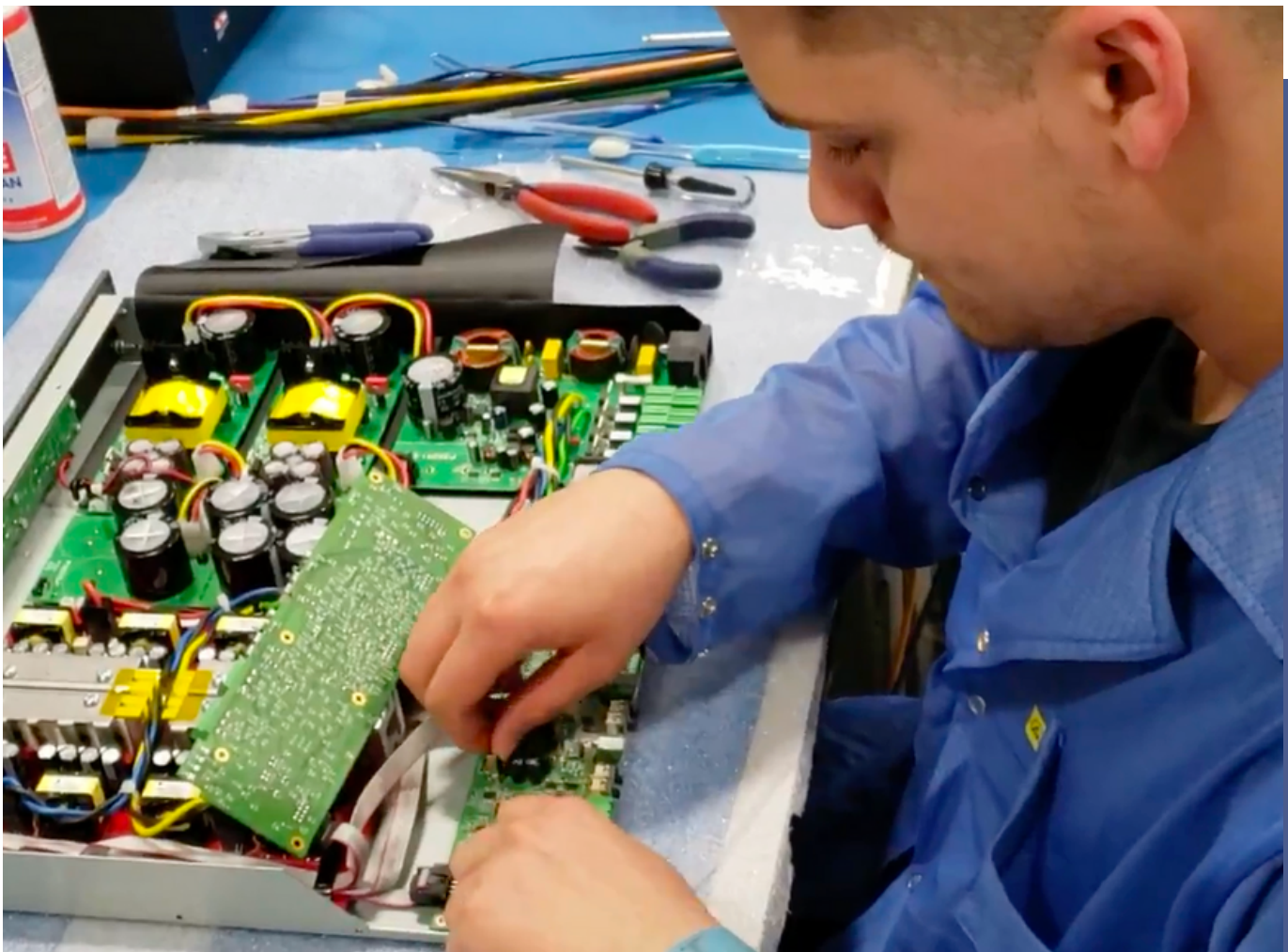


PanurgyOEM

Profitability in Reverse:

A Comprehensive Guide to Controlling
Consumer Electronics Reverse Logistics Costs.




PANURGY*oem*
ELECTRONIC INTEGRATION SERVICES

www.PanurgyOEM.com

What's inside this guide...

