

REVERSE LOGISTICS

Comprehensive **Thinking Drives Reverse Logistics Success at Sony Ericsson** Pg. 24

50Ny Ericsa

August/September 2007

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Magnus Berg Vice President of Operations Sony Ericsson Mobile Communications (USA) Inc.

thinkreturns



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Looking for a simple, convenient and no-cost solution for your customers to return your products? Spring offers the optimal solution with Reversed Mail Logistics (RML). This innovative service ensures that your products are delivered back to you in a cost-effective way via the extensive mail distribution network of Spring. For your customers it could not be easier; they just attach the RML label to the box and bring it to the nearest post office. Spring takes care of the rest and manages your returns according to your requirements.

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Asia's premiere Reverse Logistics Event will bring three full days of Reverse Logistics. Starting on Tuesday, October 2nd, with RL Workshops and continuing on Wednesday and Thursday with sessions and exhibition.

Workshop topics include "Progressive Dispositioning ProcessTM: What it is, what it looks like and its effect," "Determining the Hidden Costs of Reverse Logistics," "Dell Case Study," "Successful Outsourcing - RFQs, Contracts and SOWs" and "Best Practices: Lean Repair and Reverse Logistics Trends."

For more information on workshops, visit: www.rltshows.com/singapore.php.

The RLTS conference kicks off on Wednesday with the Keynote Address delivered by Kerry Mok, SVP, Strategy & Marketing and Service Logistics, Asia Pacific, DHL Exel Supply Chain. Sessions by RL Professionals, leading academics and panel discussions will follow. Topics include:

- Reverse Logistics: Extended Enterprise Perspectives
- Product Return Solutions
- Global Challenges in IT Asset Recovery and Electronic End-of-Life

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.RLTShows.com. Attendees may register online for Workshops and the Conference and even book flights and hotel. Exhibitor space is available for purchase as well.





Have an interesting story to share? Want to be part of this event? RLTS speakers receive many benefits – for more information, please contact Beth Millward at beth@rltinc.com or visit: www.rltshows.com/ speaker_register.php

Issue 4 Volume 2 August/September 2007

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by Tim Andreae, MCA Solutions With margins from initial product sales eroding and OEM competition increasing, aftermarket service is becoming increasingly important as a driver of product profitability and customer satisfaction.

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by John Mehrmann, Data Exchange Corporation

In today's digital world data security is becoming more important for everyone. Corporations have spent tens of millions of dollars on frontend data security of their IT assets and infrastructure. However, in many cases they have all but overlooked what are today's biggest threat and easiest method of inadvertent and fraudulent data loss and ID theft of confidential information -- recovery of data from decommissioned and discarded computer and storage media.



35 Thinking Forward in Managing **Returns**

by Jeroen Weers, Spring Global Mail The facility for manufacturers to offer customers a convenient and free-of-charge method of returning goods, whether for repair, exchange, a product recall, recycling or end-oflife return is increasingly essential for more and more businesses. In Europe, thanks to its extensive network of local post offices, service providers can offer manufacturers a range of attractive solutions to this problem, with the added benefit - by skipping the retail channel – of being in direct contact with their customers.



36 Laptop Tips for Restore and **Configuration Problems**

by Jeffrey Harrison, Blue Raven Technology

Forty percent of needed notebook repairs require a hard drive restore and twenty percent of reported notebook problems are related to software configuration issues. This report is based on analysis of over 200,000 laptops by a leading provider of iPod audio and video personal electronics products, computer parts, and computer repair depot services.

Cover Story



Comprehensive Thinking Drives Reverse Logistics Success at Sony Ericsson. Page 25

R. Buckminster Fuller, a 20th century inventor and futurist once stated, "Of course, our failures are a consequence of many factors, but possibly one of the most important is the fact that society operates on the theory that specialization is the key to success, not realizing that specialization precludes comprehensive thinking." Sony Ericsson Mobile Communications has jumped from specialization to comprehensive thinking in its efforts to drive reverse logistics success.

Reverse Logistics Magazine welcomes unsolicited articles and abstracts. Please send to: editor@RLmagazine.com

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www.RLmagazine.com

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Read the Press

Full articles available from: RLA News Center

Reverse Logistics Is Everyone's Challenge

More than 75% of all returned products are not defective, according to Gailen Vick, founder/president of the Reverse Logistics Association. Instead, the primary cause of returns is "misinformation at the time of purchase," due perhaps to misleading marketing materials or an illinformed sales staff. The secondary factor is related: The product did not meet expectations.

Flextronics to Buy Solectron

Flextronics International Ltd. and Solectron Corporation announced today that the two companies have entered into a definitive agreement for Flextronics to acquire Solectron, creating the most diversified and premier global provider of advanced design and vertically integrated electronics manufacturing services (EMS).

Brother Selects Cycleon for European Returns

Brother Industries in Europe has selected Cycleon, the only dedicated provider of pan-European Reverse Logistics solutions, as partner for its ReNew Environmental Collection Program. The toner cartridge recycling program will initially cover 13 European countries and will allow Brother to collect used cartridges from consumers. Cycleon provides an integrated solution across all markets enabling a centrally managed recycling system that further strengthens Brothers recognized environmental credentials.

5th Annual RLTS Las Vegas Conference and Expo 2008

America's Premiere Reverse Logistics Event

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Over 100 Exhibitors - More than 1500 RL **Professionals Attending**

Make plans now to join us for the 5th Annual Reverse Conference and Expo on February 4-6, 2008 in Las Vegas, California.



Monday offers pre-conference RL Workshops and the RLTS conference kicks off on Tuesday with the keynote address keynote address by Joe Warren, Vice President & General Manager of Canon USA, followed by sessions presented

by RL professionals, leading academics and also includes panel discussions.

Be sure to visit the Expo where 3PSPs will be showcasing their RL services and solutions.



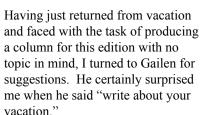


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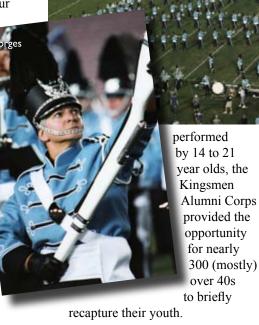
To Our Readers

A Letter from the Editor



For the past week and a half I'd been at drum corps camp followed by an exhibition performance at the national championships - now how does that relate to reverse logistics? He said that we had a large number of people performing intricate maneuvers and to accomplish this successfully required planning, communication and teamwork; as does a successful reverse logistics operation.

For our readers who are not familiar with drum corps... we liken it to "extreme marching band." Typically



To accomplish this took collaboration among staff members to design drill, arrange music, write equipment work and teach members — many of whom

had not participated in this activity for 30 years. It took incredible planning and organization to manage the logistical aspects of rehearsal facilities, accommodations and transportation, not to mention the sizing, ordering and alterations of the 8-piece uniforms.

Congratulations to the KAC staff and to our readers, I hope your reverse logistics maneuvers turn out as well as the Kingsmen Alumni Corps performance!

Best regards, Christine Morrow Editor Reverse Logistics Magazine



ur mission is to educate and Uinform Reverse Logistics professionals around the world. RLA focuses on all industries in the reverse logistics process. No matter what industry, High Tech, Automotive, Medical/Pharmaceutical, Publishing, Apparel, or Consumer, 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. We have been and will continue to provide our services at a moderate price to our members.

Managing the latest information in 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 with our membership services. We serve manufacturers and retailers in a variety of settings while offering ongoing updates on market trends, 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, Solectron, Canon, Sony and Jabil, along with small service providers have found that the RLA resources help advertise their services. OEMs like Microsoft, HP, Palm, and Sony, along with Retailers like Wal-Mart, Canadian Tire, Tesco and Best Buy all participate at our events. Our online RL Magazine and Weekly News Clippings help OEM, Branded and Retail companies find service partners that were unknown to them.



REVERSE LOGISTICS ASSOCIATION



Message from President and Founder of RLA

It has been 18 months since we started publishing RL Magazine, this is our 8th edition. So much has changed during that time when it comes to awareness in the reverse logistics process.

Now search engines asked to search for reverse logistics will post the Reverse Logistics Association as #1. Wikipedia, the free encyclopedia, even references a meaningful definition and links to RLA, our tradeshows and this magazine.

Many companies are posting career opportunities on our web site for reverse logistics professionals. There isn't a week that goes by without receiving a phone call from some senior

executive searching for good reverse logistics professionals. For those of you who have chosen reverse logistics as a profession, you made the right decision!

Over 100 companies have used RL Quote to successfully find third party service providers to whom services could be outsourced. And this is just the icing on the cake, whether it's a catastrophic failure or simply inquiring as to who provides BGA repair in Brazil, RL Quote can find a partner for you in just a few days.

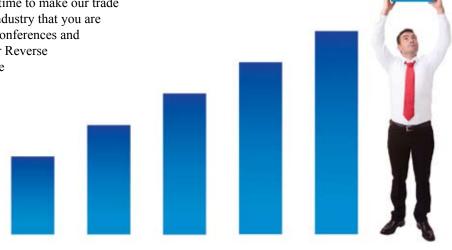
An advisory board of prestigious companies and industry leaders has been set up to help direct RLA. Industry focus committees provide direction for topics that are presented at conferences, seminars and read in this magazine. We have only touched the surface of the many industries that are challenged with the process of reverse logistics. Information Technology Solutions, Standards, Spare Parts Management, Food & Beverage, Aviation, Wireless/Telecommunications, Data Storage are just a few of the active committees today. Regional committees on China and India have been formed with recent interest in Russia. But there are so many more focus committees on the different industries that are needed, example:

- High Technology Notebooks Consumer Electronics Displays Printers
- Automotive
- Medical/Pharmaceutical
- Corporate Social Responsibility (CSR)

Today venture capitalists and consulting firms that manage M&A are looking for solid research in this process of reverse logistics. So this past month RLA announced our commitment to provide meaningful research by connecting the academics with private industry.

We hope that each of our readers will take a real interest in volunteering some of your time to make our trade association effective for the industry that you are in. Come and visit us at our Conferences and Expos or drop-in at one of our Reverse Logistics Seminars and see the latest best practices!

Gailen Vick President www.ReverseLogisticsAssociation.org www.RLTShows.com



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 – Hewlett-Packard, Inc. John Benardino is currently a Director of Reverse Logistics for HP's Imaging and

Printing Group. In his position, John is responsible for credit issuance, engineering, remanufacturing, and all return related costs. His product responsibilities cover printing, digital imaging, supplies, scanners, and shared printing.



Dan Gilbert— Cisco Systems Dan Gilbert is Vice President of Worldwide Reverse Logistics at Cisco Systems, Inc. His

charter when joining Cisco in 2005 was to define and create a world-class reverse logistics organization. Dan's global team is responsible for driving excellence in product recovery, receiving, inventory, and recycling operations, and for transforming returned product into value for Cisco shareholders.



Dan DeBello—Jabil
Dan DeBello is
currently Senior
Director of Business
Development for
Jabil Global Services,
Inc. (JGS), a wholly-

owned subsidiary of Jabil Circuit. Jabil Circuit, Inc. is a top-tier global Contract Electronics Manufacturer (CEM).



Jose Garcia—
Microsoft Corporation
Jose Garcia is
Director – Repair
and Refurbishing at

Microsoft Corporation. Jose joined Microsoft 4 years ago to establish World Wide repair of X-box console from the ground up. Building a world class team, he integrated systems, processes and partnerships with expert service partners.



