



LOADPROOF IMPLEMENTATION & RESULTS FOR GLOBAL INDUSTRIAL

1. Introduction

LoadProof is a Centralized Enterprise Photo Documentation System for Supply Chain (patent pending). Recently a Leading Material Handling Distributor implemented LoadProof in their seven facilities. This document describes the benefits that were accrued and the associated dollar savings.

Michael and Paul Leeds formed Global Industrial in 1949 in Queens, New York, as a supplier of material handling equipment. The company started to deal with electronic products in 1985. The business grew across the U.S. and into parts of Europe through acquisitions of other computer supply firms, with sales of approximately \$180 million by 1990. Global Industrial is incorporated in New York with headquarters in Port Washington. The company offers industrial goods and office supplies through direct business networks.

As they are customer-centred, the company's goal is to deliver the industry's leading products, insights and skills, and operational excellence, all designed to offer a distinct and delightful experience to their customers.



2. Global Industrial Supply Chain - Macro

Picture

Global Industrial has 7 Distribution Centers in the USA, and Canada put together. Having these distribution centers throughout the map helps them to store multiple inventories, and provide faster delivery to their customers. Those centers are listed below

1. Buford, GA
2. Trenton, NJ
3. Pleasant Praire, WI
4. Richmond Hill, Ontario, Canada
5. Lancaster, TX
6. Las Vegas, NV
7. Northeast Calagry, Alberta, Canada

Global Industrial carries products from different brands in their own distribution centres across the United States and Canada and delivers them to the end-users with their 3pl partners. They are the experts in material handling and industrial equipment's for the past 70 years. From their distribution centers, they are shipping approximately 22,000 loads per month. In their Distribution Centers, Goods are stored in bulk, picked and packed into shipments as soon as they receive orders. The efficient shipment processing in their Distribution centres can directly impact the condition of the product delivered to the end-user. In this flow of process the products may be delivered in bad condition to the end-customers not due to their mistake. The faults may not be on them but keeping track of those faults is very challenging. As Global Industrial are in the material handling for almost 70 years they have been using the mobile cameras to capture the photos of the loads and store them in their mobile itself. If they want to retrieve the photos they have to open mobile storage and search the specific photo which was very difficult. The storage capacity of the mobile is not enough to capture all the loads. Also storing enterprise photos in mobile was not a good thing to do. Maintaining those documents for a long time and retrieving of them when needed were not easy and it takes a lot of time. So they looked for an efficient system to store those photos.

"When I found LoadProof, It is a giant relief, I did not have to reinvent the wheel, and we save 80 labor man hours per week by using LoadProof. We started using for Outbound shipments first, from the benefits we have seen, we have started using it for Inbound as well for Returns" – Greg Wilste – Senior IT Manager – Global Industrial

3. Global Industrial Supply Chain - Micro Picture

The main motive of this project to achieve is explained below, They needed a tool to document the loads in every step of their shipment process and that tool should be having enough capacity to capture all the loads leaving their facility.

As a leading Material Handling Distributor, the team has not even spent a single day without any issues regarding the distribution, claims on damaged goods, maintaining the documents and

So in order to overcome all these issues they wanted a single system for documentation of their loads which is also easy accessibility to them. The document they are maintaining is poorly organized, they were not able to get the photos of the product when they needed it and they have to spend a lot of time retrieving it, this activity doesn't add value to their process.

They are handling bulk distribution, shipping 22000 loads per month. Working on all the activities to deliver the product in good condition but still getting damage claims is like all the great packaging and pallet stacking cones gone in vain. So that they needed a perfect solution to reduce the claims and improve the efficiency.

4. What is the Problem?

Global Industrial being a Material Handling Distributor also faced all the challenges like other distribution centers in the supply chain process. They buy products from leading industrial goods manufacturers and ship them to industrial customers that order. It is the job of their shipping supervisors and managers to do the right thing of delivering the products to their customers on time and without any damages.

After getting orders from their customers they are in the process of grouping the shipments and arranging them according to their destinations. Similar products are going to any locations are grouped together so that it can be put in an organized manner.



They are mostly dealing with the expensive electrical industrial products, Hardware appliances, and Heavy industrial equipment which have to be taken care while packing and delivering.

As a Material Handling Distributor they did everything right to make sure products are packed perfectly, with load strapping, adding no stack cones, tight packaging, arrangement of pallets in the truck. Even after taking all these damage control measures, sometimes the product delivered to the customers are damaged. The damages would have occurred after the load left the facility. In order to prove that, they used to capture the photos of the loads before leaving their distribution centers so that they can show the photos and prove mistake is not on their side.

To capture photos they used the mobile camera, memory cards, and PC's or mobile folders to store the Photo. But it didn't help in retrieving the pictures, as they have to go back for storage search for specific folder, then search for the specific photo which required a lot of time.

