NPF 2026

FORGING BOLD HORIZONS

How Packages Move Through the Network

Agenda

- Introductions
  - Chief Processing and Distribution Office – Jim Herrmann Senior Director Network Transformation
  - Chief Logistics Office – Stephen Hagenstein Executive Director Logistics Modeling & Planning Engineering
  - Chief Technology Office – Brad McCullough Senior Director Technical Development & Application
  - Chief Processing Office – Tom McGoldrick Senior Director Performance Excellence
- Key Objectives
- Recap of USPS Transformation and Modernization
- Processing Flow within a Facility
- Network Overview

Introduction

- The United States Postal Service provides a range of domestic package services designed to meet varying delivery speed and price.
- Growth in package shipping, driven largely by e-commerce, has increased the importance of understanding how package products move through the postal network.
- This overview summarizes key package products, their service characteristics, and how they move through the USPS processing and transportation network.

Key Objectives

- **Provide a clear overview of USPS domestic package products**, including service characteristics and service standards.
- **Illustrate how package volume is distributed across products and customer segments** to show how demand is structured within the network.
- **Present an overview of package movement through the USPS network**, highlighting key operational differences among products.

Network Innovation

Key Accomplishments

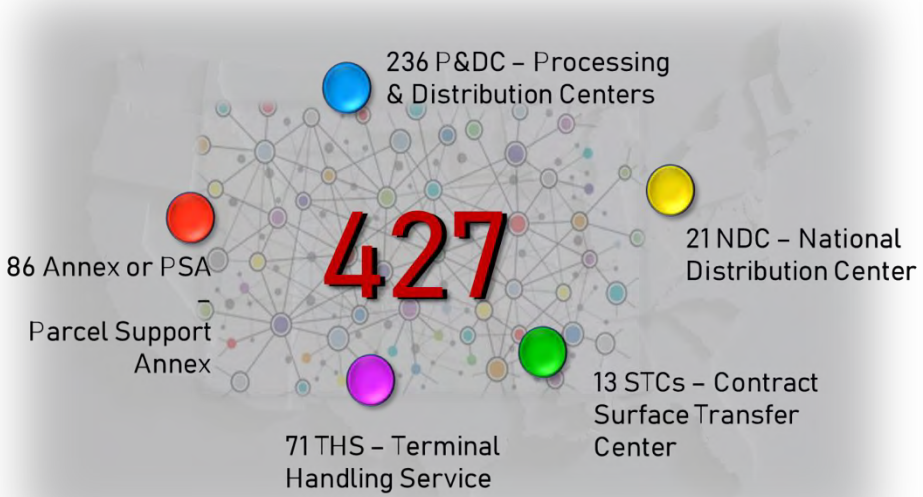
- ✓ Invested Over $20 billion in our new network and delivery infrastructure
- ✓ Activated 14 Regional Processing and Distribution Centers (RPDCs), 56 associated Local Processing Centers (LPCs), and 158 Sorting and Delivery Centers (S&DCs)
- ✓ Achieved 2.5 average days to deliver mail and packages through peak in FY26

Partnership Opportunities

- Market-driven model with a delivery network accessible to those who want it, regardless of size
- Customizable fit, increased processing capabilities, and a capacity to meet nationwide shipping needs