Chuck Johnston

- WAL-MART Stores,
Inc.
Chuck Johnston is

Chuck Johnston is General Manager at the Bentonville Return

Center, WAL-MART Stores, Inc. Chuck has been with Wal-Mart for the past 13 years and his responsibilities include Returns, Imports, Exports, Tires and Printing and Mailing Distribution.



Steve Jones

- Managing Director
Supply Chain Services
& Reverse Logistics,
FedEx Corporation
Steve is a 22-year

veteran of the transportation industry, with extensive experience in sales and sales management of transportation and logistics services to corporate accounts. Steve was selected to lead the Supply Chain Services and Reverse Logistics sales organization with responsibility for new business development, base business growth and supply chain integration across all the FedEx operating companies.



Larry Maye – Palm Global Larry Maye is currently serving as the Sr. Director of Palm Global Reverse Logistics. In

this capacity he is responsible for the global repair and logistics for Palm to include repair operations,

FRS is Service.



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customer service fulfillment, vendor management, returns processing and global strategy.



Howard Rosenberg – eBay, Inc. Howard has been with eBay for over 4 years and runs the Company's Trading Platforms

business serving companies interested in maximizing their recovery rates on excess and refurbished inventory through the Reseller Marketplace or through their own, private-label auction marketplaces. He has 14 years of experience in various capacities, including operating, advising and investing in, companies in the consumer product, consumer services and business services sectors.

Tony Sciarrotta – Philips Consumer Electronics

Tony is Director of Returns Management at Philips Consumer Electronics North America. In this position, Tony leads returns reduction and entitlement initiatives for



mainstream consumer electronics, and is also currently concerned with further driving the implementation of electronic registration

for Philips products at leading retailers. Working with Philips Sales, Service, Marketing, and the Philips Business Excellence Group, Tony is helping drive several teams to improve the consumer experience and subsequently reduce the high rates of products returned with no defect found.

Complete biographies of Advisory Board Members are available from the RLA site at

www.reverselogisticstrends.com/company_advisory.php.

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The new Sony Ericsson W580 Walkman® phone lets you carry your favorite tracks with you wherever you go. It also features Shake Control letting you skip or shuffle tracks with just a flick of the wrist.





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Focus Sub-Committees were 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 RLTS Conferences. Focus Sub-Committees educate the industry on reverse logistics:

- "Best Practices"
- Consumer Satisfaction Issues
- Regulations on a Worldwide & Regional Basis
- Processes that can reduce costs

Industries we currently monitor are:

High Technology Wireless/Telecommunications

Chairperson – Larry Maye, Palm Advisor – Gailen Vick, RLA Committee Members:

- Art Teshima, Bell Tech.Logix
- John Coffield, GENCO
- Bob Sullivan. The Wireless Source
- Al Mahesh, TOPP Service Solutions
- Joseph Tarantino, Sprint Nextel
- Bill Kenney, OnProcess

Technology

• Bryant Underwood, Foxconn

Notebook/PC **Consumer Electronics Imaging Printers**

Data Storage

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Advisor – Dave Whitley, RLA Committee Members:

- Matt Fouts, Iomega
- Wafa Dahel, Seagate Technology
- Steve Maglior, Quantum
- · Gary Gear, Toshiba
- Don Collier, Solectron
- Glenn Grube, Moduslink

Information Technology Solutions

Chairperson – Lee Norman, ClearOrbit Advisor/Secretary – Dave Whitley, Reverse Logistics Association Committee Members:

- Len Wierzbicki, Black & Decker
- Matt Fouts, Iomega
- Paul Rupnow, Andlor Logistics Systems
- Anne Patterson, FreeFlow
- Elliot Klein, Intellareturn
- Paul Trulove, Newgistics

Spare Parts Management

Chairperson – Michael Shelor, Shelor Consulting Inc.

Advisor/Secretary – Dave Whitley, Reverse Logistics Association Committee Members:

- Roy Steele, RoShar Associates
- · Mark Stetson, Hewlett-Packard
- Tim Andreae, MCA Solutions
- Traci White, Credence Systems

Standards

Acting Chairperson - Ken Jacobsen, Connexus

Advisor/Secretary - Gailen Vick, Reverse Logistics Association Committee Members:

- · Holly Elwood, U.S. EPA
- Larry Maye, Palm, Inc.
- Paul Rupnow, Andlor Logistics
- Norman McEachron, Consultant
- Larry Chalfan, Zero Waste Alliance
- Bill Guns, SRI Consulting
- Clare Lindsay, U.S. EPA
- Ken Purfey, AICPA
- Emily Rodriguez, The Results Group

Food & Beverage

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• Eugene Schachte, HJ Heinz

- · Lori Kleinschmit, ConAgra Foods
- Sharon Joyner-Payne, Carolina Logistics

Aviation

Chairperson - Bernie Gagnon, Kuehne+Nagel Advisor/Secretary - Jeremy Vick, Reverse Logistics Association

India Chapter

Chairperson – Sanjeev Kakar, RT Outsourcing Service Limited

China Chapter

Chairperson - Glenn Norem, eeParts Advisor/Secretary - Jeremy Vick, Reverse Logistics Association

Automotive Medical/Pharmaceutical **Publishing** Apparel China Market Aerospace

www.RLmagazine.com

Spare Parts Management Industry Committee Update

The committee has started to focus on an area of service parts management that tends to be a weakness in most companies—availability of service parts to support product end-of-life. Based on the informal research we have conducted, there is great deal of interest in EOL spares management particularly among OEMS. We believe there is an opportunity to return value to the industry by researching best practices and sharing them with the industry in a white paper.

The white paper on "end of life spare parts support strategies" will be a product of the combined efforts of the committee members and should be ready for publication by RLA early Fall 2007

The Spare Parts Committee is very happy to announce the recent addition of two new members, Scott Oberg, Manager Worldwide Service Materials for Tektronix and Traci White, Senior Director – Logistics and Materials, Credence Systems.

More information regarding the RLA Industry Committees is available at: www.reverselogisticsassociation.org.



Scenarios and Strategies in Retail Asset **Protection** and Recovery

by Kristin Secreto

In retail, there's no bigger asset than the products you sell. And for manufacturers and retailers, the increased prevalence and organization of theft and fraud is making it increasingly difficult to protect them. And getting the upper hand on protecting those assets and reducing those losses can make significant difference to your bottom line.

According to the National Retail Federation. losses from retail theft are estimated at more than \$30 billion.

Retail theft can be categorized in many ways. It can be as simple as someone pocketing a single product and walking out of the store, to gangs that have become extremely proficient in stealing large quantities of products, to the theft of products that are still in shipment. Often times, these products end up on Internet auction sites where the criminals turn those products into

Or the theft can be more "creative," such as in the case of Claude Allen, former aide to President Bush, who was arrested in 2006 for attempting to "return" more than \$5,000 worth of merchandise that he'd taken from the display shelf directly to the returns counter, using receipts from earlier purchases of those items.

There are a host of products and technologies that work to prevent, or at least reduce, products from being



stolen off the showroom floor. And some loss is inevitable. But there are those significant losses associated with other kinds of theft – theft coming from habitual criminals, as well as normally law-abiding people who think nothing of coming up with creative ways to "bypass the system." And one thing they all have in common is that they involve the fraudulent return of products to the same or a different store. In fact, The National Retail Foundation reports that fraudulently returned products cost the industry more than \$9.6 billion dollars

Some examples of these include:

- Multiple use of the same receipt, as in the case of Mr. Allen
- Counterfeit receipts
- Sweetheart returns: Where employees help out their friends by letting them return products that are not eligible for return
- Product "Renting:" People purchase products for a specific use, such as a car navigation system for use during the family summer vacation, and then try and return it when they are done
- Brick-in-a-box: Replacing the product in the box with junk, shrinkwrapping it, and returning it as new

and unused

• Serial number label tampering/ counterfeiting

What Can Be Done?

Many of the products most susceptible to these practices have a built in mechanism that makes them easier to identify and track, thereby reducing or eliminating product return fraud, and also recovering products that may have been recovered by law enforcement. That mechanism is the unique fingerprint created by each product's UPC code and serial number.

MP3 players, flat-screen TVs, video games, in-car entertainment and navigation devices, appliances, and many other seasonal products all contain serial numbers that, when combined with their UPC number, make them definitively identifiable. The question becomes: how do you create a network to record and organize this information? The scope is obviously far too broad, both in merchandise and geography, for any single manufacturer or retailer to have any significant impact working alone. But what has proven to be effective is an electronic registration and reporting network that is a working partnership

between manufacturers, retailers and even law enforcement officials.

Electronic Registration – A Time-Tested Technology

Electronic registration technology is not new. It actually got its start with video gaming giant, Nintendo, who in the 1990s, Nintendo of America, Inc. recognized that the profits from its video game sales were severely reduced by the number of products being returned, many fraudulently, at retail.

So the company developed a product registration system to give its retailers a foolproof method to track individual products throughout the product lifecycle, thus ensuring that everyone in the product chain – the manufacturers, their retailers, and the consumers were being treated equitably and properly. One key element of the system was to provide

The National Retail Foundation reports that fraudulently returned products cost the industry more than \$9.6 billion dollars a year.

protection without collecting any personal consumer data.

The system, which Nintendo has spun off and is now available through an independent service provider, includes proprietary methodologies, such as vendor product registration, trending and analysis, and exception reporting and alerts. Taking control of this

processes, and given this ability to track these products, resulted in Nintendo achieving a 72% reduction in return rates.

How POS Electronic Registration Works

As we said before, combination of a product's UPC number with its serial number to establishes a fingerprint for each individual product. When a product's fingerprint is scanned, either manually or via RFID, the information is transmitted to a third party database, where it is stored with the retailer's transaction

Originally, this data capture happened at the point of sale to the consumer. However, some manufacturers are now recording the unique identifier information before the product is shipped to retailers, which makes every product trackable, even if



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the product was stolen – bypassing the retailer's POS system. The information is then recorded again at the time of consumer purchase, thus creating a purchase record and warranty start date. This data is then stored in a third-party database.

It's important to emphasize in this era of identity theft that no personal information is recorded with the product data. The only information that is documented is the unique identifier and the retailer's transaction number.

When a product returned is attempted, the retailer has only to scan the UPC and Serial numbers to find out if the product is eligible for return. If the product falls within the warranty and return policy guidelines, the clerk simply accepts the product and issues the appropriate credit or refund. If it does not meet the guidelines, the clerk can easily show the customer why it is ineligible. If the product turns out to have not been registered in the product database, the attendant is notified of that, too, and the retailer may seek additional information from the customer.

Unforeseen Benefits

While the financial benefits of loss prevention by preventing fraudulently returned products and is quite obvious and quantifiable, electronic registration has delivered some unintended, yet valuable benefits for retailers, consumers and law enforcement officials.

By being able to supply product transaction data, retailers have been able to improve their customer service ratings by increasing the efficiency with which they have helped customers who have lost their receipts, forgotten where they originally purchased the product (or had it purchased for them), and, as previously mentioned, referred customers to nearby repair centers.

For manufacturers, it has resulted in having a valuable tool to speed customer service call times, track warranty eligibility and manage reserves. Customers also benefit by having a virtual, electronic "receipt" validating a product's warranty entitlement.

But an even broader application has been the system's ability to prevent retail fraud and to help retailers and law enforcement officials track down thieves. Some examples include:

 Knowing both the unique identifier and the associated transaction number has helped retailers track down customers who have attempted to alter, forge or swap serial numbers on products or on receipts.



