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## **Chargeback Management System White Paper – Part 2**



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## How an Effective Chargeback Management System will help address Chargebacks resulting in Cost Savings? – Part 2

### INTRODUCTION

This document describes the capabilities and implementation of an effective chargeback management system. If you review the “Chargeback Management System – White Paper – Part1” and then review this current document, you will get much more value out of this exercise to understand the Chargeback Management System thoroughly. However, it is okay to review this current document by itself as well. If you need access to the Part1 of the White Paper, please email [puga@smartgladiator.com](mailto:puga@smartgladiator.com) or [ebragg@smartgladiator.com](mailto:ebragg@smartgladiator.com)

### TERMINOLOGY

Term	Definition
<b>Supply Chain Community</b>	All the different participants in the Supply Chain form this community. They are manufacturers, distributors, transportation service providers, cross dock operators, lumpers etc.
<b>Supplier</b>	Any manufacturer that manufactures a product. A supplier could also be a vendor that is sourcing products from the far east countries such as China, India, Bangladesh, Indonesia etc. and then distributing the products to its customers within United States.
<b>CYA</b>	Cover your Ass, so when something goes wrong, you can show that it is not your fault and you did your job right and it is due to someone else’s mistake and not yours.
<b>Shipment</b>	It is product that a supplier ships out of their facility, usually this is in the form of pallets.
<b>Load</b>	Same as shipment for the purposes of discussion in this document only.

### CHARGE BACK MANAGEMENT SYSTEM

#### What are some of the capabilities that a chargeback management system needs to have?

The core of the chargeback system is to have the ability to do the following

1. High-speed picture taking,
  2. High speed picture tagging with appropriate meta data,
  3. High Speed picture uploading
  4. A failsafe repository of pictures
  5. High speed picture retrieval capabilities and
  6. High speed picture sharing capabilities
- so that there are no bottle necks added to the current processes.

### HIGH SPEED PICTURE TAKING

This involves capturing the pictures in a high-speed manner, so that there are no bottle necks that get introduced in the current process.

#### Manual Method

- This method involves a mobile app that enables picture capturing super-fast using a simple mobile device, that we all are used to in our daily lives.
- In this process, the operators and or supervisors that own the shipment loading process have mobile devices that are loaded with the mobile app.
- At the time of loading, after loading each pallet, they take out the mobile device, start the app, log into the app with their credentials and take pictures by a few simple taps.

- The mobile app is very simple and easy to use, so anybody can start taking pictures so fast without a need for a long training and or onboarding time.
- The app is intuitive and it is similar to taking pictures in our Smart phone like we do all the time
- The app is available in both iOS and Android operating systems
- The supervisors, managers, directors and executives can also install the app in their personal smart phone and capture pictures as they see fit and upload them to the cloud portal.
- This is usually a good fit for low to medium volume operations, where the personnel can capture all the pictures without slowing down the current process.
- Also this is a good fit for evaluating the feasibility of deploying an app and to compute the resulting gains from deploying such a capability.

### Semi-Automated Method

- This method involves a mobile app, running in a mobile device, that is mounted on a forklift or a shrink wrapping machine or a turret truck or a reach truck or any other equipment or machinery so that personnel can swivel the mobile device and take pictures in a semi-automated fashion.
- This mobile app is a similar mobile app, that is highly intuitive and super easy to use, however has some automated capabilities such that the user can perform one or two steps, while everything else is done automatically by the mobile app
- This is usually a good fit for medium to high volume operations, where the personnel can capture all the pictures without slowing down the current process.

### Fully Automated Method

- This method involves a mobile app, running in a mobile device, that is mounted on a robot or a tripod on wheels that runs around a entity such as a case or a pallet in supply chain in a fully automated fashion.
- This mobile app is a similar mobile app, that is highly intuitive and super easy to use, however has everything automated all the things are done automatically by the mobile app and the robot assembly
- This is usually a good fit for high volume operations, such as cross dock facilities with very high through put that run 24 X 7, where the robot captures all the pictures without adding any bottle neck in the current process.

### HIGH SPEED PICTURE TAGGING

- This involves tagging the picture with the relevant contextual meta data, so that the pictures make sense when someone looks at the pictures at a later point in time.
- Also, this meta data enables quick searching of the pictures for retrieval and sharing with others, to establish proof that the picture taker did a thorough job in completing their task
- And this tagging needs to be done at a high speed, so the process of taking pictures and tagging the pictures does not absorb a lot of time and hence no bottle necks are introduced in the process
- This high speed picture tagging is supported in a flexible fashion in all the three methods of capturing the picture documentation, which are manual picture taking process, semi-automated picture taking process and in a fully automated picture taking process as well.
- The inputting of the meta data is done in a swift manner, so that the user is not spending minutes inputting the data, whatever it may be, entering a PO number or a Sales order number or even choosing an option from the menu

