



convoy

Process Book



Meet The Team



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Agenda

01 Project Proposal

02 Midterm

03 Concept Check-in

04 Final

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Presenting our initial problem space

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Presenting our data and how it ties to our problem

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Presenting our brand and concept development

04 Final

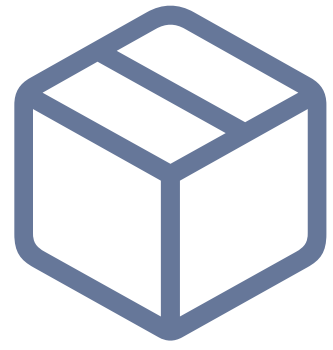
Agenda

01 Project Proposal
Presenting our initial problem space

02 Midterm
Presenting our data and how it ties to our problem

03 Concept Check-in
Presenting our brand and concept development

04 Final
Presenting our final ecosystem



Project Proposal

From Risk to Reliability
Opportunities in Package Security



Executive Summary

01 Primary and secondary research helped to gain background knowledge + validate proposal

Gathering information from the internet as well as hearing first hand from interviews helped us understand the issue more thoroughly, further validating the demand for our concept.

02 Lack of reliable preventative techniques

Victims of stolen parcels lack access to a successful solution, resulting in financial loss, added stress, and wasted time.

03 Lucrative market for potential solution

Millions of people fall victim to package theft annually, providing a clear market opportunity for financial success.

04 Clear project road map created

Research helped us develop a clear plan moving forward, ensuring that we know the steps needed to succeed.

Agenda

Meet the Team	1
Problem	8
Secondary Research	20
Primary Research	31
Market Analysis	81
Stakeholder Map	96
Business Opportunities	101
Moving Forward	115

The Problem

Package thefts totaled **120.5 million** in 2023,
equivalent to **1 out of every 179** package deliveries.

In 2023, Americans lost an estimated **\$16 billion** to package theft;
the average stolen package was worth **\$132.78**.

The number of consumers experiencing porch piracy is growing exponentially. Without access to reliable, affordable, and proactive theft-prevention tools, it's **difficult for consumers to protect their deliveries and receive real-time support when packages are left unattended.**

As a result, millions of people experience **financial loss, emotional stress, and reduced e-commerce trust.** Globally, package theft results in billions of dollars spent replacing packages and increased carbon emissions from reshipping and repackaging stolen goods. Without scalable, user-friendly solutions, package theft rates will continue to rise, **worsening consumer anxiety, straining e-commerce ecosystems, and amplifying sustainability challenges** in the last-mile delivery process.

Why do these numbers matter?

Nearly half of Americans (41–45%) have experienced package theft at least once, **making it a widespread issue.**

Many refund processes remain unreliable, leaving a chance that the buyer will have to **pay for the theft.**

2016

11 million Americans were victims of package theft



2022

46 million Americans were victims of package theft

6 year difference results in a **318% increase** in likelihood that you could be the next victim of package theft

Around this time, the average stolen package was **\$132.78**

You are **318% more likely to lose over \$100** in stolen goods when shipping to your house in just a 6 year span.

Package Recipients

Package Transport & Courriers

Delivery System / Companies

Vulnerabilities Across the Delivery Chain

Package Security and Theft

How might we...

Understand how the complexities of package delivery affect customers experience **ordering** and **receiving** a product for delivery?

***To understand the complexities of package theft,
we start by gathering data***

Secondary Insights

How often does this happen?

1-in-7 Americans lost package deliveries to theft in 2022.

40% of victims experience **multiple** packages thefts per year.

What increases the likelihood of a package getting stolen?

01 When asked about the location of the most recent theft, 55% said front doors or porches, 14% said mailboxes and 13% said mail rooms.

02 Visible or branded boxes increase theft risk, but few retailers invest in stealth packaging despite its proven deterrent effect

03 Oversized parcels left outside remain theft magnets

04 Visibility of several packages signals value. 36% of theft victims lost multiple packages at once.

**Does this issue affect more than just the
people directly involved?**

01 Each theft often doubles or triples shipping, packaging, and carbon footprint. Replacements can 2–3x emissions per lost package.

02 Each theft replacement can double or triple emissions per package (extra trucks, packaging, fuel).

Is this issue easily resolvable for the consumer?

01 Over 80% of consumers expect retailers to replace stolen goods, yet refund processes remain inconsistent and slow

02 When a package is marked “delivered” but stolen before pickup, no one clearly owns the loss, not the carrier, retailer, or consumer. This liability gap is unclaimed, creating a multi-billion-dollar trust vacuum in e-commerce.

03 61% feel that retailers should be doing more to deter theft

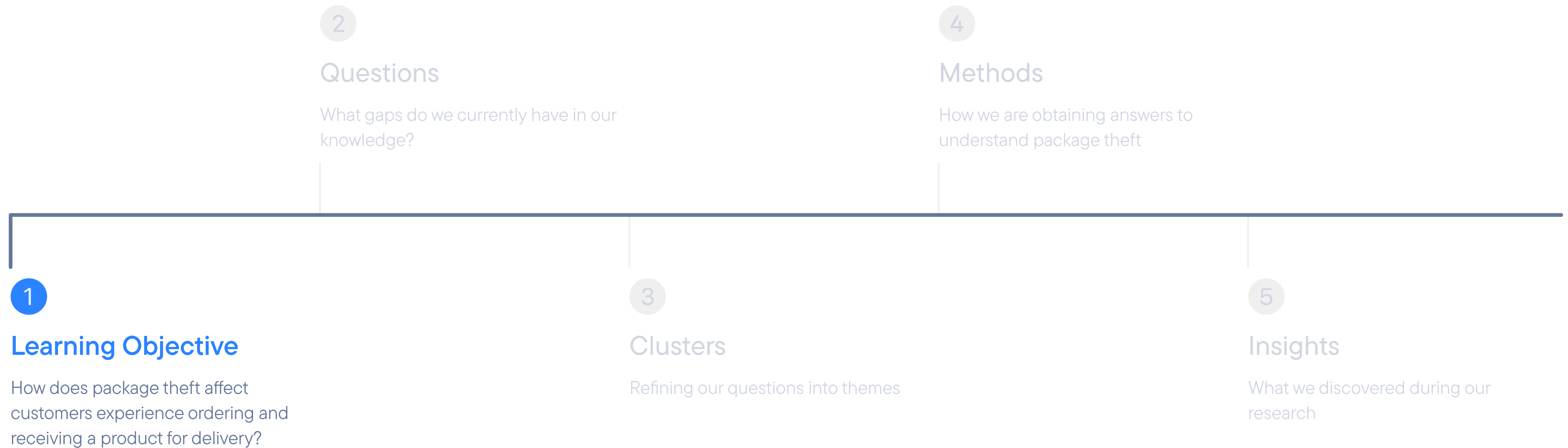
To understand how package theft affects real people, we go straight to the source

