed the essence of the Reverse Logistics Association. They were also filming segments for a new video series in RL Digital magazine called RLA Rewound. As you view it, you may see some familiar faces. A big thank you to everyone who took time out from their busy conference schedule to stop and talk with our reporter. We hope you will share the video with friends and colleagues as you introduce them to the association and explain what we do and how we can support them. Stay tuned, because we may be talking to you for the next series of videos for RLA Rewound.



Profits in Reverse Logistics

by Jennifer Bilodeau, Independent Author

Why reverse logistics? Why pursue an area of business management that has often been underestimated, overlooked, and often not understood? Businesses face many challenges in the current economy trying to find new and innovative methods to derive additional revenue or profit within their organization. Returns management and tight inventory control is being explored by industry professionals to improve efficiency and increase profits. The top questions asked by industry professionals are “What do reverse logistics best practices really mean? How do we measure customer satisfaction?” (Thompson, 2010)

The triple bottom line was the concept of John Elkington, founder of SustainAbility who believed a company should measure their success not only by profit, but by people’s accountability and planet



accountability (Economist, 2009). At the time there was a growing public awareness that forced many companies to consider corporate responsibility and set ethical standards to ensure manufacturers did not take advantage of indigenous people or their environment where there were unregulated markets.

The management of e-waste has evolved and has become a growing problem for companies. Most consumer electronics were making their way to landfills, or being exported to developing countries. The Environmental Protection Agency (EPA) was concerned about “exports being mismanaged abroad,

causing serious public health and environmental hazards, and representing a lost opportunity to recover valuable resources effectively” (EPA, u.d.). Many electronic manufacturers and retailers have attempted to utilize their existing business footprint to capitalize managing e-waste generating new streams of income. Companies looking at reverse logistics initiatives should consider relevancy of the return or recycle program to corporate objectives to help determine how to approach an existing customer base to market a reverse logistics program for profit.

VALUE ADDED SERVICES

Consumer demand drives product development, improvements to customer service, as well as many other income producing opportunities. When considering launching an effective reverse logistics operation an integrative management value proposition

should be considered identifying the economic value, market value, and relevancy (Bowersox, et al, 2010, p. 5-6). An organization determines the strategy they want to employ to collect, refurbish, or recycle goods. Once the good is received it is evaluated to identify profitability of refurbishing the unit, using viable parts, or sending it to a recycling.

A company should consider how they intend to collect returns. If a manufacturer decides to control the collection process, the investment is driven by remanufacturing cost savings and quality control of the product. Indirect collection systems using a third party or shared resource produce an immediate savings. A manufacturer with indirect collection typically has a unique product line that would not impact their competitiveness in the marketplace if competitors were to purchase refurbished parts (Sevaskan and Wassenhove, 2006, p10-11). The concern is that a third

party refurbishing a product or a shared facility could potentially sell remanufactured parts to a competitor in the wholesale market driving down product cost. In a case study, Kodak’s single use camera is a primary product and benefits from a direct collection process, where Xerox print cartridges would benefit from a third party remanufacturer because the return is not going to significantly impact the price points of their printers should a competitor choose to buy refurbished cartridges in the wholesale market (Sevaskan and Wassenhove, 2006, p13-14).

Gatekeeping parameters should be established to automate the decision-making on whether or not the return is valid. Without proper gatekeeping, a company might find themselves flooded with products that cannot be processed and inflate costs of managing returns. “Good gatekeeping is the first critical factor in making the entire reverse flow manageable and profitable” (Third

Industry Events



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May 28-31, 2013

Conf & Expo: Amsterdam 2013
June 18-21, 2013

RLA@ Home Delivery World 2013
September 16-17, 2013

Conf & Expo: Singapore 2013
September 24-26, 2013

Seminar: Laredo 2013
November 07-07, 2013

RLA@ CES 2014
January 07-10, 2014

Eye, 2003, para. 13). Once the item is accepted, determining where the item will be sent for central processing, how the items will be transported, and what will happen to returns after they have been inspected and sorted. Collection of information about the return through an authorization process is beneficial to planning for workflow to help expedite processing from reconditioning, repair, reutilization, resale, or deconstruction. A product that should have never been accepted as a return or sent to the wrong destination can become costly.

The conventional returns management model takes into account only those costs related to bringing the returns back into the system, along with the cost of warehousing and returns request management. The costs that impact the total reverse flow of product could impact customer retention efforts, product reworking, redistribution, inventory management, overheads allocated to other departments, and cost of disposal (Kimball, u.d. and Rogers, et al, 2008).

WHERE ARE THE PROFITS?

Reverse supply chains differ from forward supply chains in information flows, physical flows, and cash flows. A company should consider what information they are capturing on the forward flows and how that will impact and expedite the process of the reverse flow. Processing efficiency in returns will work to optimize slow moving inventory, repairs, warranties, and disposition instructions.