- Reporting systems have been established to aid in the recovery process by flagging products for cross-retailer return attempts.
- An Orange County, CA home invasion suspect was convicted based on a product's purchase registration record.
- The perpetrator who substituted AA batteries for an MP3 player and returned it as new after shrinkwrapping the box
- Products found at pawnshops and identified as stolen – or identified as purchased with fraudulent tender.
- And a recovered pallet of Sony PlayStations that had been stolen from a return distribution center

Today, more manufacturers, retailers and law enforcement organizations are looking to tap into these databases to help them identify stolen products. And as the database grows, the odds of limiting loss grow with it. So while gangs, career criminals and even normal, every day consumers try to use guile and technology to take advantage of any and every opportunity to steal from you, electronic registration is proving an increasingly useful tool in protecting and recovering those all-important assets. RLM



Kristin Secreto is the
Vice President of Client
Services at SIRAS.com, a
wholly-owned subsidiary
of Nintendo of America.
SIRAS is the pioneer in the
patented methodologies
and systems of POS
Electronic Registration
and Smart Return, which

allows retailers to track product, reduce returns and fraud, protect inventory, validate warrantees, and improve both forward and reverse logistics. Tracking only products – not people – SIRAS respects consumer privacy and is a valuable tool for manufacturing and retail clients to improve operations, visibility and the customer experience throughout the life of the products – all while maximizing profitability.



We Understand

that improperly handled returns can reduce net profits for your business.

Our large network of company operated warehouses allows for quick & flexible service. Craters & Freighters Global Logistics provides packaging, crating, & shipping for any logistics need. We package & crate items when the original packaging materials are no longer available.

- Protect Sensitive Items with Crates that are Engineered to Prevent Abrasion, Vibration, Shock, & More
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Managing the Product Lifecycle in a Global Service Network

by Tim Andreae

With margins from initial product sales eroding and OEM competition increasing, aftermarket service is becoming increasingly important as a driver of product profitability and customer satisfaction.

Service continues to receive heightened visibility by executive management in the manufacturing industry. By making the right service strategy decisions, most companies can leverage the aftermarket to boost revenue; surprisingly, this corporate asset still remains underexploited. Marketing and engineering departments are typically considered the primary drivers of product strategy decisions. In practice, service and logistics departments consistently make multiple strategic choices across the product lifecycle that greatly impact the ultimate

The diagram below, adapted from Shelor & Steele¹, illustrates the major phases of product lifecycle and the dynamic interactions of product shipments, installed base and service parts demand.

profitability and success of the

product.

The lengths of these cycles may vary dramatically by product, company or industry. In some high tech industries, lifecycle may be measured in months, and to contrast, we recently talked to an elevator company who was supporting products produced in 1880! No matter what the differences, managing

these interactions effectively is a daunting task that must be approached systematically. Several key service management decisions impact the overall product strategy -- from initial product planning through end-of-life -- in a global service network.

Product Planning & Introduction:
Product planning is one of the
most critical stages in determining
overall success and profitability of
the product. Service design must be
tightly aligned with marketing and
engineering to ensure the product is
designed to be serviceable and the
long-term cost implications of service

decisions are understood.

Specific questions must be answered in the early phase of the product cycle:

 What is the warranty policy and service offering? Warranty policy is a key driver of both product profitability and customer satisfaction. It's a delicate balance

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to develop a warranty policy that meets customer expectations, without driving up costs. Lifetime support costs must be modeled and understood based on an

> expected service and parts demand, as well as fulllife support.

How is the product serviced?
 Determining who will provide field service and repair capability – internal resources, outsourced

- anticipated MTBF rates.
- What are the globalization rollout issues? Often when a product is first rolled out it is supported and sourced centrally, and geographic rollout may be limited as new products require more control. As the product matures it may be managed more locally. With increasing consolidation, both repair and 3PL providers may be able to provide global capability so

Product Growth & Maturation: Products are rarely static – market shifts and technology improvements spawn minor and major changes throughout the lifecycle. Any changes to the product and service strategy impact both lifetime costs and customer satisfaction, and the appropriate analysis tools and supporting management processes must be in place to make the most effective decisions:

that decisions are more easily

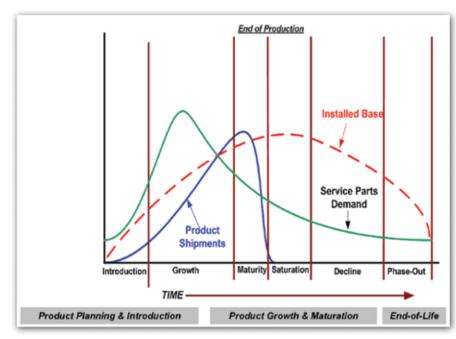
centralized throughout the lifecycle.

- How do you manage engineering changes? Soon after product introduction, engineering changes are driven by customer need, cost and effectiveness requirements, as well as safety considerations. The impact of these changes on inventory and overall cost must be considered in the decision-making process. Product failures often follow a bathtub curve in that a high failure rate is seen at introduction of a product, flattening through maturity and increasing at end-of-life.
- How is reliability data integrated back to design? When the product is in the field, actual failure rates should be analyzed and reviewed with engineering to determine the

- providers
 or dealers
 may be driven
 by overall channel strategy
 or by the type of repair
 required. Defining appropriate
 field replaceable units (FRUs) is
 driven by a clear understanding of
 the tradeoffs of stocking vs. time to
- What are the logistics network and the qualifications of the provider? Most companies already rely on a logistics network for product support. Each new product should prompt a quick review of whether the network and the core providers are well suited to the new service requirements.

service.

What is the right amount of inventory to provision? Every new product introduces two major uncertainties: How much will it sell, and what will be the failure rates? Predicted failure rates should be conservatively based on engineering estimates or expectations based on similar products. Again, geography is important; placement of spares needs to reflect anticipated MTBF rates and level requirements, planned product sales, and



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Phase	Systems & Infrastructure	Key Processes	
Product Planning & Introduction	 Analysis tools to determine the profitability impact of various service strategies including warrant term, service levels, and network and repair flows 	· Integrated process for serviceability design integrating marketing, engineering and service stakeholders	
	· Initial provisioning tools to effectively position inventory in the network	· Initial provisioning driven by a coordinated sales and operations planning process	
		Defined logistics and field service network and stocking strategy	
Product Growth & Maturity	· Parts forecasting and planning tools	· Engineering review process to understand and analyze impact of engineering change	
	· Engineering change analysis tools	· Sourcing and repair strategy review processes	
	 Warranty tracking and contract management capability including tracking of physical products and entitlements 	· Ongoing planning processes to position inventory effectively throughout the network in response to supply chain and customer dynamics	
End-of-Service-Life	· End-of-life planning tools	· Integrated product planning process to determine appropriate end-of-service-life	
	· Lifetime buy optimization capability	· Disposal processes	

impact of change and reliability improvements to the lifecycle cost.

- How are warranties converted to follow-on contracts? As warranties or initial contracts expire, manufacturers must offer a compelling follow-on service offering, to prevent competitors from encroaching. It's important to preserve margins – and be sure that customers clearly understand the service offerings. The warranty conversion rate will also impact the required inventory holdings.
- How does the sourcing and repair strategy evolve? As the product moves out of initial production, sourcing and repair capability may be localized to reduce costs. The network, inventory and cost impact of these changes must be analyzed along with their relation to service
- How is end-of-production managed? The product is typically serviced past end-of-production, and as volume decreases, costs and lead times may increase and specialty manufacturing capability may be required. These decisions impact lot sizing as well as required inventory levels.

End-of-Service-Life: As a product reaches the end-of-life, it is critical to tightly manage inventory levels and

balance them with the support strategy and product disposal requirements. Key decisions include:

- What is the appropriate end-ofservice-life? End-of-service-life decisions are highly strategic, influenced by new replacement products, the potential impact on other new products' sales, overall customer satisfaction and lifetime support costs.
- How are lifetime buys managed? When end-of-service is defined, lifetime buys must be evaluated with a consideration of existing inventory. Again, this applies to the supply network, and expected returns.
- How is product disposal managed? With increasing regulation such as WEEE and RoHS driven by environmental concerns, product disposal is an issue throughout the product lifecycle, and particularly as the product is retired at end-of-life.

Defining all of the systems and processes related to lifecycle planning is a significant undertaking and beyond the scope of a short article. The table below summarizes a few of the decision support-related systems and infrastructure requirements and key management processes that should be considered for service logistics

through the primary product lifecycle phases – allowing for the most business value possible:

Rather than service being an afterthought to product development, it can be turned into a true competitive differentiator. Forward-thinking manufacturers who follow a structured management decision process and implement service-specific systems will have the ability to effectively manage through the product lifecycle - all the way from initial product planning through to end-of-life. RLM

¹ "Product Service Strategy Workshop," by Mike Shelor, Shelor Associates and Roy Steele, Roshar Associates.



Tim Andreae is the Senior Vice President for Global Marketing for MCA Solutions. MCA is the industry leader of software products for service parts planning and has helped service leaders such as Cisco Systems, KLA-Tencor and Rockwell

Collins manage their service supply chains and product lifecycles effectively. MCA is an SAP-Endorsed Business Solution, and, along with its customers, has won multiple industry awards for service excellence.

For more information on MCA, go to www.mcasolutions.com, or contact Tim at andreae@mcasolutions.com or 617.232.1799.

REVERSE LOGISTICS CONFERENCE & EXPO



The fourth annual Reverse Logistics Conference & Expo in Asia/Pacific will be held on October 2-4, 2007 in Singapore at Le Meridien Singapore Hotel. Attendees from throughout the South Pacific and Asia as well as many other international delegates will network with peers and key industry professionals and discuss today's most relevant RL issues. ODMs and OEMs will be looking for 3PSPs that can manage Reverse Logistics in North America and Europe, along with identifying Service Logistics solutions for the Far-East.

Third Party Service Providers (3PSPs) will be exhibiting their Reverse Logistics services and solutions. The focus of 3PSPs will be to help Asian OEMs and Branded companies become aware of RL support on a global basis. This is a rich opportunity for companies to identify future service partners. This is a great opportunity for 3PSPs to sit down face-to-face with the key

outsourcing decision makers from the major OEMs and Branded Companies. Session topics range from field service, RMA, help desk/call center to mergers & acquisitions. See the conference schedule for a full listing of session topics. A wide range of Reverse Logistics companies will be in attendance from recycling/e-waste to repair and transportation logistics.

Don't miss the RLTS Keynote Session featuring Kerry Mok of DHL, followed by sessions presented by RL professionals, leading academics and panel discussions. Topics include:

- Thinking Forward in Reverse Logistics
- Reverse Logistics: Extended **Enterprise Perspectives**
- Evolve or Become Extinct! A RL Model to Deliver Expanded Shareholder Value

For more information on RLTS Singapore, please visit: www. RLTShows.com.

Keynote Address — Major **Challenges Facing Reverse** Logistics

Kerry Mok is the Senior Vice President for Strategy & Marketing and Service Logistics for DHL Exel Supply Chain, Asia Pacific and a member of the DHL Exel Supply Chain Asia Pacific Management Board.

Kerry joined Exel in March 2004 as Regional Strategy Director for the Asia Pacific region responsible for strategic planning, mergers and acquisitions and marketing functions. Prior to joining Exel, Kerry spent two years with DHL's Asia Pacific Regional Office where his last held position was that of Consultancy Group Manager for DHL's Global Customer Solutions Business Unit in the region; making him responsible for developing supply chain solutions for the top 100 global customers of DHL.

