

# Efficient, optimized store fulfillment

## @ REI Co-op

March 2023

# How can we reduce cost-to-serve while improving employee and customer experience?

## The Challenge

Store Inventory Fulfillment (SIF) was an effective way of increasing products available online for customers to buy, but had a cost-to-serve many times higher than warehouse fulfillment.

## My Contribution

I was the designer for the app (SOM) that employees use for store inventory fulfillment and led strategy in collaboration with store operations team members.

## Our Solution

A multi-modal approach including updates to employee operating procedures, reporting practices, employee tool updates and integration with an inventory management strategy.

# How can we reduce cost-to-serve while improving employee and customer experience?

## Context

After spending in time with store employees and documenting their workflows and their subjective experience of completing tasks using the app, we identified employee-facing and customer facing opportunities in the space

## This Artifact

Following research summary share-outs I created this deck to tell a unified story of what we learned and how we could leverage it moving forward.

## Next Steps

Determining technical constraints and feasibility for implementing these solutions.  
Further research with customers to understand their experience with SIF purchases.

# Store Fulfillment Opportunity Summary

March 2023

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# Methodology

## Methodology

### Participants

#### Interview Demographics

Store Manager	3	● ● ●
Ship/Rec Lead	2	● ●
Sales Lead	4	● ● ● ●
Operations Lead	1	●
Retail Sales Specialist	6	● ● ● ● ● ●
Operations Specialist	2	● ●