The physical flow drives the information flow and the differences between the reverse flow and forward flow of goods need to be considered within the organization. Forward flows are much more direct, and easily planned to account for sporadic demands or random routing of product. Reverse flows are more difficult to anticipate, tend to follow both fixed and random routings. Most of the challenges companies face is a result of an inadequate supportive infrastructure to manage information. By clearly defining the returns process and flow of goods and the impacts throughout the organization, a company can strategically plan what information should be captured. Without considering the information and product flows, a company could inadvertently create inconsistencies in process management impacting costs (Kimball, u.d., p. 3-4).

Once a company can decide what information to capture, forecasting returns and customer collaboration with the return become more efficient reducing the costs of managing that return. It is also beneficial to avoid limited data visibility as it can promulgate unreliable data and information analysis. By having full visibility with the location, status, and condition of the return a firm could mitigate the effects of poor data including product development, product cycle, repair times, and customer satisfaction (Kimball, u.d., p 9-10).



Integrating information into supply chain improvements on both the forward and reverse flows reduce returns and improve efficiency. “The general concept of an integrated supply chain links participating firms into a coordinated competitive unit” (Bowersox, et al, year??? p. 6). Developing critical relationships across the supply chain to work together become a factor driving profits. Black and Decker integrate information through the returns process to improve product quality and ease of use ultimately reducing the number of returns (Rogers, et al, 2008, p. 169). Creating a feedback loop to identify areas for improvement will help lower return management costs.

Cash flows in reverse supply chains are seen in terms of credits, discounts, and reduced operating costs. Developing credit rules

and policies will help manage the cash flows. “General guidelines are established with input from customers and suppliers to determine how returns will be valued and how credits will be issued” (Rogers, et al, 2008, p. 172). Customer relationship management to include the returns process can have a large impact maintaining and building customer loyalty.

To produce a profitable supply chain (forward or reverse), a stagnated inventory flow will induce added costs and create an opening for shortages whether it be stolen merchandise, damages

merchandise, or a paperwork error. Feng, et al (2012) proves that without inventory controls, policies,



procedures, and dedicated staff to ensure inventory transactions are accurately recorded, inaccurate data will ripple through the organization.

The impacts of inaccurate data will negatively and inaccurately impact financial records and cash flow through poor decision making. Procurement operations is typically the largest expense a company bears. Poor planning and data management shared with those making buy decisions could create inventory overages or shortages. Vendor management would become negatively impacted because without accurate inventory data, the performance and quality metrics are skewed. It would be extremely difficult to project the lost revenue from poor data management as a result of product shortage. High inventory levels and stock overages as a result of poor buy decisions tie

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up capital and further reduce cash flow.

Secondary markets, purchasers of refurbished items, parts for re-utilization, or raw material should be identified and managed. It is just as critical to manage these partnerships to identify opportunities to reduce procurement costs of new materials. Vendor relationships as the refurbished items or raw materials are reintroduced to the marketplace.

Field and Sroufe (2007) conducted research into the use of recycled materials against virgin materials as a sustainable business structure with a concentration in the manufacture of corrugated cardboard. They explore how that affects and changes the supply chain and the structure of vendor relationships.

One manufacturer decided to implement a mini-mill because raw material suppliers were unable to fulfill orders during busy seasons. Raw materials were purchased from as far as 500 miles away from the manufacturer (Field and Sroufe, 2007, p. 4452). The recycled materials and use of a dedicated mini-mill was a strategic move to fill a gap and meet their consumer demand. After implementing the new mini-mill, transportation costs were slashed. Once recycled pulp was introduced to create the cardboard products, the company found they were able to procure all needed materials within a 150 mile radius achieving considerable transport savings (Field and Sroufe, 2007, p.4452). The supply chain is impacted because it changes the balance and dynamics throughout the supply chain. It broadens

the base of suppliers creating more competition and developing alternatives in the event a preferred vendor is unable to fulfill an order. Recyclers and raw material producers are not necessarily the same. "Imbalances from market power can result from conditions that give suppliers more bargaining power than their customers" (Field and Sroufe, 2007, p.4444). A smaller company specializing in one or two products of high quality, may corner the market and be in a position to inflate costs giving that supplier advantages with relation to pricing point.

CARBON CREDITS: SHOULD I INVEST?

The United National Framework Convention on Climate Change (UNFCCC) developed a treaty,

RL Careers

Best Buy

- Senior Manager, Supply Chain

Celestica Inc

- Account Management Director

Microsoft

- Reverse Supply Chain Operations Manager
- Retail Stores Global Customer Returns Program Manager

Motorola Mobility

- Global Materials Planner

OnProcess Technology

- Vice President of Delivery Services

Peripheral Computer Support Inc., Computer Technology Solutions LP

- Vice President, Operations

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- Business Development Manager – (RL) Reverse Logistics Specialist

Reverse Logistics Association

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the Kyoto Protocol, in a global effort to mitigate greenhouse gas emissions and climate change through an emissions reduction program (Koyoto Protocol, n.d. and Issues in the International, u.d. para 1) . A business that can easily cut their emissions could wind up with an extra allowance credits are traded similar to commodity cash markets that “offers standardized and cleared futures contracts on emission allowances which can be sold to other companies for an additional stream of income. Other organizations could invest in other carbon credit programs such as the capture of methane gas from landfills, solar or wind generation or reforestation programs.