Kerry began his career with Accenture as a management consultant, where he developed a keen interest in supply chain management and was involved in several supply chain management related projects for Global MNCs, ranging from system implementations to developing e-Commerce and logistics outsourcing strategies.

REVERSE LOGISTICS CONFERENCE & EXPO

9:00AM	Pre-Conference Workshops				
- 4:00PM	The second secon				
WEDNES	DAY - OCTOBER 3, 2007				
8:30AM	EXHIBIT HALL OPENS				
10:30AM	RLA Conference & Expo Singapore 2006 Welcome Address Industry Overview, Size and Forecast Gailen Vick - President & CEO, Reverse Logistics Association				
II:00AM	Industry Keynote Address The Major Challenges Facing Reverse Logistics Kerry Mok - Senior Vice President for Strategy & Marketing and Service Logistics DHL Exel Supply Chain, Asia Pacific				
12:00- 1:30PM	00- BUFFET LUNCH - EXHIBIT HALL				
	Track A	Track B	Track C		
1:30PM	Leveraging Your Reverse Logistics Operations For Competitive Edge and Advantage	Case Study: Reducing Costs and Enhancing RL Practices	Returns and Loss Prevention Strategies		
2:30PM	Panel Discussion: "Increasing Customer Loyalty and Managing Environmental Challenges"	Challenges of a Forward Logistics Solution with a Fitting Reverse Logistics Solution	Reverse Logistics at a Higher Level		
3:30- 4:00PM	REFRESHMENT BREAK - EXHIBIT HALL				
4:00PM	Panel Discussion: "Global Warranty Support"	Thinking Forward in Reverse Logistics	Managing Costs on Returns and Warranties		
5:00- 7:00PM	Round Table Discussions (Hosted by Speakers) - Hors d'Oeuvres/Refreshments				
THURSDA	AY - OCTOBER 4, 2007				
8:30AM	EXHIBIT HALL OPENS				
	Track A	Track B	Track C		
9:00AM	Offshoring Reverse Logistics - Optimizing Repair and Warranty	Reverse Logistics: Extended Enterprise Perspectives	Outsourcing Recovery Programs to Increase Profits		
10:00AM	INTERMISSION - REFRESHMENTS - EXHIBIT HALL				
II:00AM	Panel Discussion - New Ways to Streamline Operations, Drive Profits, and Delight Customers	Evolve or Become Extinct! A RL Model to Deliver Expanded Shareholder Value	Real-Time Decisions, Taking Time Out of Reverse Logistics		
12:00- 1:30PM	BUFFET LUNCH - EXHIBIT HALL				
I:30PM	Challenges Associated with Outsourcing Reverse Logistics and Repair	Cradle to Cradle; Product Re-birth, The True Goal of Recycling	Creating Value from Returns - The Design of Closed Loop Supply Chains		
2:30PM	Panel Discussion - Methods of Outsourcing	Reverse Logistics – Glue For The Fragmented Supply Chain	Solving the Pain Points of Reverse Logistics Through Online Marketplaces		
3:30PM	Closing Remarks Gailen Vick, President & CEO, Reverse Logistics Trends, Inc.				
4:00PM	LUCKY DRAWING for DVD RW, Portable DVD Players and iPods (you must be present during the drawing to win)				





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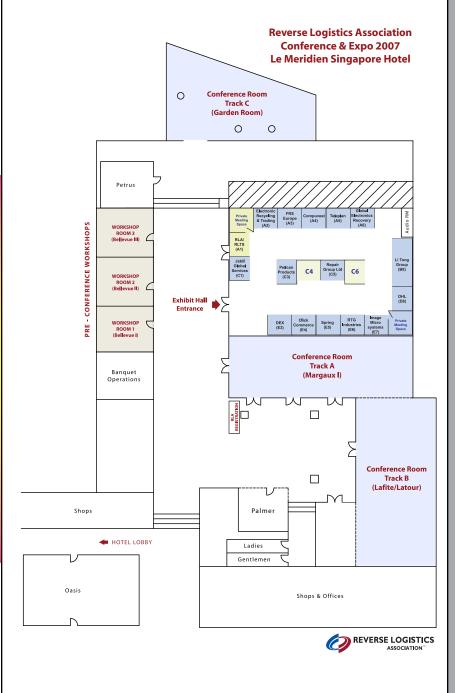
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Comprehensive Thinking Drives Reverse Logistics Success at Sony Ericsson

by Eric M. Hemming

Buckminster Fuller, a 20th century inventor and futurist once stated. "Of course, our failures are a consequence of many factors, but possibly one of the most important is the fact that society operates on the theory that specialization is the key to success, not realizing that specialization precludes comprehensive thinking."

Sony Ericsson Mobile Communications (USA) Inc., the North American subsidiary of Sony Ericsson Mobile Communications AB, has jumped from specialization to comprehensive thinking in its efforts to drive reverse logistics success.

Sony Ericsson had driven process specialization through operating centralized Sourcing and Supply Operations, supporting global demand. The company's Global Customer Services organization owned the reverse logistics process within the company, and Sales and Operations Planning was part of Sales and Marketing. The operations were scalable, driving towards worldclass performance. Global leadership, however, had a desire to drive forward additional improvements.

After a comprehensive review of the existing supply chain was complete, the company initiated a pilot program, in North America, to focus on integrating plan, source, make, deliver and return elements of the business

Management felt outsourced back-end operations might be consolidated and that improvements within forward and reverse supply chain planning might be recognized from this type of effort. It was also felt that an expansive integration would increase data exchange between functions. This would lead to improved supply chain

visibility, prompting additional supply chain enhancements.

In late 2006, Magnus Berg joined the North America Region as Vice President of Operations, and as a member of Sony Ericsson's Global Operations Leadership Team.

The program was to be deployed under Magnus' leadership. The intent was for the region to test the end-to-end approach, not only to support the local business, but also to help deliver value back to the other Sony Ericsson sites.

Magnus and his team were charged with balancing the deployment of the pilot and ensuring that the specialization and scale that had been established through centralized global operations stayed intact. Yet at the same time they had to facilitate a tighter integration of local plan, source, make, deliver, and return processes.

An Integrated Approach

Magnus promptly formed a North America Operations Leadership Team compromised of the local Heads of Sales and Operations Planning, Sourcing, Supply, Customer Service, and Program Management.

He began to blueprint specific objectives for the newly formed team:

- To establish an integrated way of working
- To develop a local operations community
- To drive world-class supply chain performance
- To contribute to the greater Sony Ericsson community

He targeted reverse logistics as the first direct area of the supply chain to drive towards world-class achievement.

The call for a holistic perspective to the supply chain did not go unchallenged. Local processes were connected by material, information,



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and financial flows, but the supporting functions had not operated under the same tightly integrated direction locally. Local operations leadership had to deprogram their tendency to look at the supply chain vertically, and begin to embrace the environment that had been established to promote a comprehensive supply chain discussion. It took a number of weeks for each function to grasp the detail of each process, how they aligned, or did not align, with their specific view of the operation.

"As the North America Operations Leadership Team began working together, dialogue increased from week to week. A common point of view was achieved; the environment was ripe for aligned forward thinking, forward planning and improvement." Berg observes.

Jeremy Murchland, Head of Customer Service, had recently taken over responsibility for the region's post sales support activity.

"As I began to digest the many details and variables associated with our post sales operations, it felt like a bed of hot coals," Murchland recalls. "Fortunately, I had numerous team members to help."

"I had a sourcing professional on my right hand; a supply professional to my left. Directly in front of me stood a quality management expert, along with a seasoned planning resource," he said.

After setting post sales service targets for the team, Murchland next began working directly with the heads of each function to drive forward the anticipated improvements within the returns process.

Supply and Customer Service Collaboration **Drive Post Sale Improvements**

Local Supply and Customer Service organizations began to focus on three critical areas – freight, service operations and parts cost avoidance.

Integrated management of these processes, and the associated suppliers supporting them,

Cross functional

operations leadership

allowed the sourcing

group the opportunity to

interact with Customer

Service more regularly.

Customer Service

management now

understands the value of

the many components

that comprise completed

wireless kits and what

key factors contribute to

component cost.

became a point of concentration for the groups. They began to discuss the potential for consolidating outsourced forward and reverse service operations, shipping points and properly aligning internal resources.

As a first step, the team incorporated logistics practices, currently

executed within their Supply organization, into the post sales parts fulfillment process. Mirroring the forward process within a reverse setting improved parts turn around time by 13%.

Customer Service also began to drive forward a revised capacity planning process based upon principles used by Sony Ericsson Supply Planning Operations. This process ensured adequate capacity to support volatility associated with inbound returns. Turnaround time on swap unit replenishment has dropped by 41% over the past quarter.

"A complete local operations consolidation between forward and reverse flows may not be the best alternative for us in all areas, but we are at least challenging ourselves with the options, and taking advantage of it when it does make sense," stated Murchland.

Customer Service and Sourcing Facilitate "Smart" Asset Recovery, Improved Procurement and Cultivate an Operations Community

> Magnus' integration of functional leadership allowed the sourcing group the opportunity to interact with Customer Service more regularly. Customer Service management now understands the value of the many components that comprise completed wireless kits and what key factors contribute to component cost.

Smarter judgments regarding asset recovery decisions could now be made. The operation found itself harvesting additional parts

from return products to repair other defective return products, avoiding expensive spare parts procurement.

Murchland also anticipates that the collaboration between groups will bring about improved local purchasing agreements for items such as corrugate and other locally sourced materials used in the returns process.

An informal mentoring partnership between Sourcing and Customer Services has also commenced. It has provided employees the opportunity to interact one-on-one with the leadership of the alternate function. This has opened up the opportunity for local Sourcing and Customer Service management to groom up-andcoming employees deemed to have the potential to move up into leadership roles, or roles within the alternate function. There have been a handful of career-coaching interactions, which have provided employees within reverse logistics additional insight into the Sourcing elements of the business. It has also helped individuals learn the organization's structure, culture and processes, and has begun to establish the "operations" community anticipated.

Integrated Forward and Reverse Planning **Drives Improved Product** Availability and Savings

The increased affiliation between forward and reverse material planning also drove immediate improvement in swap stock availability. The region had experienced swap stock shortages due to a lack of integrated planning between Sales and Operations Planning and post sales demand planning. Ensuring timely Customer Service input into the planning process also drove an increase in product availability and also drove a minimization of excess and obsolescence.

Both forward and reverse planning teams have identified the demand and value for products and components as they are in the channel. They analyze the structure of returned products to make planning decisions about goods prior to their ultimate return. This is allowing them to pre-schedule specific repair and asset recovery work effectively.

Process Standardization Drives Internal Alignment

As the local Operations Leadership Team continued to assemble, it was discovered that issues were being driven to resolution, but through different means. There was a clear opportunity to drive improvement through integrated approaches to

change management and closed loop corrective action across functions. Customer Services took the lead in working with Operational Development personnel, within Program Management, to press these improvements forward. Specifications for standard change management and closed loop corrective action tools were developed. Internal scorecards previously used within the post sales operations were deployed for use across all local supply chain functions.

"Standardized ways of working have improved our supply chain flexibility and responsiveness towards our customers," stated Berg. "We are able to carry out rapid change, and have built in triggers that allow us to ensure issues are close looped," he adds.