Primary Insights

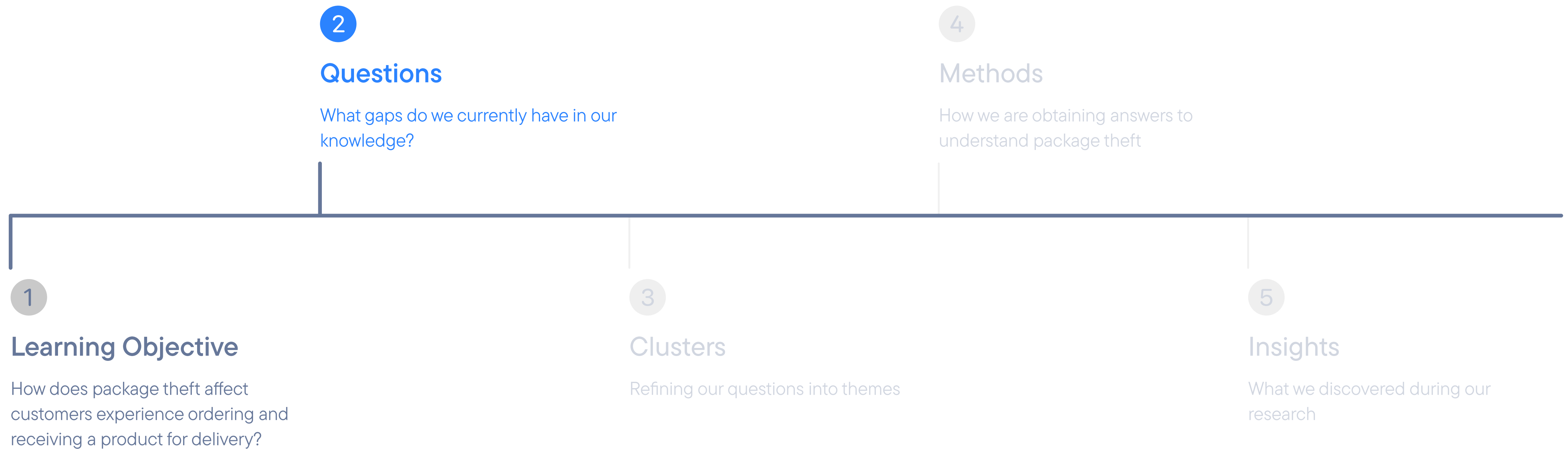
Research Strategy

Our process to understand the problem of package theft

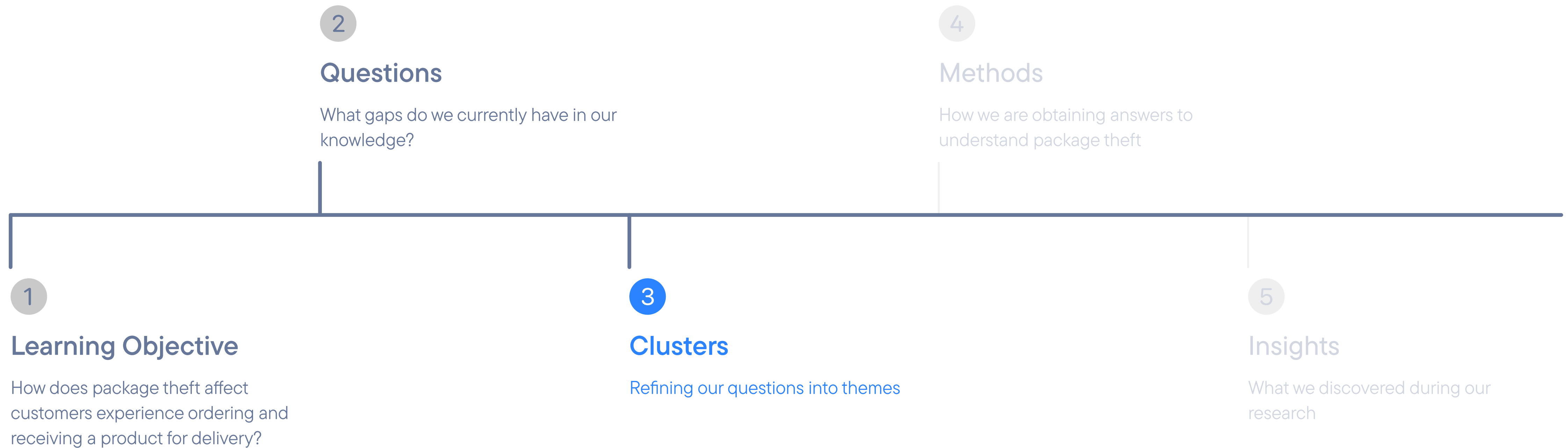
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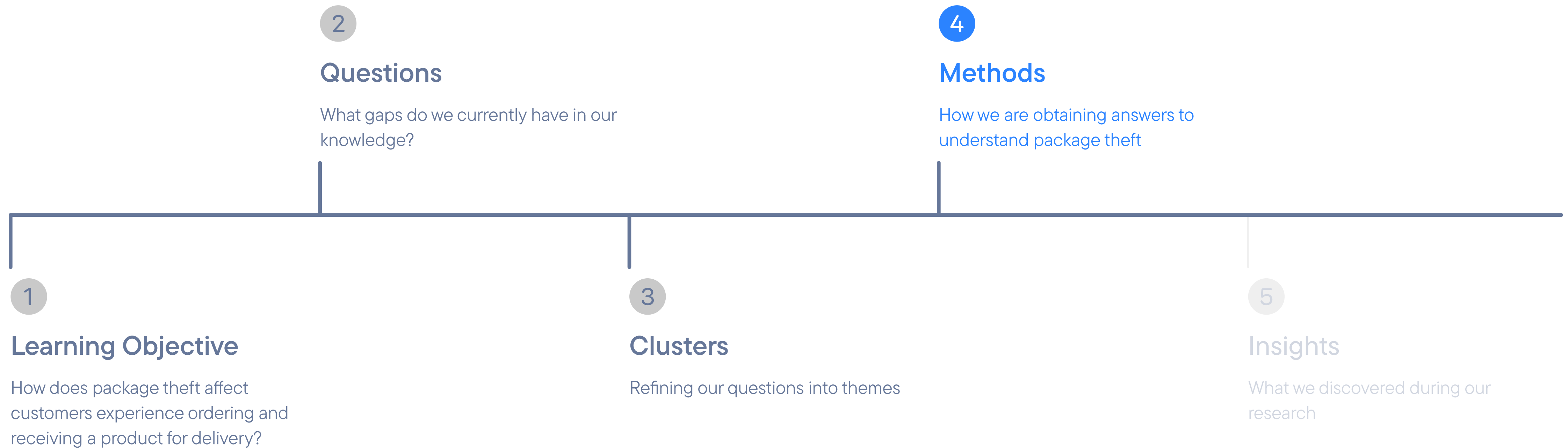
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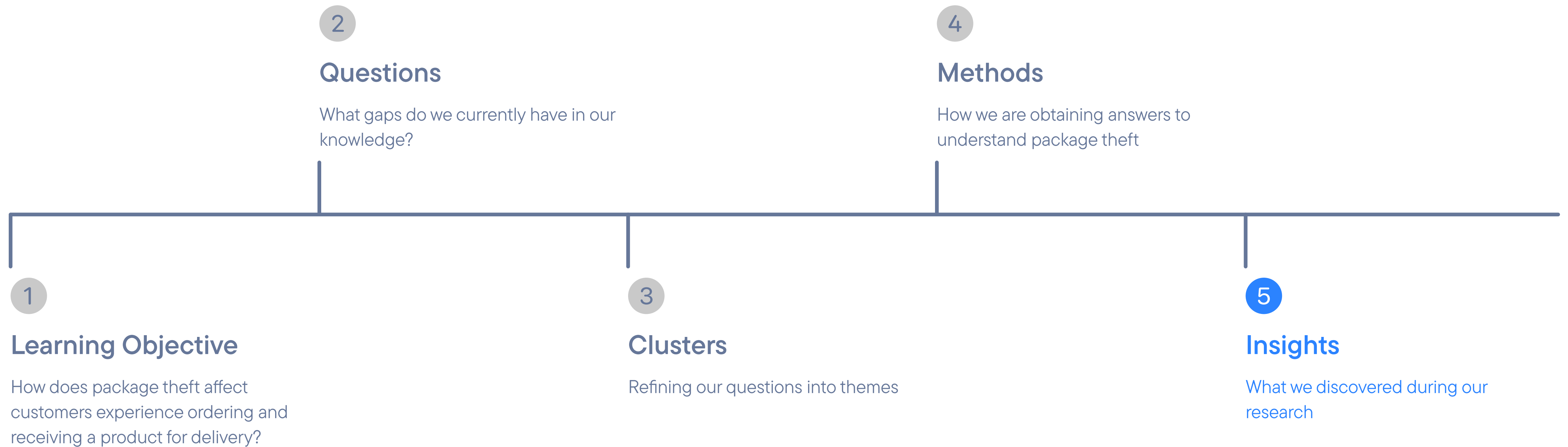
Research Strategy



Research Strategy



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How does package theft affect customers experience ordering and receiving a product for delivery?

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From our learning objective, we developed questions to sort into clusters.

We need to understand

1

Delivery Process

What are the actions people take when ordering a package?

2

Previous Experiences

What are peoples experiences of a package getting stolen?

3

Defense Strategies

How do people currently protect their packages?

4

Delivery Tracking

How does package tracking affect the package delivery experience?

5

Emotional Experience

How do people feel when ordering packages? How does package theft affect this experience?

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To uncover insights

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We are using a mixed-methods approach

Methods

Interviews



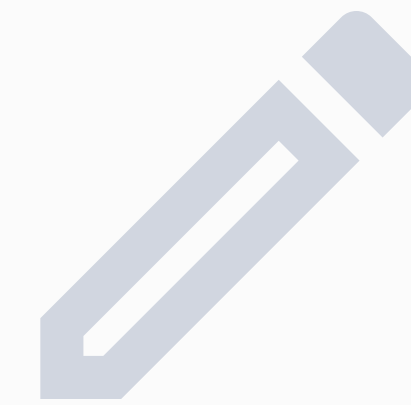
Usage Experience, Process, & Aspirations

Survey



Attitude, Motivation, & Aspiration

Self-Documentation



Use Case, Context, & Process

Methods

Interviews



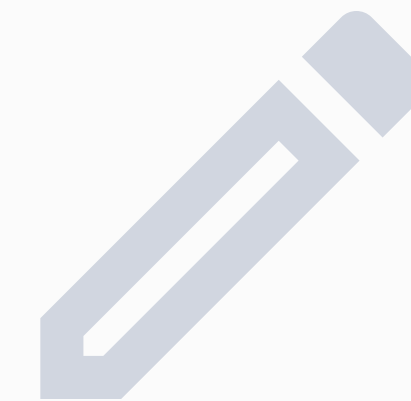
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Self-Documentation



Use Case, Context, & Process

Interviews

“The went out to get the package, he's like, are you sure they delivered it? And I was like, yeah, I'm pretty sure they delivered it. And he was like, well, I don't to see a package outside.”

Lenora | Savannah, GA

Themes

Stress & Anxiety

Substantial fear of mis-delivery and theft

Distrust

Inconsistent tracking displays, notifications, and wording diminish user trust over time

Frustration

Inconsistent delivery location, timing, tracking, and customer service

Embarrassment & Fatigue

Repeated calls to customer service and inconsistent theft reporting processes create a negative experience

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“There’s no consistent way they deliver my item. Either it’s the mailbox, the mailroom, or my apartment door.”

BC | Savannah, GA

Frustrations

Exposed Packages

Packages can sit for extended periods of time, increasing the chance of theft

Ignored Instructions

Drivers don't always follow customer delivery instructions

Unclear Notifications

Vague and incorrect notifications increase user confusion and stress

Unhelpful Customer Service

Repeated calls and inconsistent replacement processes make recovering packages difficult

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“It says delivered, but it’s not there. Amazon tells me to wait two days — why does it say delivered when I don’t see it?”