01 Introduction

02 The components of an electronics manufacturer's reverse logistics life cycle

03 How much does reverse logistics really cost?

- Fixed costs
- Variable costs
- Customer costs (Customer Sat)

04 Controlling reverse logistics costs

- Stabilizing your service network
- The case for outsourcing



About PANURGYoem

Founded in 1983, PanurgyOEM offers:

- Depot Repair
- Build to Order
- eCommerce & Fulfillment
- Authorized Factory Service
- Show, Sample & Loan

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Introduction

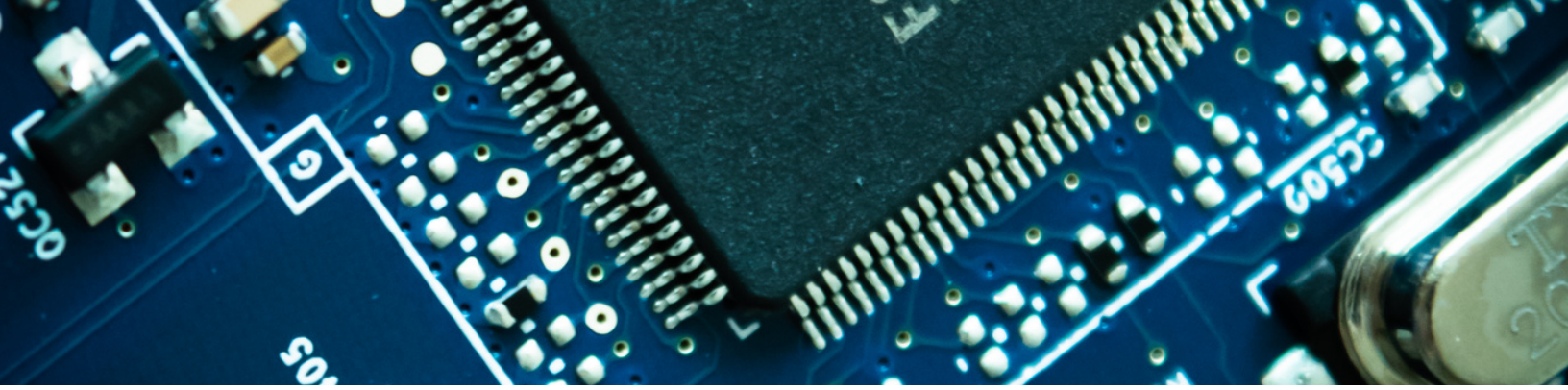
PanurgyOEM HQ, Rockaway, NJ

Every electronics manufacturer has to deal with returns and the bottom line is that processing returns doesn't improve your company's bottom line. Reverse logistics is typically a "cost of doing business" and the best way to avoid its impact on profit margins is to control the costs of your reverse logistics program.

There are 3 "cost categories" to consider with your repair or refurbishment operation:

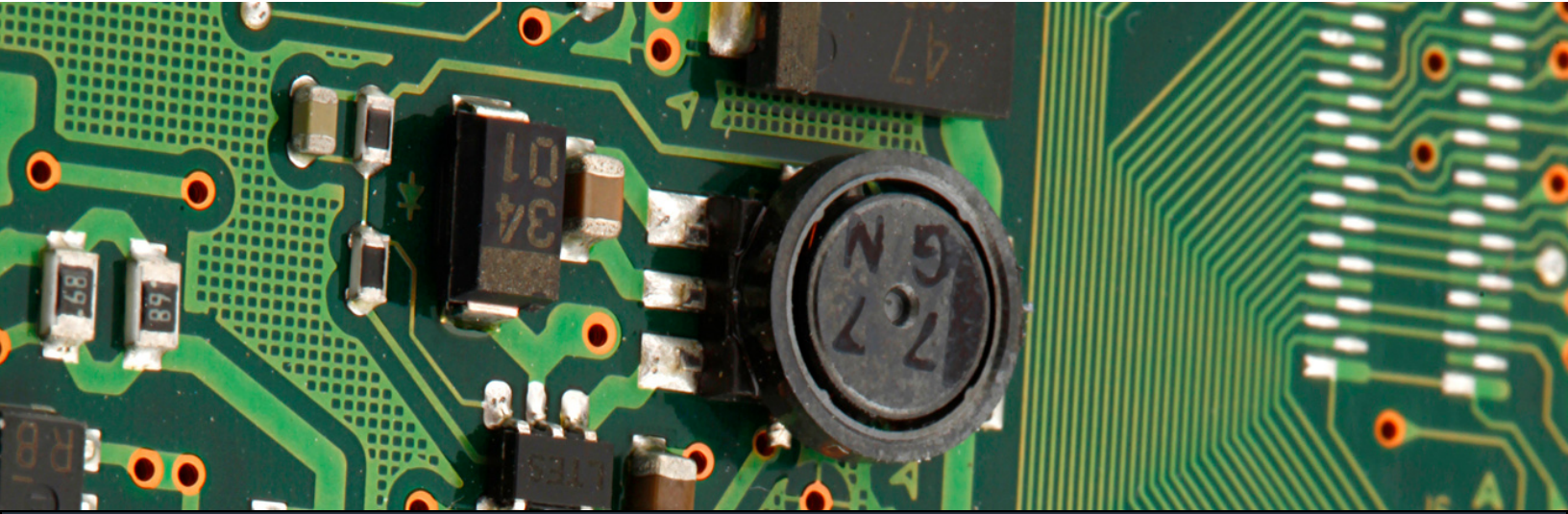
1. Fixed
2. Variable
3. Customer

The fixed costs are usually just that, variable costs can wreak havoc with your budgeted cost per repair and if your reverse logistics process lowers customer satisfaction - that's a whole other set of problems.