They needed a central system to document the pictures so that Global Industrial can prove they did their job right. The lack of a central system, delayed in retrieval of pictures affected the Global Industrial resulted in paying the damage cost for a mistake not theirs.

It not only affected the Global Industrial in terms of money but also the long term relationship with their customers. So they needed a perfect solution as soon as possible.

5. What is the Solution?

Global Industrial searched online to find a solution for reducing the claims and found LoadProof which is already used as a perfect solution by many other similar distributors who faced challenges like them in their supply chain.

After a lot of research about the LoadProof performance, they implemented LoadProof in their supply chain.

The team will also take pictures of the packing slip and the Load Quality checklist. The Load quality checklist clearly recorded the shipment material and clearly documented all the arrangements and tests carried out at the time of loading the products.

These images were uploaded to the LoadProof cloud and are available whenever they need them. All they do is log in to LoadProof and type in the Bill of Lading Number or the PO number to retrieve the particular photo if they need them, so that they can demonstrate in what condition the goods left their facility.

6. What are the capabilities that Global Industrial obtained with LoadProof?

LoadProof is a Centralized Enterprise Photo Documentation System for the entire Global Industrial Supply Chain. It also improves the supply chain visibility and creates trust with their customers.

6.1 Super-fast Photo Capture

After downloading the LoadProof app from the app store, Global Industrial users are able to take pictures using their mobile devices in a few seconds and then upload those pictures to the cloud tagging the pictures with appropriate contextual data elements. While uploading pictures Global Industrial personnel are able to add notes, are also able to tag the pictures with the following

1. User that captured the photos.
2. Date when the photos are captured.
3. Time when the photos are captured.
4. GPS coordinates of the location where the photos are captured.
5. Device that was used to capture the photos.
6. Android OS version that was running in the device that was used to capture photos.

The pictures are captured in multiple resolutions based on the plan; the different resolutions that are available are Low Resolution, Medium Resolution and High Resolution. Global Industrial uses high resolution pictures for to capture pictures of documents such as Packing Slip, Bill of Lading, and Trailer Inspection Form.

6.2 Super-Fast Photo Retrieval

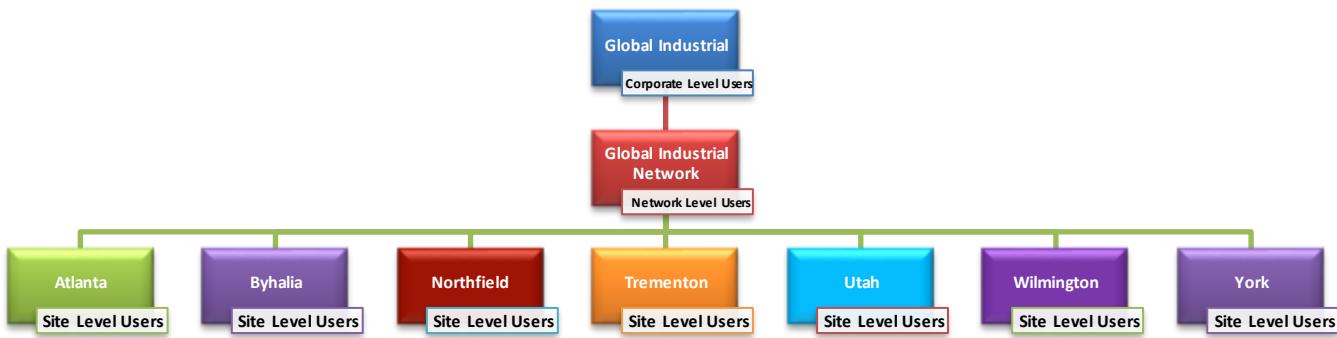
So now the photos are uploaded to the LoadProof cloud, users can easily log on to the LoadProof cloud through the browser and look up photos from wherever they need to. Users log on to the cloud the browser by providing their credentials, which includes a user id and password. Then users are able to input one or more of the contextual data that had tagged the pictures with and then perform a super-fast search. Now users can retrieve the pictures they need, drill down further and look at the pictures individually, zoom in, zoom out, save them locally if they need to (not recommended often) and also examine any notes that was entered and also look at the date stamp, time stamp, GPS coordinates etc. if there is a need to validate any of these data set for each picture.

6.3 Super-Fast Photo Sharing

After retrieving pictures users can share the pictures with anybody else, usually customers, vendors, partners, carriers, cross dock facilities, insurance companies, claims processors, Retailers, consolidation facilities etc. in multiple ways as listed below,

1. By generating one PDF document for the entire load.
2. By sending the entire load to a customer by inputting an email address.
3. By setting up a customer as a user within LoadProof.
4. By generating a LoadProof URL for each picture and then sharing that URL in an email.
5. By generating multiple LoadProof URLs for all pictures and then sharing those URLs in an email.