Melissa | Savannah, GA

Key Insights

Persistent Anxiety

People worry about the delivery status and success of their packages.

Inconsistent Tracking and Notifications

Vague or inaccurate tracking maps and notifications create frustration and confusion amongst online shoppers.

Security is Expected

People are unwilling to spend much, if any, money to solve this problem.

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Key Insights

“I would not pay extra. That should just be a part of the delivery system in the first place.”

Katie | Savannah, GA

Journey Map

Stages	What Customers Do	Emotions	Pain Points	Work Arounds	Opportunities
Ordering & Decision	Consider the product they want to purchase and select a retailer/carrier.	Excitement for new items	Fake discounts and cluttered listings can make online shopping overwhelming.	Users shop in-store, pay extra for 3rd party shipping, or send to a friends address.	Offer secure delivery choices in the checkout system.
Waiting / Tracking	Monitor delivery status via apps, texts, and emails.	Stress, worry, and impatience surrounding successful delivery.	Vague and inaccurate tracking notification create stress while anticipating the package delivery.	Obsessively refreshing tracking platform, paying extra for “informed delivery”, staying home to secure package, or contacting friends/family.	Real-time ETA and push notifications like food delivery/ride share apps.
Delivery / Drop-off	Packages are delivered to the front door/porch, mailroom, or locker. The delivery driver sometimes follow user instructions.	Relief when secure, but anxious when packages are left unattended or unaccounted for.	The pain point is inconsistent delivery locations and ignored instructions.	Check security system, leaving driver instructions, and using locker solutions.	Delivery photo proof across carriers, smarter package organization, and better delivery verification.
Receiving & Verification	Customers locate and receive packages based on delivery instructions	Relief when package is delivered as expected, but frustrated and confused if	Package marked as delivered, but is not located where expected.	Check security system, driver delivery photo, search mail room, or contact a friend.	The opportunity is standardized photo proof and smarter mailroom systems.
Aftermath of Issues	Customers file complaints for missing, stolen, or damaged packages.	They feel anger, stress, and distrust.	The pain point is dismissive retailers and unresolved claims.	They work around this with repeated calls, in-store shopping, or safer addresses.	Streamlined claim process and simple customer service interaction to replace missing packages.

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“They said it was delivered, too bad. And then I put up a stink... finally got them to give me my money back.”

Patti | Savannah, GA

***Now, we back-up our qualitative insights with
quantitative data***

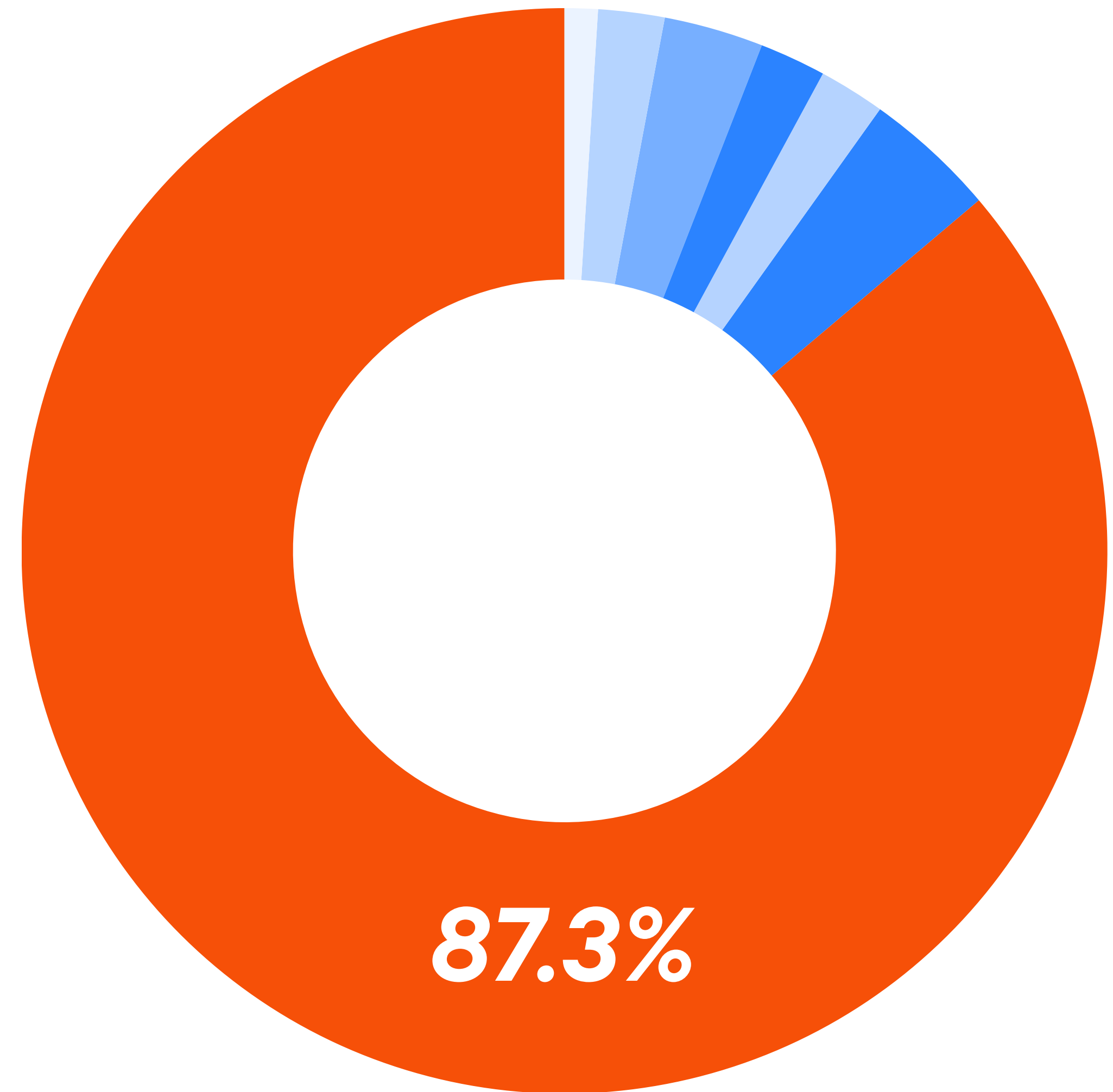
Survey

Key Figures

Which delivery service do you use most often?

- Amazon
- UPS
- FedEx
- USPS
- All of the above
- Usually Shein and Alley Ex
- Amazon Fresh (Whole food)