#### Observation stores

Tustin, CA  
San Diego, CA  
Concord, CA  
San Francisco, CA  
Fremont, CA

#### Interview stores

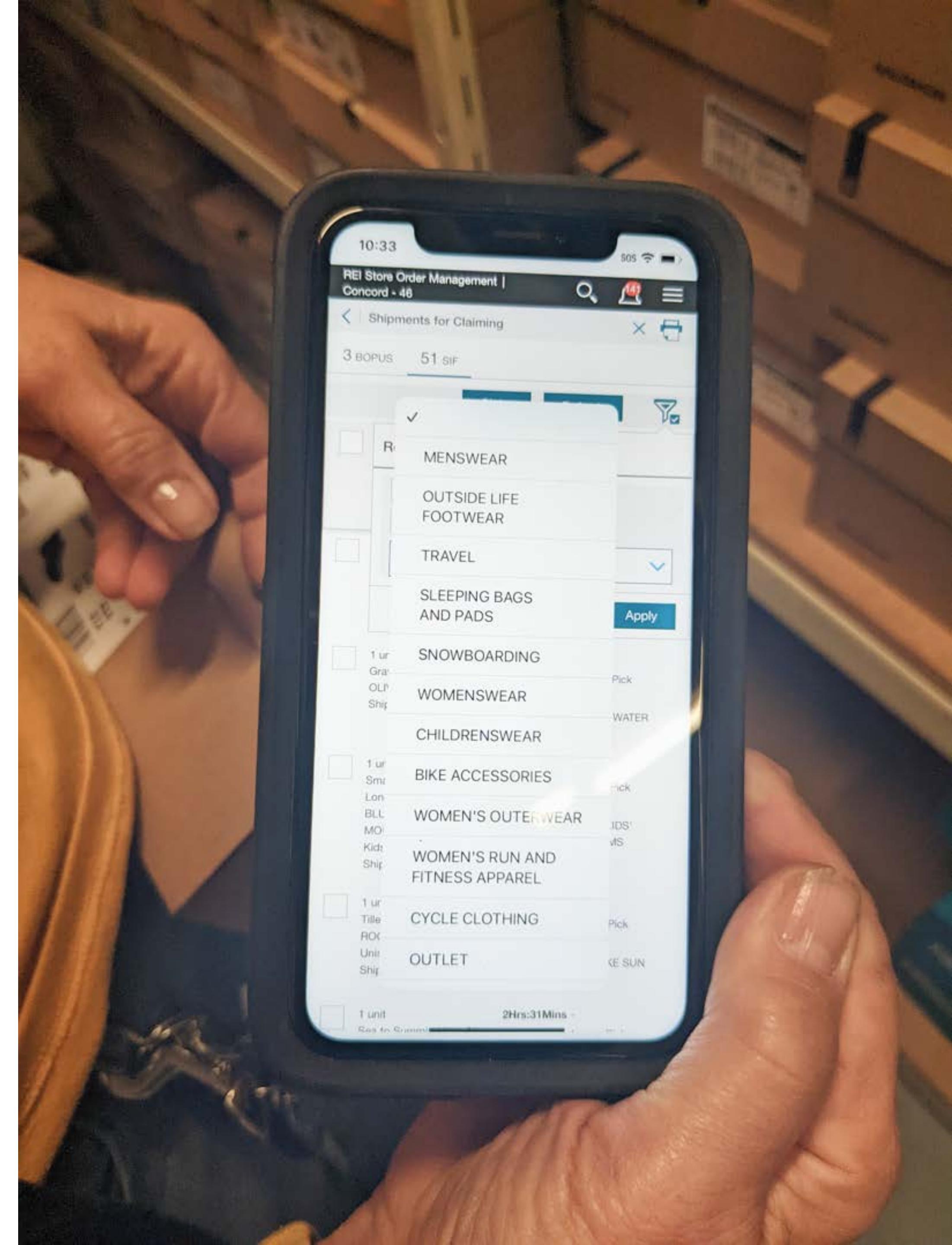
Bloomington, MN  
Rockville, MD

## Methodology

### Process

#### Workflow Analysis

- ✓ Shadowing workers doing a task
- ✓ Understanding input, outputs and tools
- ✓ Performing the task as a user
- ✓ Tracking information flows, power, policy and influence
- ✓ Spatial awareness
- ✓ More objective



## Methodology

### Process

#### Contextual Inquiry

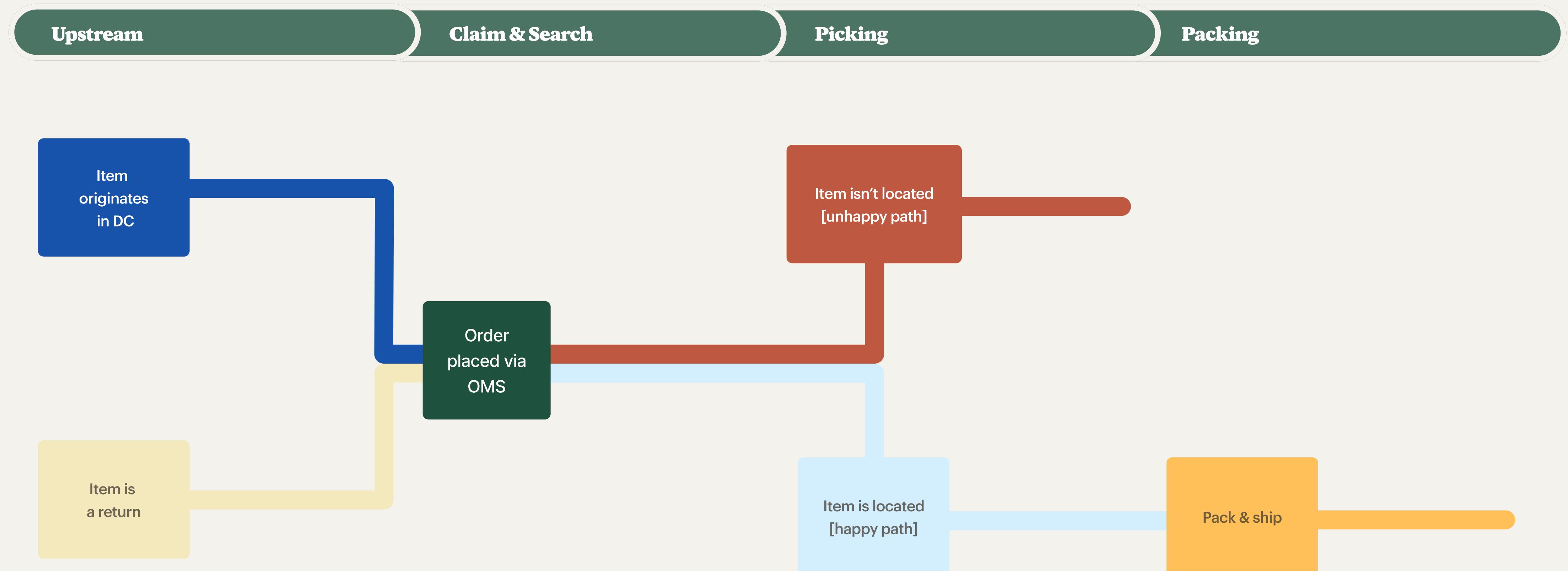
- ✓ Observation specific to the context
- ✓ What people do > what they say
- ✓ Think-aloud and focused questions
- ✓ Understanding feelings and relationships
- ✓ Empathy
- ✓ Identifies latent needs