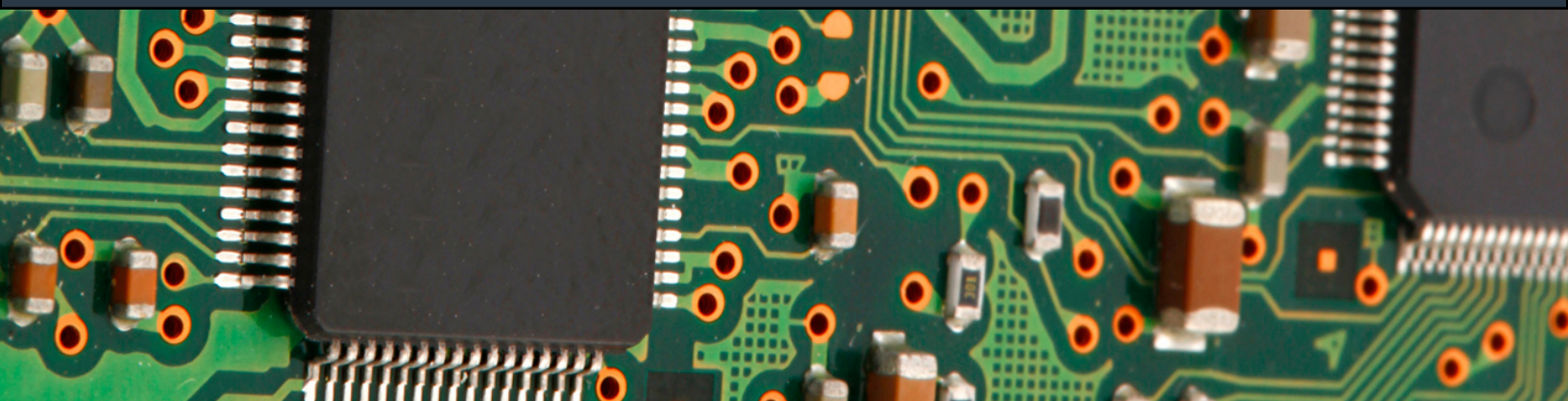
Lowering your reverse logistics costs depend on a number of factors; having the proper number of technicians available during the busy seasons, getting a handle on your parts supply chain, and bolstering your service network so all your repair partners are on the same page.

This guide is for operation managers who coordinate the repair process, for the operations business people who manage budgets and even for the marketing teams who have to manage less than favorable reviews due to a less than perfect reverse logistics experience.