96% of packages ordered are \$100 or less

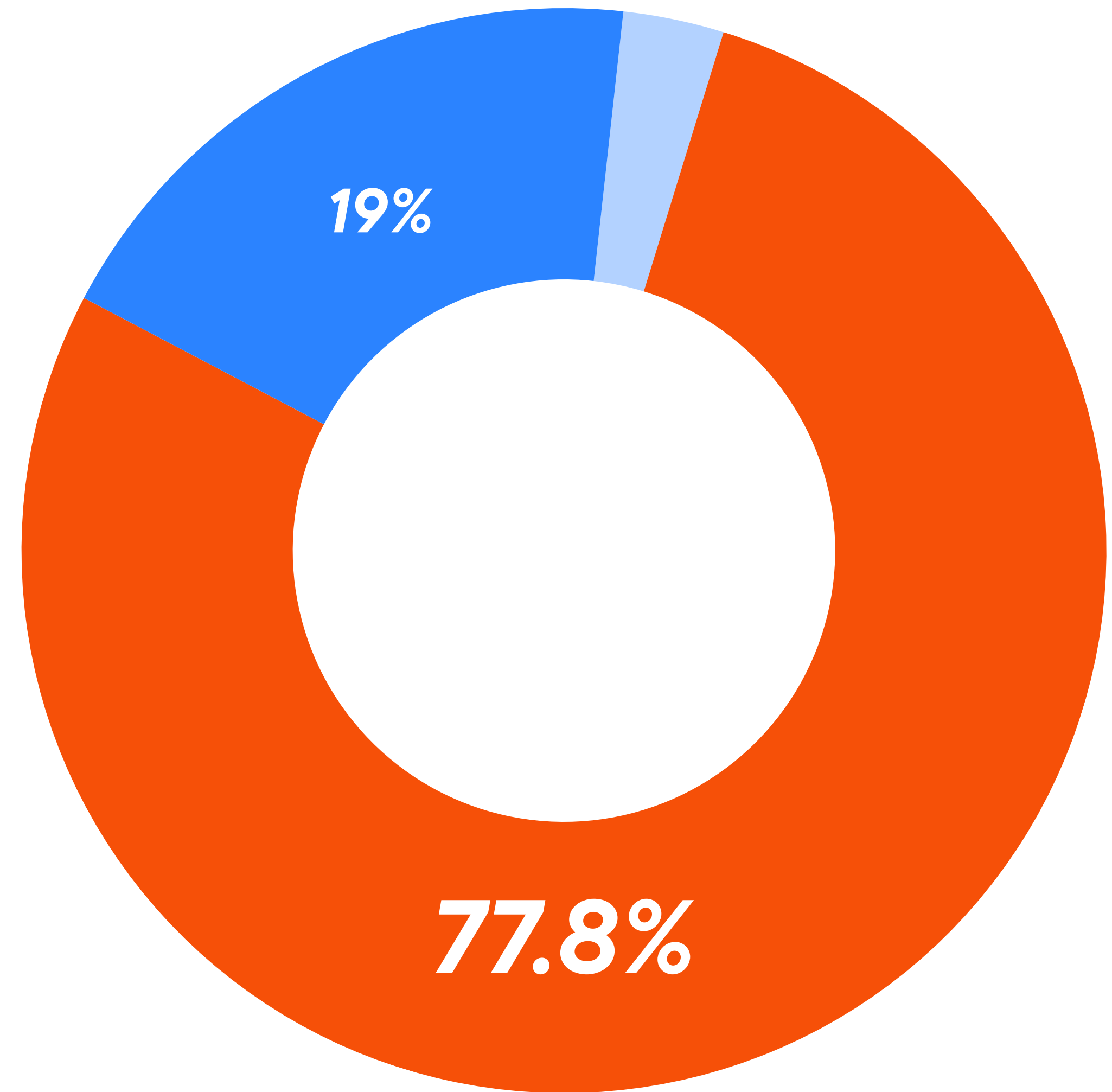


Key Figures

Typical Value Range of Packages Ordered

- *Under 25\$*
- *\$25 - \$100*
- *\$101 - \$250*

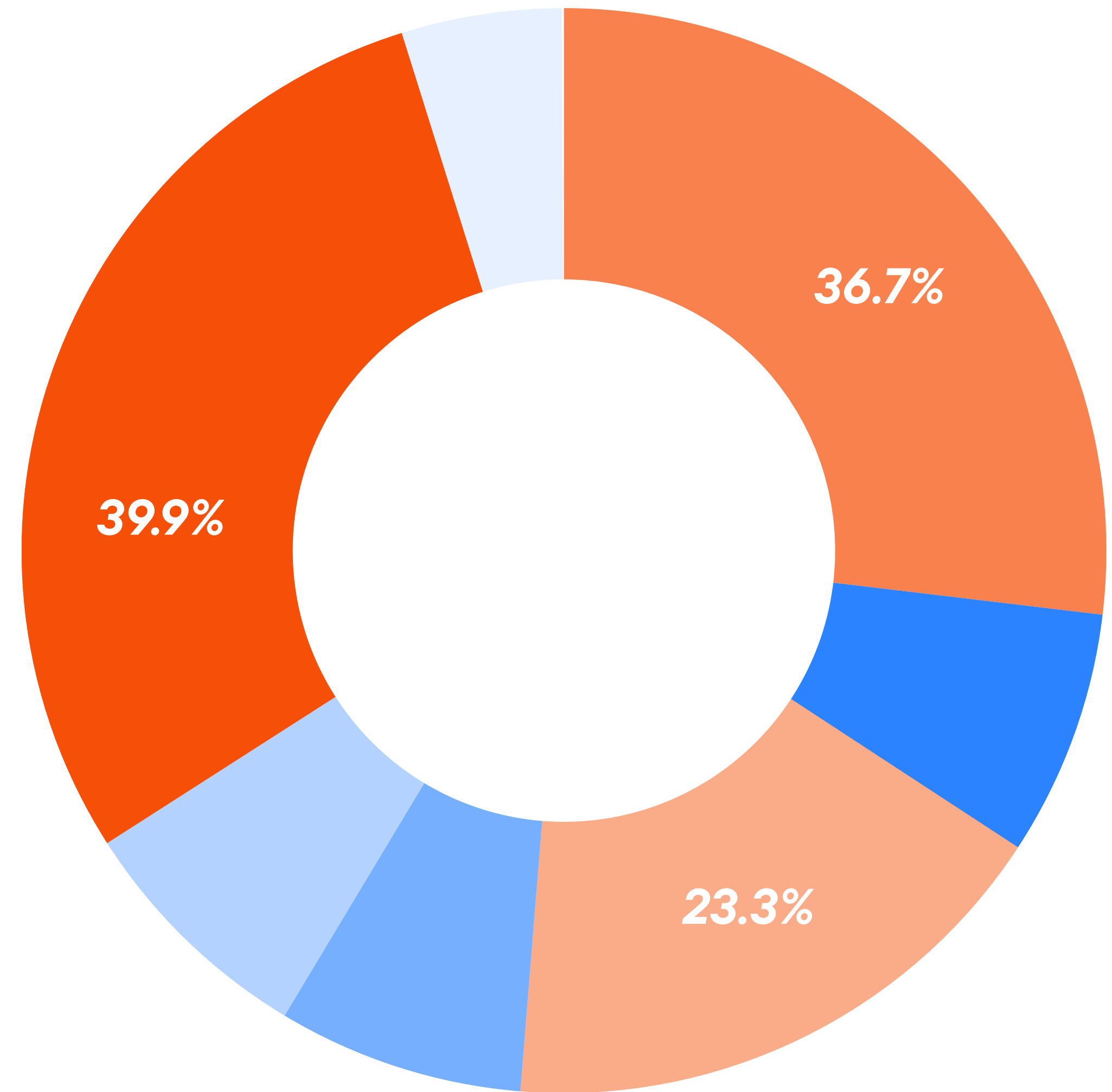
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Key Figures

Which of the following protection methods do you currently use?

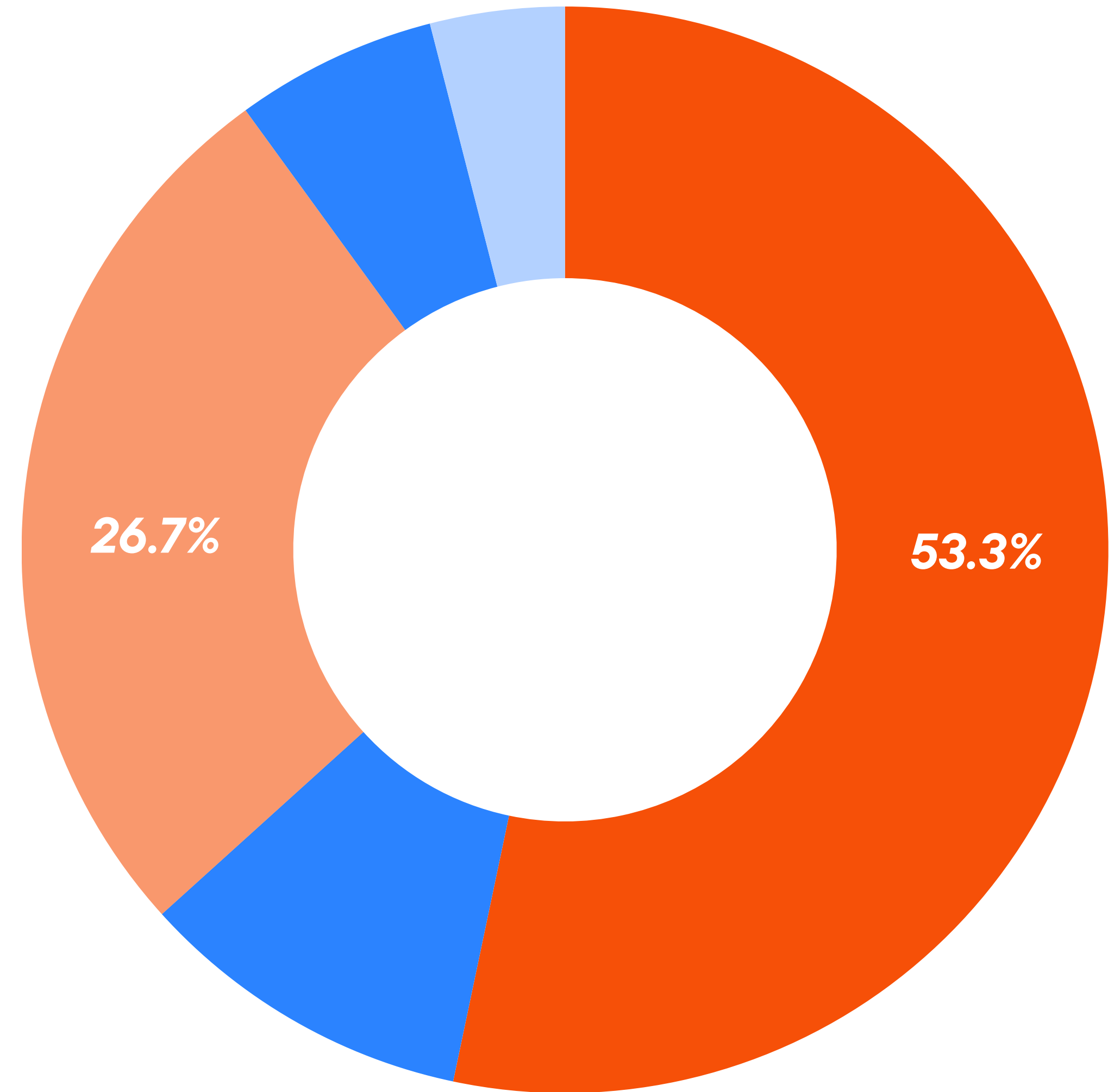
- Security Camera / Doorbell
- No Action
- Lockbox / PO Box
- Delivery Lockers
- No Comment
- I Don't Disguise Package
- College Mail Service



Key Figures

Where do you prefer your packages to be dropped off?