# Workflow Map

# Workflow Map

## Overview



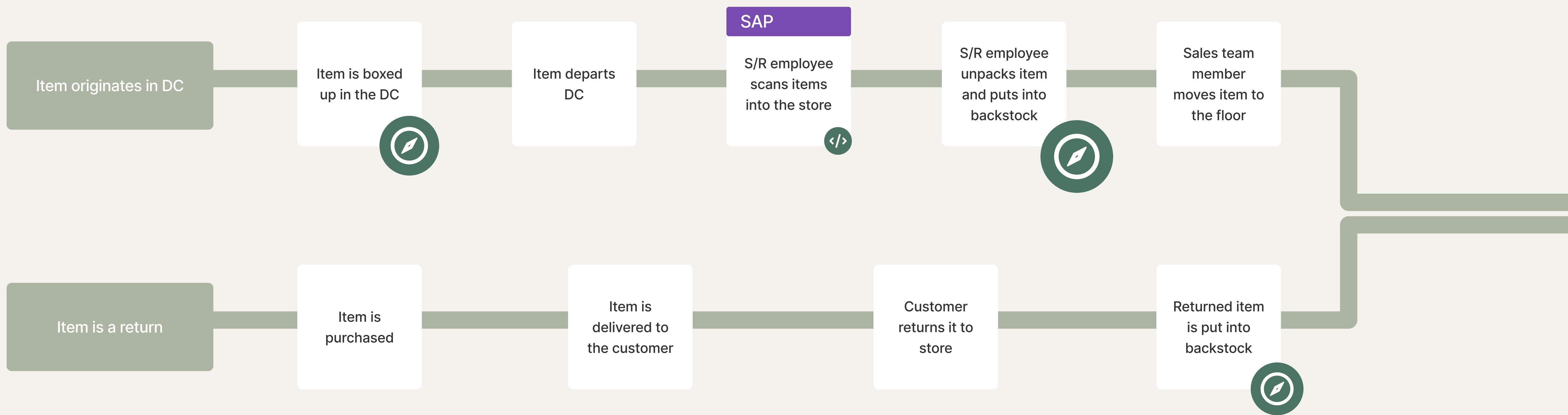
# Workflow Map

Upstream

Claim & Search

Picking

Packing



Employee process opportunity

Software/digital opportunity

Reporting opportunity

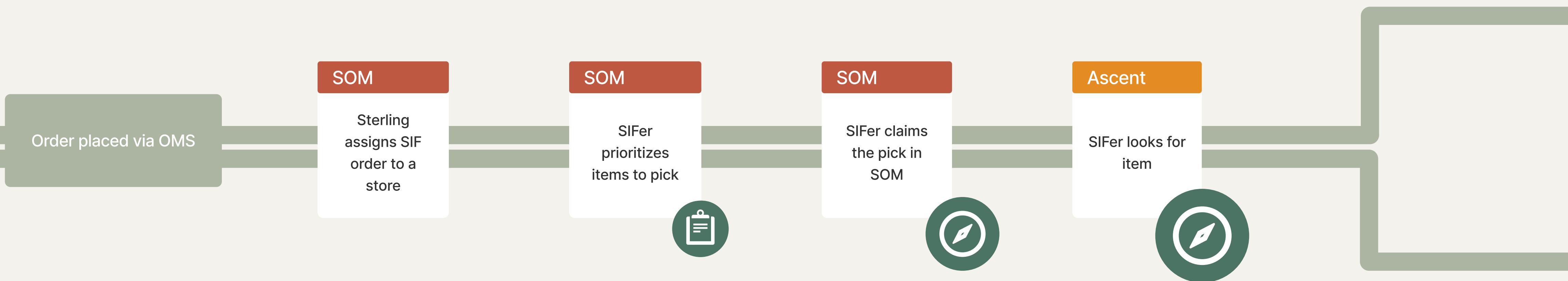
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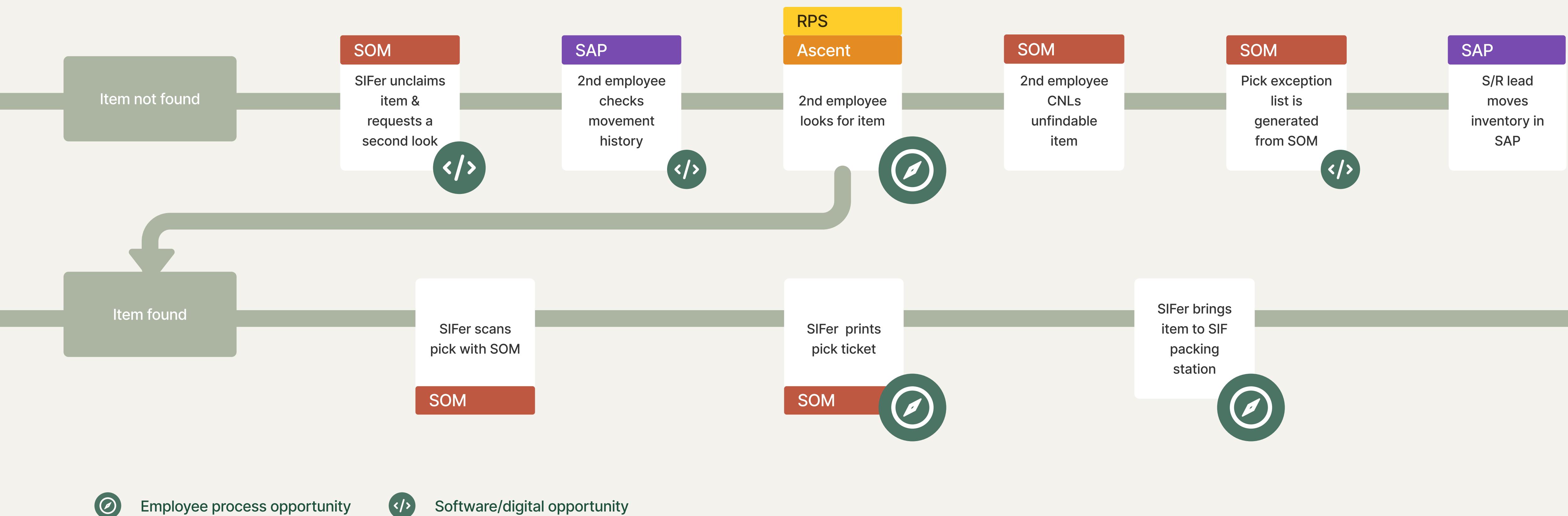
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# Workflow Map

