



# Reduce Costly Inventory Errors and Lost Sales Using Vendor Performance Classification

# Reduce Inventory Errors

## WHY YOU SHOULD READ THIS PAPER

*In an increasingly competitive Omni-channel retail landscape, retailers need to have 100% confidence in inventory accuracy regardless of where that inventory exists. Inaccurate vendor ASNs when combined with retailer blind receiving environments can have a significant impact on that inventory accuracy. Learn why when the system says you have one on the shelf you had better think twice before sending a customer to pick it up.*

*Are you certain that your inventory is accurate? If not, **Traverse Systems' Vendor Performance Classification Solution** can give you the tools you need to stay on top of your receiving processes while identifying and encouraging vendor performance improvements for your inbound supply chain.*

## SUMMARY

Increasing numbers of retailers have implemented Advance Shipment Notices (ASNs or EDI 856s) to primarily save expenses in the DC associated to with a detail check and receive process but also to reduce days in the PO lifecycle. With a continued focus on DC expenses and DC cycle time, DC operators are more concerned with certifying ASN vendors to speed the receiving process while EDI departments are rapidly approving vendors ASN EDI transactions with very little effort to ensure vendor continued accuracy. Generally, a 'certified' ASN vendor is approved to flow through the DC with limited or no audit. The decision to forego routine audits leaves retailers open to the possibility of future performance lapses down the road that could be caused by any number of issues such as:

- ✓ A vendor choosing to audit every outbound shipment only until they are certified, or
- ✓ A vendor changes to a 3PL provider with poor service, or
- ✓ A vendor has start up issues related to the implementation of a new WMS or facility, or
- ✓ A vendor hires a significant number of temps for a busy period.

Retailers that decline to audit at least a portion of their certified vendor shipments accept unnecessary risks that will inevitably result in inaccurate inventories and potential lost sales.

***Traverse Systems' Vendor Performance Classification System drives intelligent auditing processes by identifying carton inaccuracies - by vendor at the product category level.***

Traverse Systems offers a solution to identify carton accuracy by vendor at the product category level and uses the classification to drive intelligent auditing. The Vendor Performance Classification System interrogates every ASN received determining audit quantities based on several variables, including historical vendor performance and targeting sequences as created by the business users. It can even pick the individual cartons to audit and pass that information on to the retailer's Warehouse Management System (WMS), Warehouse Control System (WCS) or other material handling type system where the cartons can be diverted to or quarantined in a predesignated audit area.

## The Landscape

Retailer operators continually look for ways to cut costs, improve flow and shrink the total purchase order (PO) life cycle of their inbound supply chain. This is why, for example, retailers require vendors to consolidate freight, include a UPC and MSRP on merchandise, pack cartons for specific stores or in designated size runs (prepacks), and turn to supplier ASNs to speed up the receiving process. The more tasks that can logically be completed upstream in the supply chain, the lower the costs to both the retailer and the vendor.

The ASN is an incredible invention. It is essentially an electronic packing slip that describes the items included in a shipment for a particular PO. The vendor labels every carton (or pallet) in the shipment with a unique barcode or license plate known in the industry as a GS1-128 label. ASN data is sent to retailers using Electronic Data Interchange (EDI) via an EDI-856 transaction that can include the carton labels, the contents of each carton as well as high level information about the shipment itself.

ASNs offer tremendous value for retailers. When received without errors they can be used to pre-allocate bulk shipments for trusted vendors, pre-receive shipments to be confirmed on the receiving dock, plan staffing, and even stage trailers. However, when an ASN fails during the transmission or translation stage, this can have a significant effect on merchandising plan execution. These transmission or translation failures fall into one of two categories: technical failure or business rule failure.

Technical failures are generally rejected and the sender should be contacted with specifics related to the reasons for the failed transaction. Vendors are expected to make appropriate changes and retransmit BEFORE the merchandise arrives at the retailers receiving dock. Examples of technical failures are missing mandatory fields, duplicate cartons and wrong syntax in a field. In the case of a technical failure, many retailers will create a chargeback for an unusable ASN.