### **HIGH SPEED PICTURE UPLOADING**

- This involves uploading the picture at a high speed, so that the pictures are stored in a repository that is accessible by anybody and everybody in a controllable fashion
- This is done either through a WIFI or a Cellular connection
- Also this includes fail safe mechanisms where in the upload does not go through successfully the user is prompted to try again and again until the upload is successful
- Also this includes ability to park the pictures temporarily in the mobile device, just in case another high priority entity needs picture capture while the current entity is being photographed

### **FAILSAFE REPOSITORY OF PICTURES**

- This involves creating and maintaining a repository, that receives all the uploaded pictures in the cloud that is accessible through the mobile app and the browser
- In this system, the pictures never get lost, the pictures stay there forever unless you delete them.
- This cloud storage like any other cloud storage automatically scales up and scales down, in terms of memory storage, data base storage and compute power for modulated and cost-effective processing
- The cloud storage also provides additional capabilities such as archiving, back ups and mirroring in order to ensure that the data is safely stored for the long term.

### **HIGH SPEED PICTURE RETRIEVAL**

- This includes query mechanism using a Boolean algebra-based logic to retrieve any picture that was uploaded.
- The user would type in the meta data, for example if PO number is one of the meta data that was captured for the context, the user would type in the specific PO number and they can find the data immediately
- Also the ability to search by date provides ease of use to retrieve data in a chronological manner if necessary

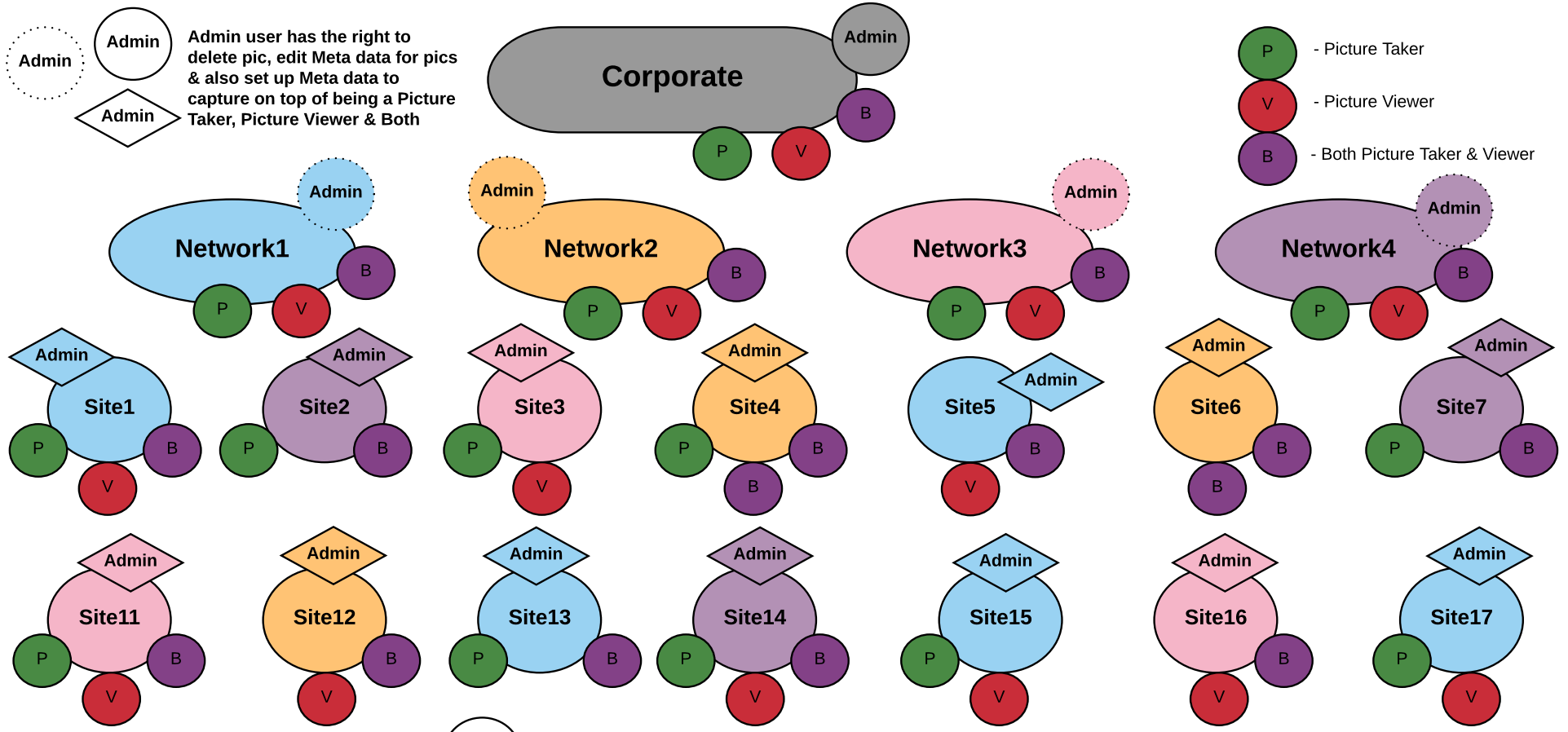
### **HIGH SPEED PICTURE SHARING**

- There are multiple ways to share the pictures.
- The first way is share the picture by sharing the hyperlink of the pictures, instead of following a multistep process, where in the user copies the picture, pastes that picture into their email and then adds the relevant data and then emails it to the recipient
- The second way is to generate a PDF of all the pictures along with the metadata and email that PDF. This PDF is most helpful when the big retailers such as Walmart, Kohls, Staples etc issue chargebacks because often in order to fight these chargebacks, warehouse managers or the vendor compliance personnel often has to upload pictures into the retailer's website. The PDF comes in handy to do just that.
- The third way is to set up the picture requester as another user in the system, so that they can look at the picture as soon as the pics are uploaded, which is just before the load departs the warehouse.

