The Business Necessity for Platform Engineering

SPS COMMERCE

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Introduction

Nathaniel Andersen
Sr. Director - Going Fast & Breaking Things

Andy Domeier
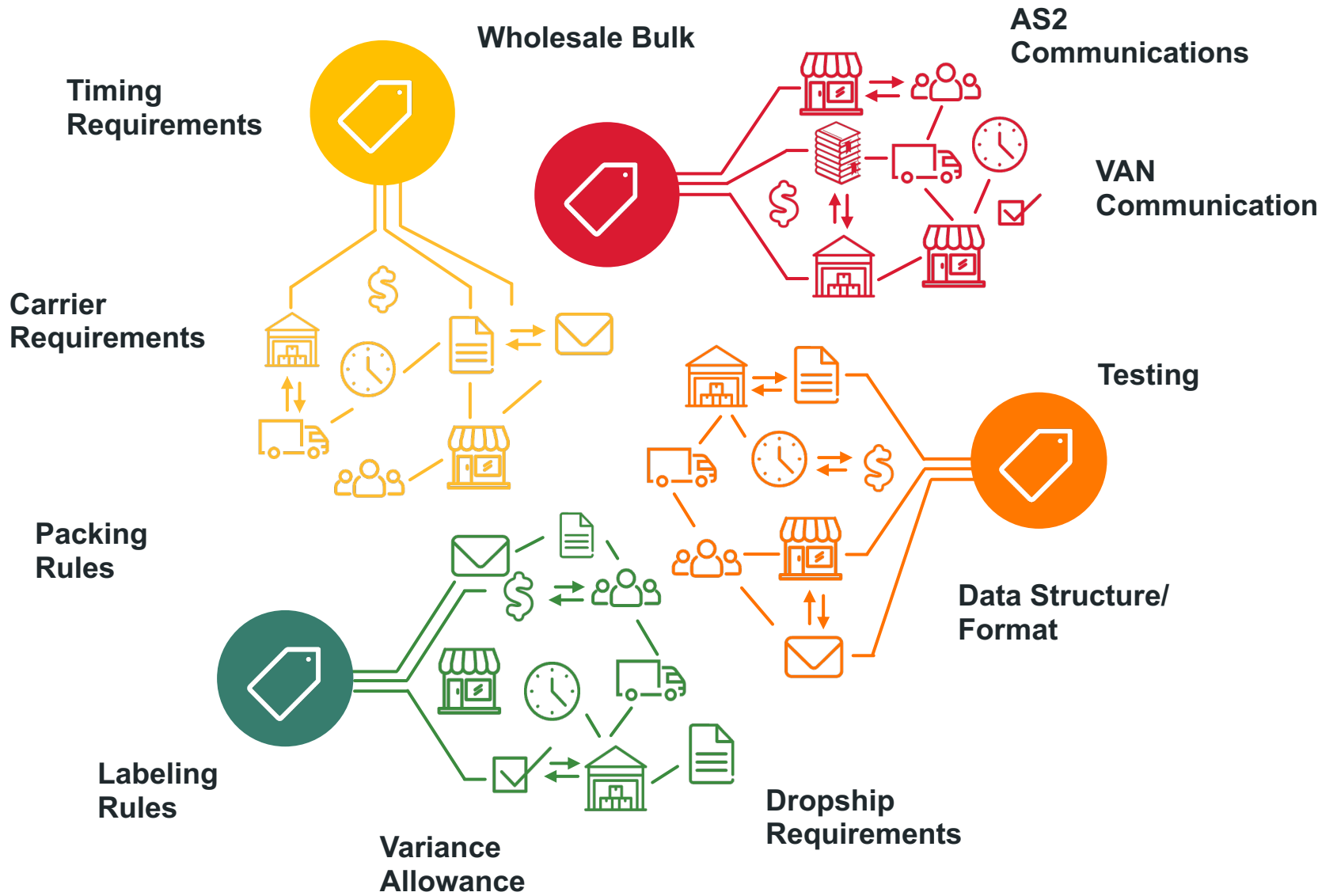Sr. Director - Cloud, Platform, SRE

The Business Necessity for Platform Engineering

"Necessity"?