The business model for this income

was derived from new legislation called “Cap and Trade” that sets a limit on emissions that is lowered over time and allows for carbon credit to be traded between companies to help meet or fall below a firm’s allowable emission threshold (Cap and trade, u.d. para 1-3). The downside is that the market for carbon credits is volatile. Reuters reported “Falling carbon offset prices will lead some greenhouse gas-cutting project owners to make fewer but larger requests for CO2 credits from the U.N., while others will be pushed out of the international emissions trading market completely, analysts said, a move that could increase volatility in offset supply” (Roberson, 2013 para 5). These credits are consumption based and cannot be re-sold.

The carbon market throughout most of the United States is voluntary and left to individual states to manage which contributes to market volatility. Without a national policy, the investment into a voluntary market would be difficult to justify unless there was a hidden value uncovered. The state of Louisiana received media attention after hurricane Katrina and the Gulf of Mexico oil spill (Larino, 2012. Para 3). Local governments in that area are looking to capitalize on carbon credits to offset the costs of redeveloping the coastline and wetland areas to replace trees and foliage that has been destroyed. In the United States, California, has the strictest environmental emission laws and produces a demand for carbon credits (Larino, 2012. Para. 8-9). The Louisiana project is being examined for approval to determine what carbon credits will be generated from the project. “If the California Air Resources Board, the agency overseeing the program, approves the methodology, polluters in California will be able to purchase wetlands credits for Louisiana projects bringing the two groups together” (Jennifer, L. 2012, para 9)

The decision to invest in carbon credit programs should be carefully considered. The investment should not be made for the sole purpose of producing an additional stream of income but rather to offset the cost of doing business or remediation.

CAPABILITIES

Determining profitability between in-house refurbishments or

deconstruction or partnering with a third party capacity to manage the waste stream, considering time, volume and capacity to process and sell the refurbished item, or raw material. .

If a remanufacturer decides an item is not viable for refurbishment and resale, will they outsource deconstruction or manage the process in-house? Identifying the price point for profit will drive the decision. E-waste recycling revenue will be difficult to achieve unless a system is in place to maximize and automate processing. E-cycling USA created a business model that reflects collection fees for large appliances and general electronics that range from \$300 -\$1,000 per ton (eRecycling, USA, 2011, p.4). The e-waste is fully enclosed limiting risk of environmental contamination as well as automated the sorting and processing of waste quickly. Income is produced from the sale of recaptured precious metals ranging from \$60 to \$7,000 per ton (eRecycling, USA, 2011, p. 3-4). Green mining (also known as Urban Mining) has become profitable in

the electronics industry as precious metals are extracted from electronic goods (Green mining 101, u.d, para 1-3). The metals are then resold for the manufacture of new products. The recapture of precious metals is not just for the environmental protections associated with mining, or water contamination but from depleted sources.

An engineering student in the United Kingdom developed a method of recycling precious metals that are lost on catalytic converters. (Reusing precious metals from the streets, para 1-2). The converters shave small particles creating road dust which traditionally has been discarded by street sweepers. “Almost the same level of metals is present on the streets as there are in the places where they were originally mined” (Reusing precious metals from the streets, Engineering Today, 2008, para. 4). The escalating cost of metals has justified the cost of developing the processing equipment for street sweepers to capture the metals and prevent them from entering landfill

sites.

As the supply chain evolves to a highly collaborative function, vendor management and diversifying suppliers becomes more important. Manufacturers are noticing the savings they can achieve by purchasing recycled materials ultimately saving on the total procurement costs. Similarly, throughout the reverse flow new customers of refurbished or recycled products should be identified and pursued offering competitive pricing. Without identifying who will purchase the recycled or refurbished material, costs are incurred and storage capacity limited. New York City was forced to discontinue their glass recycling program from 2001 to 2003 because they ran out of space to store post-recycled materials. The city invested in a contract in 2003 to actively market recycled materials and clear warehouse space (Biocycle, 2003).

CONCLUSION



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Developing a returns management strategy is to fully understand the constraints and capabilities of the company, but also that of the physical supply chain. An organization considering a reverse logistics operation should develop close relationships with all key stakeholders to understand potential client limitations in managing returns and positioning themselves to fill the void outside those constraints.