### **ENTERPRISEWIDE ACCESS ON A HIERARCHICAL BASIS**

This system supports a hierarchical user definition model that includes the following

- Picture taking and picture viewing and both users at the corporate level
- Picture taking and picture viewing and both users at the network level
- Picture taking and picture viewing and both users at the site level
- Admin users and non admin users at the corporate level
- Admin users and non admin users at the network level
- Admin users and non admin users at the site level



- Signs up for Subscription service with a Credit Card#
- Sets up Subscription Plan
- Sets up Network Admin Users, Network Users, Site Admin Users & Site Users (Create, Change, Delete)
- Sets up Sites (Create, Change, Delete)
- Sets up Networks (Create, Change, Delete) & Assigns Sites to Networks
- Assigns Site Admin Users & Site users to Sites & Assigns Network Admin & Network User to the Network
- There are 2 corporate admin users allowed for a Corporate entity
- Has ability to upload pictures for any of his site & Has ability to browse pictures for any of his site
- Has ability to change meta data for the pictures
- Has ability to Delete individual pictures or the entire load (including pictures & data) for any of his sites in his network

**Network Admin**

- Usually an Industrial Engineer or a Director of Ops that owns a network of DCs
- Has ability to upload pictures for any of his site
- Has ability to browse pictures for any of his site
- Has ability to change meta data for the pictures
- Has ability to Delete individual pictures or the entire load (pictures & data) for any of his sites in his network
- Defines Meta data parameters that need to be captured for his network
- When the entire network has only one site, then the Network Admin also acts as a Site Admin
- Network Admin can also set up Network users, Site Admin Users & Site Users for his/her network (and sites) only

**Site Admin**

- This user has ability to upload pictures for his site only
- This user has ability to browse pictures for his site only
- This user has ability to Change meta data for pictures for his site only
- This user has ability to delete individual pictures or entire load (pictures & data) for his site only
- This user sets up site level users and assigns them access as to Picture Taker or Picture Viewer or both

- If this user is a Picture taker only user, then this user can log into the mobile device & take pictures & upload them to the cloud storage
- If this user is a Picture Viewer user only, then this user can log on to the cloud storage through the browser & view them
- if this user has both access, then can do both Picture taking as well as Picture viewing
- Can do all of the above at the Corporate level meaning for all the sites in the Corporate entity

**Corporate User**

- If this user is a Picture taker only user, then this user can log into the mobile device & take pictures & upload them to the cloud storage
- If this user is a Picture Viewer user only, then this user can log on to the cloud storage through the browser & view them
- if this user has both access, then can do both Picture taking as well as Picture viewing
- Can do all of the above at the Network level only meaning for all the sites in the Network only

**Network User**

- If this user is a Picture taker only user, then this user can log into the mobile device & take pictures & upload them to the cloud storage
- If this user is a Picture Viewer user only, then this user can log on to the cloud storage through the browser & view them
- if this user has both access, then can do both Picture taking as well as Picture viewing
- Can do all of the above at the Site level only

**Site User**

## ABOUT THE AUTHOR

Puga Sankara is the co-founder of Smart Gladiator LLC. Smart Gladiator designs, builds, and delivers market-leading mobile technology for retailers, distributors, and 3PL service providers. So far, Smart Gladiator Wearables have been used to ship, receive, and scan more than 50 million boxes. Users love them for the lightweight, easy-to-use soft overlay keyboard and video chatting ability, data collection ability etc.

Puga is a supply chain technology professional with more than 17 years of experience in deploying capabilities in the logistics and supply chain domain. His prior roles involved managing complicated mission-critical programs driving revenue numbers, rolling out a multitude of capabilities involving more than a dozen systems, and managing a team of 30 to 50 personnel across multiple disciplines and departments in large corporations such as Hewlett Packard. He has deployed WMS for more than 30 distribution centers in his role as a senior manager with Manhattan Associates.

He has also performed process analysis walk-throughs for more than 50 distribution centers for WMS process design and performance analysis review, optimizing processes for better productivity and visibility through the supply chain. Size of these DCs varied from 150,000 to 1.2 million SQFT. Puga Sankara has an MBA from Georgia Tech. He can be reached at [puga@smartgladiator.com](mailto:puga@smartgladiator.com) or visit the company at <https://www.smartgladiator.com> and [www.loadproof.com](http://www.loadproof.com). Also follow him at [www.pugasankara.com](http://www.pugasankara.com).