Murchland also worked with Program Management to map post sales processes to determine the optimal organizational structure for the department. This resulted in the



With a lean optimized organization Murchland pushed forward discipline

at the individual post sales process level. Customer Services mapped all core reverse logistics processes, assigned direct ownership to them, and implemented key performance measurements to monitor them. Program Management then incorporated reverse logistics process audits into the local internal audit program to validate process improvements quarter over quarter.

"Process maturity has allowed us to move from fire fighting to solution building. We have found ourselves in a lead position with our customers. We've even seen our customers adopt

some of our ways of working. While this is something that is a bit hard to quantify, I am confident the value we are providing is an element in our value mix that is driving up our orders," Murchland relays.

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Initial results have been impressive. In addition to the 13% improvement on the spare parts fulfillment rate, and the 41% decrease in turn around time on warranty exchange material, Murchland and team have driven down the warranty cost per unit by 30% over the past year, within the integrated structure. To cap it off, the improved data exchange across plan, source, make, deliver, and return functions has provided visibility to key supply chain data that has allowed the team to drive down the scrap rate by 19%.

ability for the organization to re-align its resources, freeing up qualified talent that could be allocated to additional pilots planned within the operation.

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"I expect we will see improvement akin to these reverse logistics enhancements within our plan, source, make and delivery processes," stated Berg. "The other functions have learned a great deal from returns data already. As returns processes continue to mature, the exchange of information between Customer Service and the other disciplines will permit improvement within forward supply and directly within our products."

Outlook

In its last earnings announcement, Sony Ericsson global shipments in the past quarter (Q1 2007) reached 21.8 million, a 63% increase compared to the same period last year, generating significant year-on-year market share gains and continuing the momentum of 2006.

Sony Ericsson also announced a number of attractive new products during the quarter, including two new Cyber-shotTM phones, five additional Walkman® models across a variety of price points to further strengthen its unique music offering, and its first HSDPA handset aimed primarily at the North American market.

In March, Sony Ericsson signed licensing and development service agreements concerning entry-level GSM, GPRS and EDGE mobile phones with Sagem Communication (SAFRAN Group). Through this co-operation, Sony Ericsson will strengthen its position in the entrylevel area of the market.

Sony Ericsson forecasts the 2007 global handset market will be above 1.1 billion units.

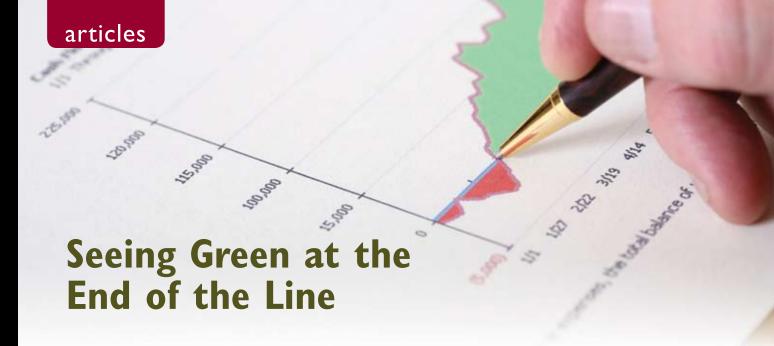
Najmi Jarwala, President of Sony Ericsson (USA) Inc. said, "Sony Ericsson is setting the standard for innovation, and we continue to create mobile devices that lead in design, quality and are easy to use." "That's what makes the initial results of this pilot so encouraging – not only does it enable us to deliver quality products to our customers, but more importantly we can deliver a better service experience." RLM



About the Author Eric Hemming, Head of Program Management at Sony Ericsson Mobile Communications (USA) Inc. has over 11 years of Supply Chain experience. Prior to joining Sony Ericsson in 2005, Eric

worked for Moduslink, as Director of Business Management, leading end-toend global supply chain management solutions for technology-based clients across Communications, Computer, Software, and Storage Device industries.

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by John Mehrmann

Managing and minimizing the cost associated with Reverse Logistics can be the difference in preserving profitability. It requires skill and constant reassessment to navigate the complex environment of logistics, materials, manpower, resale value and recycling regulations. The organizations that manage this well can find new sources of revenue and customer satisfaction. The organizations that do not manage this well can quickly find themselves struggling to match competitive market conditions, unable to resolve customer demand or risking compliance with increasing environmental protection legislation. It is important to be able to build the algorithms that compare these costs and to be able to respond rapidly by individual products and models to changes in market conditions.

The Basic Forecast

Evaluating the Reverse Logistics Supply Chain begins with the basic forecast. It is important to recognize changes in trends for what is coming back, when it is coming back and how this relates to what was originally sold. It may seem quite simple to measure returns against sales. However, to

truly understand the driving forces of these trends it is important to compare products, source of returns, seasonality and price points.

Seasonality may be based on consumer buying cycles that follow the holidays, graduation and back to school. Quite often, seasonality is greatly impacted by introduction of new products and new technologies that may plan obsolescence of preceding technologies. Tracking the advent of new products, price reductions and the return policies of retail and reseller channels is critical to creating a reliable model for forecasting returns.

Logistics and Freight Expense

An area that received a great amount of attention in previous years is the cost of freight. Freight carriers have become increasingly competitive as transportation costs rise and fuel surcharges send many budgets into cardiac arrest. Managing returns means managing a supply chain that often includes a combination of planes, trains and trucks to obtain the lowest transportation costs while still supporting a fast turn around time back to market.

Every day wasted in transportation

is a day of price erosion and increased inventory. Expediting the transportation can result in significantly higher logistics costs. Achieving the proper balance requires an accurate understanding of product resale value and returns transportation

Manpower

If the seasonal forecast is accurate and the transportation is properly coordinated then it should be possible to implement a flexible strategy for coordinating resources. One solution is to utilize multi-tasking resources that can be reallocated based on demands in receiving, processing or shipping. Multi-tasking resources may also be achieved by sharing resources in a multi-client solution provider environment as long as the multiple clients do not share the same seasonal trends. Another solution for managing fluctuations with controlled resources is to maintain a foundation of experienced full time employees that can be augmented by the addition of temporary labor for non-skilled processes during the peak seasons.

Regardless of the solution, it is important to understand exactly how much time it takes for every single step in the process and how this

time relates to cost. Understanding and tracking time by process is fundamental to making improvements and identifying unexpected delays that may create costs. For example, size and complexity of product may impact the handling and testing that could result in slower process time. To manage costs accurately it is essential to measure time and resources on a daily basis.

Space, the Final Frontier

Just like managing manpower resources, it is important to evaluate and properly predict space for maximum utilization at minimum expense. If you have an empty warehouse during peak season, it is wasted space and utilities during the slow periods. On the contrary, if the warehouse is fully utilized for processing then there is risk for emergency additional space at much higher cost when there are increased returns. The optimum solution is identifying opportunities that provide flexible warehousing based on space utilization so you can pay for what you

Accurately predicting space utilization is a combination of returns cycles as determined by the forecast, processing time as determined by the manpower analysis and the ability to ship out the resulting goods or byproducts.

Resale Value

Catastrophic Failure and Recalls

Contrary to popular belief, managing Reverse Logistics is not just a job for service, operations or logistics. The value of the returns and ultimate impact to profitability is a shared responsibility with finance and sales departments. Understanding the potential value of refurbished products

Product Liability and Recalls

Product liability and recalls create a

handled properly, the effects can be

catastrophic. Public safety is at stake.

Corporate reputation and corporate

liability and recalls can lead directly to

massive litigation, from both consumers

responsibility are at stake. Product

and the government.

challenge of crisis management, if not

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connect with 3PSPs. With RL Quote, a manufacturer or

database of companies that specialize in recalls, screen

through the responses and narrow down the prospects.

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is fundamental to the business decisions for processing the products. Maintaining accurate awareness to changes in resale value is critical to evaluating the speed of return and the amount of appropriate investment for refurbishment

Refurbish, Repair, Salvage or Scrap – That is the Ouestion

To refurbish, repair, salvage or scrap, that is the question. Whether it is nobler to refurbish a product and return it to the channel, suffer the costs of repair or dispose of them and thereby end them.

Refurbishment is an effective solution as long as the product has a reasonable resale value and refurbishment can be conducted at a reasonable cost. This solution can help to mitigate losses and return some revenues, provided that

Missteps and poor communication

brand, stock price, and reputation.

Choosing the ideal 3PSPs for best

and recalls, can seem to be a near

practices in handling product liability

impossible task given the short time allowed by government regulations. The

RL Quote program can help find 3PSPs

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can have a catastrophic impact on the

the product can be sold effectively without eroding the market for new products. When managed properly, this solution will return green to the bottom line, keeping the company out of the red and in the black.

> Repair is only effective when the costs to repair are significantly less then the profit that will be realized from the sale of the repaired product. Therefore, it is important to measure and minimize manpower and materials. Managing manpower

process should be a critical factor in measuring the revenue from the Reverse Logistics Supply Chain.

Spare Parts salvaged from returned merchandise may be appropriate to support warranty work in the field, based on the terms and conditions expressed in the original Limited Warranty. Frequently the electrical and mechanical parts are useful for supporting warranty or extended service plans. The cosmetic parts salvaged from returns may be

> used in the refurbishment process.

It is important to compare the BOM and rate of repair from returned products to the service support and warranty repair demands for field

and extended service plans. It is unfortunate that some manufacturers find themselves crippled with warranty back-orders, buying spare parts and replacing end-user products, while simultaneously paying rent for warehouse space to hold aging refurbished products. Not only can the parts be used to reduce warranty costs for procurement, but as the refurbished product resale value fades the value of the replacement parts increases proportionately. Proper planning prevents poor performance and produces predictable profit.

costs to repair are significantly less then the profit that will be realized from the sale of the repaired product.

Repair is only effective when the

requires tracking the amount of time to conduct specific repairs in direct correlation to symptoms and defects so resources can be systematically applied for maximum return. Materials for repairs can often be claimed by harvesting from other defective products, thereby reducing the cost associated with parts. To determine the break-even point it is necessary to compare the contributing costs with the resulting return on resale of repaired refurbished products by individual model.

The Atomic BOM

A hidden source of revenue in

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returned products lies within the Bill of Materials (BOM). More often than not, the sum of the resale value of the individual components exceeds the resale value of the refurbished goods. Salvaging spare parts from the repair

The Environment

Eventually, despite the best planning and predictive practices, the process produces some amount of waste. It is important to understand and prepare for proper environmental disposal of electronic waste.

Integrated Services Reverse Supply Chain Solutions Information Management Accessible Networks Leveraged Infrastructures

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Say goodbye to the complexity and risks that come with managing reverse logistics software and execution solutions. DEX has taken traditional software one step further by integrating multiple aftermarket supply chain workstreams into one system.

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DATA EXCHANGE CORPORATION



"This responsibility is integrated as part of our daily business operation," said Rod Van Pelt. Environmental Compliance Director at ARC International Corporation. "ARC recognizes that issues such as climate change, greenhouse gas emissions and energy conservation are concerns shared by every member of the global community. ARC diverted 50.2 million pounds of e-waste from landfills in 2006. We are working relentlessly to reduce the impact to the environment."

Waste Electrical and Electronic Equipment (WEEE) Directive

The WEEE Directive and RoHS set recovery targets for all types of electronic goods. The directive imposes responsibility for establishing an infrastructure for the disposal of waste electrical and electronics equipment on the manufacturers in such a way that users of the equipment from private households should have the possibility of returning the WEEE at least free of charge. Manufacturers are compelled to coordinate collected waste through ecological disposal, reuse or refurbishment.