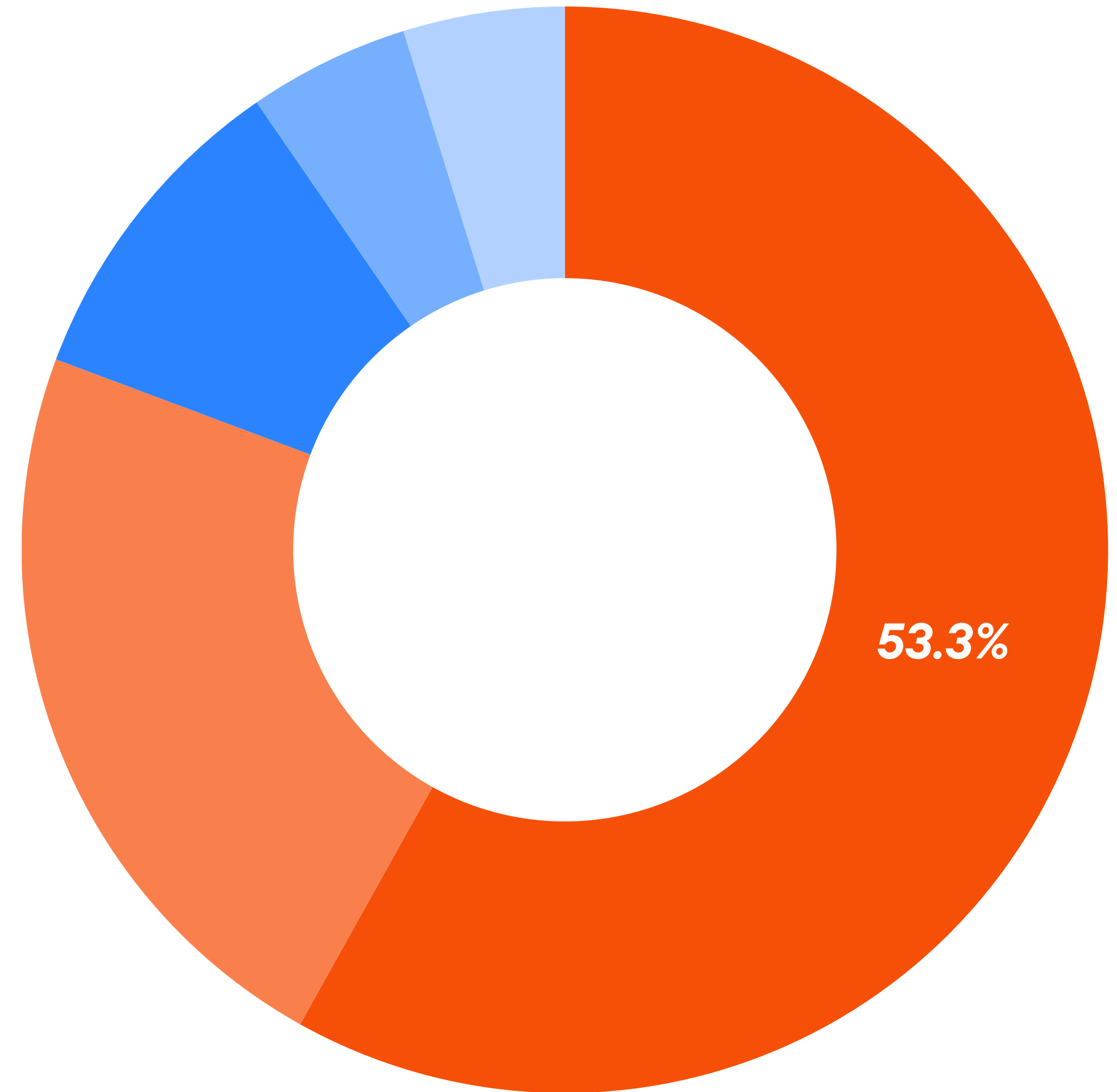
- *Front Door*
- *Porch*
- *Secure Lockbox*
- *Mailbox*
- *Side Door*



Key Figures

How many of your packages have been stolen

- 1
- 2
- 3
- 4
- 5+



We know that package theft is a problem faced by many, many Americans

But what are the solutions currently on the Market?

Market Analysis

Getting to know whats out there

Pain Points

Finding our key problems in the world



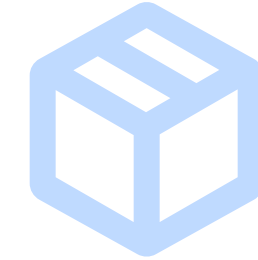
Expenses

At least 58M packages were stolen in 2024 in the U.S., averaging \$200 each (\$11.6B loss)



Unattended packages

Nearly 1 in 4 Americans have experienced package theft, but few have access to proactive alert systems that notify them when parcels are left unattended



Lockers are limited

~25–30% of packages are oversized, making universal locker adoption difficult.



Labels add a target

Visible or branded boxes increase theft risk, but few retailers invest in stealth packaging despite its proven deterrent effect



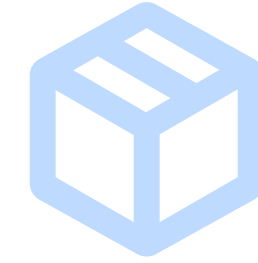
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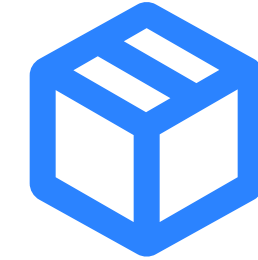
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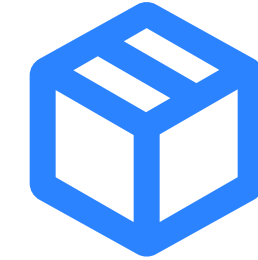
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Current Solutions

Doorbell Camera

Having a doorbell is a simple way to be at your door without having to physically be home

3rd Party Lockers

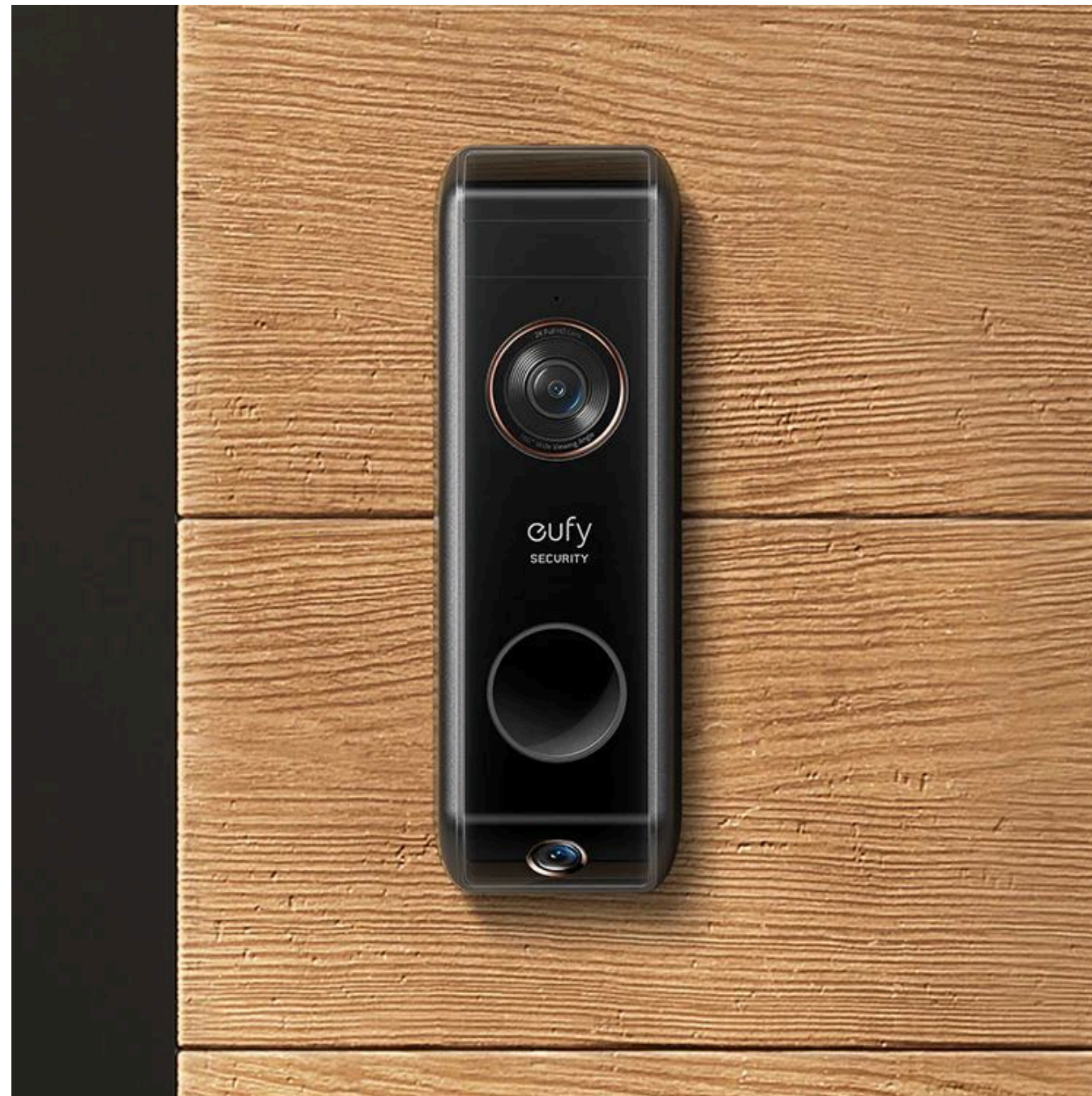
A locker system creates a simple safe transaction of packages

Lock Box

Box on your porch that locks away your package

Competitors

Eufy Video Doorbell Dual



Strengths

- Utilizes a two camera doorbell system that notifies the user if it detects a package.
- No monthly subscription is required.