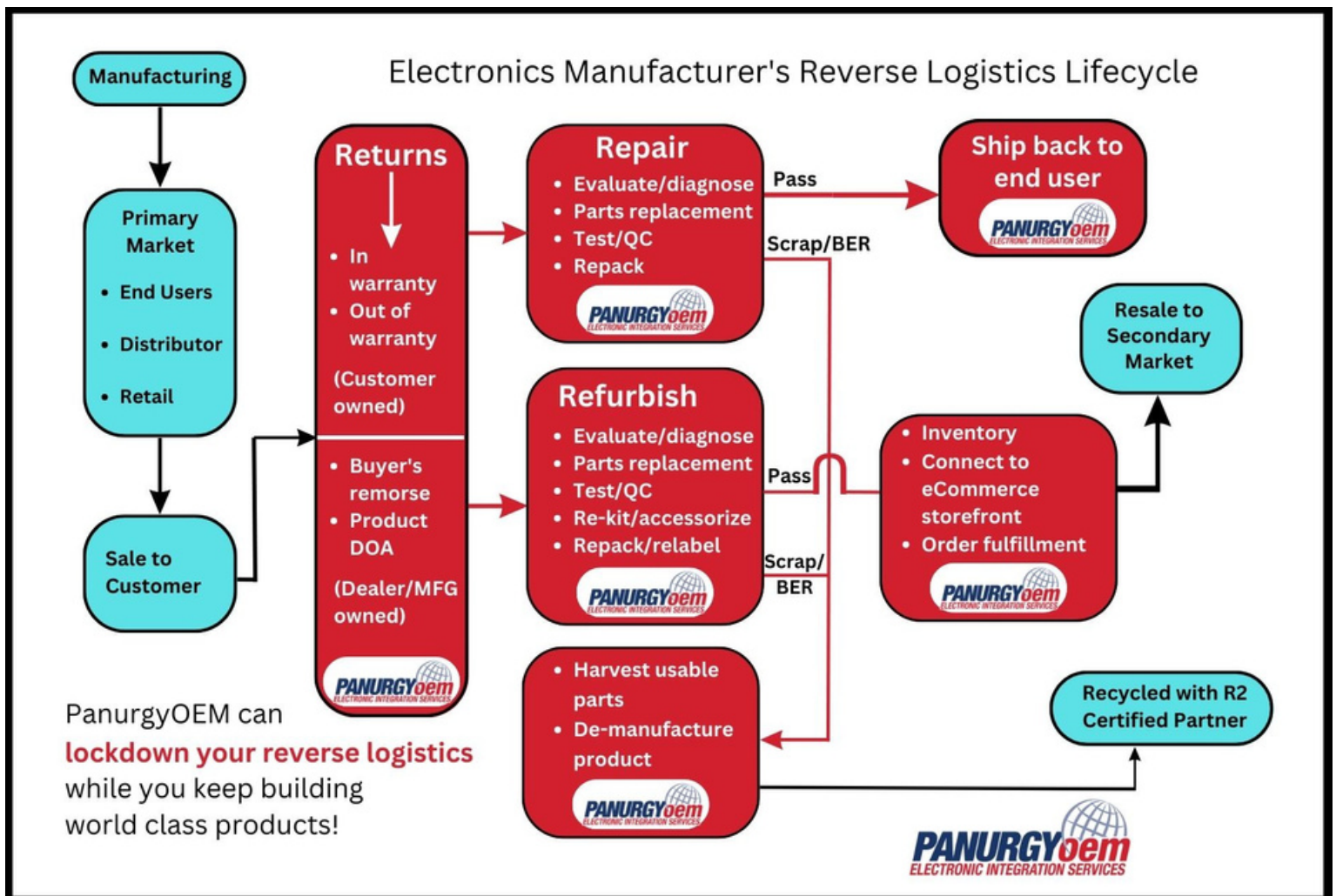
02

The breakdown of an electronics manufacturer's reverse logistics life cycle

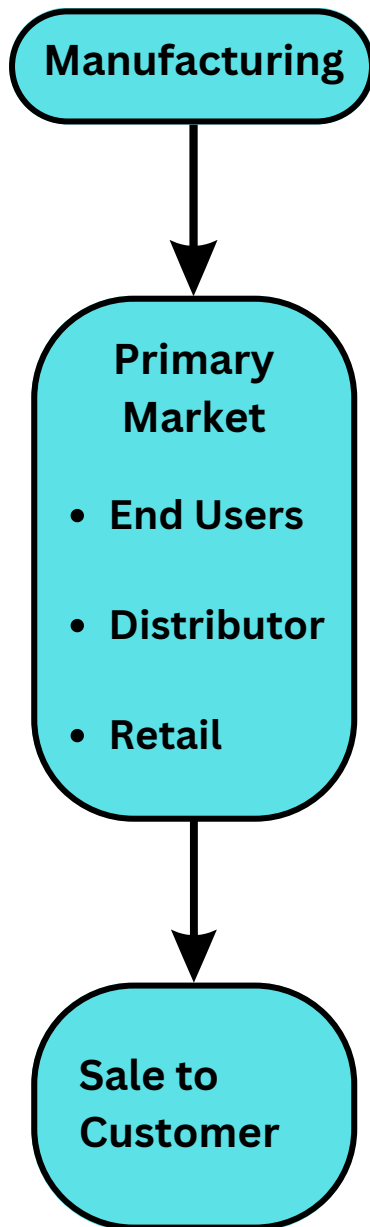


The components of an electronics manufacturer's reverse logistics life cycle

We've developed our master **Electronics Manufacturer's Reverse Logistics Lifecycle** chart to better visualize the steps a device can take in its reverse logistics journey. This specific chart was originally designed to show manufacturers the areas in which PANURGYoem can provide services to manufacturers (red blocks) but the information and steps are clear and tells the story well.