Restriction of Hazardous Substances (RoHS) Directive

Like WEEE, this directive encourages individual countries to establish laws regarding reuse, refurbishment, recycling or ecological friendly disposal of electronic equipment. RoHS is often referred to as a lead-free directive, but it actually restricts the use of the following six substances:

- 1. Lead
- 2. Mercury
- 3. Cadmium
- 4. Haxavalent Chromium (VI or Cr6+)
- 5. Polybrominated Biphenyls

- (PBB) *
- 6. Polybrominated Diphenyl Ether (PBE) *
- * PBB and PBDE are flame retardants used in some plastics.

Batteries are not included in RoHS. but are covered by the European Commission's Battery Directive of 1991. The European Commission is also studying the possible inclusion of monitoring and control equipment, and medical equipment, which were excluded in the original list of product categories.

The RoHS directive applies to equipment defined by a section of the WEEE directive. The following numeric categories apply:

- equipment (Fitness machines, etc)
- 8. Medical devices (currently exempt)
- 9. Monitoring and Control equipment (currently exempt)
- 10. Automatic dispensers

Around the Globe

China has recently adopted similar regulation with a different approach. Unlike the European version of RoHS that includes all electronic equipment unless specifically exempt, the directive in China is based on a catalogue of restricted materials. The marking and disclosure took effect in March of 2007. The catalogue has not vet been published. Japan does not have any legislation

The next time that somebody tells you how simple it is to manage Reverse Logistics, just give them a copy of this article as a very high level overview of the many considerations in developing and maintaining a robust returns processing business initiative.

- 1. Large and small household appliances (Ovens, toasters, refrigerators, etc)
- 2. IT equipment (PCs, printers,
- 3. Telecommunications equipment (Phones, faxes, etc)
- 4. Consumer equipment (TVs, CD Players, etc) 5. Lighting equipment, including
- light bulbs and fluorescent tubes 6. Electronic and Electrical Tools
- (Drills, lawnmowers, etc)
- 7. Toys, Leisure and sports
- regarding RoHS substances, but recycling laws have spurred manufacturers to adopt lead-free processes. Japan has a lead-free marking requirement called J-MOSS that took effect July 2006 on some products.

South Korea initiated the Act for Resource Recycling of Electrical and Electronic Equipment and Vehicles in April 2007. This regulation has aspects of RoHS, WEEE and ELV. In the United States, California passed

SB 20 Electronic Waste Recycling Act of 2003 (EWRA). This law prohibits the sale of electronic devices that are prohibited from being sold under the European RoHS directive, but on a much more narrow scope that includes LCDs, CRTs and the four heavy metals restricted by RoHS.

In addition, there are several states that have restrictions on Mercury and PBDE.

International Standards

ISO 14000 is an internationally accepted specification for environmental management systems (EMS) and establishing environmental policies. These standards exist to help organizations minimize how operations negatively affect the environment and to comply with applicable laws, regulations and other environmentally oriented requirements.

ISO 14001 is the standard for assessing organizations producing any product or service anywhere in the world. ISO 14004 explains ISO 14001 in detail.

- ISO 14020 to 14025 covers Environmental labeling and declarations
- ISO 14030 covers post production environmental assessment
- ISO 14031 covers evaluation of environmental performance
- ISO 14040 to 14043 cover preproduction planning and goal setting
- ISO 14050 covers terms and conditions
- ISO 14062 covers making improvements to environmental impact goals
- ISO 14063 covers further communications on environmental impact

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Getting to the Green, Out of the Red and into the Black

The next time that somebody tells you how simple it is to manage Reverse Logistics, just give them a copy of this article as a very high level overview of the many considerations in developing and maintaining a robust returns processing business initiative. With the pressures of constant price erosion in a global community, adjusting to rapid changes with prompt and intelligent business decisions is mandatory to preserve profitability. The desired result is simple, to reduce cost and be ecologically responsible, but the processes are as complex as they are dynamic.

Frequently the optimum solution requires the integration of knowledgeable and flexible partners that can assist in the attainment of these goals. "It is no longer enough to be the subject matter expert on

one small part of the process," said Steve Wallace, VP of Sales for Data Exchange Corporation (DEX). "To be truly effective in providing a comprehensive solution it is necessary to use systems designed to manage enormous amounts of detailed data in a real time environment. Positive financial impact is based on informed decisions with facts and trends to back them up. Either you have the facts or you are reading about the people who do." rlm



About the Author: John Mehrmann has more than 20 years of management experience that spans logistics, operations, e-commerce, finance, customer relations, marketing, training and consulting.

John has served the business community as Regional Sales Director at Data Exchange Corp, Director or Service Operations for Toshiba America Information Systems, Inc, Toshiba Imaging Systems Division, Toshiba America Consumer Products, and SatisFusion.





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Amsterdam 2007 ReCab

The fourth annual RLA Conference & Expo Amsterdam took place on June 25-27, 2007. Over 400 attendees representing 200 companies gathered for Europe's largest reverse logistics conference! Reverse logistics professionals and leading academics from throughout Europe met to share best practices and discuss the most pressing reverse logistics challenges. Companies represented included Philips, IBM, Nike, Intel, DYMO, Cisco Systems and Hewlett-Packard, just to name a few.

Monday offered several preconference workshops and an evening reception for exhibitors, sponsors and speakers. The conference kicked off on Tuesday with the Welcome Address by RLA President Gailen Vick followed by the keynote address by Wim Van Gils, Vice President & General Manager Global Customer Service, Philips Consumer Electronics, Europe. The keynote presentation discussed the efforts underway to change Philips customer service delivery concept from "cost control" to "value creation." Wim also talked about how "net promoter score (NPS)" is used as a way to increase the likelihood that a customer would recommend Philips products to friends and colleagues.

Tuesday afternoon and all day Wednesday, conference sessions and panel discussions focused on industry-specific issues such as Managing Reverse Logistics to Improve Performance, Services Role in Delighting Customers and Driving Loyalty and Methods of RL Outsourcing.

Attendees also had the opportunity to meet with exhibitors including Sykes, Kiala and Spring Global Mail during the 2day Expo. "RLTS provides the perfect environment to meet with customers and partners leading to the identification of solutions for their specific issues," said Melissa Berg-Baker, Marketing Director

The Tuesday evening Amsterdam Canal Cruise Sponsored by DHL, Cycleon and ERT provided a pleasant respite from the conference activities.

at Click

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The conference concluded Wednesday afternoon with Award Presentations and the "Lucky Draw." Winner of the "Best Use of the VIP Program" went to Cycleon and the Teleplan won the "Best Booth" award. Many thanks to our drawing sponsors including: DYMO, Microsoft, RIM, Toshiba, Plantronics, TomTom, Western Digital and Palm. They provided great prizes such as: MP3 Players, Portable DVD Players, External Hard Drives, Digital Cameras, Label Printers, Portable GPS, Bluetooth Headset and Blackberry Phones.

Complete lists of attendees, exhibitors and sponsors are available from the RLA Conference &

> Expo site at: http://www. rltshows. com/ a07 event. php. Photos from the event are also available.

RLA Conference Amsterdam presentations are available free of charge to association members.

For a limited time, attendees at RLA Conference & Expo Amsterdam may apply their registration fee to an Associate level membership. For only \$200.00, the Membership Upgrade will provide access to all presentations delivered in Amsterdam as well as all prior conferences.

For more information, visit: www.reverselogisticsassociation.org



Thinking Forward in Managing Returns

by Jeroen Weers

The ability of manufacturers to offer L customers a convenient and freeof-charge method of returning goods, whether for repair, exchange, a product recall, recycling or end-of-life return is increasingly essential for more and more businesses. In Europe, thanks to its extensive network of local post offices, service providers can offer manufacturers a range of attractive solutions to this problem, with the added benefit of being in direct contact with their customers by skipping the retail channel.

The most mature reverse logistics market can be found in the US At an estimated value of about € 1 billion for the total returns market, it is almost as big as the European and Asia-Pacific market combined. The European market is growing more rapidly than the US though, and is estimated at around € 0.8 billion. In the EU more emphasis has been placed on returning goods for environmental reasons. In the Asia-Pacific market the concept of reverse logistics is still relatively new. In many Asia-Pacific countries little value is attributed to customer service. and also environmental issues are less important. However, there are exceptions, such as Australia and Japan. The value of the Asia-Pacific returns market is estimated at € 0.55 billion.

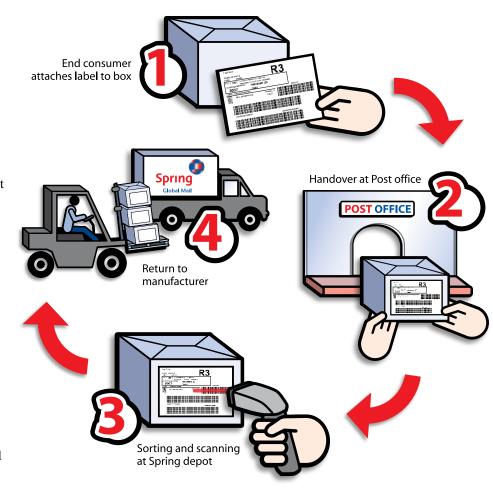
A reverse logistics system that is based on an extensive post office network such as in Europe, can be more attractive to both end-users and manufacturers or distributors than a product pick-up from

the customer's home or office address. The latter arrangement is generally not popular with consumers, who are often reluctant or unable to wait for items to be picked up, while for manufacturers this is difficult to organise and a costly service to provide.

Both issues tend to be magnified when items need to be returned in an emergency recall. This happened, for example, last year when a major computer manufacturer had to recall millions of laptop batteries because of a potential fire hazard. In such a case, customers expect immediate action and manufacturers need to provide them with a quick, simple means of return at short notice.

In many instances of both planned and unplanned product returns, the ideal solution for both manufacturers and consumers is to provide an easily accessible drop-off point where customers can leave items for subsequent pick-up by the manufacturer or its logistics service provider at a time that is convenient for them and at a location that is close

That is where Europe's post offices come in, offering a network of over 100,000 potential drop-off points. They are familiar to consumers as well as business customers, are easy to access, and are trusted by both. Not surprisingly, this network plays a major role in European reverse



Continued on page 44



Reverse Logistics software solutions:

- Enterprise wide management of returns
- Maximize net asset recovery
- Workflow support for service, repair and recycling
- Benchmark best in class processes
- Risk mitigation for compliance issues (WEEE, Data Protection Act, HIPPA)

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Laptop Tips for Restore and Configuration Problems

by Jeff Harrison

Forty percent of needed notebook repairs require a hard drive restore and twenty percent of reported notebook problems are related to software configuration issues. This report is based on analysis of over 200,000 laptops by a leading provider of depot repair services, computer parts, and audio and video personal electronics products,

Hard Drive Restore

The hard drive restoration process reinstalls the original version of the operating system along with the associated drivers which control much of the hardware and applications. Restoring a drive often will cure the problem, but this comes at the expense of deleting all of a user's data files.

It is often forgotten that most of the hardware is controlled either by the operating system or its drivers. Therefore, many perceived hardware problems are actually software in nature and require a system restore. All of this makes it even more important to regularly keep a data backup.