6.4 Supports Enterprise Supply Chain Network Architecture



Global Industrial has corporate level users set up that have visibility to look at pictures across all the sites

- a) These users could be picture taker users or picture viewer users or both
- b) These users could also be Admin users or Non admin users

Global Industrial also has Network level users that have visibility to look at the pictures at the Supply Chain Network level

- a) These users could be picture taker users or picture viewer users or both
- b) These users could also be Admin users or Non admin users

Global Industrial has site level users that have visibility to look at the pictures at the site level

- a) These users could be picture taker users or picture viewer users or both
- b) These users could also be Admin users or Non admin users

6.5 Integrations with other Systems

1. LoadProof supports integration with other systems.
2. LoadProof is already integrated with Mercury Gate, MyEzClaims System. MyEzClaims is a Freight Claims Processing system that helps shippers processes their Freight claims with multiple carriers faster and easier.
3. LoadProof can be integrated by setting up a field to look up from any other system using a hyperlink so that LoadProof data can be pulled into a browser directly by clicking a link in the external system.

7. What are the Benefits?

The results were fantastic, and Greg mentions in his testimonial, that he is super happy that he was able to reduce the number of labor to two. Now they are not spending a lot of time just looking for pictures. Now they are saving anywhere from 80 hours per week per facility on the time that is spent on organizing the pictures and retrieving the pictures that are needed for his customers.

7.1 Measurable Hard Benefits

1. Now there is one centralized place to get the pictures from, retrieval of pictures is super easy, Global Industrial personnel retrieve the pictures in seconds instead of spending hours and hours looking for those pictures. All the time related to this activity is saved now.
2. With the centralized sharing of pictures is super easy, all Post Consumer Brands personnel have to do is put in the email address and push a button, the person on the other end gets the picture within minutes and there are no more back and forth conversations wasting time. All the time related to this activity is saved now.
3. Their operators started doing a much better job, when everyone knows the quality of the work we are doing is documented. They were able to better serve their customers.
4. They were setting up their both internal DCs as users within LoadProof, basically it is a self-service model, which helps tremendously because now, instead of calling their other DC personnel they can look and download the pictures whenever they need, life is so much better, everything related to the pictures is super easy. All the time related to this activity is saved now.
5. Before their customers will call them and say that an item is missing when they received. Their DC units wouldn't have anything to show that they did their job right. So all they can tell is hey you know what, we will send the missing product in the next load. But now with LoadProof, they can show the pictures and say, hey we did send this item along with the picture of the PO and trailer inspection form. By this way they were able to prove that it is not their fault. All the free quantities they have been doing have reduced now.

Greg Wilste – Senior IT Manager – Global Industrial



LoadProof helps us with the following:

- *Used a 12 year old PC with an old school scanner/camera to take pictures for about 10 to 12 years.*
- *Started using LoadProof - everything is so much easier now; don't need the elaborate infrastructure we used to have that has reduced labor by 2 people.*
- *Been using for more than a year now.*

6. With LoadProof now they are able to capture the Trailer Inspection Form which is critical in industrial goods transportation. The form has some critical factors to inspect such as if the ceiling of the trailer has any holes / leakage and if the floor of the trailer has any holes or water which could cause harm to the expensive product.

Now with picture documentation they were able to capture their shipping conditions such as addition of load bar, air bags between the pallets and also the condition of the seals they fix in the outside door of the trailer. With these additions they were able to prove that they did their job right. It also made them much easier to have that conversation in a rejected load scenario and as they can push back on the customer as we they have proof.

7.2 Intangible Soft Benefits

1. Everybody in the distribution center feels good about the centralized picture documentation system. There is no more uneasy feeling in the stomach when a retail customer reports damage and submits a damage claim. Nobody is losing sleep over damage claims and rejected loads.
2. The visibility to the steps they do to ensure the product is shipped in excellent condition to all parties, customers, Carriers, internal stakeholders such as the Salespeople, Customer Support people, Support Technicians, etc... makes them feel much better, if there is any complaint, and they can immediately pull the pictures and show them. The visibility has enhanced transparency, so the trust with their partners has improved significantly, their reputation in the industrial products supply has improved as well.
3. Inbound Quality Process – They have also started to take pictures in their inbound loads for Quality Audits, with pictures now we are able to push back on the vendors, and also they understand the issues faster and better as pictures are worth thousand words, these results in getting the quality issues addressed faster and better.
4. Ability to set up multiple facilities and multiple personnel at the facility level and at the corporate level is very helpful also. It has eliminated unnecessary calls quite a bit; nobody has to wait for the other person to inspect the loads.