Business rule failures generally fall into two classifications: Pass with Errors and Quarantined. As one might expect, the ASNs that Pass with Errors (sometime called pass with exceptions) are useable technically but have some other problem that needs to be noted. Examples of a Pass with

Errors transaction include missing mandatory fields, invalid data in certain fields and early or late ASNs. Quarantined ASNs are generally more disruptive and cannot be used until some action is taken either by the sender or the receiver. Examples of Quarantined ASNs include item on ASN not on PO, item on ASN but unknown to the retailer, or item on ASN but not on order for the associated destination. These types of errors can cause an entire shipment to be refused or POs to be changed to match the ASN in order to be received. Neither option is good but it is better than the vendor putting items in the carton that are not transmitted on the ASN.

If at all possible, when a transmission or translation failure is identified, the best practice is to make every attempt to resolve the problem before the merchandise arrives at the DC. If this happens, it can save both handling costs and wasted man-hours in the DC or warehouse. In the case of business rule failures, many retailers will create a chargeback for failing the business rule and requiring additional work.

## DC Vendor Audits H2

Retailers perform vendor audits in the DCs or warehouses for a variety of reasons. While requirements and methods vary, all are designed to help the organization reach their organizations goals such as DC operational efficiencies, floor ready initiatives and accurate inventory. “Trust, but verify” or “you can’t improve what you don’t measure” are the rallying cries of many DC audit programs.

DC audit programs offer varying degrees of value and some even question why they exist. Many tend to be inadequate because they generally are limited in scope and very manual. Forward-thinking retailers believe a better approach is to combine an automated interrogation approach to a manual data collection process when related to vendor ASN audits. The manual data collection process includes an auditor and a scanner scanning cartons and answering questions about the items, cartons and shipment. The system then determines any discrepancies to the ASN or PO based on what the associate scanned.

*"I have never found the law of diminishing returns related to adding QC auditors in my DC because the more we audit, the more problems we find. Still, I don't want to scan 100% of all Vendor DC shipments for obvious reasons. This is why we asked Traverse Systems to build a Vendor Performance Classification System. We figured, let's spend more time auditing those vendors who historically have problems. We still audit every shipment, we just audit a smaller percentage for vendors who have higher accuracy rates."*

**Jim Rawlins**

Former Senior Vice President of Logistics

## The Challenge

Too many retailer operators let the cost savings related to ASN receiving blind them to the reality that vendor ASNs are not 100% accurate and rarely make the leap that an inaccurate ASN creates inaccurate inventory. Vendor ASN certifications is another problem. Some retailers require a minimum number of passing audits to certify a vendor to ship ASNs. Once vendors are certified, they are rarely audited again. Whether they do this to save labor costs, shorten DC cycle times or they believe the vendors are 'good enough' does nothing about the fact that vendors continually make mistakes. What happens if the vendor performs 100% audit on all of their outbound shipments until they get certified? What happens if they put the wrong carton labels on the wrong cartons? Below is a list of items that can cause accuracy problems at the vendor and why retailers should audit at least a small percent of EVERY vendor shipment:

- ✓ Vendor just implemented a new WMS
- ✓ Vendor hired a new cheaper, less dependable 3PL
- ✓ Vendor got busy and increased the number of new hires or temporary laborers
- ✓ Vendor generally has bad processes and no technology
- ✓ Vendor has decent technology and bad processes
- ✓ Vendor performs 100% outbound audit until they know they are certified
- ✓ Vendor performs 100% outbound audit on the last x number of cartons on the trailer

A retailer's reluctance to audit carton contents and compare them to the vendor ASN data assumes every vendor employs

best-in-class picking, packing, and shipping technologies. It also assumes that every vendor deploys engineered processes designed to ensure ASN records for all cartons are accurate. ***In the complex modern extended retail supply chain, this is an unacceptable risk!***

In a perfect world orders are executed exactly as directed by the merchandising plan, ASNs are 100% accurate, receiving operations are perfect and there is no impact on inventory accuracy.

However, years of data from multiple retailers, our experience and the experience of our retail customers and supply chain industry colleagues, make it clear that vendors with perfect carton accuracy do exist, but they are the exception. As a result, inaccurate ASN cartons create inventory overages and shortages that manifest themselves in poorly executed merchandising plans, lost sales due to out-of-stocks or expensive, unnecessary inventory that may never make it to the sales floor.