Upstream

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Employee process opportunity



Software/digital opportunity



Reporting opportunity

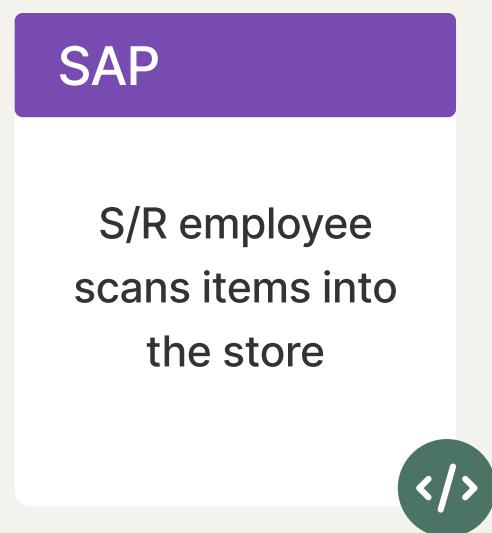
# Employee-facing digital opportunities

“It was a little overwhelming yesterday...So there was a list of things we couldn't find and I shrunk them all. Only I didn't shrink them. I added them. I recognize them. So it's frustrating, and [the S/R lead] gets really mad at me when I do that.”

How might we optimize digital tools to support efficient, effective SIF workflows?

## Employee-facing digital opportunities

Upstream



### Improve scanning functionality for mobile devices

Currently, the scanning feature available in SAP on the MSA is too sensitive and has a tendency to capture other barcodes in the vicinity. Employees have shared they have to cover the barcode scanner with one hand in order to prevent this from happening.

## Employee-facing digital opportunities

### Picking

SOM

SIFer unclaims  
item & requests  
a second look



#### Provide in-app note sharing functionality

Seattle store employees have created their own work-around by using the 'staging location' feature as a way to store and share information about picks between users. Formalizing this practice would support more efficient hand-offs.

SAP

2nd employee  
checks  
movement  
history



#### Provide movement history data outside SAP

SAP access is limited for security reasons and can only be viewed on a desktop. Surfacing 'view-only' access to this info in Ascent or SOM would reduce time spent doing forensics on hard-to-find items and reduce number of people involved.

SOM

Pick exception list  
is generated from  
SOM



#### Connect SOM pick exception list data to SAP

S/R leads are engaging in a daily (or multiple times a day) process of moving inventory in SAP to stay a step ahead of Sterling. This could be automated.

# Employee process opportunities

RETURN TO REI DC

Stories from our stores | Chase

“When it comes to [returned, non-assorted items], good luck. I don’t know of any rules for where they’re supposed to go.”

How might we reduce the search time per pick by standardizing best practices for SIF?

## Employee process opportunities

Upstream

Item is boxed up  
in the DC



S/R employee  
unpacks item and  
puts into  
backstock



Returned item is  
put into  
backstock



### Provide visibility into what is arriving and why

Stores have unpacked boxes going back weeks or months. Sharing info about what is being shipped to stores would support better decision-making around what to unpack

### Unpack all the boxes

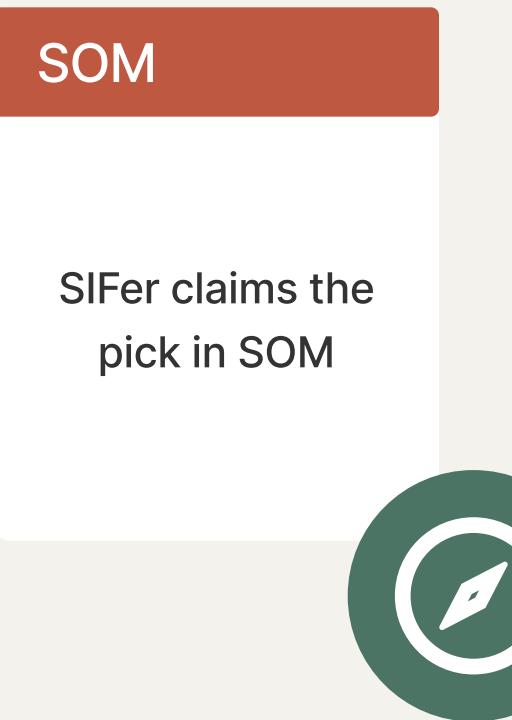
Stores are leaving large quantities of product in boxes due to not having enough space or hangers or hours to get things unpacked. A huge problem for SIF.