To utilize an existing customer pipeline to offer new income producing wastestream management services, an organization must be able to show the financial benefit and added value of the reverse logistics program. Profit generated through logistics services and leveraging relationships by helping clients manage their waste stream, emissions management, and demonstrating potential savings across the business footprint, rather than creating an income stream from the return itself.

A company seeking to create a new stream of income would provide logistics capabilities and services that offer their clients with real time data demonstrating the cost savings for the investment. A successful consultant is in a position to examine the supply chain from end to end in the forward logistics cycle to identify where the reverse flow processes impact the forward flow and develop a comprehensive data collection strategy that captures opportunities for improvements, mitigate risk, and roll into relationship management. **RLM**

References

Bowersox, D. J., Closs, D. J., & Cooper, M. B. (2010). Supply chain logistics management (3rd ed.). Retrieved March 17, 2013.

Cap and trade. (n.d.). EPA. Retrieved April 20, 2013, from <http://www.epa.gov/captrade>

Cleaning up electronic waste (E-Waste). (n.d.). EPA. Retrieved April 07, 2013, from <http://www.epa.gov/international/toxics/ewaste/index.html>

Crews, D. E. (2010). Strategies for implementing sustainability: Five leadership challenges. *SAM Advanced Management Journal*, 75(2), 15-21. doi: 52842580 Business Source Elite

ECycling USA. (n.d.). Business Summary [Brochure]. Author. Retrieved April 7, 2013, from <http://emerald-planet.org/6%20-%20eCycling%20USA%20Business%20Plan-%2014%20Oct%2011.pdf>

Feng, M., Li, C., McVay, S. E., & Skaife, H. A. (2012). Ineffective internal control over financial reporting and firm operations. Rochester, Rochester: doi:<http://dx.doi.org/10.2139/ssrn.2187599>

Field, M. J., & Sroufe, R. P. (2007). The use of recycled materials in manufacturing: Implications for supply chain management and operations strategy. *International Journal of Production Research*, 45(18/19), 4439-4463. doi: 10.1080/00207540701440287 EBSCO

Green Mining 101. (n.d.). GTSO Resources. Retrieved April 15, 2013, from <http://www.gtsosources.com/green-mining-101.html>

How efficient is your reverse supply chain? (2003, January). Third Eyesight -Articles and Whitepapers -How Efficient Is Your Reverse Supply Chain? Problems and Barriers. Retrieved April 26, 2013, from <http://thirdeyesight.in/articles/reversesupplychain.htm>

Issues in the international carbon market, 2008-2012 and beyond -. (n.d.). Ministry for the Environment. Retrieved April 25, 2013, from <http://www.mfe.govt.nz/publications/climate/issues-international-carbon-market-oct07/html/page1.html>

Larino, J. (2012). Proposal floats carbon credits for restoring Louisiana coast, New Orleans City Business (LA)

Kyoto Protocol. (n.d.). Kyoto Protocol. Retrieved April 30, 2013, from http://unfccc.int/kyoto_protocol/items/2830.php

Kimball, K. (n.d.). Managing returns art to science (Tech.). Retrieved April 26, 2013, from Returns Management Inc. website: http://www.returnsmanagement.com/whitepapers/Art_to_Science.pdf

Low CER prices to herald supply volatility: Analyst. (2013, January 9). - News. Retrieved April 28, 2013, from <http://www.pointcarbon.com/news/1.2130641>

A new approach to recycling, materials reclamation and jobs creation. (n.d.). A New Approach to Recycling Materials Reclamation and Jobs Creation. Retrieved April 07, 2013, from <http://ecyclingusa.com/>

Recycled materials processing, marketing sought [Advertisement]. (2003, October). *BioCycle*, 20.

Reusing precious metals from the streets. (2008). *Professional Engineering*, 21(11), 5. Retrieved April 22, 2013.

Roberson, R. (2010). Carbon credits may be option for some Southeast growers. *Southeast Farm Press*, 37(14), 18

Rogers, D. S., Lambert, D. M., & Knemeyer, M. (2008). The product development and commercialization process. In *Supply chain management: Processes, partnerships, performance* (pp. 143-178). Supply Chain Management Institute.

Savaskan, R and Van Wassenhove, I.N. (2006) Reverse Channel Design: The Case of Competing Retailers. *Management Science*, 5(1), 1-14.S

Triple bottom line. (2009, November 17). *The Economist*. Retrieved March 26, 2013, from <http://www.economist.com/node/14301663>

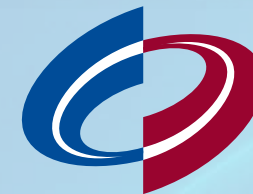


Jennifer Bilodeau, a Reverse Logistics specialist, formerly supported the Department of the Defense in day to day management of both inbound (return) and outbound distribution of goods throughout the command. She was recognized for exemplary performance throughout the base relocation effort working with internal/external stakeholders managing multiple projects assessing tangible goods for movement to new facilities, acquiring replacement items, as well as recapturing value from left behind products. In this role she oversaw reverse logistics operations including repair and warranties, secondary markets, deconstruction and re-utilization of parts, as well as final disposition instructions.