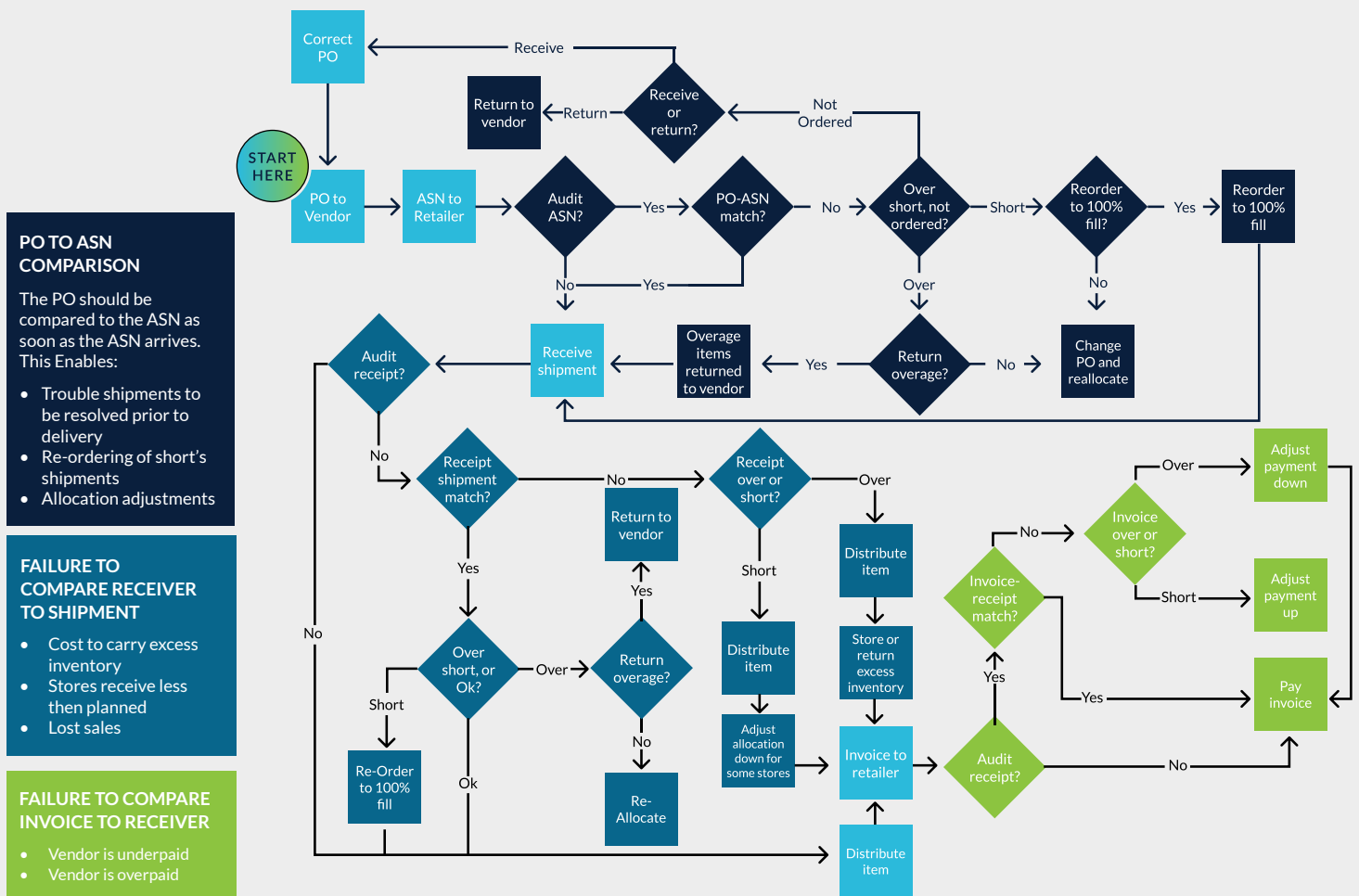
### Let's Break This Down

If a vendor packs an item in a carton that's not included in the ASN transmission, or if they fail to pack an item that's included in the ASN transmission, and the retailer blindly accepts the ASN as accurate, the retailer's inventory counts will be overstated and/or understated. We hear retailers comment all the time about not being concerned with carton accuracy as long as they do not get shorted. This is disappointing and has similar effect on inventory as a checker at the POS scanning a single item several times instead of each item individually. They both cause inventory problems.

Even if the total number of items in the carton matches the ASN, inaccurate item-level ASN details will create costly inventory problems for the retailer which directly results in lost sales, costly excess inventory, and lost profits.