Most systems come with restore capabilities built in to a small partition of the hard drive. The customer should create a restore disk as a back-up as soon as the system is acquired. Some systems may also come with the restore disks already on CDs. Simply insert the restore disks and follow the menu instructions until complete. Configuration Parameters

Configuration parameters are defined by users based on a number of preferences. These preferences include the laptop's Internet connection method, printer options, schedule for software updates, as well as the definition of hardware ports to external hard drives, modems, and other devices.

These settings are often set once and forgotten, only to later become corrupted files that manifest themselves as hardware problems.

These issues can often be remedied at home, alleviating the need for sending a laptop in for repair. Sometimes, however, a seasoned technician is required to differentiate a hardware problem from a software, or configuration, problem.

It is also important to ensure that the configuration settings are re-set upon the receipt of a repaired laptop. In some instances the environment for repairing a laptop may be slightly different than the user's environment, and the differences may initially seem like an incomplete repair. Resetting preferences, especially related to Internet connections, will usually resolve this.

To reset your configuration to the factory default settings, enter the setup mode by pressing ESC, F1, F2 or F10 as you are prompted during the boot-up sequence. Press F9 for default configuration, answer the prompted message and then press F10 to save the configuration.

For more information on common problems that can frequently go wrong with your notebook computer, visit the Resources section of the Blue Raven website, at www.blueraven.

Jeff Harrison holds a BS and an MBA degree and is the Director of Business Operations for Blue Raven Technology. Blue Raven Technology, Inc., previously known as Pre-Owned Electronics, is a leading provider of out-of-warranty service parts and depot repair services as well as consumer-friendly iPod audio and video personal electronics products, including MP4 players, MP3 and gaming products accessories



A Primer on Lead-Free Rework

If you are doing any soldering based repair work you must address the need for properly supporting your Clients' need for lead-free compliance. For most, getting their "operational arms" around the need for lead-free rework can seem like a very daunting task. This month we intend to equip you with a solid basis to understand the issues around lead-free repair and a framework to address the basic lead-free rework needs.

Background and Issues:

The chief component in most leadfree solders is tin and tin has some negative behaviors to be aware of. Legend is that in 1812 when Napoleon's army got bogged down in Russia, the intense winter was to blame. Some commentators point to more than just the winter's cold on bones as the problem. The real problem many feel was tin. The shiny buttons on the soldiers' uniforms were made of tin and when tin is exposed to temperatures below 56 degrees Fahrenheit it begins to degrade and turn to powder. The result is that the army was reduced to groping for ways to keep clothing closed and for staying warm rather than fighting. The

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characteristic for tin to turn to powder in the cold is called "Tin Plague." In addition, tin is also corrosive.

Another point to understanding the

challenge in performing lead-free rework involves a chart called the 'Galvanic Series.' In this chart (see Mil Std-889), metals are sorted as being on a scale that ranges from Anodic/active or Cathodic/noble. When similar metals are used in an alloy it will generally be stable, but when the alloy contains metals from extreme positions on the scale there are usually corrosion and stability risks. Tin and lead are metals that are on the Anodic side of this scale with similar characteristics. This allows 60/40 lead type solders to be stable and easy to rework. When lead is removed from the alloy it is often replaced with a mixture of copper and silver. Since copper is in the middle of the galvanic scale and silver is all the way at the other noble end of the scale, this is an alloy as a solder that has some tough issues to overcome. This type of solder alloy with Tin-Silver-Copper is typically referred to as an 'SAC' type solder and is the most common rework type for lead-free repair.

If the time that a heated solder joint changes from liquid to solid (called the plastic phase) is lengthy then there is a greater likelihood that the joint will be damaged. With the standard 60/40 lead solder there is a very narrow plastic phase allowing the solder to become solid very quickly. When a replacement alloy formulation for lead-free solder is developed the engineer seeks to create a mixture that is "eutectic." This term refers to the alloy's ability to melt at a lower temperature and have a very narrow time when the mixture is 'plastic.' For lead-free solders this is a much tougher behavior to produce. As a result leadfree repair is performed at higher temperatures and is much more prone to a rough surface appearance.

I have a friend that runs a reflow production line building military equipment. The greatest fears of their engineering team regarding lead-free solder implementations is a problem called "tin whiskers." Lead-free solder has a very strange behavior that over time (some data also indicates current and temperature can promote this) the alloy will grow whiskers that reach out in all directions. This creates huge short circuit risks, especially for

modern circuitry with such tight lead spacing.

The rough surface appearance of lead-free solder is another concern with successful rework and repair. The visual change with lead-free inspection is drastic. To the point that almost no element of lead type solder visual inspection can be used in lead-free. For example in lead based solder inspection, "copper halos" will typically cause a rejection but occur normally with lead-free processes. The situation can be greatly improved by performing the rework with nitrogen. The result will be better wetting and a more shiny appearance that is much more 'inspectable.'

Most flux formulas for lead solder use RMA (rosin mildly activated) type fluxes. These are alcohol based and

although they work well with lead based solders the high temperatures needed for lead-free make these flux types unsuitable for lead-free. No-clean water based flux with 4% solids are good starting points for lead-free rework. Many also report good results with the newer gelled flux formulations. Regardless, if you do not use a noclean type flux, the high temperatures needed for lead-free will yield a residue that is much tougher to clean.

Recommendations:

 Review and understand the documentation standards that our already out in the public domain. Some key documents to begin with:

(Overview) http://
rohs-wee.org/
guidance.htm
(Tin Whiskers)
JESD22A121
(Alloy Type

This is not an easy conversion, but bridging the gap will help differentiate your service offering and help your client comply with the global regulations.

Identification) JESD97, IPC-1066 (Galvanic Series) MIL-Std-889 (Alloy Formulations) http:// www.europeanleadfree.net/ (Rework Guide) NPL Report Matc(A)106 (Inspection) J-STD-02B/C, IEC 60068-2

• Get your staff certified with an IPC level course.

- Upgrade your BGA capability. The higher temperatures for lead-free demand thermal profiling and tight mechanical controls to prevent collateral damage during rework. That old hand held BGA machine will just not provide the needed productivity or quality your Client will expect.
- Consider using Nitrogen. The process will be easier to inspect if you use nitrogen. To mitigate the cost consider using a "nitrogen farm" instead of gas from tanks. Nitrogen farms produce the gas by using filters to extract nitrogen directly, from the air. The costs are reasonable compared to the quality benefits
- For solder iron based rework, use irons with standby settings that support longer tip life and fast thermal control/sinking for higher

A capability. The productivity and better joints.

• Select high quality (yes, they will cost more) solder iron tips.

Is to prevent Remember from above, that tin corrosive and the higher tin con

Remember from above, that tin is corrosive and the higher tin content and temperatures from lead-free will greatly shorten tip life. Poor tips just slow down your staff and cause damaged boards.

- Research your vendors part numbering identification schemes to ensure the parts you are using for replacement are compatible with the boards you are reworking. Very often you may have "new old stock" that is tinned with lead based solder and may not be usable.
- Understand the marking scheme (refer to JESD97) on the PCB and use this to help you select the right solder alloy. Once the alloy is dialed-in get a recommendation from the solder vendor or Client for the right flux.
- Beware of mixing lead and lead-free solder. Some combinations will have a very long plastic phase and almost guarantee a failed joint. In addition you would have just voided the lead-free marking on the PCB.
- Build procedures that limit what staff can correct a solder error on a reworked PCB. The high temperatures may only allow one more chance to get it right, having rules for the escalation to highly skilled operators can greatly reduce overworking and destroying a PCB.

The conversion is not easy, but bridging the gap will help differentiate your service offering and help your Client comply with the global regulations. RLM



L. Bryant Underwood is Director, North Americas Service at Foxconn Technology Group.
Bryant's past positions include GM, Director and VP level assignments in support of Operations,

CRM, Materials and IT.

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On the Move in Reverse Logistics

Kristin Secreto was recently promoted to Vice President of Client Services at SIRAS.com, a wholly-owned subsidiary of Nintendo of America.

Dave Mabon has joined **GENCO** as chief customer officer. In his new role, Mabon will be responsible for enhancing existing and new customer relationships across GENCO's diverse business units and developing strategies that grow the company from \$700 million to \$1 billion by 2010. Mabon comes to GENCO with more than 18 years of logistics sales and marketing experience, most recently directing sales, marketing and business development for Kuehne + Nagel's U.S. Contract Logistics unit.

Andrea D. Meade has been appointed as Executive Vice President - Operations and Corporate Development of ScanSource, Inc. Ms. Meade will be responsible for the Company's North American distribution operations and logistics, technical services, reverse logistics and customer service and IT functions.

Brad Hendrick recently left Arvato Services Inc. to join Foxconn as Director of Sales and Business Development, Global Services. Foxconn, a contract manufacturer provides repair and support services for manufacturing and non-manufacturing customers.

Data Exchange Corporation recently announced that Robert (Bob) A. Passaretti has joined the company as Senior Vice President of Human Resources.

Paul Tran was recently promoted to Sr. Director of Sales & Marketing at Comtek Computer Systems, one of the world's leading 3rd party technical services and supply chain providers.

Andrew French has founded RTG Industries - one stop solution for customers needing support in the management of excess/obsolete materials, scrap, customer returns and depot repair. Andrew will serve as Director of Corporate Development and manage the global locations in Hong Kong and France.

DecisionOne, technology support services firm, recently announced the appointment of Mike Greenough as the new Chairman of the Board of Directors. Mr. Greenough is a recognized and experienced leader in transforming technology organizations and building corporate value.

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Industry Events

The Reverse Logistics Association staff takes advantage of every opportunity to evangelize the reverse logistics message, thus raising awareness of the process and increasing visibility for our association and its members.

Back by popular demand, Gailen Vick, RLA President and CEO and Krista Finazzo, BSN Service Improvement, US Postal Service, co-presented "What's New in Reverse Logistics" at the National Conference on Operations & Fulfillment in Schaumberg, Illinois on May 1, 2007.

During the presentation, Gailen defined reverse logistics for the attendees as "anytime money is taken away from a company's logistics budget." Other key points from the presentation included that reverse logistics typically eats away 30-35% of potential profit and that 70-90% of every dollar generated through asset recovery goes straight to the bottom line, per A.T. Kearney. To learn more, download the NCOF presentation from the RLA home page.

If you would like to have RLA present at an event or if you have an event you would like to publicize in RL Magazine, please send an email to editor@RLmagazine.com.



Upcoming Events

RLTS Singapore October 2-4, 2007 Le Meridien Singapore Hotel www.rltshows.com/singapore.php

RL Seminar – Austin, TX October 17, 2007 www.rltshows.com/aus07 event.php

CEA Industry Forum - Las Vegas, NV October 19 - 22, 2008 Hotel Del Coronado www.ce.org/events/event info/default. asp?eventID=IF07

E-Scrap 2007 – Atlanta, GA Hyatt Regency Atlanta October 24-25, 2007 www.e-scrapnews.com

PARCEL Forum 2007 – Chicago Hyatt Regency O'Hare October 29-31, 2007 www.parcelforum.com

RL Seminar – Columbus, OH November 13, 2007 www.rltshows.com/col07 event.php

RL Seminar - San Jose, CA December 5, 2007 www.rltshows.com/sjc07 event.php

2008 Storage Visions Conference - Las Vegas Flamingo Hotel January 5-6, 2008 www.storagevisions.com

RLTS Las Vegas Planet Hollywood February 5-6, 2008 www.rltshows.com/vegas.php

Wireless News

Full articles available from: **RLA News Center**

Don't be so quick to click that Web page

What a world. First worms and viruses, then phishing schemes. But now, cautions Trend Micro Chief Technology Officer Raimund Genes, your online life may get that much hairier.