### Standardize practices for unassorted returns

SIFers repeatedly shared that unassorted items were the Achilles heel of SIFing because they could end up anywhere. Other options include sending these back to DCs or moving them to ReSupply.

## Employee process opportunities

### Claim & Search

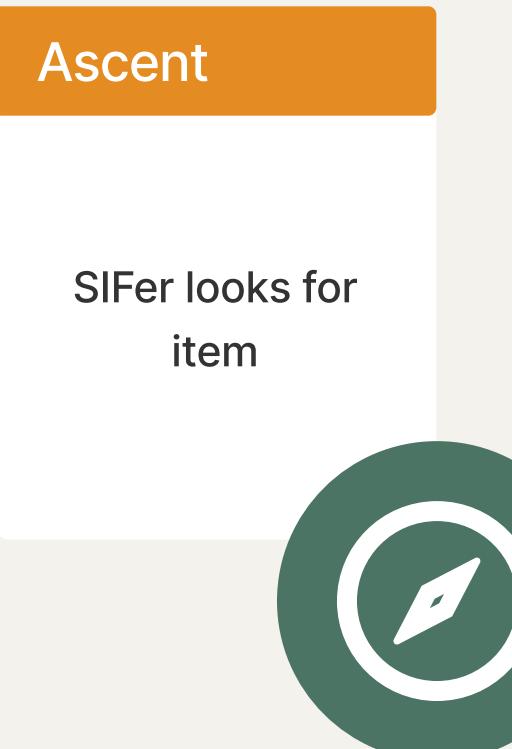


SOM

SIFer claims the pick in SOM

#### Standardize claiming process

Some SIFers claim one or two items at a time, some claim large batches. Factors influencing this choice are access to tools (carts and printers) that support batching.



Ascent

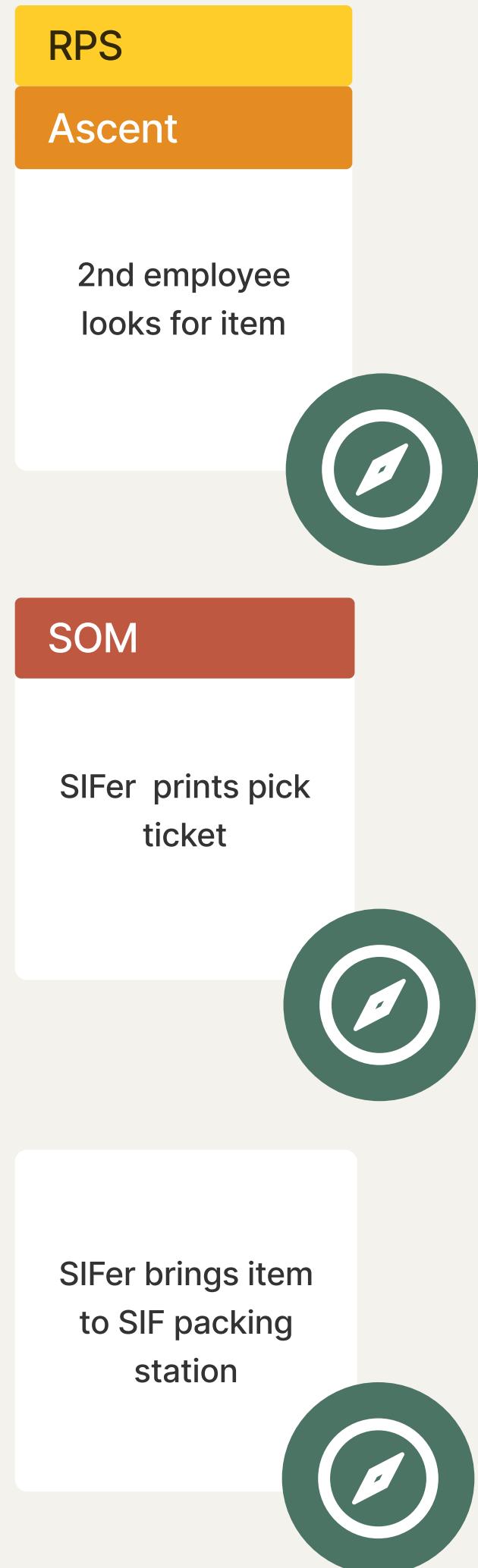
SIFer looks for item

#### Digital or process-based product location management

Not knowing if an item is going to be in an unpacked box, in back stock, on the floor is a major barrier to efficient search. Opportunities exist to leverage existing digital tools, expand current processes, or explore entirely new solutions.

## Employee process opportunities

### Picking



#### Make second look hand-offs asynchronous

Second looks are synchronous processes often involving waiting for a second employee to be available and explaining the context of the search. In-app note sharing could help.

#### Keep the ticket attached to the pick

Many stores print to a remote printer for SIF resulting in a stack of items and a stack of tickets that need to be 're-SIFed' or reunited, rather than attaching the ticket directly to the item in the moment.