Facility Types – Prior to Network Transformation

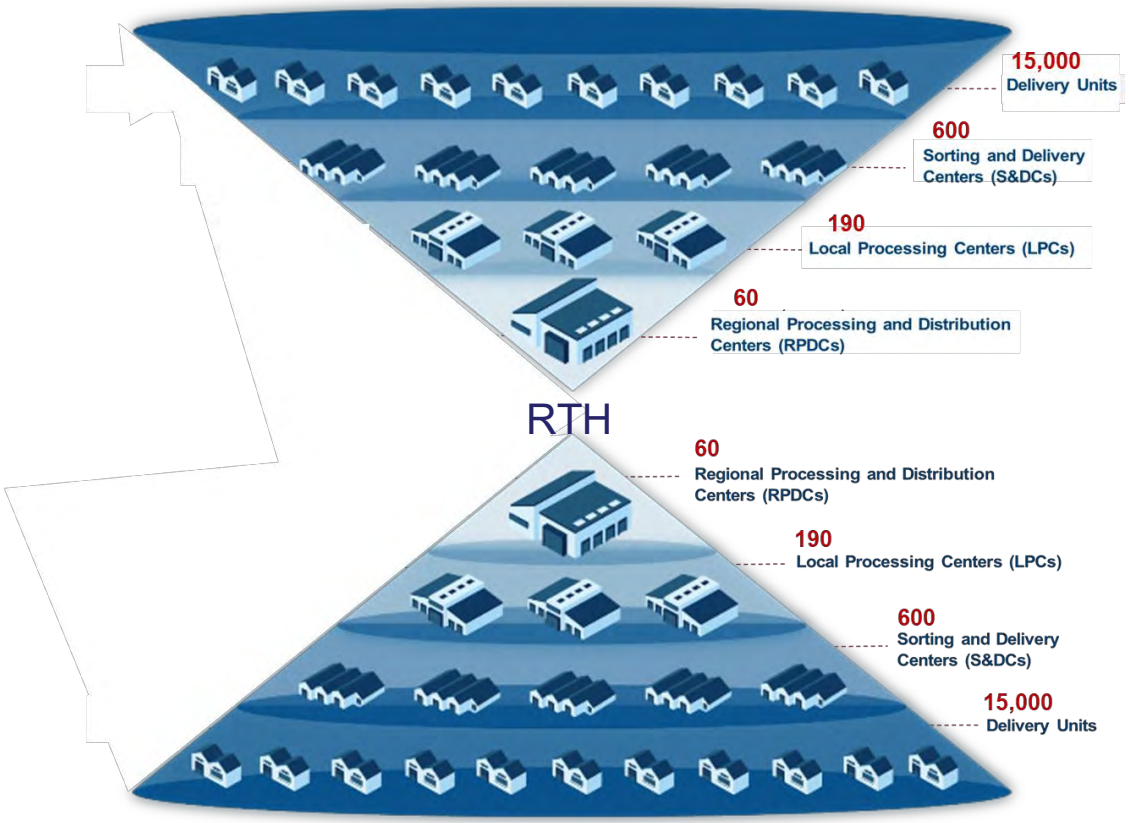
Illogical Facility Network



All Doing Different Things

	Cancellations	Originating Letters	Originating Priority	Originating SPRS	Originating Bundles	Originating Flats	Destinating Letters	DPS	Destinating Priority	Destinating SPRS (Many locations	Destinating Bundles	Destinating Flats
ABILENE P&DF							X	X				
AKRON OH P&DC			X	X					X		X	X
ALBANY NY P&DC	X	X	X	X	X	X	X	X	X	X	X	X
ALBUQUERQUE NM ASF			X						X			
ALBUQUERQUE NM P&DC	X	X		X		X	X	X				X
ALTOONA PA P&DC							X	X	X			X
AMARILLO TX P&DC			X				X	X	X			
ANAHEIM CA P&DC			X	X					X	X	X	
ANCHORAGE AK P&DC	X		X	X		X	X	X	X		X	X
ANCHORAGE AMF							X					
ATLANTA GA P&DC		X	X	X				X	X	X	X	
ATLANTA NDC			X		X		X		X	X		
AUGUSTA GA P&DC						X		X				
AUSTIN ANNEX			X	X			X		X			
AUSTIN TX P&DC	X	X	X	X		X	X	X	X			
BAKERSFIELD CA P&DC			X	X			X	X	X			
BALT INC MAIL MD P&DC			X	X			X	X	X		X	X
BALTIMORE MD P&DC	X	X	X	X	X	X	X	X	X			X
BATON ROUGE LA P&DC	X	X	X				X	X	X		X	
BEAUMONT P&DF				X				X				
BETHPAGE NY P&DC			X				X		X			
BILLINGS P&DC		X	X	X		X	X	X	X		X	
BIRMINGHAM AL P&DC	X	X	X	X				X	X			
BIRMINGHAM ANNEX			X			X	X		X		X	X
BISMARCK P&DF		X	X	X			X	X	X		X	
BOISE ID P&DC			X			X	X	X	X		X	
BOSTON MA P&DC	X	X	X	X		X	X	X	X	X		X
BRADLEY AMF				X			X					
BROCKTON MA P&DC	X	X		X		X	X	X	X	X	X	
BROOKLYN NY P&DC					X	X	X	X		X		X
BUFFALO NY P&DC	X	X				X		X	X			X
BURLINGTON VT P&DC		X		X		X	X	X				X
BUSSE IL P&DC			X	X	X		X		X			
CAPE GIRARDEAU				X			X	X				
CAROL STREAM IL P&DC	X	X		X		X		X	X		X	
CASPER MPF							X	X				
CEDAR RAPIDS ANNEX			X	X			X		X			

A Network that Makes Sense



Logically sequenced mail and package flow in an integrated manner

Facility Types

Regional Processing and Distribution Centers (RPDCs)

- All outgoing operations
- Consolidation point for outbound & inbound network volume
- Cross dock destinating letters and flats to the LPC
- Sort destinating packages to the LPC, SDC, and DU, as appropriate

Local Processing Centers (LPCs)

- Letters and Flats to DPS or carrier route
- Destinating packages to the 5-digit
- Transfer hub to S&DC and DU
- Letter cancellation operations, as appropriate

Sorting and Delivery Centers (SDCs)

- Destinating entry
- Carrier route packages
- Transfer hub to DU

Delivery Units (DUs)

- Maintain current operations

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Transportation Network

Building Lane Density

Majority of pairs do not generate full containers.

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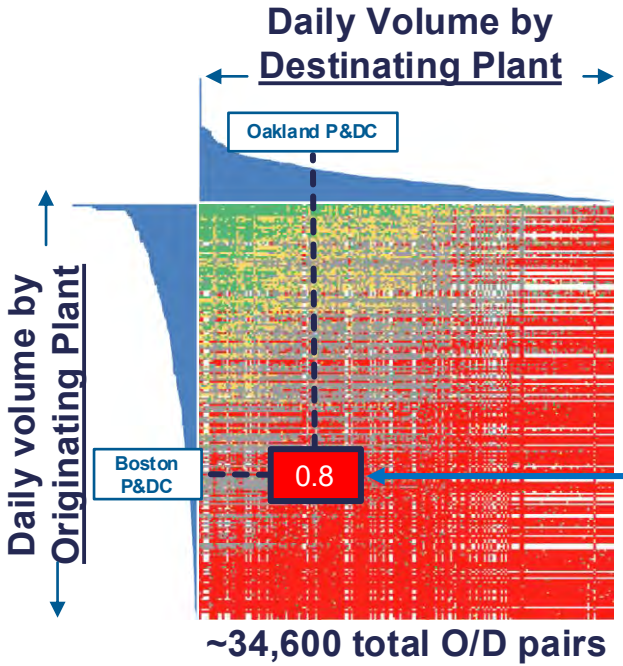
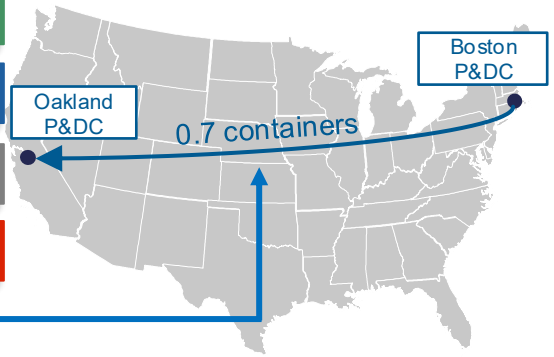
Example: Boston P&DC to Oakland P&DC is a very low volume pair since 2 containers travel daily with 0.8 total containers of volume

