

Migrating @ Scale 0 to Billions

Nov 12, 2024

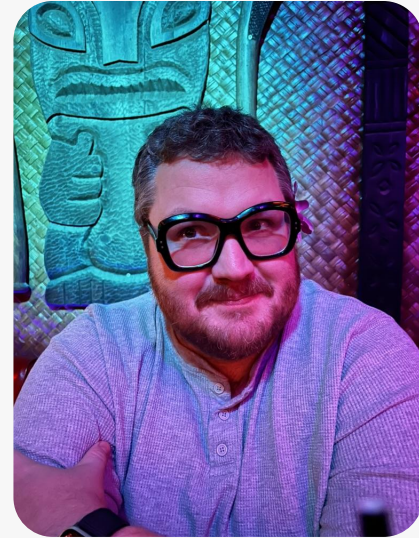
Meet your Speakers



Chetan Kapoor

eBay

PM, Feature Mgmt & Experimentation
eBay's Chief Evangelist of Feature Flags
Expedia (DevOps) → FinTech (10x Growth) → eBay



Justin Abrahms

Thrive Market (*ex-eBay*)

Principal Architect & Open-Source Chair
Maintainer OpenFeature Java & Ex Gov-Board
Google → Amazon → Walmart → eBay → Thrive

01

What's eBay?