Weaknesses

- Is bulky compared to other doorbell cameras.
- the camera being triggered by false positives or camera not being able to reach where packages are dropped off

Competitors

Amazon Lockers



Strengths

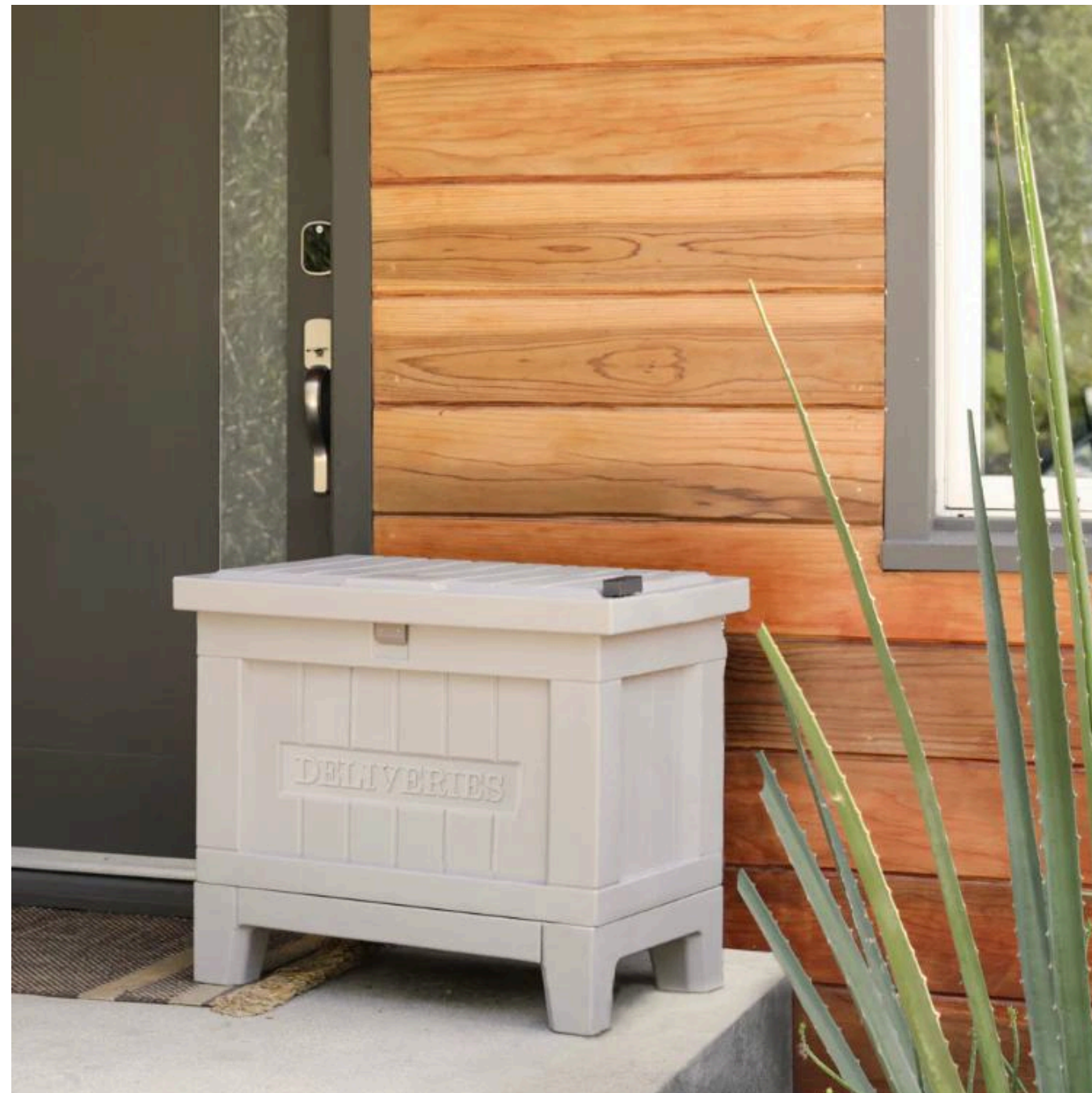
- Locks packages inside which is then retrieved by a code
- One consistent pickup spot
- Simple interaction flow

Weaknesses

- Only works through Amazon
- Might encounter technical difficulties (email doesn't send code)

Competitors

Yale Smart Delivery Box



Strengths

- Send notifications for delivered packages
- Works with all carriers
- Weather proof
- Two sizes

Weaknesses

- Boring Design
- No way to verify the person opening the box is a delivery driver
- Carriers don't always use the box
- Battery charging complexities

Opportunity Areas

Real-time Notifications and Tracking

Consistently update users of their package delivery status and drop-off window

Driver Flexibility and Accountability

Systemize delivery routes and processes

Package Security

Disguising or securing important and expensive packages

Customer Service Experience

Simplify claims process for missing packages

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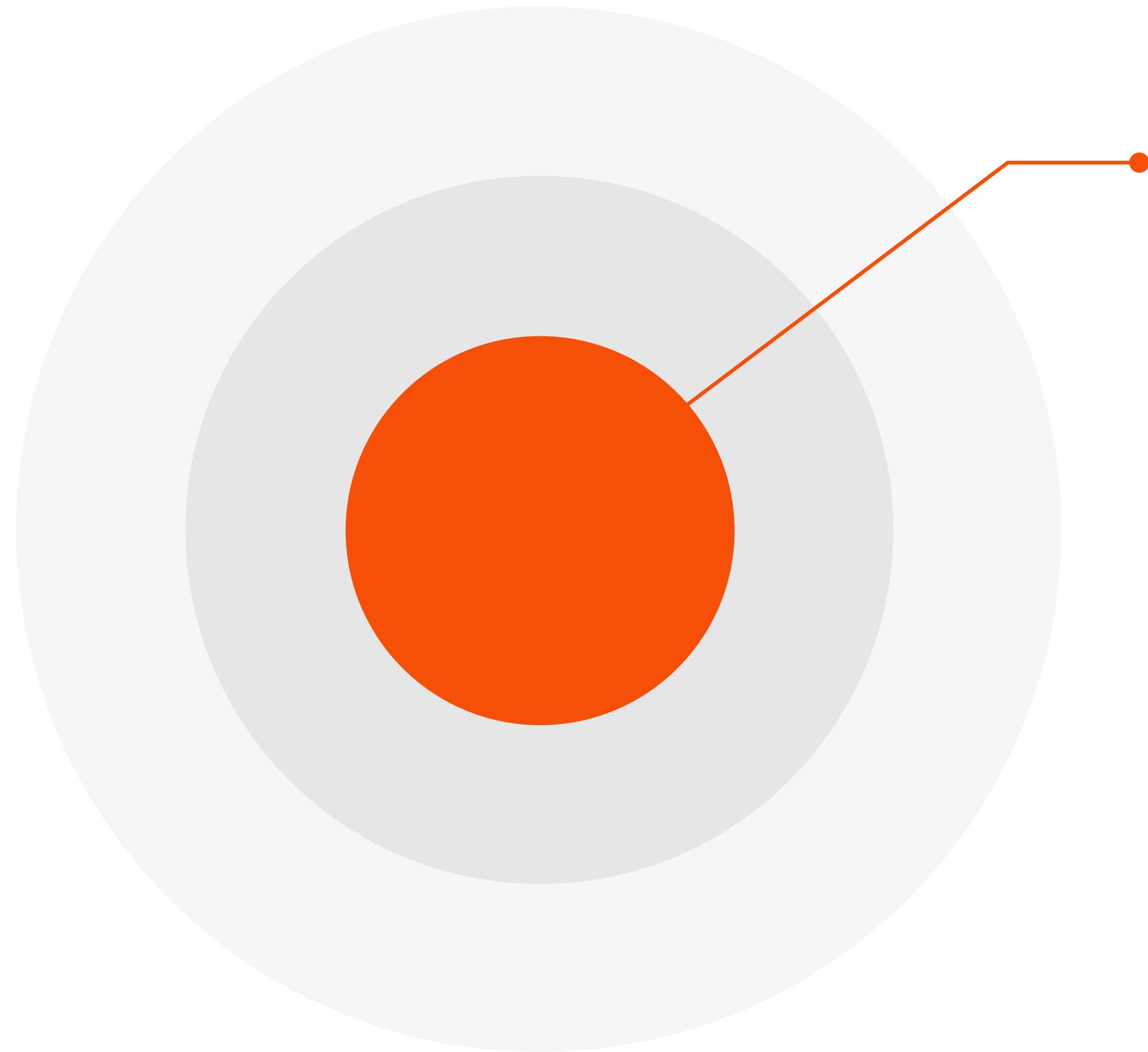
Customer Service Experience