Container volume between all O/D plant pairs

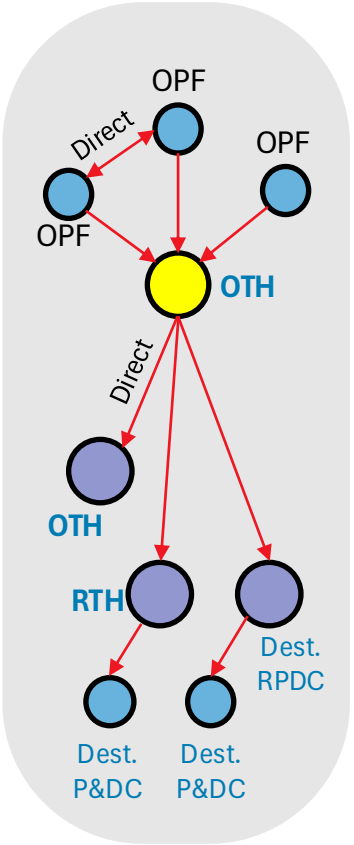


	# of pairs	% of pairs	% of vol	avg # of parcels per cont.
High vol. (10+ cont.)	2.5K	7%	57%	149
Moderate vol. (5-10 containers)	3.1K	9%	18%	141
Low vol. (1-5 containers)	9.8K	28 %	20 %	121
Very low vol. (<1 containers)	19K	56 %	5%	61



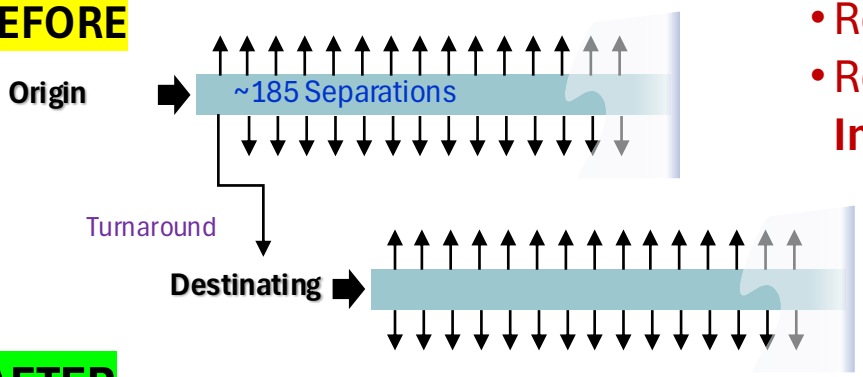
Origin Transfer Hubs (OTH)

- **Functions as an origin processing and crossdocking hub**
  - Small Origin Processing Facilities (OPF) consolidate volume into larger Origin Transfer Hubs (OTH)
  - Reduces the outgoing network nodes
  - Maximize container fill and improve trip utilization



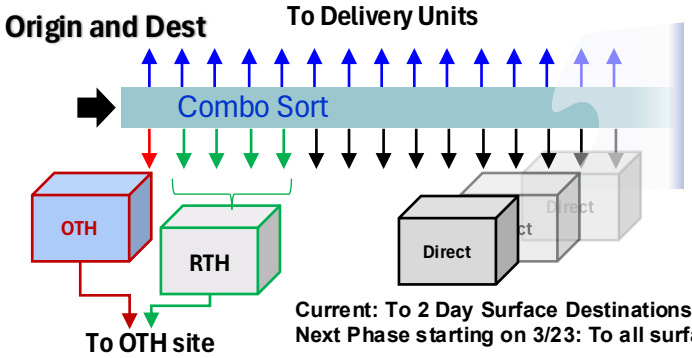
Origin Consolidation:
Originating Processing Facility (OPF) to Origin Transfer Hub (OTH)

OPF BEFORE



- Require many separations
- Require separate **Outgoing** and **Incoming** processing runs

OPF AFTER

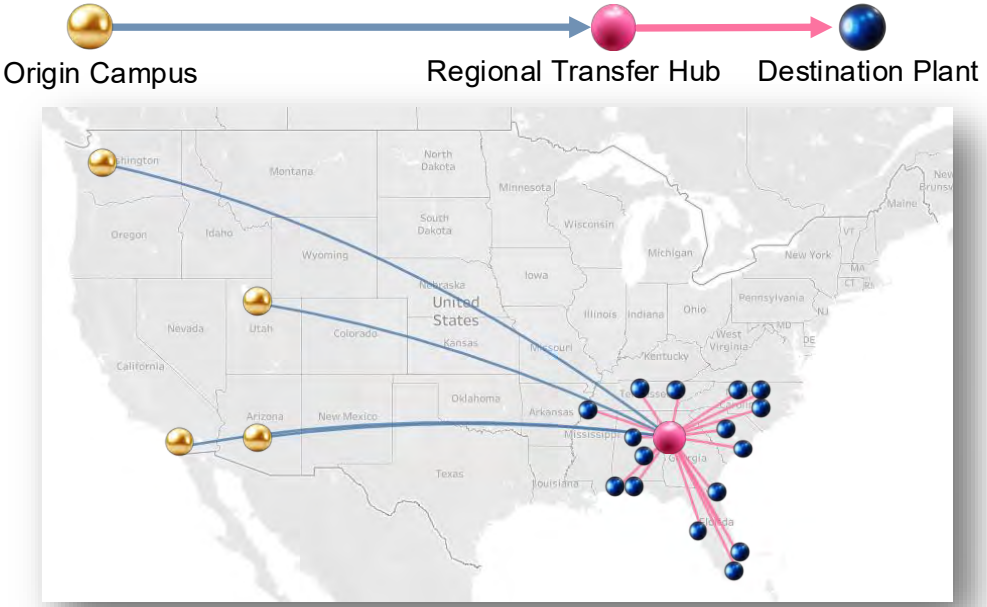


Current: To 2 Day Surface Destinations (300+ ADV)
Next Phase starting on 3/23: To all surface destinations (300+ ADV)