The process flow graphic below further illustrates the challenges for retailers and where things can potentially go wrong.

## ASN ACCURACY AND THE PO LIFECYCLE



### How frequently does the ASN differ from the actual carton contents?

In a study conducted by Dr. Brian Gibson of Auburn University, he concluded that after years of continuous improvement in this area, the retailers included in this sample were able to reduce the error rate to 3.4%, by deploying a best-in-class vendor compliance solution that included fill-rate as a metric.

A summary of the study is included below. The complete study is available from [www.traversesystems.com](http://www.traversesystems.com).

## The Impact

As indicated in the summary graphic below, a 5.8% error rate over one million cases, at an average carton value of \$100, will create \$5.8 million in inventory errors.

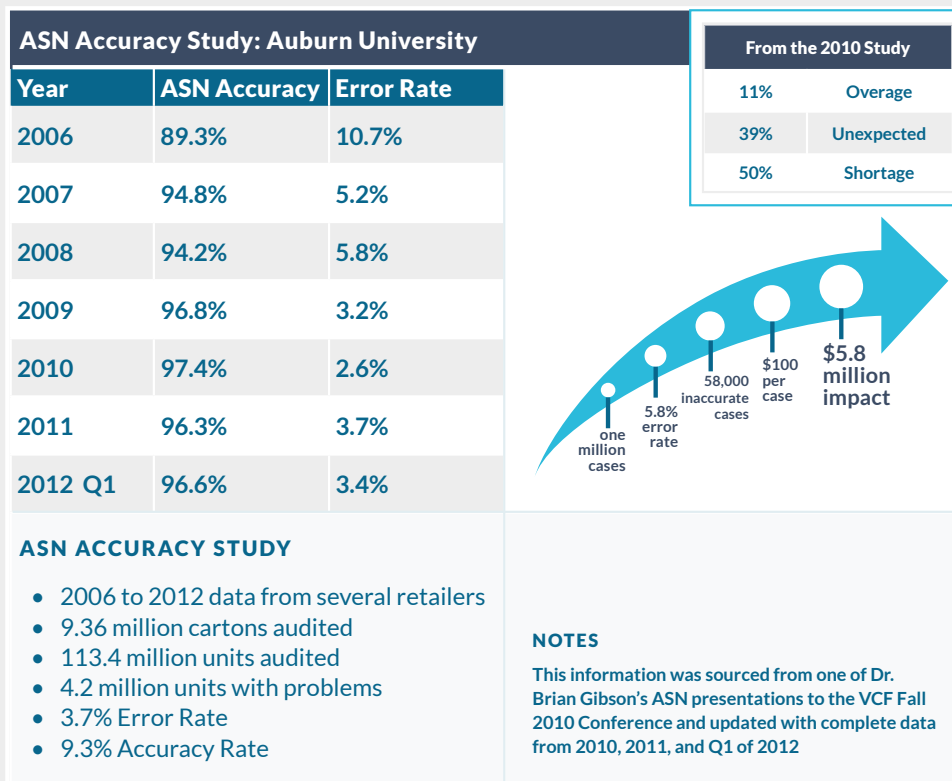
## Ghost inventory

Even small quantity errors that appear to be insignificant can have a tremendous impact on sales. If you consider replenishing merchandise with small quantities and a great number of UPCs, inaccurate inventories can result in “ghost” inventory (i.e., the inventory system thinks you have 3 when you actually have 0). If your order point is 2 for a particular item, and you have a ghost inventory of 3, it’s impossible to sell one to get to the automatic

reorder point. Multiply this scenario over tens of thousands of items in hundreds of stores and you can see how ghost inventory can have a significant impact to the bottom line.

## Negative Sales, Negative On-Hands

If you have been working in retail for even a short period of time you hear the term negative sells or negative on-hands. This occurs when the inventory count of an item is less than zero, meaning the store has sold more than what the system showed they had on hand. This is the opposite of ghost inventory. This can frequently happen in concert with ghost inventory, so if you see negative on hands, there is a high probability you have ghost inventory for related items.



## Increased Staffing

To offset the large ASN error rate, some retailers have taken the approach of deploying an “army of auditors” to scan all carton contents. Assuming that the retailer is able to capture the results, evaluate vendor performance and communicate their findings to necessary stakeholders, the army of auditors approach can reduce the impact of inaccurate ASNs.