#### Standardize hand-off to packing

Pickers may bring items to a well organized staging location or may just pile items on a table or z-rack.

# Reporting opportunities

“And all of a sudden we had 150 picks in an hour...We don't have the manpower for that. I love that people want to buy stuff, but we're gonna end up having a really crappy percentage.”

How might we use reporting to drive  
and reinforce behavior change?

# Reporting Opportunities

## Current reported metrics

Leadership / Lookout / Fulfillment

Replay | Revert | Refresh | Pause

Key Metrics | Time Flexible | Membership Metrics | Fulfillment | Hourly Metrics | Product Dive | Links

BERKELEY updated through 03-22-2023

Store Selector | LY | ALL | Yesterday | Set Dates | ?

Revenue	Orders	SLA Breach	Shipped-On-Time	Items Fulfilled	Fulfillment Rate
\$34.96K	261	0	100.0%	235	92.2%

Top Pick Exception Items Yesterday

SKU	REASON	SIF_RSPU_BOPUS	QTY
1024040004	CANNOT LOCATE	SIF	1
1172130002	CANNOT LOCATE	BOPUS	1
1206970001	CANNOT LOCATE	BOPUS	1
1221340025	CANNOT LOCATE	BOPUS	1
1441280179	CANNOT LOCATE	BOPUS	1

Top Requested Items Yesterday

SKU	SIF_RSPU_BOPUS	PRODUCT	QTY
7765170019	BOPUS	\$47.50	5
2204380009	SIF	\$180.00	4
1529970001	BOPUS	\$45.00	3
2048320001	BOPUS	\$8.85	3
1806100001	BOPUS	\$1,099.90	2

Orders (Last 4 Weeks & 8 Weeks Forward)

TY LY

Shipped-On-Time (Last 4 Weeks & 8 Weeks Forward)

Item Fulfillment Rate (Last 4 Weeks & 8 Weeks Forward)

SLA Breach (Last 4 Weeks & 8 Weeks Forward)

Attachment Demand

BOPUS RSPU

Attachment Demand \$	Pickup Attachment %	Attachment Demand \$ by Department
\$2.8K	18.3%	SLEEPING BA.. WOMEN'S OU.. MENSWEAR TENTS COOK GEAR WOMEN'S RU..

Aged Pickup Orders (as of Yesterday)

RSPU	0 to 15 Days	12 - BERKELEY	837
BOPUS	16 to 30 Days	12 - BERKELEY	15

Attachment Demand

BOPUS RSPU

Attachment Demand \$	Pickup Attachment %	Attachment Demand \$ by Department
\$2.8K	18.3%	SLEEPING BA.. WOMEN'S OU.. MENSWEAR TENTS COOK GEAR WOMEN'S RU..

Aged Pickup Orders (as of Yesterday)

RSPU	0 to 15 Days	12 - BERKELEY	837
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SharePoint Search this site

Store Operations Resource Portal Sensitivity Not Defined

Home Primary Resources Support Resources

Send to A Immersive Reader

## Store Order Fulfillment Resources

### Fulfillment Configurations Current

1/1 - 3/29

SIF Pick Window - 4 Hours	BOPUS Pick Window - 2 Hours	SIF Threshold - 1:1
4 hours	2 hours	1:1

SIF Pick Window - 2 Hours	BOPUS Pick Window - 2 Hours	SIF Threshold - 1:1
2 hours	2 hours	1:1

Last Updated: 2/23/23

\*\*Configuration changes may be adjusted due to network ability or change in fulfillment strategy.

### More Performance Dashboards

Reporting

Lookout Fulfillment (Tableau License Required)

Pick Exception Adjustments Dashboard (Tableau License Required)

SOM Weight Discrepancy Report inaccurate weight as listed in SOM Pack Orders

Missed Carrier Pickup Report a missed carrier pickup for outbound SIF shipments

### General Resources

SOM FAQs

SOM Inventory Availability

SOM Inventory - By the Numbers

SOM Release Notes Recent technical enhancements & fixes for SOM & MobileSOM

2023 Carrier Holiday Schedules

Parcel Carrier Weekend Pickup Eligibility

### Order Fulfillment

REI Packaging Standards

Shipping Supplies for Store Fulfilled Orders

MobileSOM Training

2023 Carrier Holiday Schedules

MobileSOM Pick Guide

SOM Packing Guide

### Training Links

Spark: SOM TRAINING

Spark: MobileSOM Training

SOM Training Update Log

MobileSOM Pick Guide

SOM Packing Guide

### Create Order / Customer Pickup

### Best Practice Series

## Reporting Opportunities

### Claim & Search

SOM

SIFer  
prioritizes  
items to pick

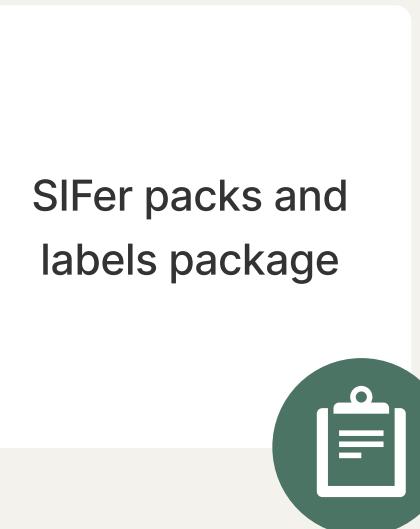


### Provide pick efficiency data

Instead of 'gaming' the system to never let a pick breach, stores need to see metrics relating to time per pick to help them optimize their staffing plans and picking strategies