The components of an electronics manufacturer's reverse logistics life cycle



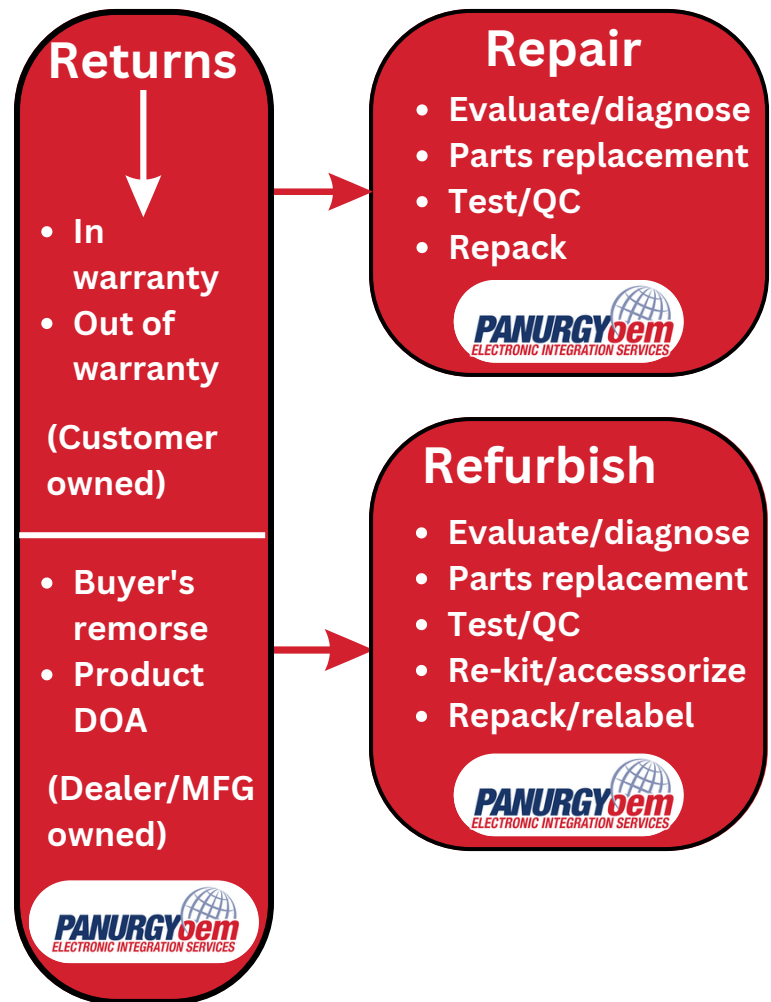
Section 1 is all pre reverse logistics; manufacturing, distribution (to end user, distributor or retail channel) and then sale to the customer.

The components of an electronics manufacturer's reverse logistics life cycle

Section 2 is where the reverse logistics journey begins, **RETURNS**. Once received, returned products typically head in one of two directions, REPAIR or REFURBISH.

Customer-owned, in-warranty, and out-of-warranty products typically are sent off to the repair department where diagnostics, evaluation, parts replacement, testing/QC and repackaging happen.

The products that pass this phase will be shipped back to the customer. Those that don't pass or are BER (Beyond Economic Repair) are usually de-manufactured, and any usable parts are harvested. The remainder will go to an R2 certified recycling partner.



The components of an electronics manufacturer's reverse logistics life cycle

The other section of returned items are those that were returned due to buyer's remorse or the product was DOA.

These are typically are owned by the retailer, dealer or manufacturer.

That group of products may be refurbished;

Refurbish

- Evaluate/diagnose
- Parts replacement
- Test/QC
- Re-kit/accessorize
- Repack/relabel



Refurbished products can be added to "B-stock" or sold through an alternate channel.



03

How much does
Reverse Logistics
really cost?



The cost of Reverse Logistics

When we look at the cost of Reverse Logistics it makes sense to break it down into cost categories where we can take into consideration the different characteristics of each. The three cost categories that we'll be using in this guide are:

- 1.Fixed costs
- 2.Variable costs
- 3.Customer costs (customer satisfaction and reputation)

To maximize efficiency, manufacturers must examine their existing resources and understand where changes can be made to reduce costs. In this section we analyze the different factors that should be considered when it comes to controlling your costs, and explore ideas on how manufacturers can save money while still providing excellent customer service.



The cost of Reverse Logistics

Fixed Costs associated with a typical electronics reverse logistics program include:

- Labor
- Training
- Capital investment (benches, test equipment, tools)
- Warehouse space

Labor

Labor is a static cost unless of course demand expands or contracts. If you have a set number of people working in your reverse logistics than your costs are clear. This category will include labor for technicians, shipping, QC/testing, administrative and managerial personnel.

Training

This is tied directly to your staffing numbers, product complexity and the number of new products you may introduce and support during the year.