eBay Today

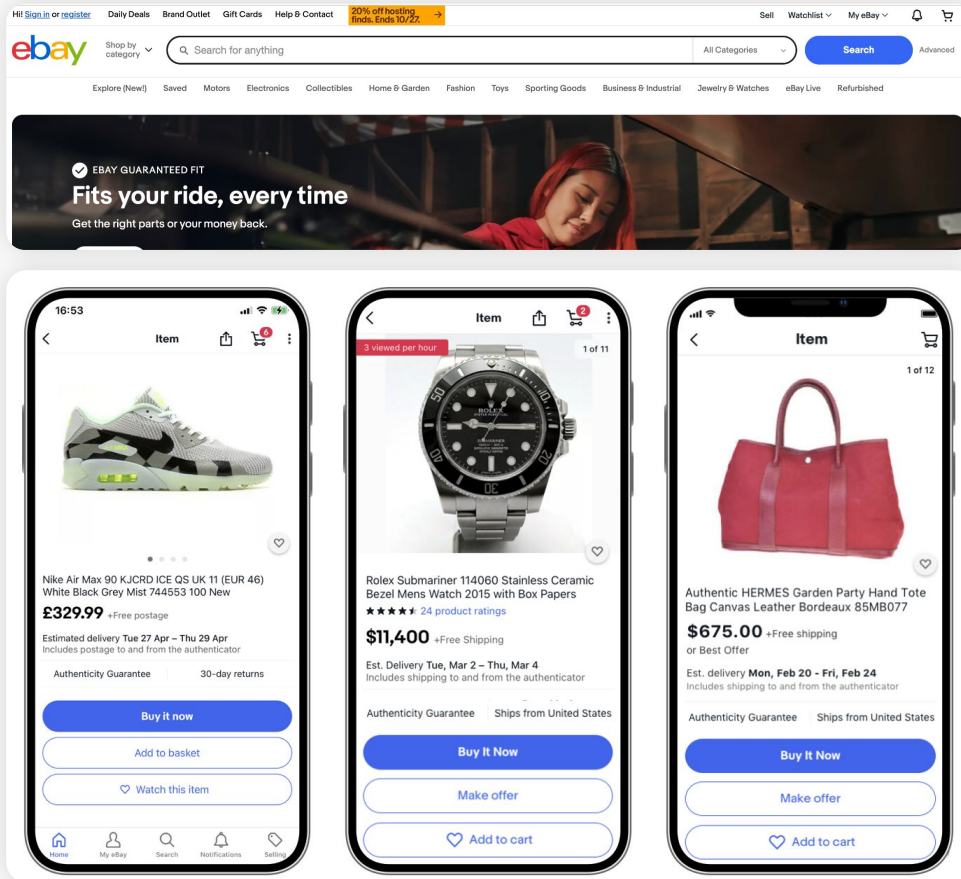
~2.1B live listings

132M active buyers worldwide

190 markets

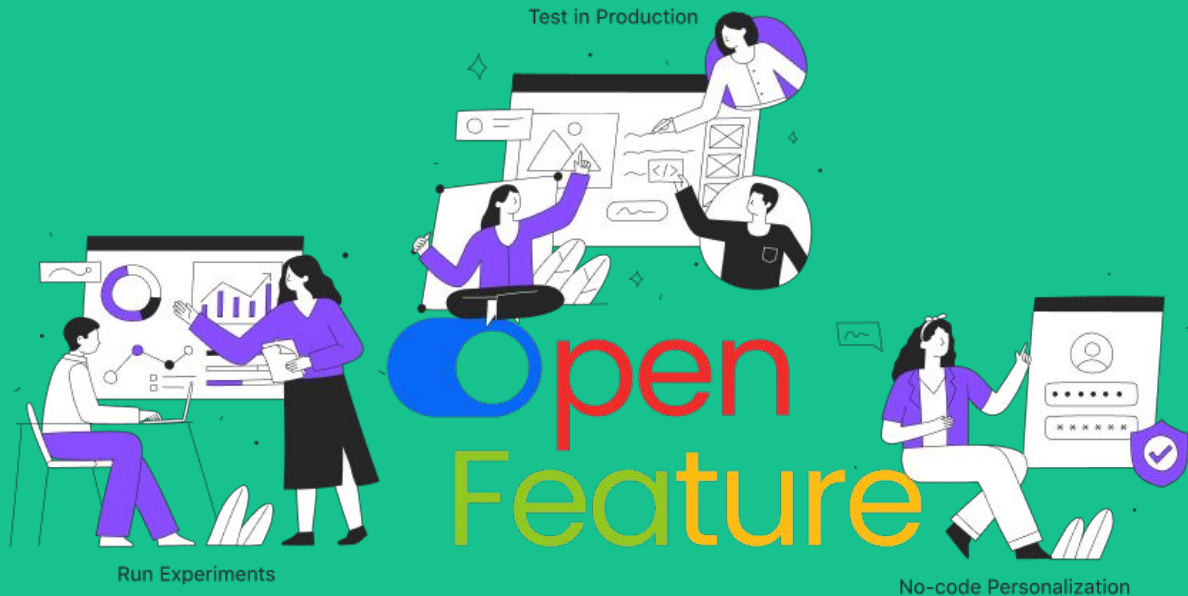
\$12B mobile volume

As of Q2 2024



02

eBay's Adoption Journey



Velocity program

Make software delivery a competitive advantage



Developer Ecosystem Problems

Takeaway: Things were slow, fragmented & individualistic

1



Code Stuck in review

- Deployment: error prone & slow
- Branches got larger & larger
- Release == Deploy

2



Multiple Config platforms

- Device Config System (native)
- Global Config System (web+offline)
- Experimentation Platform (misused)

3



DIY Engineering culture

- Confusions and Duplication
- Lack of guidance on trunk based dev
- Difficult to enforce CI/CD golden path in developer workflow

Internal Platforms vs Industry Tools

Takeaway: Buy if you can. Use standards to de-risk building.



1000+
MAU



2000+
Experiments

75+
CSAT

Touchstone

Experiment

Feature Flag

Report

Metric

Audience

Tools

Monitor

Help

Create

Search EP or feature flag

Experiment List / VI Signals - Last One on Native v3 (ID: 121509)

VI Signals - Last One on Native v3 (ID: 121509)

🇺🇸🇬🇧🇦🇺🇩🇪🇦🇵🇵🇦🇩

Product Feature

Validating

Data Collection

Complete

Refresh

Clone

1.2 min

✓

Assignee: pchhikara, dpun
2024-10-25 13:20:31

Design

1.1 d

Assignee: pchhikara, dpun
2024-10-25 13:21:44

Implementation

Data Collection

Analysis

Decision

Comments (1)