- ❑ Productivity: ⬆
- ❑ Transportation $$: ⬇

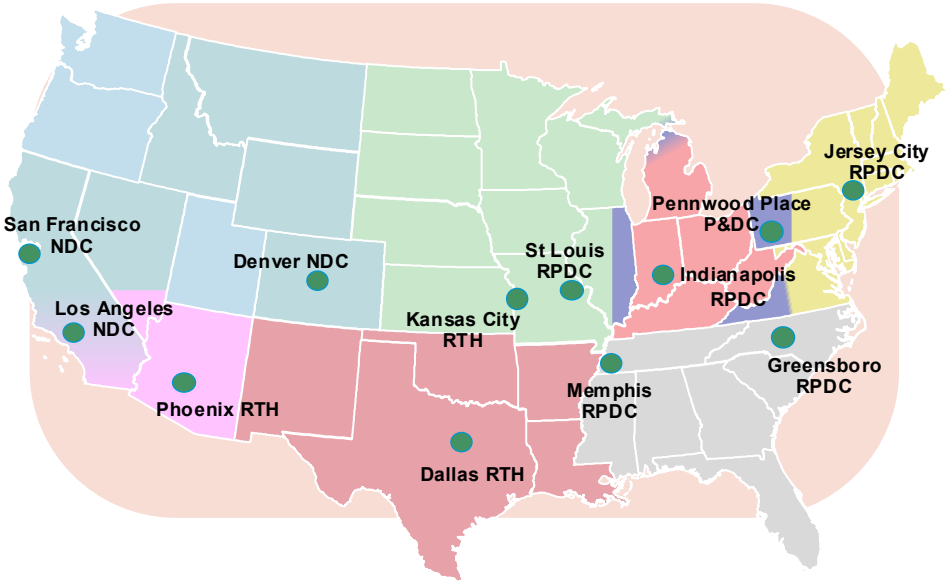
Visualizing the Flow:
Regional Transfer Hubs (RTHs) act as ports of entry into regions

- **Origins sort / combine all RTH regional volume into jackpot:**
  - **Reducing separations / containers**
  - **Reducing trips**
  - **Improving utilization**
- **RTH acts as port of entry into the region and sorts volume to final destinations**



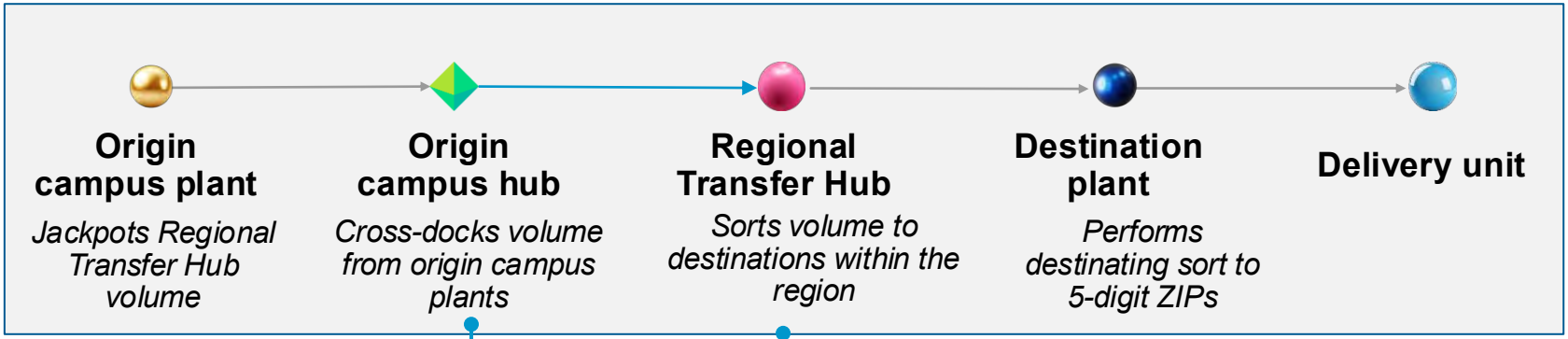
Regional Transfer Hub (RTH)

- 12 Regional Transfer Hubs (RTHs)
- Servicing 7 regions
- Integrated Surface Transfer Center operations
- Equipped with latest sorting equipment
- 6.3M packages move through RTHs daily