Simplify claims process for missing packages

***Now that we understand current solutions,
who are the key players in e-commerce?***

Stakeholder Map

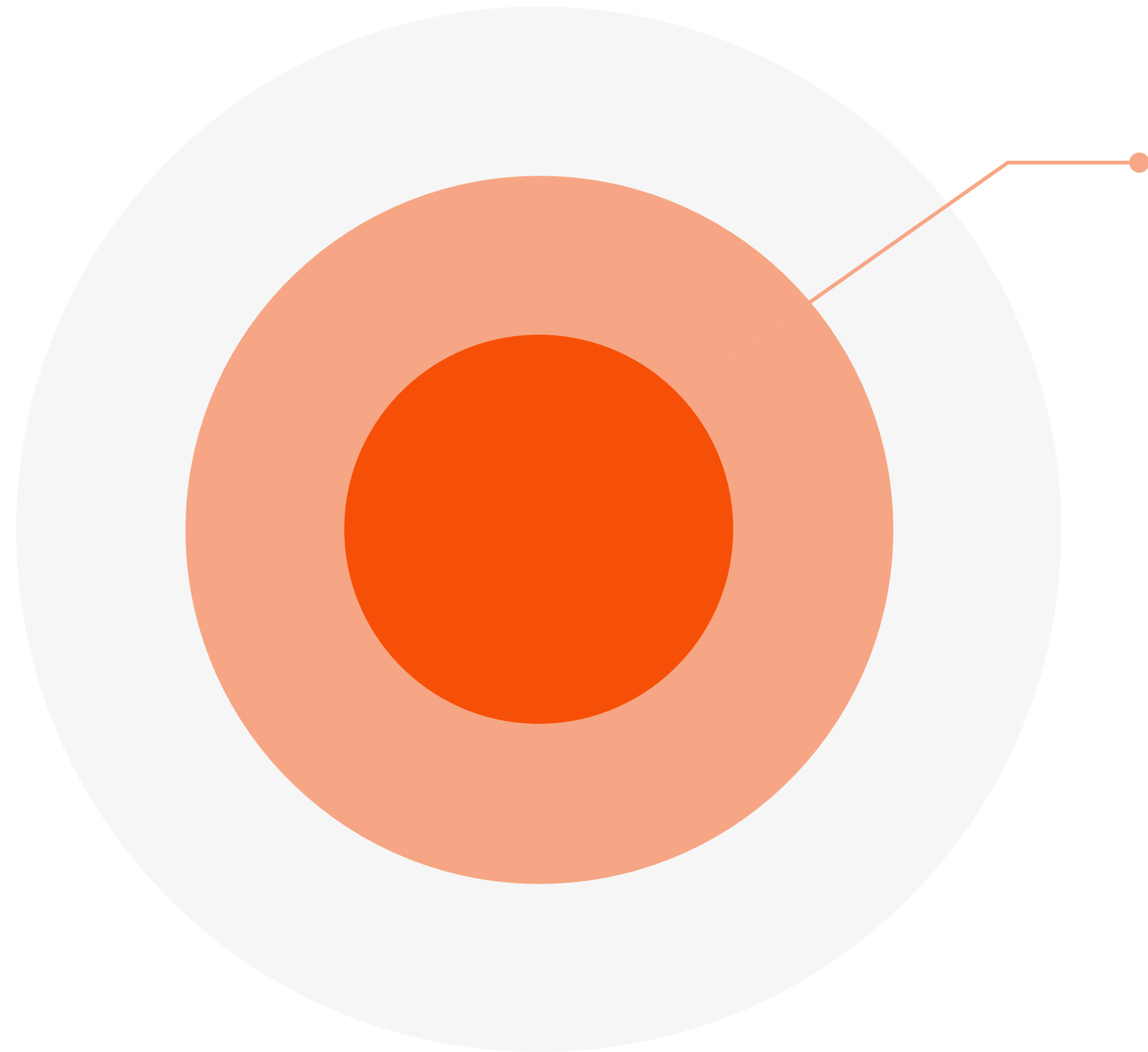
Understanding the ecosystem behind package delivery



Primary

Directly affected by package theft, lost or interact with deliveries daily.

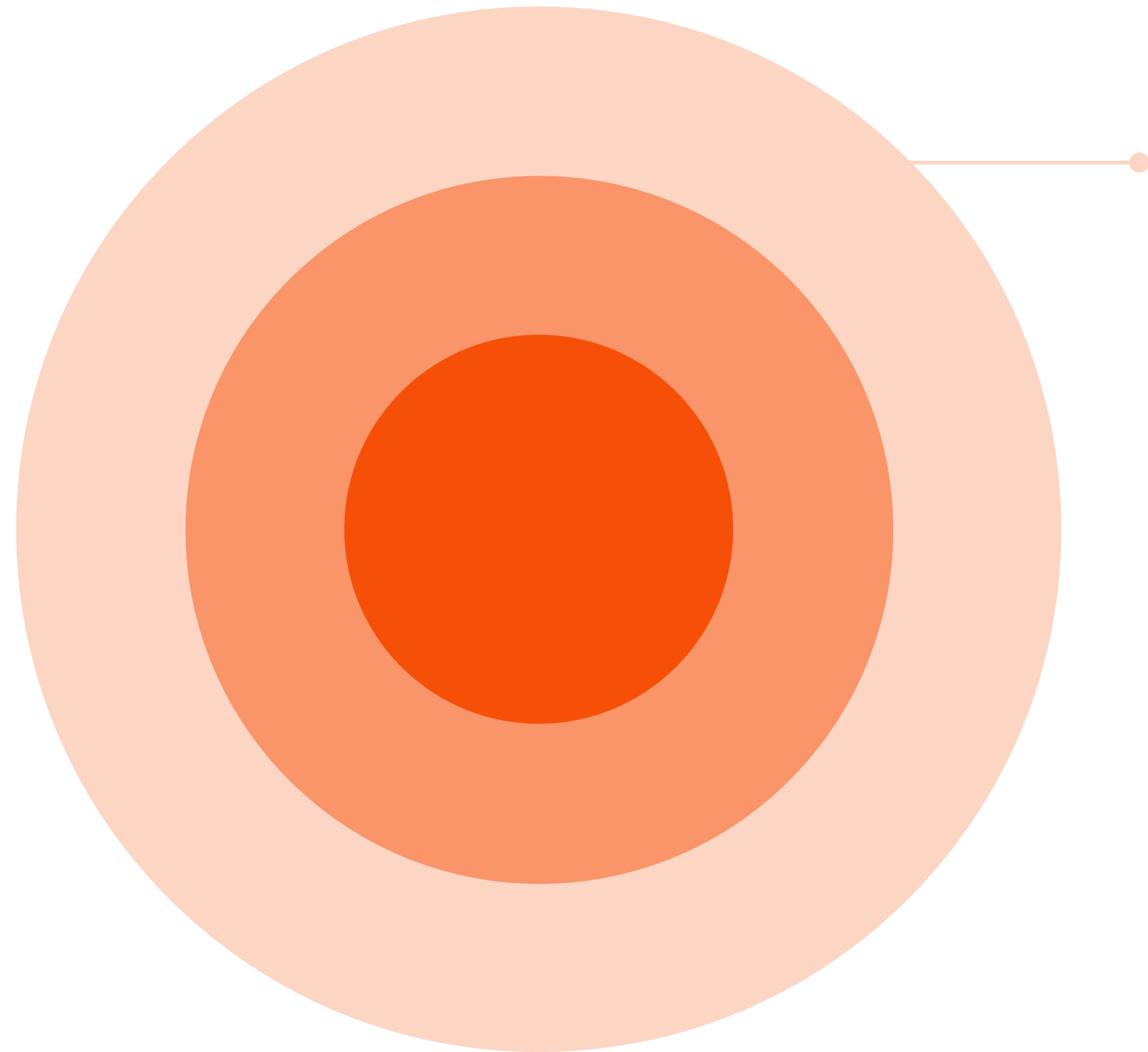
- 1 Residents
- 2 Package Transport & Couriers
- 3 Delivery Companies & Platforms
- 4 Locker / Parcel Room Managers



Secondary

Organizations/services that enable, insure, or support secure deliveries:

- 1 E-commerce Companies
- 2 Retailers
- 3 Logistics Providers (UPS, FedEx, USPS, DHL)
- 4 Insurance Companies
- 5 Smart Home & Security Tech Companies (Ring, Nest, Yale, Arlo, etc.)
- 6 Property Management Firms