## Reporting Opportunities

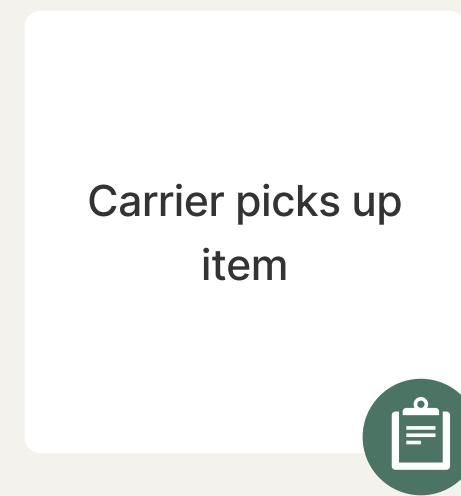
### Packing



SIFer packs and labels package

#### Provide data about fulfillment quality

Today stores have no way of measuring how often they make errors in fulfillment (sending the wrong item). Increasing velocity can't come at the expense of getting the right item to customers.

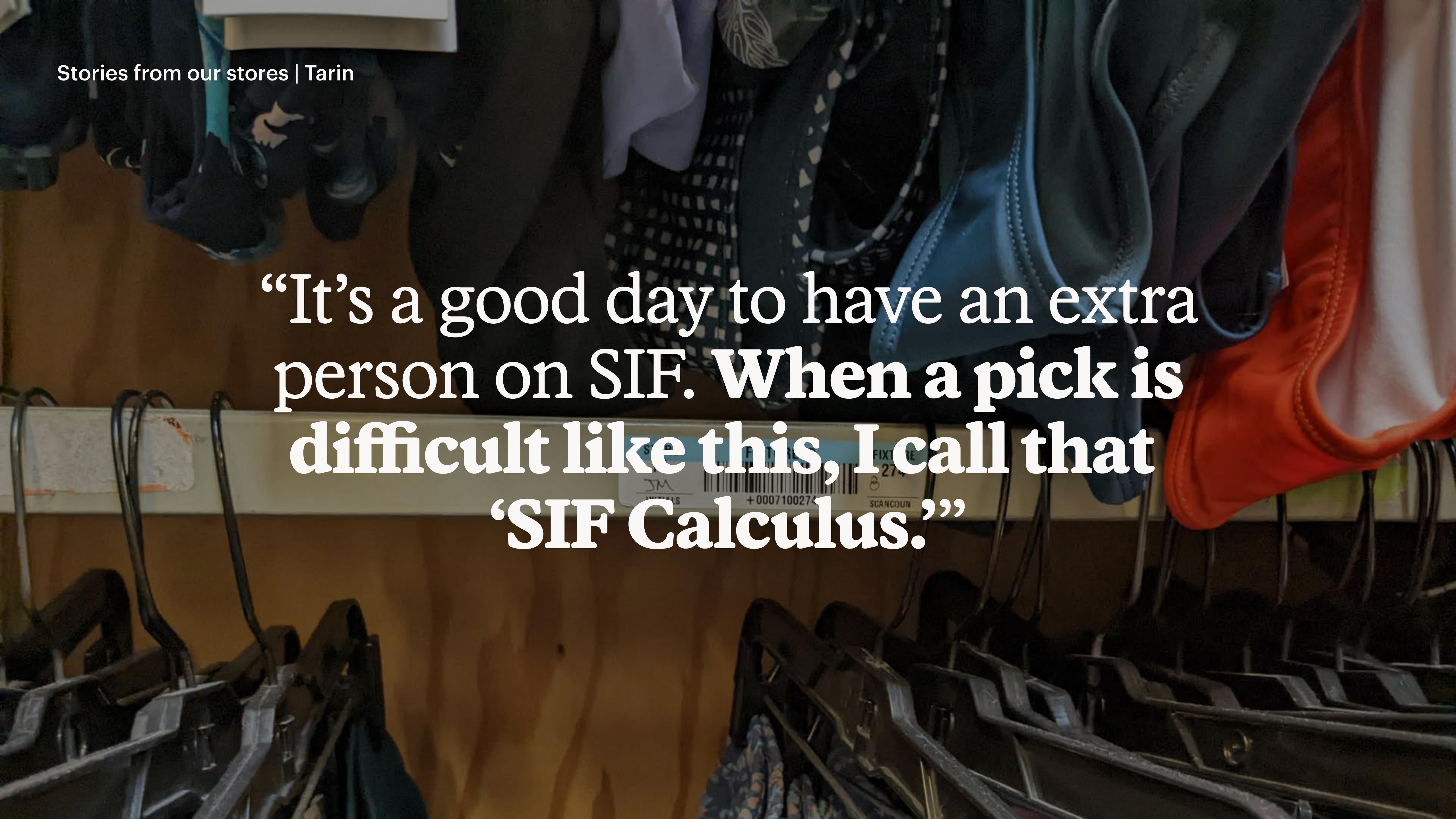


Carrier picks up item

#### Replace contrived “ship on time” metrics with real shipping data

Metrics for on-time shipment are a function of timeframes established by SOM, rather than measures if the items were actually picked up by a carrier on time.