3

Supplier Business Needs are Complex

Core Products

Seasonal Products

Systems

Fulfillment Models

Pick and Pack Process

Lead Times

Shipping

3PL Partners

Roles

Channels

Order Sources

Suppliers

Team

Order to Cash Process

Unique Contractual Requirements

Master Data Format

Connections

Every Retailer Has Unique Rules and Expectations

Timing Requirements

Wholesale Bulk

AS2 Communications

VAN Communication

Carrier Requirements

Testing

Packing Rules

Data Structure/ Format

Labeling Rules

Dropship Requirements

Variance Allowance

1 Data/Information Exchange

2 Business Processes

3 Contacts

Prebuilt All Retailer Expectations into a Single Connection

1. **data**
2. **business process**
3. **contact rules**

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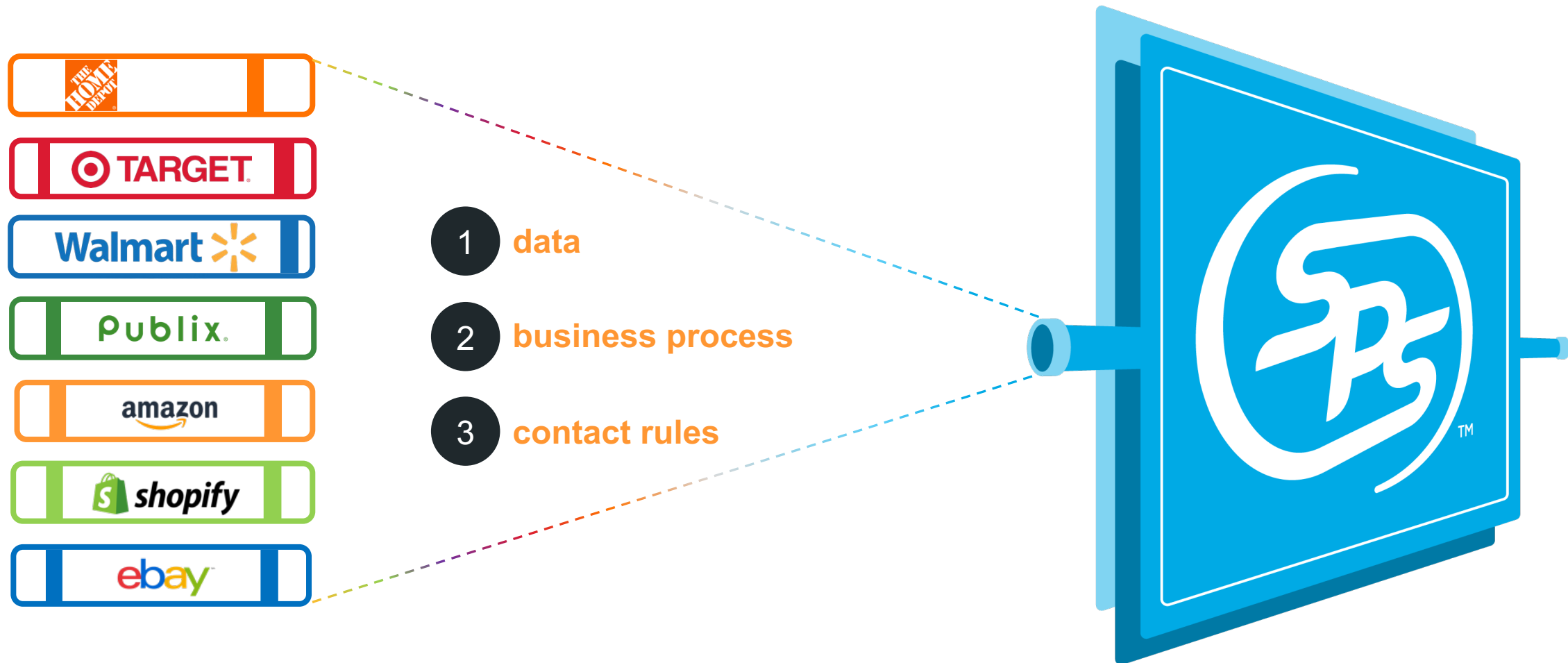
Experience and Expertise that Gave Us the Answers