Jennifer is currently completing a specialized degree in Reverse Logistics achieving multiple academic honors from American Military University (AMU). Jennifer has received distinction for developing a defensible recall management plan after publishing guidelines in *Supply Chain Asia* (May/June, 2013). She has also published a series of articles surrounding returns management best practices demonstrating creative solutions to ongoing supply chain challenges.

9th Annual RLA Conference & Expo AMSTERDAM

June 18th - 20th 2013



REVERSE LOGISTICS ASSOCIATION
CONFERENCE & EXPO

Join us for the Ninth Annual RLA Conference & Expo in EMEA. Companies throughout Europe as well as many other international delegates will be in attendance. ODMs and OEMs will be looking for 3PSPs that can manage Reverse Logistics in Europe, along with identifying solutions for Asia and the Americas.

Pre-conference workshops will be held Tuesday. Wednesday kicks off with the Welcome Address by Gailen Vick, President of RLA followed by the Keynote Address. Speaker sessions will commence after lunch and continue throughout the day and into Thursday. Thursday ends with the closing remarks and lucky draw.



Mövenpick Hotel Amsterdam City Centre

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Timmy O'Dwyer
- Service Programs Manager European Service Logistic



Dave Moloney
- Senior Manager, Reverse Logistics & Business Sys



Derek Scott
- European Parts Technical Support Supervisor



Charlie O'Shaughnessy
- Global Returns Manager



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Managing Non-compliant Hazmat in Your Supply Chain

by James Griffin, Lead Researcher, Lion Technology

If you ship and receive hazardous materials, chances are that eventually you will receive a shipment that does not meet the DOT's standards for hazmat packages, whether it's undeclared, mis-declared, or damaged. Hazmat shipping mistakes are especially common in the reverse logistics supply chain, since your customers may not have the training needed to identify their hazmat shipping responsibilities before returning a product by

mail. If you do receive a non-compliant hazmat package, it is important that you are prepared to deal with the situation correctly to prevent an accident or a subsequent compliance



violation at your facility.

Your reaction to receiving noncompliant hazmat will depend on a number of factors. Before taking steps to remedy the situation, you should know:

- What is wrong with the package,
- When you first discover something is amiss, and
- What you plan to do with

it.

WHAT COULD BE WRONG WITH THE PACKAGE?

- **Undeclared Hazmat:** Sometimes, hazmat enters the supply chain without being declared as such. If the hazmat isn't declared, the sender may not be aware of the dangers this package poses. Therefore, the shipment was likely packaged incorrectly and may have been mishandled. If these oversights lead to an incident in the transportation cycle, emergency personnel will not have the information needed to properly respond to the situation.

If you discover an undeclared shipment of hazmat, you must notify the DOT on a Hazardous Materials Incident Report (Form 5800.1). You should also discuss the matter with your supplier and the transporter. It may have been a simple mistake, but steps should be taken to prevent it from happening again.

- **Mis-declared Hazmat:** Sometimes, hazmat is offered for transportation without being packaged correctly or with inaccurate hazard communications (marks,

labels, paperwork, etc.) that don't match the hazards of the material. In the event of an incident, first responders will again lack the information needed. Shipping mis-declared or improperly labeled hazmat is just as much a violation of the U.S. DOT's Hazardous Materials Regulations (HMR) as an undeclared shipment. [49 CFR 171.2]



have several options:

1. Refuse to accept the shipment.
2. Accept the shipment, just like accepting a regular package, and do what you normally do with your hazmat.
3. Accept the shipment, then re-pack it and ship it out with your hazardous wastes.

DISCOVERY AFTER THE FACT

So far, we've discussed what to do if you discover a problem right away, as the goods are being delivered. What about if you only find out about it later? In that case, your options are

more limited.

You can't just refuse to accept the shipment, because it is already in your possession. You can either find a use for it or get rid of it. If you get rid of it, either as a waste, return-to-sender, or resale, it is important to remember that you're now offering a new shipment of hazmat. It is now your responsibility to ensure any mistakes made classifying, packaging, or labeling the shipment are corrected before



Mendtronix, Inc. Selected as a Factory Authorized Service Provider for Warrantech

San Diego, CA--22 May 2013--Mendtronix, Inc., the AV industry's leading Authorized Service Center (ASC), is pleased to announce that the company has been named a nationwide service provider for Warrantech's projector warranty customers. Warrantech, one of 2012's Fortune 100 fastest growing companies, specializes in warranty products and services for distributors, manufacturers, and retailers. Warrantech will utilize Mendtronix's extensive portfolio of after-market repair services and 3PL solutions to better meet the growing demands of its clients' needs.