# Customer-facing digital opportunities



“It’s a good day to have an extra person on SIF. When a pick is difficult like this, I call that ‘SIF Calculus.’”

How might we reduce the search time per pick by decreasing the number of ‘calculus level’ picks?

# Customer-facing digital opportunities

Competitive reference: Amazon

## Redirect at point of sale

Allowing customers visibility into the low availability of the item and suggestion an alternative (color, style, brand) at lower fulfillment risk

The screenshot shows an Amazon product page for a 'Resistance Training Kit'. The main image features a man in a gym setting using resistance bands. To the left, there's a grid of smaller images showing various exercises like arm training, chest training, back training, leg training, hip training, and abdominal training. The product title is 'Resistance Training Kit, 2 Adjustable Resistance Bands with Handles + 1 Door Anchor + 4 Resistance Loop Bands, Bodyweight Resistance Bands for Working Out Hold up to 900 lbs Home Gym Equipment'. It's listed at \$12.99 with a 73% discount from \$48.99. The page includes sections for 'About this item' with bullet points about safety, fitness, and adjustability, and 'Other Sellers on Amazon' showing alternative options.

# Customer-facing digital opportunities

Competitive reference: Instacart

## Pre-select a substitute

Online retailers are beginning to nudge users to select a substitute for items that are a known fulfillment risk.

The screenshot shows the Instacart website interface for a search query related to Berkeley Bowl. The main search results page displays various egg products from different brands like Berkeley Bowl, Mary's Duck Duck, and Judy's Family Farm. A specific product, "Consider Pastures Eggs, Large", is highlighted with a callout box. This callout provides detailed information about the product, including its price (\$8.39), delivery status (Free Delivery, likely out of stock), and a green button labeled "1 in cart". Below the main search results, there are sections for "Frequently bought together" items and a "Sales" section.

## Customer-facing digital opportunities

Competitive reference: Instacart

### Pre-select a substitute

Online retailers are beginning to nudge users to select a substitute for items that are a known fulfillment risk.

The screenshot shows a product page on the Instacart mobile application. At the top, there's a header with the Instacart logo, a search bar, and various navigation icons. Below the header, the product title is "Berkeley Bowl Organic Cage Free Large Eggs" with a price of "\$9.59". There's a "Change..." button next to it. To the left, there's a sidebar with a menu and some filters. On the right, there's a "Special instructions" section with a text input field containing "I would like my shopper to...". Below that is a "Nutrition Facts" table:

Nutrition Facts	
Serving Size	50.00 g
Servings Per Container	12
Amount Per Serving	% Daily Value
<b>Calories</b>	70
Total Fat 5g	8%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Polyunsaturated Fat 1g	
Monounsaturated Fat 2g	
Cholesterol 185mg	62%
Sodium 70mg	3%
Total Carbohydrate 0g	0%

## Customer-facing digital opportunities

Competitive reference: Target

### Offer remediation at cancellation

When a BOPUS item cannot be fulfilled other options presented to the customer may include RSPU to that store, BOPUS at another REI location, shipping the item to the customer at their home or suggesting alternative and allowing them to choose a substitute.

The screenshot shows a Target website page with a red banner at the top featuring the Target logo and the text "We're sorry an item isn't available". Below the banner, a message is addressed to "Michelle" regarding order #9081095660590. The message states that the item is no longer available at her store and offers alternative options like pickup at nearby stores or free shipping. A "Check alternate options" button is present. At the bottom, there is a section titled "Affected item" showing a green pillowcase with the product details: "Standard Satin Solid Pillowcase Green - Room Essentials™", "Qty: 1", and "Size: Standard".

We're sorry an item isn't available

Hi Michelle,

Thanks so much for placing your recent order #9081095660590. Unfortunately, the item below is no longer available at your store.

We're sorry. We know how frustrating this is. We've pulled together any available options for Order Pickup at nearby stores or free shipping. We'll take care of canceling the item if you don't choose another option in the next 5 days.

[Check alternate options](#)

Thank you for your patience as our frontline team members work to keep Target stores safe, stocked and ready to serve communities all over. And thank you for being our guest.

**Affected item**



Standard Satin Solid Pillowcase Green -  
Room Essentials™

Qty: 1

Size: Standard

Thank you—  
Questions?