Regional Transfer Hub flow

Regional Transfer Hub flow



Cross-dock: containers are transferred between trucks without sorting

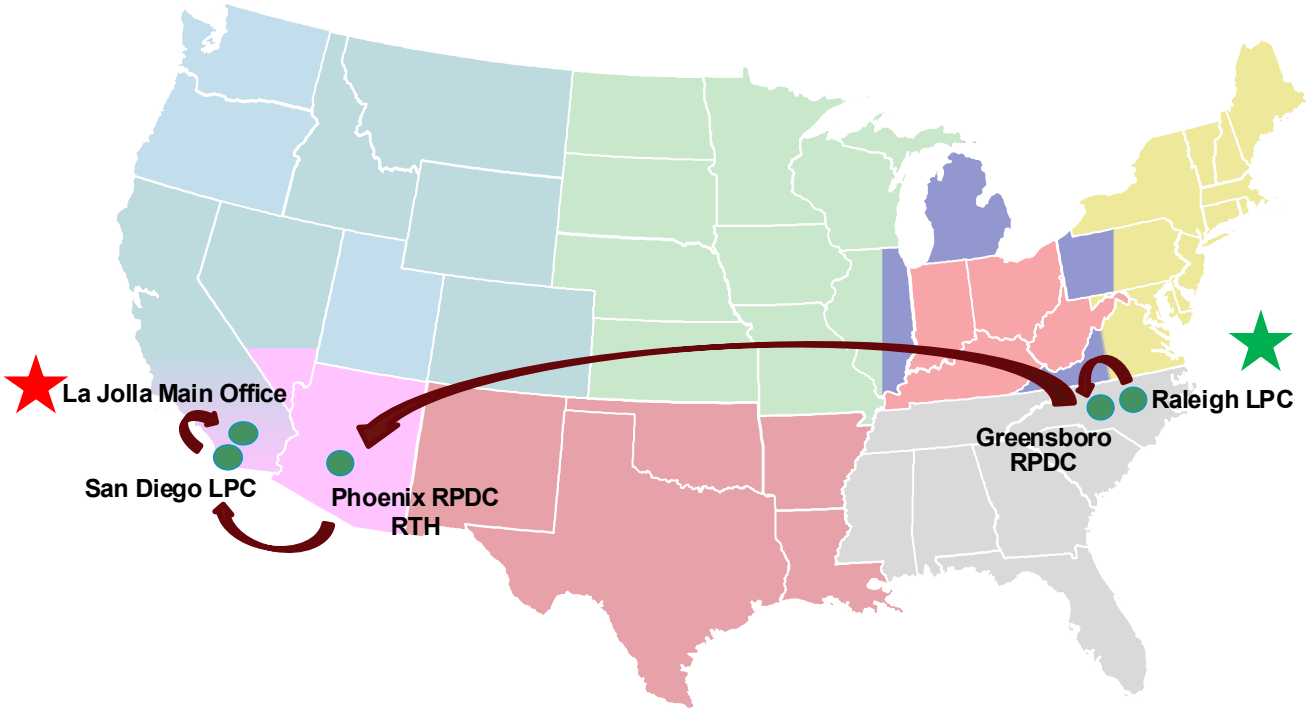
Sort: volume is processed by sorting machines into new containers

Cross-dock: containers to high volume destinations are transferred between trucks without sorting

Regional Transfer Hub flow

Involves cross-docking at origin and sorting at hub

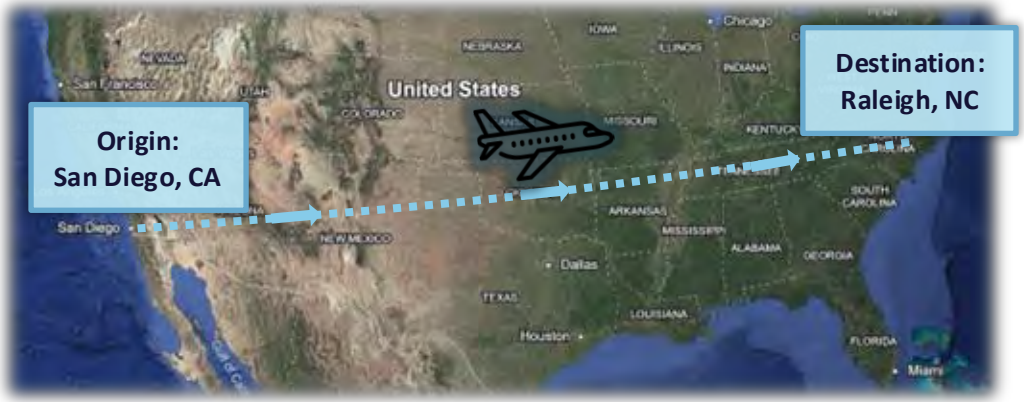
Destination: San Diego



Origin: Raleigh

Air Network

- **Currently, the Air Network carries:**
  - 80% Priority Mail Express volume
  - 46% of Priority Mail volume
  - 6% of Ground Advantage volume



Origin Network

Origin Post Office ->
San Diego LPC ->
San Diego Air Stop
~(0-1 day)

Air Network

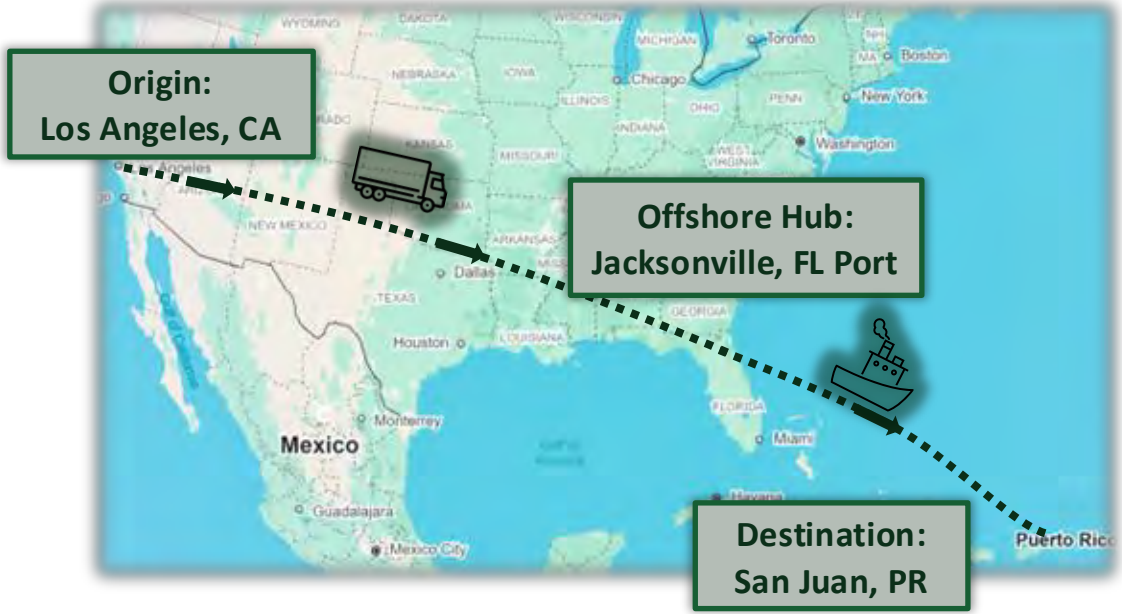
Flies next day via air cargo carrier or commercial airline