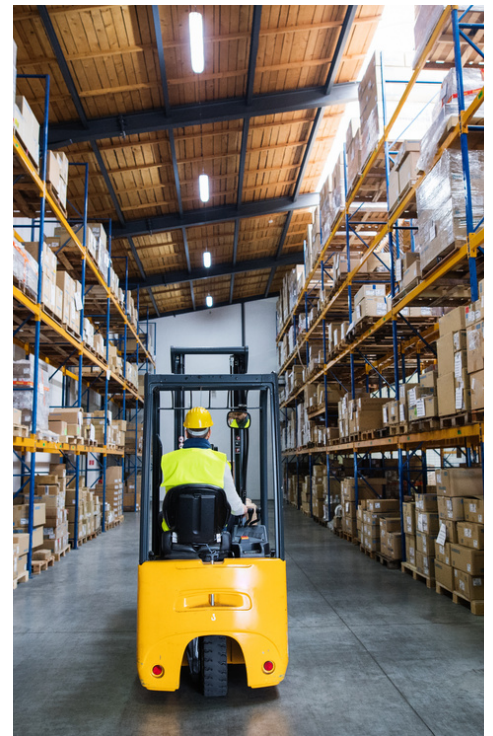
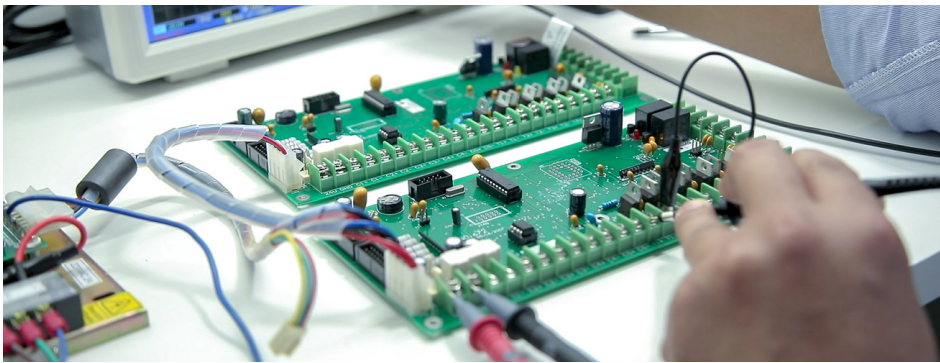
The cost of Reverse Logistics

Capital Investment

An in-house reverse logistics program requires the investment in ESD workbenches, racks, test & measuring instruments, tools, shop equipment such as forklifts, pallette handlers etc.

Warehouse space

Aside from the space required to house returned items, a significant amount of floorspace is required for test, measurement, repair and QA functions. Dedicated loading docks may also be necessary.





The cost of Reverse Logistics

Variable costs in your in-house reverse logistics program can be a real budget-buster.

What variable costs can a manufacturer encounter in their reverse logistics program?

Some of the contributing factors to cost variability in reverse logistics include:

- Seasonal demand
- Economic factors
- Quality of products returned
- Repair complexity
- External partnerships
- Component availability
- Product lifecycle state



The cost of Reverse Logistics

For example, a technical glitch such as a faulty component in a new product release could add serious workload to the reverse logistics team – so what do you do?

Hire temps?

Training is the issue here so this might not work.

Pull resources from Manufacturing or QA?

That's a possibility but that could cause a log jam in their current departments.

Other reasons creating cost variability include issues with your suppliers as we've seen recently. Supply chain issues have unexpectedly increased costs and caused repair turn-around times to tank in the process.



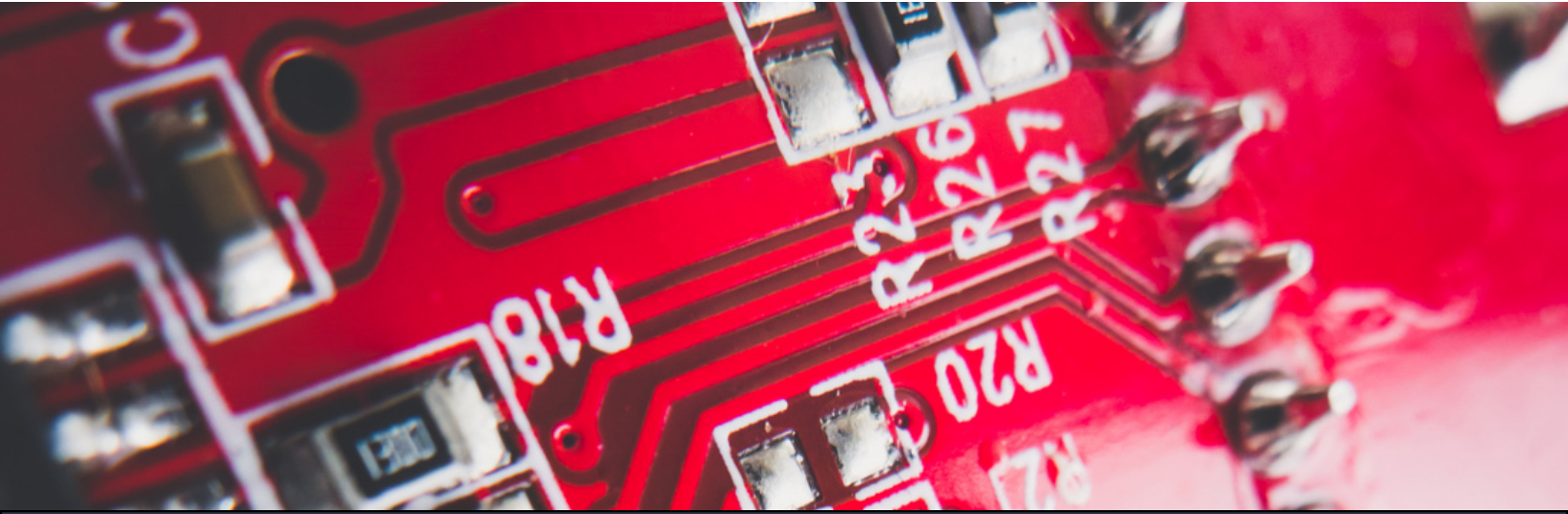
The cost of Reverse Logistics

Customer costs present themselves in the form of customer satisfaction issues and online reviews.