Tertiary

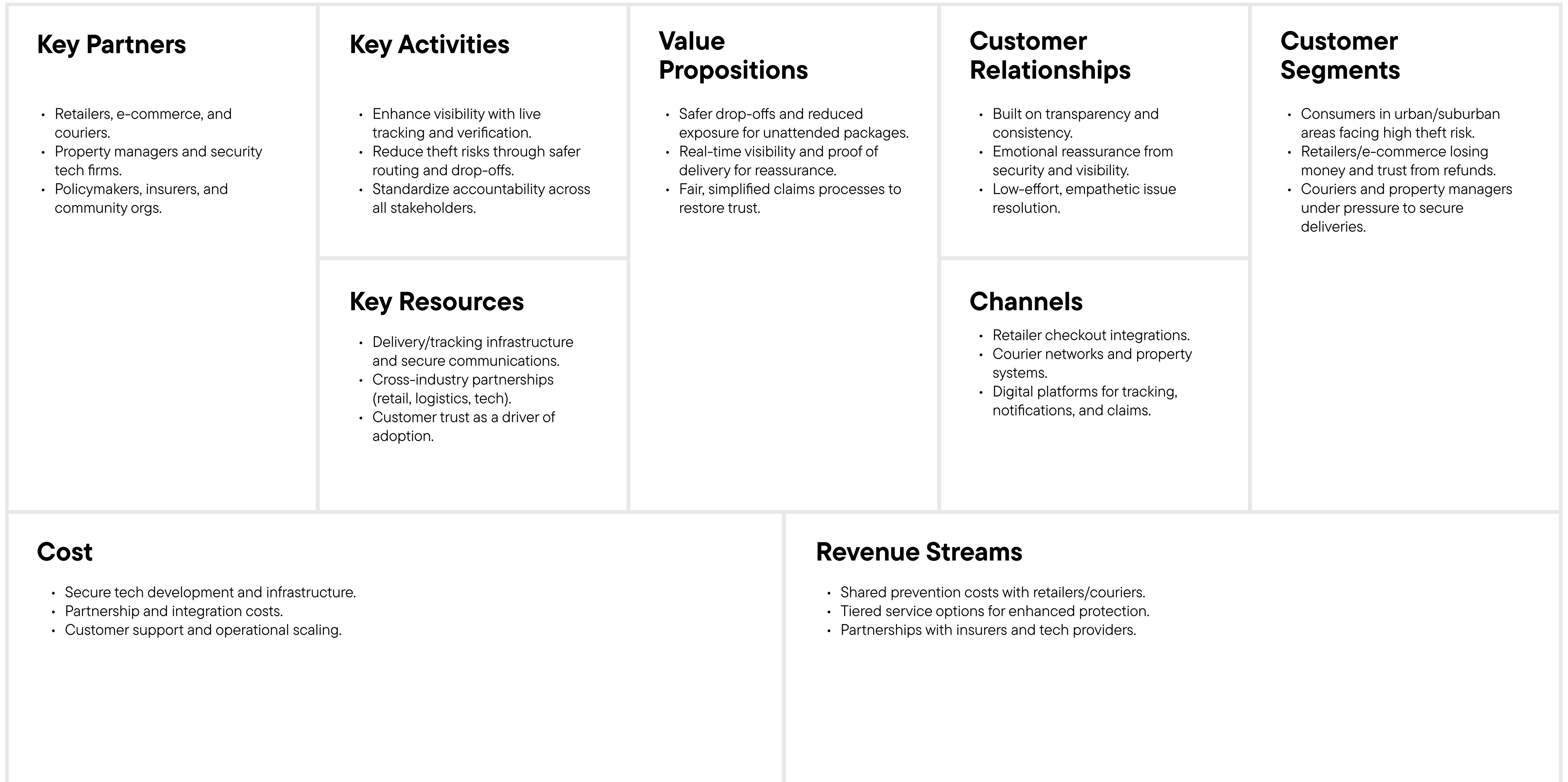
Groups shaping policy, awareness, or infrastructure around package security

- 1 Law Enforcement & Local Police Departments
- 2 Legislators & Policymakers
- 3 Neighborhood Associations / Community Watch
- 4 Security Product Manufacturers
- 5 Community Platforms
- 6 Consumer Advocacy Groups
- 7 Courier Unions & Worker Associations

***Building on top of the stakeholder analysis,
we develop our value proposition***

Business Model Canvas

Mapping how the system creates and exchanges value.



Using our business blueprint, we highlight key opportunities in the e-commerce space

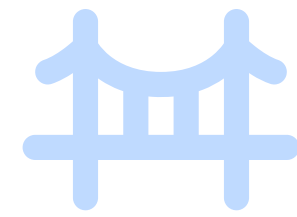
Business Opportunities

Opportunities for Impact



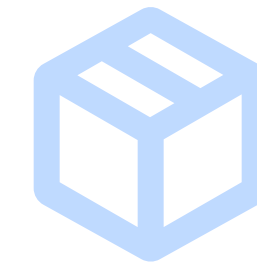
Expenses

With such a large economic loss there is so much room for improvement



Bridging the Gap

Connecting the consumer directly with delivery services



Reducing Exposure

Giving thieves less of an opportunity to steal packages



Building Trust

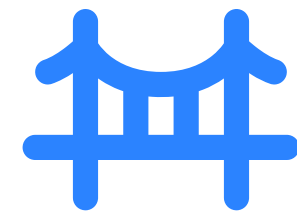
Emotional reassurance is key when sensitive and emotional information is at risk

Opportunities for Impact



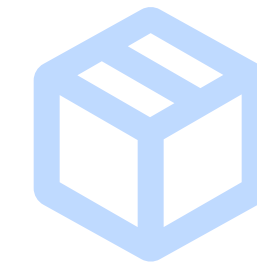
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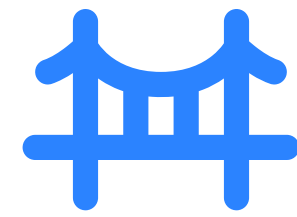
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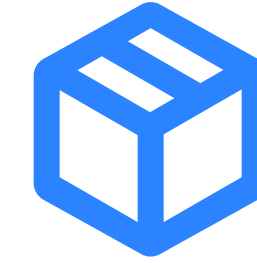
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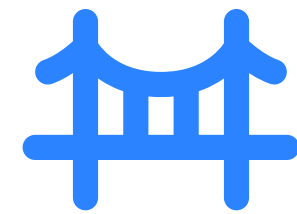
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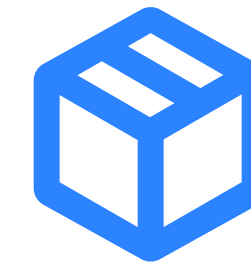
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How we are capitalizing on these opportunities

Service Plan

Key Service Components

Customer Facing

Real-time Notifications

Proof of Delivery

Clear Tracking Map

Securing Packages

Behind the Scenes

Delivery Logistics

Route Mapping

Clear Delivery Instruction Presentation

Require Proof of Delivery

Support

Compassionate Customer Service

Claims Resolution

Simplified Processes

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Now that we have a firm understanding of our problem and opportunity areas, we map out our next steps

Moving Forward

Research + Product Development Road Map

Using our understanding of package theft

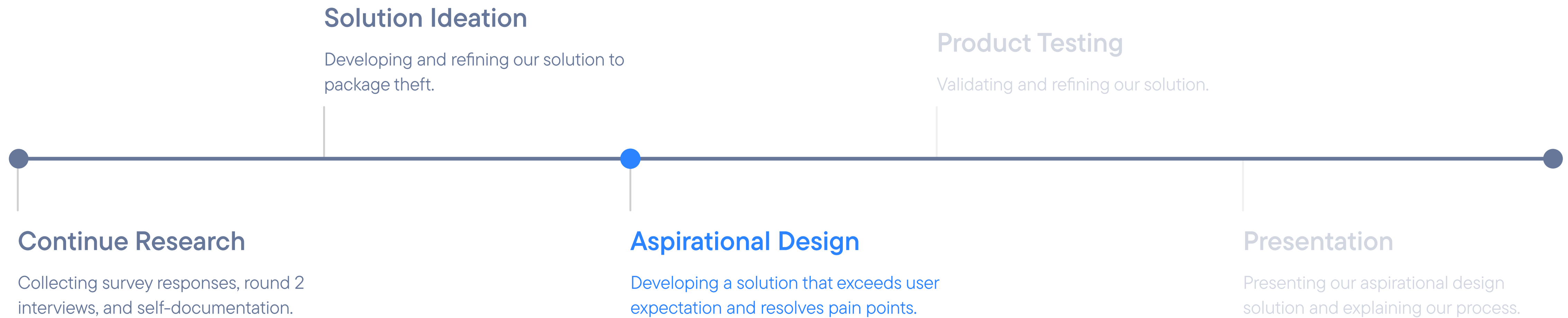
Timeline



Timeline



Timeline



Timeline



Timeline



Expected Outcome

To solve the problem of package theft, we will



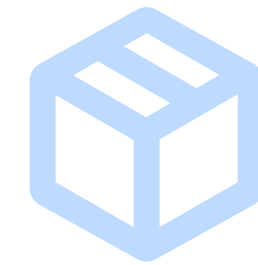
Decrease Anxiety

Increase delivery transparency and communication



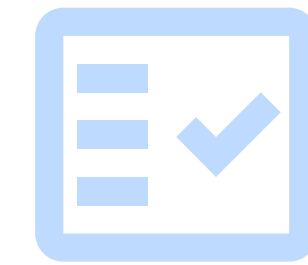
Real-Time Notifications

Present users with up-to-date tracking and delivery notifications



Provide Proof of Delivery

Photos of delivered packages makes customers feel more secure



Clear Instruction

Ensuring delivery drivers know and follow customer instruction

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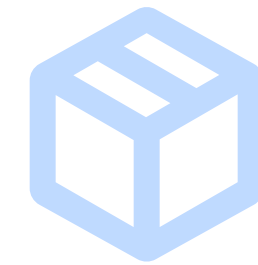
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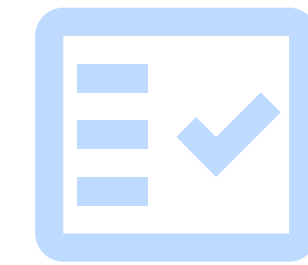
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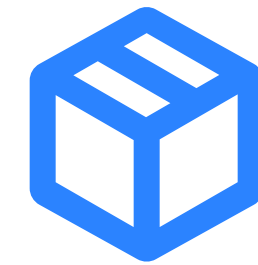
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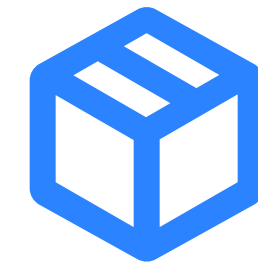
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Appendix

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How might we...

reimagine the complexities of today's delivery experience to build trust by ensuring customers feel protected, connected, secure, informed, and supported at every stage, from purchase to final receipt?

2025

- Early 2025 data shows that high-value theft continues, with the average stolen package still valued above \$200
- Urban residents now face nearly a one in five chance of theft, compared to much lower risks in suburban and rural areas
- Metro areas such as New York, Chicago, Philadelphia, and Houston are seeing losses in the hundreds of millions, showing how theft disproportionately impacts dense cities