Destination Network

Raleigh Air Stop ->
Raleigh LPC ->
Destination Post Office
~(0-2 days)

Offshore Network

- **Offshore Service Standards may take up to 24 days**



Origin Network
Origin Post Office ->
Los Angeles LPC ->
Los Angeles NDC
~(0-1 day)

Ground Network
Los Angeles NDC ->
Jacksonville RPDC ->
Jacksonville Port
~(4-10 days)

Ocean Network
Jacksonville Port ->
Port of San Juan PR
~(4-6 days)

Destination Network
Port of San Juan ->
San Juan LPC ->
Destination Post Office
~(1-4 days)

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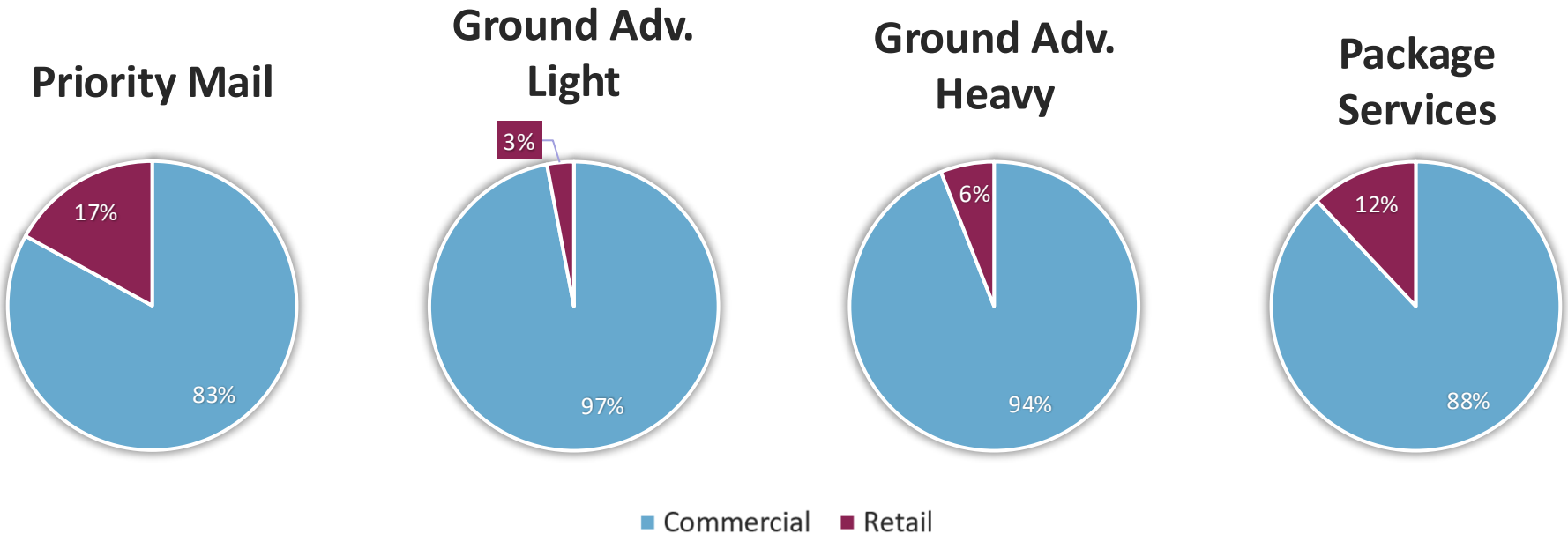
Product Overview