Gone are the days where one dissatisfied customer can share their story with 100 people (this is on OLD stat). Now one online review can reach thousands of people instantly influencing some potential customers to look elsewhere to satisfy their latest electronics urge.

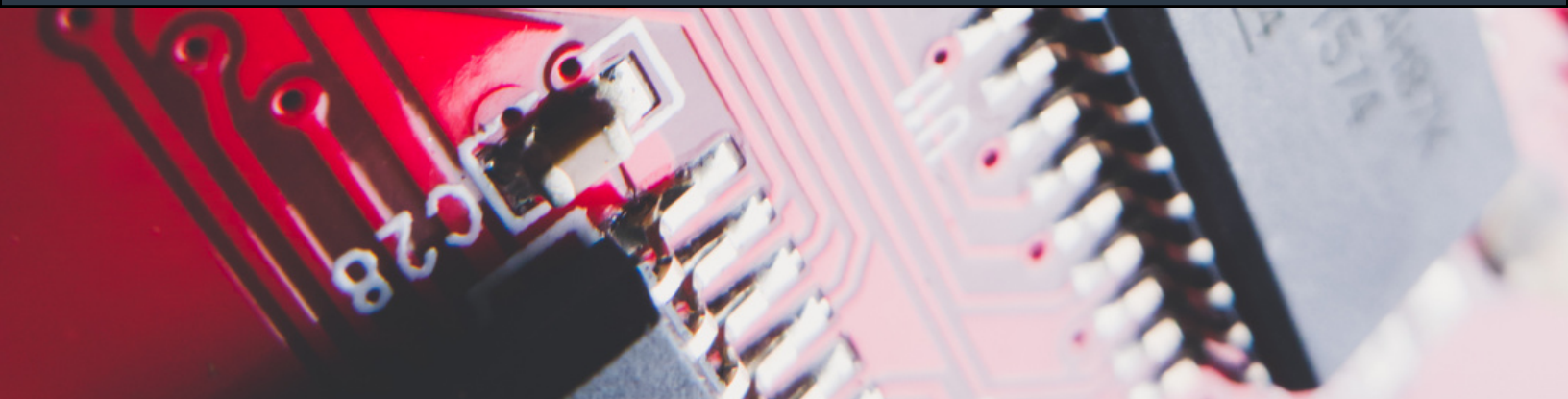
In 2023, 49% of shoppers trust an online review as much as they would a personal recommendation. A whopping 96% of shoppers specifically look for negative reviews on a product prior to purchase - this up from 85% in 2018

In business you can't avoid problems, product issues, etc. but how you respond to these problems is what sets companies apart. Fast turn-around times, repairs done properly the first time all have a significant impact on your company's reputation and bottom line.



04

Controlling Reverse Logistics costs



Controlling Reverse Logistics Costs

Not all manufacturers perform repair and refurbishment in-house, many opt to outsource to a partner or partner network. **Stabilizing your service network** is a critical element in controlling your costs and improving your customer's experience with your reverse logistics program.

Typically a manufacturer's service network is set up with either an **independent service network** consisting of multiple service centers often run by separate companies. This model has its advantages and a few challenges.

Pros:

1. Broad reach. A service network of this type could have more local service centers set up around the country, or the world, making it simpler for customers to start their return/repair process.
2. Big bench. Multiple locations mean more technicians ready to serve your customers ideally resulting in faster turn-around times and the ability to handle larger capacities.

Controlling Reverse Logistics Costs

The potential "con" of a multi-company service network is of course, consistency of service.

Will all the technicians at different companies receive the same level of training?

Does each partner enforce similar turn-around time standards?

Will multiple management styles at different companies provide a consistent service level that your customers expect from you?

Taking these items into consideration brings us to the next option, the independent national service center.

Controlling Reverse Logistics Costs

The **Independent National Service Center** is a single repair/refurbishment partner that can offer multiple advantages that a service network made up of multiple companies cannot.

First, a single national service center would offer uniform training for their staff which would provide a higher service level.

Second, with only one location to deal with your supply chain challenges are fewer.

Third, all data related to your reverse logistics would be on a **single platform** making the data delivered to the manufacturer easier to consume.

Controlling Reverse Logistics Costs

There is a strong argument for an electronics manufacturer to **outsource their reverse logistics** to an independent national service center. A few reasons to consider outsourcing are:

Proximity to customers: Many electronics manufacturers are not US based and shipping a product to be returned or repaired overseas may not only be cost prohibitive but the turn-around time would be weeks or months and unacceptable to customers.