1,000,000+ Connections

400+ System Partner Relationships

3,500 Buying Organizations
Retail • Distribution
Grocery • Manufacturing

100K+ Suppliers

All Fulfillment Models
+
All Channels & Product Categories

Security Certified

ISO 27001 Certified · AICPA SOC · HIPAA Compliance

- What does success for Technology organizations look like?
  - Deployment Frequency
  - Lead Time for Changes
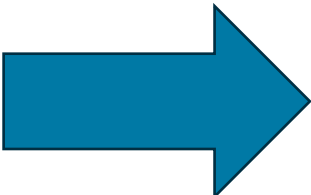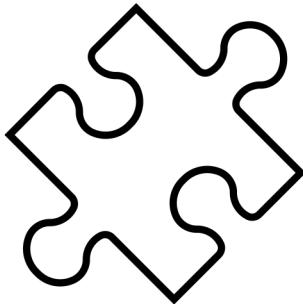 - Change Failure Rate
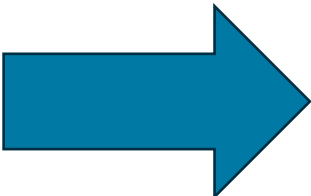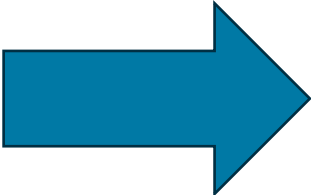 - Mean Time to Recovery

Let me tell you a story…

Let me tell you a story...

Let me tell you a story...

Priority Friction

Success requires our developers to be able to deeply focus on customer problems but also requires our developers to deliver highly available, secure, and cost-effective services

The Business ~~Case~~ Necessity for Platform Engineering

- The priority friction Software Engineering faces represents the "necessity" for Platform Engineering.

- Undifferentiated Engineering
  - This is engineering effort that must occur to some degree for service delivery. Deployment, Infrastructure, Security, & Monitoring
  - Doing this as a product is Platform Engineering
  - Platform engineering improves developer experience and productivity by providing self-service capabilities with automated infrastructure operations

- Platform Engineering helps our engineers spend as much of their energy as possible focusing on the customer problem.
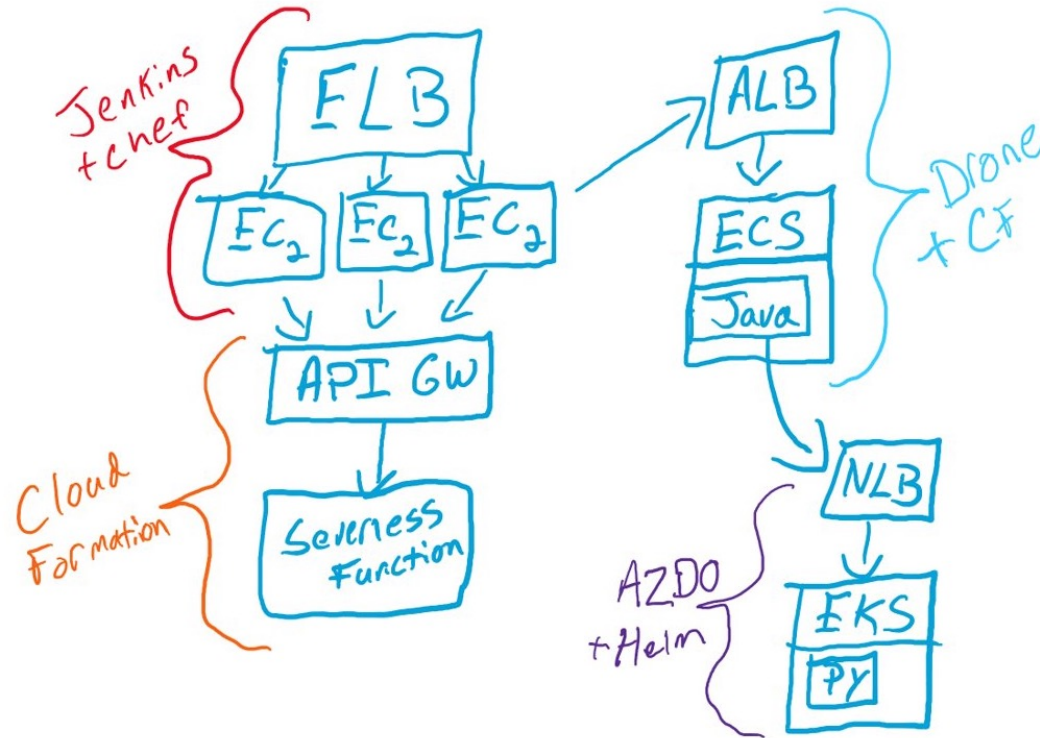
Platforms Accelerating Execution of Strategy