[Full Article](#)

Inmar Recognized by Supply Chain and Demand Executive 100

Winston-Salem, NC--21 May 2013--Inmar, a company that operates collaborative commerce networks, today announced that it has been recognized by Supply Chain and Demand Executive 100 for "100 Great Supply Chain Projects." The award was for Inmar's work with a manufacturer client. Working with Inmar, the manufacturer and distributor of highly regulated products developed a more efficient way to handle product returns and

destruction of returned product.

[Full Article](#)

Ryder Announces Winners of 2012 Chairman's Safety Award

Miami, FL--20 May 2013--Ryder System, Inc. (NYSE: R), a leader in transportation and supply chain management solutions, is pleased to announce the winners of its 2012 Chairman's Safety Award. Ryder's Chairman's Safety Award provides annual recognition to segments of its business in the U.S. and Canada that demonstrate superior dedication, leadership, and performance in all areas of safety.

[Full Article](#)

Philips Urges U.S. Businesses and Governments to Embrace Energy Efficiency

Washington, DC--20 May 2013--At the 6th Annual EE Global Forum, the premier international energy efficiency conference hosted by the Alliance to Save Energy, Royal Philips issued a strong call for businesses and government to step up actions to implement energy efficiency measures.

[Full Article](#)

Manufacturers focus on supply chains to cut costs

18 May 2013--Growth in the manufacturing industry has been nonexistent over the last few years, but as stability returns to the global market, many companies are looking to expand their operations.

[Full Article](#)

IBM Cited as a Leader in Business Consulting Services Worldwide

Armonk, NY--17 May 2013--IBM (NYSE: IBM) today announced

that IT analyst firm International Data Corporation (IDC) named IBM Global Business Services as a leader in the IDC Marketscape: Worldwide Business Consulting Services 2013 Vendor Analysis.

[Full Article](#)

Avnet Technology Solutions Introduces New Practice in the U.S. and Canada for Big Data and Analytics Solutions

Tempe, AZ--15 May 2013--Avnet Technology Solutions, the global IT solutions distribution leader and an operating group of Avnet, Inc. (NYSE: AVT), today introduced a new practice that addresses the growing demand for "big data" and analytics solutions. Avnet Practice+ for Analytics™ couples channel-friendly services and technology solutions with a complete set of enablement and go-to-market capabilities for HP solution provider partners in the U.S. and Canada.

[Full Article](#)

Employee Engagement and Sustainability Thrive at Intel

Santa Clara, CA--16 May 2013--Intel Corporation today released its 2012 Corporate Responsibility Report, highlighting the company's performance in areas including employee engagement, environmental sustainability, supply chain systems and education. The report also showcases Intel's progress toward its 2020 environmental goals that aim to drive continuous improvement in the company's manufacturing operations and the energy efficiency of its products.

[Full Article](#)

you re-ship the package.

Keep in mind that if you decide to dispose of the hazmat, you must treat it as a waste and must follow all of the applicable RCRA Subtitle C laws and regulations for hazardous waste management.

RE-SHIPPING HAZMAT PROBLEM

Re-shipping a package of hazmat that was received as damaged, mis-declared, or undeclared can be problematic. First, if the package was undeclared or misidentified, you may not know what material or hazard you are dealing with. This makes packaging and labeling for re-shipment very difficult.

If it's an unknown material, and you're not managing it as waste, then you'll have to take steps to figure out what the material is. The easiest thing to do is contact the original consignor for a Safety Data Sheet or any other information he or she can provide. You can also send out a small sample and have it analyzed. If you do decide to manage it as a waste, there is a little flexibility. See 49 CFR 172.101(c)(11) and 173.11.

If you do know what it is, but it's not in the right kind of sturdy packaging, then it is your responsibility to determine authorized packaging, correct markings and labels, and prepare new shipping papers and emergency response information before re-sending the package.

RLM



James Griffin is lead researcher for Lion Technology, providing regulatory training and support services for hazmat shipping, hazardous waste management, environmental law, and workplace health and safety. Mr. Griffin assists industry professionals with training decision-making and regulatory questions. He has a background in hazmat shipping and chemical manufacturing, and earned his B.S. from Penn State University. His work appears weekly in Lion Technology's newsletter, Lion News, and at blog.Lion.com. For more information about Lion Technology's regulatory training and support services, visit Lion.com.

Money Talks

Dell Reports Fiscal Year 2014 First Quarter Financial Results

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Walmart reports a 4.6 percent increase for Q1 EPS of \$1.14; U.S. businesses forecast positive comp sales for Q2

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Sims Metal Management Announces Market Update: Impact of UK Restructuring on Fiscal 2013 Results

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Comcast Declares Quarterly Dividend

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Cisco Reports Third Quarter Earnings

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Turn Green into Gold

"Paying attention to the environment is not just good for nature, it's also good for the bottom line."