Elasticity: A competent national service center will have enough technical, cross-trained crew in house that should an expected or unexpected influx of repairs flood the shop, they will be ready without causing a delay.

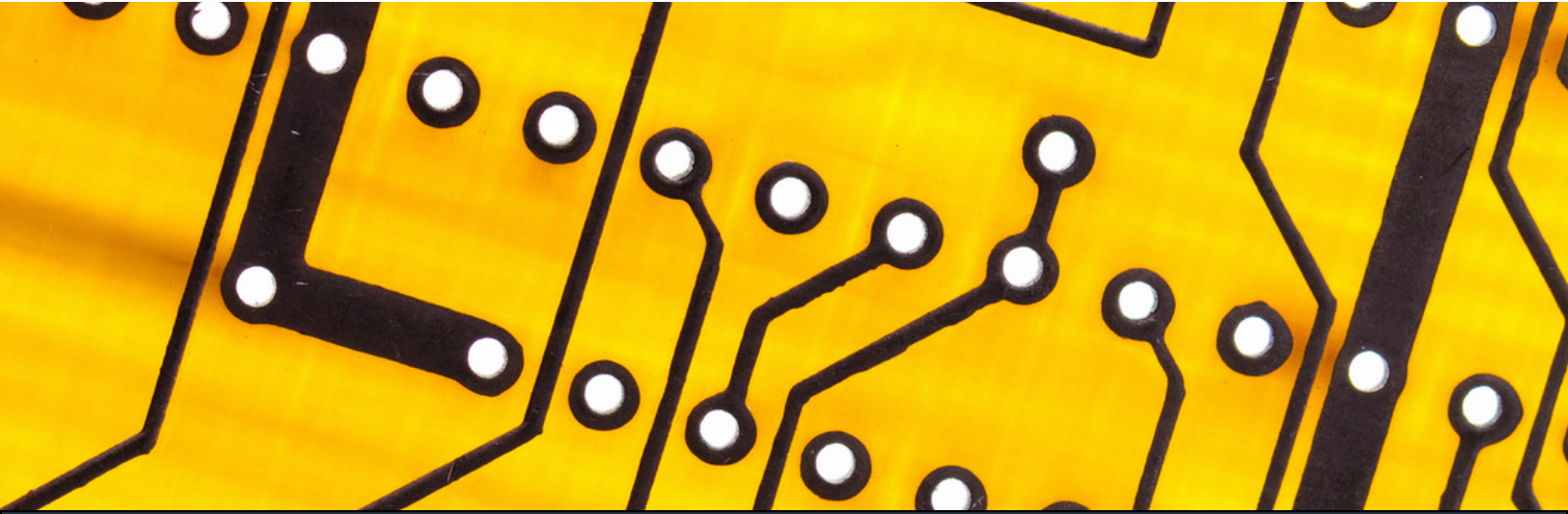
Parts: An qualified service partner will have the experience to forecast service volumes and be well equipped to order sufficient quantities of parts in advance. This will help them avoid being caught unable to keep up with demand due to poor supply chain management.



Controlling Reverse Logistics Costs

Data: A single outsourced partner can aggregate and analyze data about your reverse logistics to help you understand issues with frequent component failures or design problems that may contribute to a higher percentage of failures.

This type of data can be useful to switch suppliers if there's a frequently bad component or can be helpful to the Engineering team to help them when planning a new product design.



05

Conclusion





Conclusion

When it comes to a manufacturer's Reverse Logistics program, controlling costs is key for any electronics manufacturer looking to maximize their profits and maintain customer satisfaction. A thorough understanding of all components of those costs can help manufacturers make informed decisions and streamline their operation.

Furthermore, considering the use of a single, nationwide service provider can also help control expenses while simultaneously providing excellent customer service. A solid service provider can help reduce capital investment, manage the unpredictable variability in costs and can establish a standard for the reverse logistics enterprise data.

By understanding all aspects of reverse logistics, manufacturers can be better equipped to reduce their expenses and increase profits.

About PanurgyOEM

About PanurgyOEM

Our Mission Is to Maximize the Useful Life of Your Technology At PanurgyOEM. We want to help your business do better business by taking on the behind-the-scenes work that can drain your budget, burden your valuable workforce, and distract you from your pursuit of constant innovation and improvement.

Founded in 1983, we have continually supported companies at the forefront of the technology revolution.

Our primary industries of expertise are:

- Consumer Electronics
- Pro Audio / Video
- PCs, Laptops & Tablets
- 3D, Photo & Label Printers

We are headquartered in a 90,000 square-foot, state-of-the-art facility in Rockaway, NJ and are certified as ISO 9001;2008.

Notes