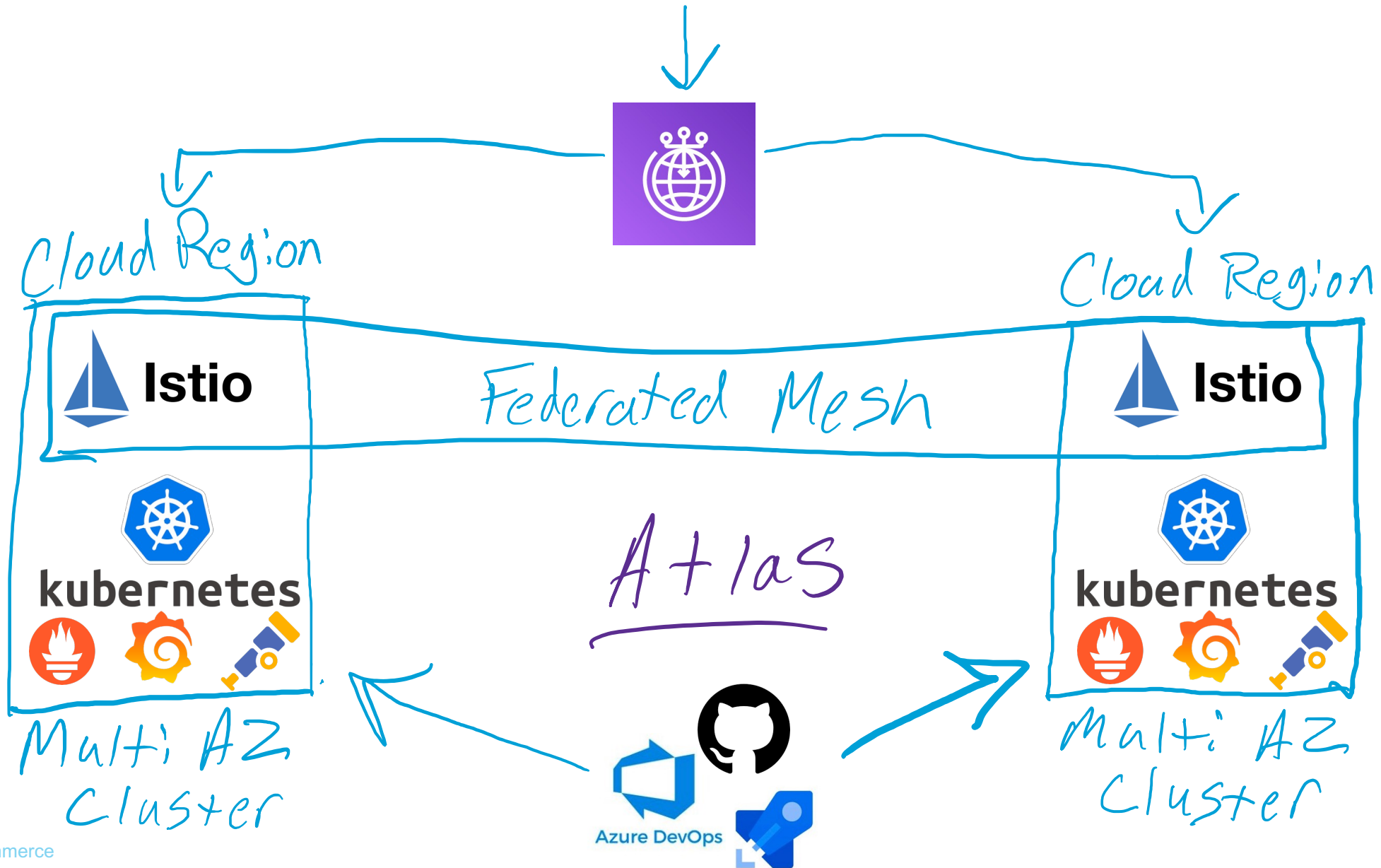# Platforms Accelerating Execution of Strategy
