# eCommerce and the DC How to Keep Operations Clicking

**Sponsored by:** 

**STATALOGIC** 

Presented by:

**Kevin Duffey** 

Director, Integrated Solutions





# Agenda



- 1 Growth of eCommerce
- 2 eCommerce Fulfillment Challenges
- 3 Real-World Example: Retail DC
- 4 Importance of Dimensioning Weighing and Scanning
- 5 Outbound Rate Shopping / Labeling
- 6 Summary & Questions



## Growth of eCommerce





Online CAGR = 10.8% Retail CAGR = 3.5%

Source: Forrester Research Online Retail Forecast, 2012 To 2016 (US)



### eCommerce Fulfillment Challenges



#### DC to customer vs DC to Store

- Unit level orders vs Case level
- Shipping via parcel carriers not full trucks
- Higher volume: Drive efficiency and reduce errors









# Order Picking



#### Historical Retail Distribution

#### **Direct To Consumer**

Large Quantity per line item



1 or 2 pieces per order

- Case or Pallet Quantities

Many Case/Pallet/Trucks to each destination



1 carton per shipment

Personalization (Size, color, etc.); issues are pushed to the store



Distribution center must pick orders specific to the consumer



# **Order Picking**



## Directed pick; eaches vs cases

- Voice, Portable Terminal, Pick to light











# **Order Picking**



## Batch Picking with Unit Sortation

- Well suited for multiple line orders
- Product with little differentiation
  - Garments (size differentiation)
  - DVDs (same size; version or title differentiation)
- Unit Sortation
  - Tilt tray or Small Item Sortation







# Shipping



#### **Historical Retail Distribution**

#### **Direct To Consumer**

Large Quantity per order

- Case or Pallet Quantities



Less than case quantity

Single Destination



Unique destination for every order – Requiring fast delivery in order to Provide High Level of Customer Satisfaction

Dedicated – Contract Carrier



**Parcel Carrier** 



# Shipping



#### **Direct To Consumer**

- Carrier Manifesting
- Freight Cost per Package
- Carrier Compliance Labeling









# Case study: Mid-size Retailer



## Company Background

- Ships case volumes from DC's to stores
- Direct to consumer business done by hand in DC
- eComm orders ship-to-store for customer pickup
- Demands growing for shipping direct

## **Typical Issues**

- Large variation in sizes and weights
- Small envelopes and cartons up to 76" long
- Try It: Pilot project to test automated shipping
- Plan for max capacity of 1,500 cph (25 cpm)

#### **Core Needs**

- Eliminate processing issues due to manual operations
- Address consumer demand for direct shipping



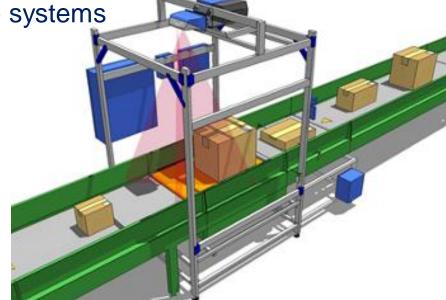
## **Dimensioning Weighing and Scanning**



## How Dim-weigh comes into play

- Formula for combination of volume and weight determines charges
- Different versions depending on shipper: UPS, FedEx, USPS.
- For customers who require free shipping, lowering this cost is key, especially where dim/weigh doesn't apply.
- Equipment needed to address this:







# Outbound labeling/rate shopping



# "Free shipping is the new standard"

Overnight parcel company

- 52% of all e-commerce transactions in 2011 included free shipping
- 75% of consumers are likely to abandon their carts without free shipping





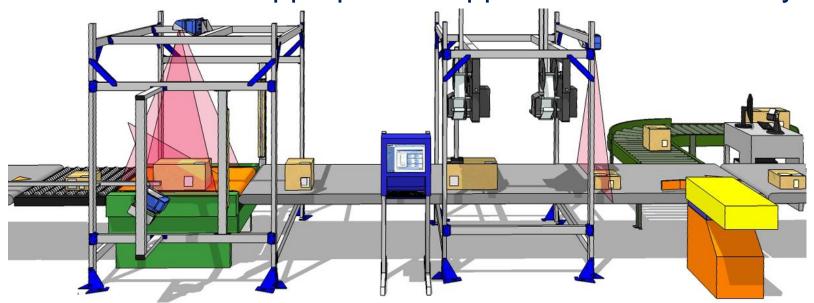




# DWS + Rate shopping/labeling



- Dim/weigh (in-motion Dimensioner/scale/scan)
- Coordinate with rate shopping software to find lowest rate for desired service level
- Apply and verify appropriate label information on outgoing parcel
- Sort cartons to appropriate shipper location and verify





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#### The Solution

High volume, automated shipping needs:

- Dimensiong, Weighing, Scanning (DWS) of cartons
- Manifesting (rate shopping) for UPS/FedEx/Postal, etc
- Automated labeling of cartons with shipping label
- Conveyor and controls to get cartons to shipping doors quickly and accurately



# Case Study: Mid size retailer



#### The Solution

- Turnkey FAST Label automated system.
- DWS (Dimensions/Weighs/Scans) each carton.
- Integrated rate shopping
- Automated shipping label print and apply
- Proper divert of cartons to exception processing and correct shipping lanes.
- Confirmation of shipping information and carton tracking.
- ROI of <1 year on operation.</li>





## **Summary**



- Prepare for the increased volume of ecommerce
- Automate when possible, consider a pilot line to test concepts
- Go for a flexible automated design, to accommodate variations in size and weight
- Choose a partner with a solution that can grow with you without starting over







# For More Information:

Speaker: kevin.duffey@datalogic.com

Home Page: www.datalogicautomation.com

Visit ProMat 2013 Booth #2031