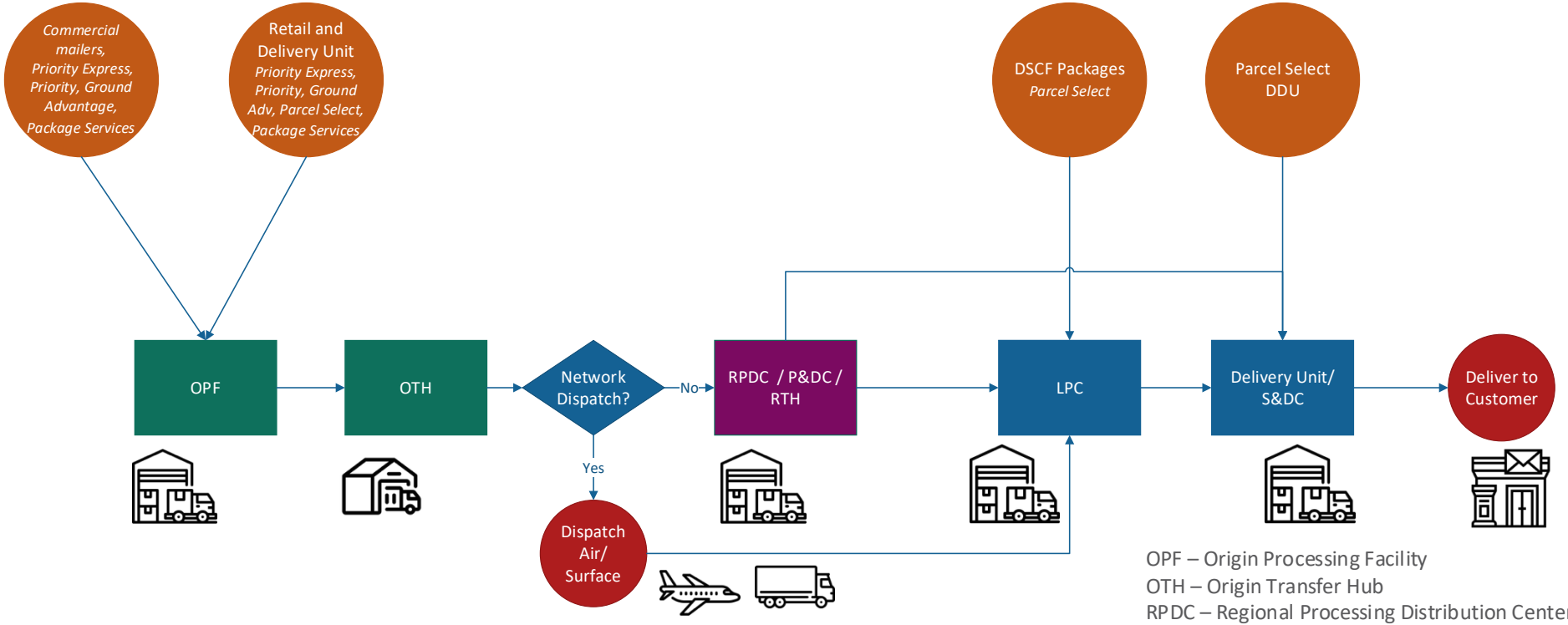
USPS Package Products Overview

	 Priority Mail Express	 Priority Mail	 Ground Advantage Light	 Ground Advantage Heavy	 Package Services
Weight Limit	70 lbs.	70 lbs.	1 oz. to 15.99 oz.	16 oz. to 70 lbs.	70 lbs.
Size Limit (Length + girth)	108 in.	108 in.	130 in.	130 in.	108 in.
Pricing Begin	$33.00	$11.95 (Flat Rate)	$7.30	$8.85	$7.01 (1 lb.)
Service Standard	1-3 days	2-3 days	2-5 days	2-5 days (Offshore: up to 24 days)	2-8 days (Offshore: up to 24 days)

USPS Package Products: FY25 Commercial vs. Retail by Mail Class (Pieces)



Product Type Entry Points



OPF – Origin Processing Facility
OTH – Origin Transfer Hub
RPDC – Regional Processing Distribution Center
P&DC – Processing and Distribution Center
LPC – Local Processing Center
S&DC – Sorting and Delivery Center
RTH – Regional Transfer Hub

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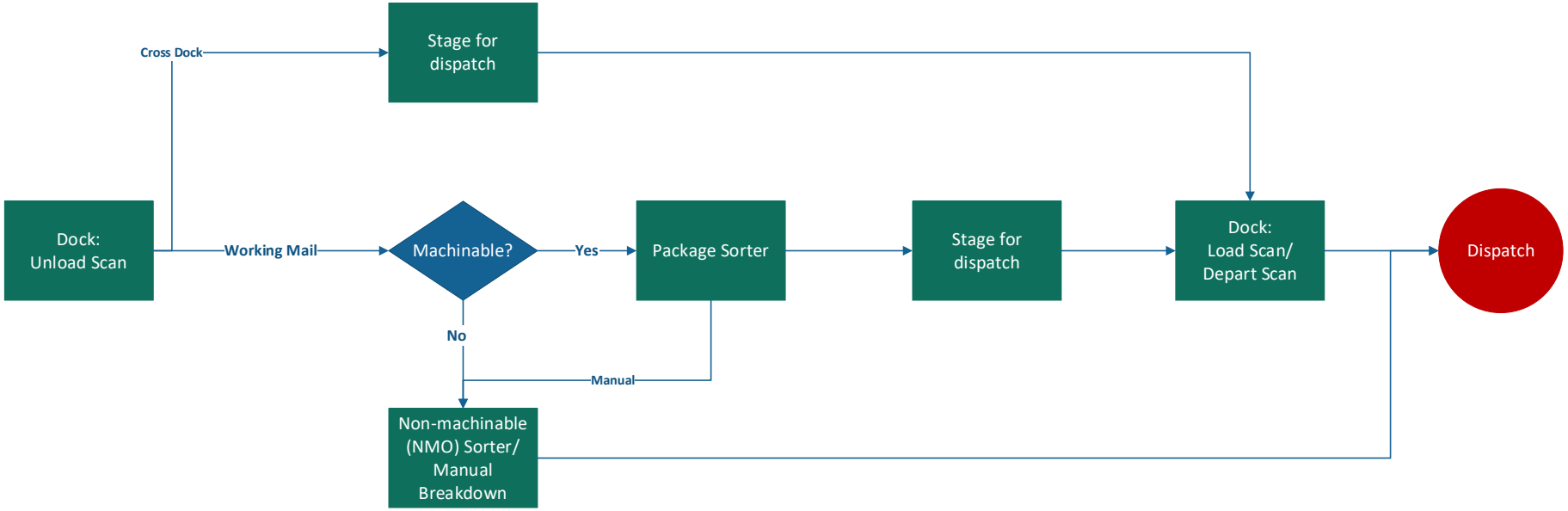
Package Processing Mail Flow
4 walls



No Cohesive Package Sorter Strategy before 2021 Network Modernization

Associated Press. (n.d.). *USPS employees at a mail processing and distribution center* [Photograph]. Retrieved from Associated Press Images.