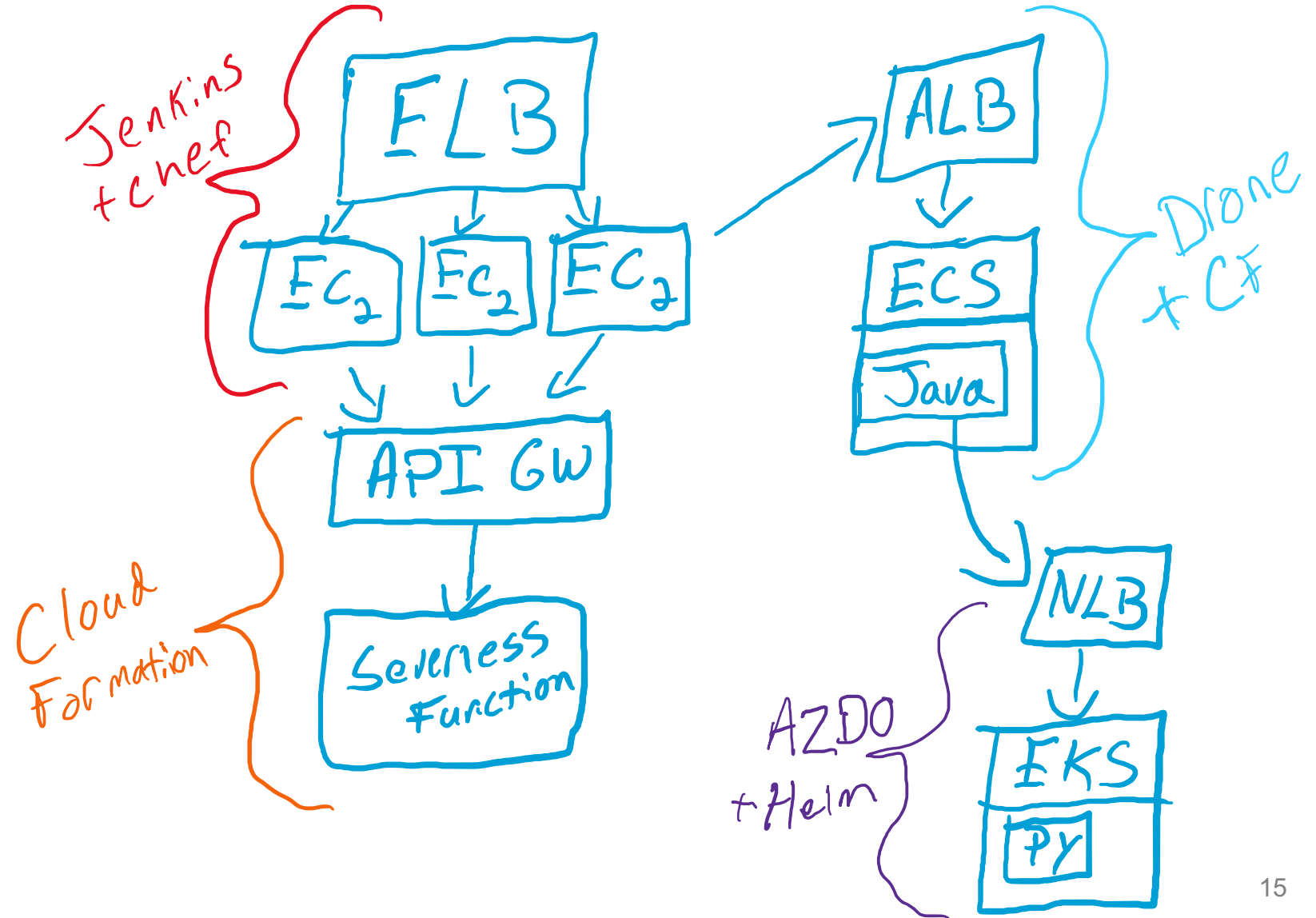
Platforms Accelerating Execution of Strategy