Cell phone Data Proving Key to Solving Crimes

It was a Perry Mason moment in the trial of Paul Cortez, an actor and yoga teacher who was ultimately convicted of killing his former girlfriend Catherine Woods, a dancer who was working as a stripper. After weeks of testimony and a parade of witnesses, the case against Mr. Cortez boiled down to this: a bloody fingerprint and data collected from a cell phone.

Crackdown On Counterfeit **Phone Parts**

Illegally-imported cell phones and components are bringing huge profits for traders. According to state management agencies, 70% of mobile phones in the market are illegally imported and counterfeit products.



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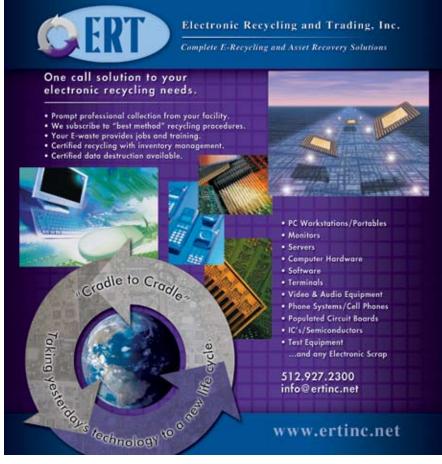
- When your shipment is ready we arrange to have a container dropped-off at your designated location and schedule a pick-up
- We pay for all shipping charges from your pick-up location
- We provide all shipping documentation

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Howard shows Jeremy Ecomtek's post-repair cleaning room.

Ecomtek

Teremy Vick, Director of Worldwide **J** Sales at Reverse Logistics Association, recently visited the San Jose headquarters of Ecomtek. The company, based in California's Silicon Valley, began operations in 1999 and is an ISO 9001:2000 registered company providing advanced electronics repair services.

Thomas Nguyen, President of Ecomtek, and Howard Hoo, Director of Marketing, gave a complete tour of the company's capabilities highlighting its wide range of service and product skills. Ecomtek specializes in postmanufacturing service of a range of IP Telephony and network hardware and

works extensively on 3Com and Cisco products. It is also an authorized business partner and reseller of IBM, Lenovo, Apple and HP servers and workstations, and for all major laptop manufacturers. Ecomtek also provides repair, refurbishment, and services for hard drives and memory and is a source for laptop LCD replacement units.

Nguyen and Hoo emphasized the importance of a streamlined process that requires coordination with external business partners to achieve minimal cycle time from receipt to shipment. Jeremy recognized the efficiency of this process, especially

among the high-level repair that Ecomtek performs for its clients. To facilitate timely and successful services, the company has a staff with years of experience to perform X-Ray Imaging and to manage its BGA repair operations.

Jeremy was also very impressed with cleanliness and the excellent condition of the facility. Hoo agrees that the maintenance of the working environment allows Ecomtek to work more efficiently, to offer more valueadded services to its clients and to deliver successfully on those services.



Servicing network equipment is a mainstay of the facility.



Ecomtek has multiple BGA repair stations.



Howard Hoo shows Jeremy product that has been received for service.





The cleaning room is the last stage before serviced product returns to the client.



Skilled troubleshooting allows for accurate and efficient repair steps.

Technology Spotlight

Full articles available from: **RLA News Center**

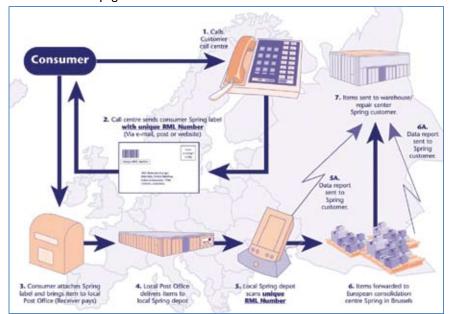
U.S.-China probe nets \$500 million fake software More than \$500 million worth of pirated software, including counterfeit Microsoft and Symantec products, has been seized in a long-running joint probe by Chinese police and the U.S. Federal Bureau of Investigation, officials from both countries said on Tuesday.

Intel reverses stand on laptops for the poor

Intel Corp. said Friday it would support a non-profit foundation's project to put computers in the hands of poor children around the world, reversing its long-standing opposition to the proposal. The world's biggest chipmaker will join the board of the One Laptop Per Child Foundation, which developed the XO laptop — a personal computer that it plans to put into production in September and sell for \$176.

Tech Giants Join Forces to Secure Government Data

Microsoft, EMC and Cisco are partnering to facilitate the sharing and protection of government information. The companies have formed the Secure Information Sharing Architecture Alliance which also includes Titus Labs, Liquid Machines and Swan Island Networks.

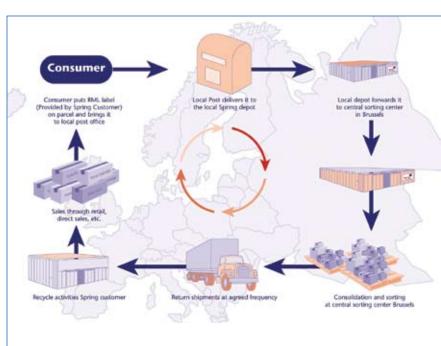


logistics operations. For example, over 10 million toner cartridges are now returned each year via the postal

The reverse logistics market can broadly be split into two segments; non time sensitive, low value products such as toner cartridges,

whereby reliability and speed are the critical factors. It may require an end customer to obtain a label from the internet or a call centre before dropping off the item at the local post office for returning the item.

The return of the product to the manufacturer or distributor is not



where costs are a decisive factor, and high value time sensitive products such as consumer electronics. This latter category often requires more sophisticated tracking and tracing,

always the end of the story though. In some instances, particularly where the product has been returned because it is unwanted, not suitable or broken, it may have to be recycled, cleaned or

repaired before it is shipped off again to its next destination. This means that manufacturers should also consider having a forward logistics process in place as an integral part of their reverse logistics system.

Unlike the United States, a complicating factor in Europe is the multitude of national postal operations across all countries. While it might seem appropriate to select a local provider in each of the individual countries, most manufacturers will in reality opt for a single return address for the entire region in order to keep their own management and personnel costs down. If one then has to deal with 20 plus mail providers, each with different requirements, different invoicing and different service levels, making sense of international reverse mail logistics becomes quite a task. This is especially so if a manufacturer wants to keep easy track of all his reverse shipments while maintaining a simple and predictable cost structure.

The solution then lies in working with a postal provider that can genuinely offer cross border mail services and can give proper advice how to best approach this in the most efficient and cost effective way. RLM



Jeroen Weers is Development Manager for Reversed Mail Logistics (RML) services at Spring Global Mail, a cross border mail service provider (Joint Venture partners are TNT, Royal Mail, and Singapore Post)

with over a decade of experience in reverse logistics. Spring offer its customers (tailored) forward and reverse solutions using its global postal network.



Five years ago very few people had

Recently however, more and more

heard of the term "Reverse Logistics".

companies are beginning to understand

value of managing their product returns

more efficiently and effectively. This

in turn is generating a new demand for

who understand Reverse logistics and

can help companies capture the value

Reverse Logistics Professional

About two years ago, the electronics

giant Cisco created a new corporate

position: Vice-President of Reverse

indication that Reverse Logistics was

moving out of the warehouse and the

back offices. With this appointment,

Reverse Logistics took a giant leap up

the corporate ladder into the offices of

started realizing that Reverse Logistics

represents a significant opportunity to

new positions are now being created

by many other organizations, such as

Director of Reverse Logistics, Manager

or Senior Manager of Reverse Logistics,

Reverse Logistics Analyst, or Manager

With these new senior roles come many

accept that senior role as a responsibility

new responsibilities, not just to lead a team to tackle Reverse Logistics, but to

for contributing to corporate profit.

experience, but in an area as new as

Reverse Logistics, what kinds of skills

are companies looking for to fill these

www.RLmagazine.com

Big responsibilities typically require a solid skill set, education, training and

of Reverse Logistics Information

Services.

new roles?

improve corporate profitability. Similar

a vice president. At last, companies

Logistics. This was the first real

goods.

Opportunities

and opportunities from their Returning

Reverse Logistics professionals: people

Reverse Logistics and are seeing the

Returning thoughts...

What It Takes To Be a Reverse **Logistics Professional**



What Does It Take To Be a Reverse **Logistics Professional?**

skills:

Work in a cross-functional team

- "Serves as a liaison between sales, support and operations teams to develop concepts and coordinate improvement efforts"
- "Interact with Sales Operations, Technical support and Customer Care/Support teams"
- "Interacts with all levels within the organization"
- · "Ability to work and thrive in a cross-functional team environment"

Strong Analytical Skills

• "Analyze and interpret information from multiple data sources"

RL Job Center



If you are a job seeker or a hiring manager looking to staff positions with a Reverse Logistics focus, the Reverse Logistics Association Job Center is the place for you. Posting positions on the site is a member* benefit. Let us help you find the staff you seek – posting is quick and easy. Position posting is generally approved and posted within 24 business hours. Check out the positions currently posted at the RLA Job Center. For more information, contact RLA at info@ RLTinc.com.

*Job posting is a benefit of Professional Members and above.



Unfortunately, you can not hire a Masters in Reverse Logistics (yet).

Recently, there have been several postings on the Internet job search sites for jobs with a title that includes the words Reverse Logistics. In addition, there have been several others where Reverse Logistics was not the primary role, but a part of the responsibilities for that position (in areas such as logistics/ supply chain, business process analyst or customer service). An analysis of some of these recent job postings indicates that many companies are looking for similar

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 "Strong analytical and problem solving skills"

Multi-task

- "Ability to manage multi-tasks"
- "Ability to prioritize and perform multiple tasks simultaneously by establishing priorities, planning ahead and anticipating potential issues in order to meet tight deadlines"

"Demonstrate the Profits, and then Take on More"

"A Reverse Logistics professional has to think strategically" says Michael Blumberg, President of Blumberg Advisory Group, specialists in researching and consulting for Reverse Logistics, "they need to quickly identify the low hanging fruit, communicate the value to the many parties inside the organization, demonstrate the profits, and then take on more".

Reverse Logistics has very quickly moved from an undesirable back office activity to a significant opportunity to enhance corporate profit. Companies need Reverse Logistics Professionals to help them take advantage of these opportunities. Do you have what it takes?

Good Luck! RLM

Paul Rupnow writes about Reverse Logistics best practices, insights and strategies at ReverseLogisticsProfessional.com

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Strategic Partnerships Now Available at the Touch of a Button

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Wider Selection – RL Quote allows you to broaden your search at no cost and is a perfect companion to your usual resources.

New Technologies – The technologies for Reverse Logistics are evolving everyday. The best way to stay ahead of the technology curve is to allow the industry experts to evaluate your objectives and offer alternative solutions.

For more information visit RL Quote at

www.rlquote.com







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www.dhl.com or alternatively contact reverse.logistics@dhl.com

Our reverse logistics solutions help you plan, implement and control the flow of materials back up the supply chain and manage the related information. This ensures that you create a positive experience with your customers throughout the whole product lifecycle. Advanced and reliable after sales services such as managing warranty repairs or product take backs (WEEE

legislation) will help your business to differentiate in the market place. Our experts are able to review any aspect of your supply chain whether it be a complete environmental redesign, advice on legislative compliance or develop an improved repair logistics solution. Our geographic coverage and capabilities makes DHL the logistics provider of choice.