Technical Trends

The Cell is the Real Power

In Reverse Logistics there is always a need to deal with batteries. Not only are they often the source of the unit failure but they need special handling for disposal or recycling. For the folks out there repairing notebook computers, you know the handling and troubleshooting of battery issues can be expensive and complex. Have you ever wondered why tablet computers and cellphones have fewer issues than notebook computers? Let me explain how the power in a battery is all about understanding the cell.

The name 'battery' technically refers to a specific device comprised of multiple cells. This is usually needed to get a higher voltage than what can be provided from a single cell. This term, Battery more correctly described what was called a 'battery of cells'. Over time this got shortened and today we just refer to anything that supplies power from a chemical reaction as a battery. The key to understanding how complex battery management can be

and how easily just charging the battery can cause damage, is all about understanding the problem with using a battery instead of a single cell.

Before we get started in too much detail you need to understand a couple of things about chemical cells that supply current. These cells use a variety of very reactive chemicals to provide a stream of electrons (discharging) and to receive a stream of electrons (charging). In each of these steps a host of chemical reactions occur. The chemical state of charge is inferred by the charging equipment through sensing of temperature, voltage inflection points and time. Since the battery charger never really knows the actual chemical state in each cell, like specific gravity, the charging system can make serious errors. If any part of the discharging or especially, the charging process goes wrong the results can be catastrophic.

The main mechanism that allows this to happen is from

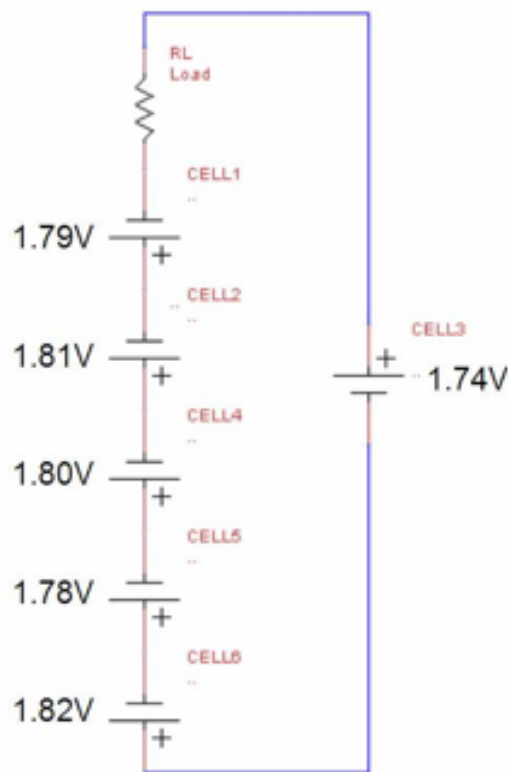
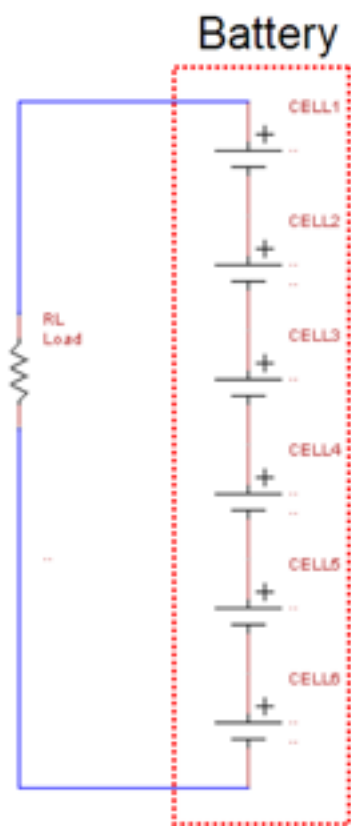
too deeply discharging a battery. The schematic below depicts a battery composed of six, lead acid cells and a load.



As the battery voltage begins to get depleted there will be one cell that 'dies' first, meaning it is chemically ready to receive a charge. That voltage level for a lead-acid cell is ~1.75V under load. That means there are 5 other cells that are still above 1.75V and supplying current. For our illustration let's assume cell 3 is the first cell to fully deplete.

If the drain on the battery is not halted and the battery placed

back on charge, the damage cycle will begin. To understand how damage occurs, take a look at the following schematic. The circuit is exactly the same as the one above, except it is redrawn from the cell 3's point of view.



it will happen again. After the first deep-discharge the battery capacity is now reduced and creates an even greater need to over-discharge again and again. This is a cascade of damage that will destroy the entire battery in short order. These examples use lead-acid chemistry, but the effect and outcome are the same for any battery.