5. It made everyone in their supply chain to be accountable for whatever actions they do. This resulted in better discipline and work culture in their supply chain as a whole.

8. What are the Cost Savings?

The savings are summarized below under different sections as appropriate.

8.1 Savings due to implementing a Centralized Enterprise Documentation System for Pictures & Videos

# of Hours saved per facility per week	80
# of Facilities	7
Hourly rate of employees that manage these pictures	\$40
Total Savings in a year per facility	$80 \times \$40 \times 54 = \$1,72,800$
Total Savings across 7 facilities per Year	$\$1,72,800 \times 7 = \$12,09,600$
Total Savings per Year within the entire Supply Chain Network	\$1,209,600

8.2 Savings due to Reduced Damage Claims submitted by customers

Average # of Shipments in a month	3150
# of Facilities in supply chain network	7
Average value of a shipment	\$1050
Average value of all shipments in one facility in one year	$\$1050 \times 3150 \times 12 = \$39,690,000$
Average \$ lost (0.5% damages) due to retail chargebacks	\$198,450
Average value of all shipments in one year within the Supply Chain Network across 7 sites	$\$39,690,000 \times 7 = \$277,830,000$
Average \$ lost due to rejected and damages claims submitted by customers (0.5% of Total)	\$1,389,150
With LoadProof that dollars lost is reduced to 20%, hence the savings are 80%	\$1,111,320

The dollars lost due to damage claims submitted by customer's results in \$1,111,320.

With LoadProof, that is reduced by 80%. Hence the savings are 80%.

Industry Numbers: The damage claims vary around 2% as per Industry standards. Global Industrial is of 0.5% which results in savings of \$1,111,320

8.3 Savings due to Faster Processing of Freight Claims

Average # of shipments in one facility in one year => 3150 shipments per month x 12 months	37800
# of Facilities	7
Average # of shipments within the supply chain network in one year across 7 sites	264,600
Hourly rate of employees that manage these pictures	\$40
Estimated # of shipments (1% of total shipments) that results in Freight claims within the supply chain network	2,646
Hours saved with faster processing of freight claims within supply chain network (12 hours saved per freight claim)	$2,646 \times 12 = 31,752$
Total dollars saved = $31,752 \times \$40/\text{hour}$	\$1,270,080
Total Savings/Year within entire Supply Chain Network due to faster Freight and Damage Claims Process	\$1,270,080

The total savings with faster processing of Freight and damage claims results in \$1,270,080

Industry Numbers: Average number of Freight claims issued for outbound shipments is approximately 1% of the number of shipments. Global Industrial is around 1% which results in a savings of \$1,270,080 with faster processing of Freight claims

8.4 Quality Audit after Inbound Receipts – Direct Hard Savings

Average # of Shipments in a month	3150
# of Facilities in supply chain network	7
Total # of shipments in one month across the 7 sites	3150 X 7 = 22050
Total # of shipments in 1 year across 7 sites	22050 X 12 = 264,600
Average # of issues identified in Quality Audits = 2% of total shipments	0.02 X 264,600 = 5292
Total hours spent in resolving those issues identified in quality audits – 10 hours per unit	5292X 10 = 52920 hours
Total \$ spent in the labor in resolving the issues identified in quality audits @ \$40 / hour	52920 X \$40 = 2,116,800
As the Quality issues are documented using pictures vendors understand the problems better and resolve them quickly resulting in reduced time spent on clarifying quality issues. This time of spending 10 hours per unit is reduced to 2 hours per unit, so the 8 hours are saved per unit.	
Total Hours spent in resolving the issues identified in Quality audits using LoadProof	5292 X 2 = 10584
Total \$ spent for in the labor in resolving the issues identified in quality audits @ \$40/hour	10584 X \$40 = \$423,660
Savings = \$2,116,800 - \$423,680	\$1,693,120

8.5 Total Savings per Year

Savings due to Centralized Picture Documentation System	\$1,209,600
Savings due to reduced freight and damage claims from customers	\$1,111,320
Savings per Year due to faster processing of freight claims	\$1,270,080
Savings due to reduced labor spent in quality audit	\$1,693,120
Total Savings	\$5,284,120

8.6 How much did it cost to implement LoadProof?

Total Recurring Cost per year = \$6,000

One-time Cost = \$ 70,000

Total savings is \$5,284,120 for a spend of \$76,000, which means, this customer made their money back in less than 0.5 weeks.

Even if the savings due to providing an organized system for photos alone is measured, that is still \$1,209,600, and the customer would make that investment in less than 3 months.

About Smart Gladiator - LoadProof

LoadProof was created as an image repository to allow operators to take images of any damaged, fragile merchandise. The Smart Gladiator LoadProof software is designed to allow companies to have an index-able database in the cloud for all of their pictures.