- Make this Multi-Region Please... x180
  - How do I route traffic?
  - Do I need separate secrets?
  - Can I replicate my jenkins server?
  - What in my build is hardcoded to regions?
  - What subnet is my database in?
  - Do I deploy to 1 region first?

- Undifferentiated engineering becomes an anchor and distracts your focus from the customer

Platforms Accelerating Execution of Strategy

Cloud Region

Istio

Federated Mesh

Atlas

kubernetes

Cloud Region

Istio

kubernetes

Multi AZ Cluster

Multi AZ Cluster

Azure DevOps

Continuous Improvement Metrics

- Predictability Makes Measuring Metrics Easier
- Data Feedback Requires Time to Trend

857
#CHG +/-

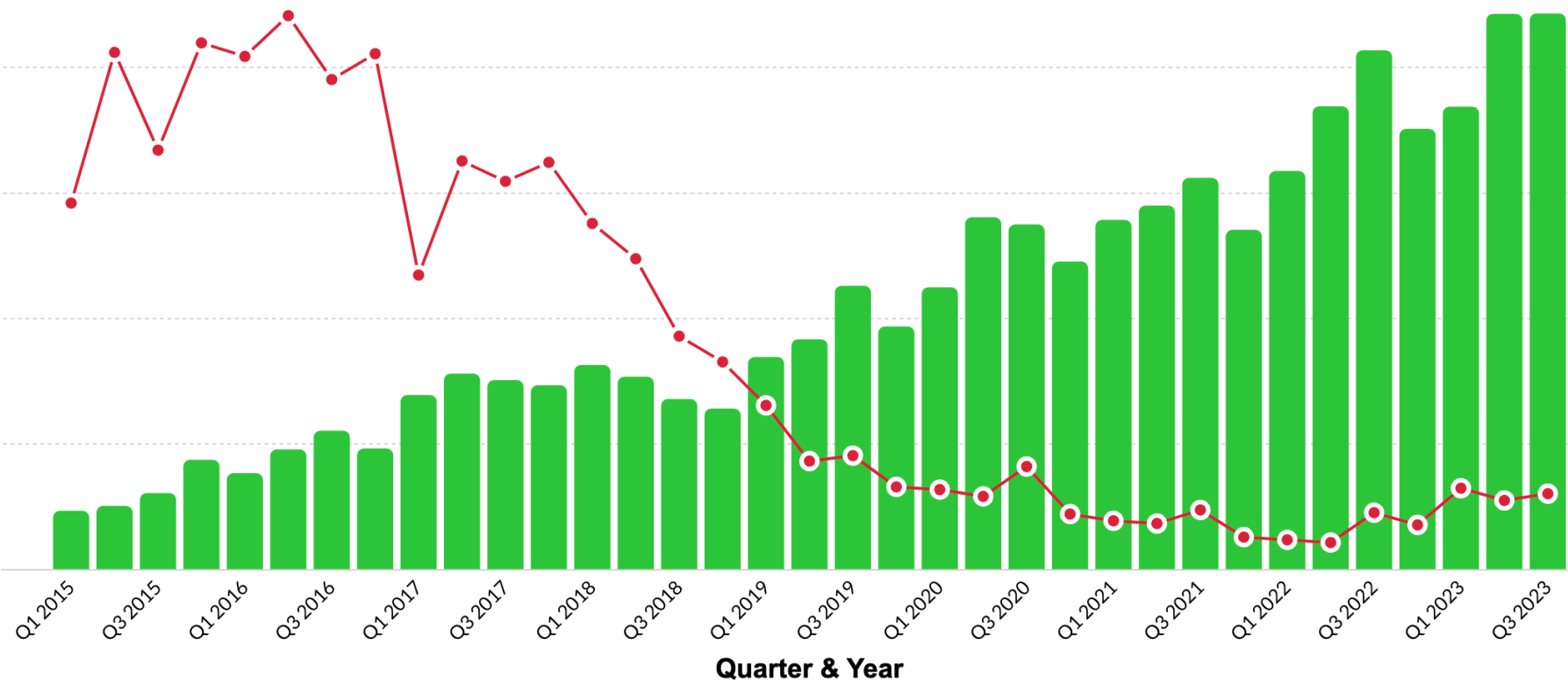**-341,761**
CHG Impact +/-

-0.18
Change Success Rate +/-

75
Unique Services +/-

-3,013,739
ID Impact YoY +/-

Legend
- Total Changes
- Total Incidents

Quarter & Year

Q1 2015, Q3 2015, Q1 2016, Q3 2016, Q1 2017, Q3 2017, Q1 2018, Q3 2018, Q1 2019, Q3 2019, Q1 2020, Q3 2020, Q1 2021, Q3 2021, Q1 2022, Q3 2022, Q1 2023, Q3 2023

What has our Journey taught us?

Localized iteration can slow you down

Drive Platform adoption by solving business needs not pretty numbers

It's customers all the way down:

- Leverage customer abstraction for Focus

- Leverage customer abstraction for Flow

A Platform Engineering silo is not so bad of a thing

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Thank You

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