From this view notice what we now have is a 5 cell battery with 9 volts of charge, connected backwards, through a very low value resistor to a dead cell. Dead cells can be very fussy in charging, but they really hate to be charged backwards. When that happens, plate erosion and sulfation (crystalline electrolyte) will occur. When this first happens the results are not too bad, but typically if someone had the need to deep discharge a battery once,

So why are cellphones and tablets more immune to this failure mode than notebooks? Most cellphones and tablets do not use batteries, but use a pack comprised of a single Li-ion cell. Li-ion cell chemistry produces a much higher voltage than other battery chemistries that gives the engineers more options. Rather than use series connected cells in a full battery pack to get the higher voltages, these devices are more energy efficient and use

buck/boost converters to get the other voltages needed for operation. Since there is only one cell, it is much easier for the devices circuitry to infer a valid chemical charge state. That improved accuracy and charge management allows the battery/cell to last much longer compared to if it was in a single pack.

The only downside to this approach is the energy lost from the efficiency of the Dc-Dc converters. That efficiency cost is minor for lower current demands devices like phones and tablets. For full blown notebook commuters, the demands of the hard-drives and other systems make the 'single-cell' design less desirable. Next time when you get the call from a Customer annoyed their \$200 battery died, you are now armed with what you need to explain why they need to instead, buy the \$280 battery with higher capacity. Its' all about the protecting the cells.

RLM



Bryant Underwood manages Public Safety Sourcing for Cassidian

Communications, an EADS North America Company in Frisco Texas.

Returning Thoughts

Best Practices for Advanced Exchange Reverse Logistics

Periodically it is useful to review your current practices against Reverse Logistics industry best practices. Below are some "valuable nuggets" of information from the recent Reverse Logistics Association Consumer Electronics Committee interactive webinar session on Better Customer Experience around Advanced Exchanges. The webinar was attended by over a dozen Reverse Logistics Professionals from companies such as Google, Philips, Toshiba, Staples and OfficeMax, who shared their issues, knowledge and experience. The items are in bullet point format for quick review:

- Keep it Simple - Make the returns experience mindlessly simple to execute for the consumer (and the support agents but keep them accountable for

effective NTF issues)

- Remorse or DOA Returns Simplification - for goods shipped directly to a customer, there will be some immediate returns due to remorse, technical or dead on arrival (DOA) issues in



the first few days. Include return instructions and a return label in the packaging to enable a prompt and easy return for the customer as well as easy processing for

the returns center to receive and issue the customer credit. Additionally, it is helpful to ensure your packaging is designed to be friendly for a quick repack by the customer for immediate returns.

- Advanced Exchange Alternatives - Although Advanced Exchange seems like the easiest, fastest and best solution, offer the customer other return or exchange options. An Advanced Exchange transaction usually requires a credit card or cash hold to ensure the defective unit is returned. Some customers may prefer the slower Replace on Arrival return transaction since they may not have a credit card or may not wish to use their credit card. Also some consumers may favor a Repair and



evaluation of environmental waste and impact.

Please check out the RLA committees at RLA.org. Many committees now offer some excellent interactive webinars to share wisdom and experience with other Reverse Logistics Professionals. Or even better, let the committee chair people know about an issue you are trying to understand or improve, so you can have an experienced team of professional colleagues help you improve your Reverse Logistics operations. RLM

Good Luck!



Paul Rupnow - Director, Reverse Logistics Systems, Andlor Logistics Systems Inc.

Editor - Reverse Logistics Professional Report Business Insights and Strategies for Managing Product Returns



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Return transaction. Some customers may benefit from the shipment of a return packaging kit to box up their return. Let the customer choose.

- Return Reminders - automated email reminders are beneficial to prompt the customer to ensure they return the defective unit and do not incur a credit card charge.
- Prompt Hold Release - ensure your Receiving team quickly handles and updates the Advanced Exchange customer record to release the obligation on the customer's credit

card. Ensure good data communication with your Returns processing partner, so customer service issues do not arise due to slow or unmatched transactions. In situations where the customer calls and believes they should not have been charged, enable customer service to immediately satisfy the customer with a credit, then have your collection team validate that the customer actually returned the defective unit.

- Monitor Closely - continuous monitoring of transport, packaging and processing costs is essential as well as a constant

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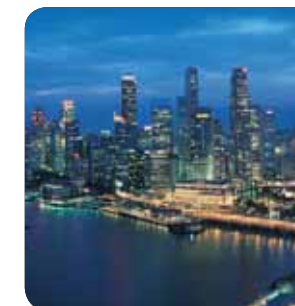
THERE IS GREAT CONTENT AVAILABLE IN RLA WORKSHOPS THIS YEAR.

You're in town for the RLA Conference & Expo, why not take advantage of your Monday and learn more about RL in an interactive classroom setting.

Beginning at 9:00AM on the day prior to the conference, a registration fee of \$999.99 allows you to attend any three workshops.

Some Past Workshops

- Successful Outsourcing - RFQs, Contracts and SOW presented by Gailen Vick, RLA
- Customer Experience by Kok Huan Tan, Senior Service Program Manager, DELL
- Leverage RL to Drive Sustainability & Reduce Expenses by Jesse LaRose, ESE Solutions



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