- NDC Network of package sorting equipment was not sufficient for the increasing package volume.
- Supplemented with legacy APBS machines in the processing centers– limited to smaller packages 12” x 12” x 15” and 20 pounds.
- Delayed investments until volume exceeded capacity, negatively impacting service.
- No comprehensive plan for handling larger packages

Network Modernization

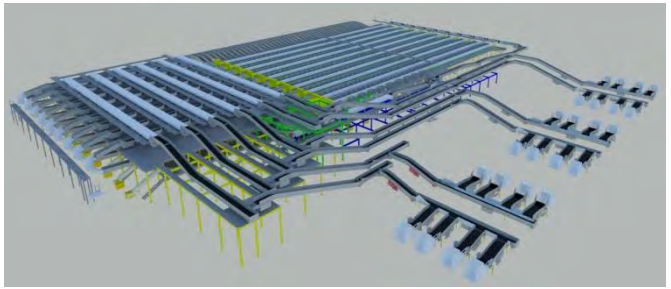
- New sortation technology targeting higher volume to less separations
- Standardization on machinable package size of 15” x 18” x 22”
- Increased automation for large packages
- More then doubled machine count and daily capacity since 2021

United States Postal Service. (n.d.). *3D Architectural Model of sorting technology* [Digital Rendering]. Retrieved from USPS.

Developed & Deployed Matrix Sorter Solutions

- Combines proven components from known suppliers to produce very high throughout, largely parallel system.
- Single system capable of 50,000 pieces per hour in less then half the space of traditional stand-alone sorters
- Aggregates the sorted product into a single container.
- Runs at less than 1% system rejects

United States Postal Service. (n.d.). *Matrix sorter dumpers* [Video]. Stefano Turbati.



United States Postal Service. (n.d.). *3D Architectural Model of sorting technology* [Digital Rendering]. Retrieved from USPS.

Parallel Induction Linear Sorter (PILS)

- Building on the success of the ADUS/SDUS/SIPS
- Greatly increased capacity to over 7,000 pieces per hour
- Additional technology
  - 6-sided scanning
  - Output bin full monitoring

United States Postal Service. (n.d.). *Matrix sorter dumpers* [Video]. Andrey Chuchuva.

ADUS - 2017	SDUS - 2020	SIPS - 2021	SIPS+ 2022	PILS - 2025
Large Delivery Units	Small Delivery Units	Small Processing Plants	Increased Throughput	Replacement for APBS

NMO Solutions

- Cascading Conveyor Sorter
- One sorter for non-standard products ranging from coconuts to carpet rolls

United States Postal Service. (n.d.). *Oversized package on a conveyor belt at a processing and distribution center* [Photograph]. usps.com

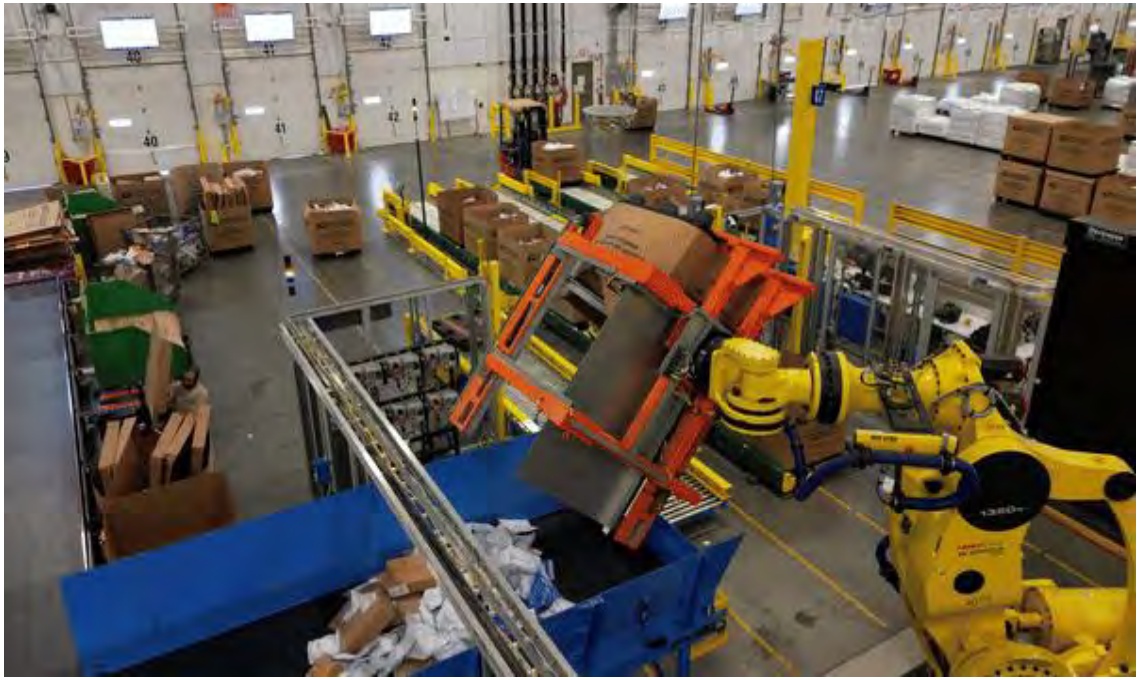
United States Postal Service. (n.d.). *Oversized package on a conveyor belt at a processing and distribution center* [Photograph]. usps.com

- Compact Universal Sorter
- One machine handles:
  - Letter trays
  - Flats tubs
  - Bundles
  - Small packages
  - Non-machinable packages

United States Postal Service. (n.d.). *Letter tray on a conveyor belt* [Photograph]. usps.com

Robotic Feed Systems

- High-Capacity Machines create a need to have automation at Induction
- USPS is investing in robotics to help induct at a high capacity
- Rapid Pallet Tilting Robots (RPTR) have been deployed at the Charlotte RPDC



United States Postal Service. (n.d.). *Matrix sorter dumpers* [Video]. Austin Bouchard.

Thank You

Appendix