Audit percentages vary by retailer but are often in the 2-5 up to 10% range. Unfortunately, hiring, re-hiring, training, and equipping an audit army is an expensive proposition.



## Traverse Systems

As former retailers, our experience is that increased staffing may be helpful, but can also be both inefficient and inadequate. We recommend retailers focus their attention on those vendors whose previous supply chain performance indicates an unacceptable level of risk for inaccurate ASNs while minimizing audits for those vendors whose ASNs are more likely to be accurate.

Some vendors may require 100%, while others may require 10%, and still others might only need a 1% audit. The percentage of units or cartons audited are weighted and based on past performance.

### Vendor Performance Classification Solutions

The Traverse Systems Vendor Performance Classification Solution enables efficient, targeted auditing. It uses past vendor carton accuracy at the category level to classify vendors into what essentially is audit levels. The audit level is what drives the percentage of cartons to be audited. The audit results are analyzed on a monthly basis and the application recommends vendor/category level changes that can be approved or rejected by the retailer. It operates at the vendor/category level because vendors can have different quality levels for different types of merchandise. Consider apparel and shoes for this example. Why audit the same percentage if one demonstrates a higher accuracy than the other?

The audit level information from VCS can be sent to a WMS on a periodic basis to drive auditing during the receiving process. However, the VCS was designed to be an end-to-end solution. When ASNs are received they are interrogated by the VCS and, based on a number of known variables, cartons are selected for audit. The carton list can be sent to warehouse control systems (WCS) and the cartons diverted into an audit area within the DC. The VCS audit levels are configurable and managed by the retailer themselves which provides the flexibility to customize the solution to their own engineered standards by changing key values or adding audit levels.

Companies can also use the solution to create temporary targeted audits for any number of variables which would override the vendor/category classification if it has a higher audit percent. The following are some examples of how the

Vendor Classification is utilized by existing clients:

**Scenario 1:** Client A came from a retailer/vendor meeting and the retailer was concerned about the vendor's carton accuracy. Client A has the flexibility to set this vendor up to be a 100% audit for the next two months to address their concerns. Once confidence has been restored, the audit percentage can be reset to a lower level or the vendor will automatically return to their previous classification.

**Scenario 2:** Client B just completed an annual inventory and a few departments performed below the acceptable shrink level but Client B is unsure of why. Client B added an exception to audit 50% of all shipments for only these departments over a specified period of time to gain increased visibility into those departments.

**Scenario 3:** Client C has a concern about carton accuracy for new vendors. They have a rule that forces the first 10 shipments for new vendors get a 100% audit to get a better picture of their accuracy. These new vendors then move into the normal classification flow based on their performance during the trial period.

**Scenario 4:** Client D has a requirement to audit 20% of all jewelry vendors. Rather than having to identify all of the vendors and any new vendors, Client D sets up a special audit level for the jewelry department(s). Now anytime an ASN is received for one of those departments, 20% of the cartons will be selected for audit.

*Dr. Gibson concluded that after years of continuous improvement in this area, the retailers included in the study sample were able to reduce the carton error rate from 10.7% to 3.4%, by deploying a best-in-class vendor compliance solution that included ASN Accuracy (carton accuracy) as a metric.*

## Conclusion

In a highly competitive retail landscape both online and in physical stores accurate inventory down to the item level is imperative to success and customer satisfaction. One significant and controllable aspect to accurate inventory involves validating a vendor's ability to put in a carton what they are telling the retailer is in the carton through the ASN data. We call it ASN accuracy. Vendors with poor accuracy potentially cause inventory accuracy for retailers.

Do you blindly accept the ASN from the vendor without verifying the contents match? Do you know how accurate your vendor ASNs are? What was your Vendor ASN Accuracy last month? Who are the worst performing vendors in terms of ASN Accuracy? If you can't easily answer these questions, you might consider contacting Traverse Systems.



### ABOUT TRAVERSE SYSTEMS

Traverse Systems is an interdisciplinary team of supply chain professionals. Our suite of solutions provide you with the visibility, consistency, and clarity that you need to improve supply chain performance. Since 2000, we have served some of the world's most respected brands including CVS Health, Burlington Stores, Michaels, Tractor Supply, Kohl's, and more.

Traverse Systems is proudly based in Sugar Land, Texas. To learn more, please visit [traversesystems.com](http://traversesystems.com)