Audit Logs (5)

Labels

Manual Analysis

User Guide

Learn how to integrate with EP:

Go

Smoke Test Date Range:

2024-10-25

→

2024-11-30

Application Pool Name

Please identify the prod pools this experiment is running on. Pool name will be used in change request ticket, bad performing experiment monitoring and email notification with your experiment change will be send to the pool owner. [Is this a native client side experiment?](#)

signalsservice2-app:signalsservice-production-2-tessprod

viexpio34cont-app:viexpio-production-3-tessprod

viexpio79cont-app:viexpio-production-1-tessprod

viexpio80cont-app:viexpio-production-4-tessprod

Exclusive Experiment

Exclusive Experiment- Mutually exclusive experiments are two or more experiments configured to prevent users from being included in more than one at a time. Use shared plane to ensure mutual exclusivity between experiments in a plane that run at same times. [Learn More](#)

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Feature Flags Enabled

Takeaway: OpenFeature was critical to unlock feature flags

Use OpenFeature SDK

- Authored **eBay-specific** provider and hooks
- Huge Benefit for eBay: **One API for flags & experiments, and sunset 25+ legacy APIs**

Add Platform Capabilities

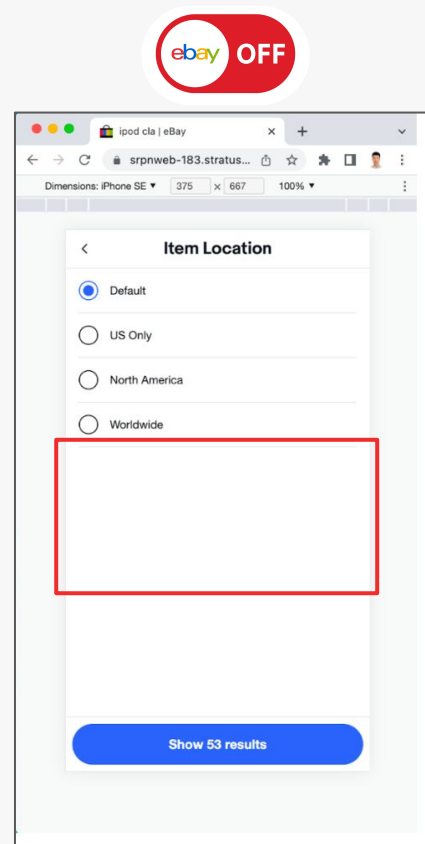
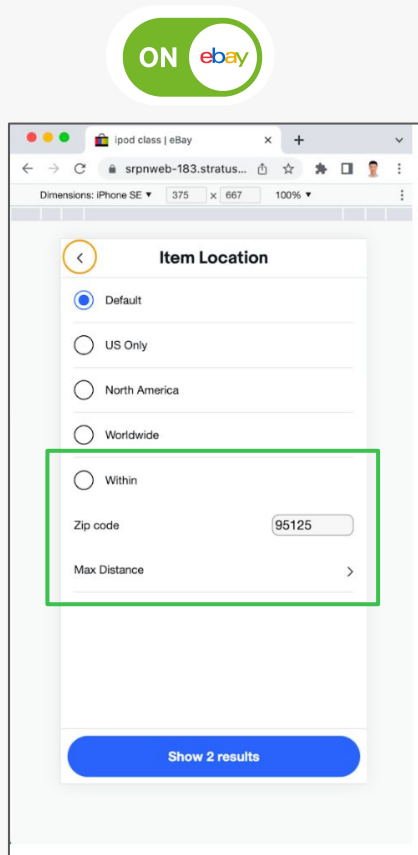
- **Kill Switch** (allow site reliability to instantly STOP an incident with flags)
- **Audience Aware Targeting** (employees, device/location/site, customer segments & audience)

Simplify Onboarding Journey

- Updated Internal Guide with Open-Feature to help engineers **Get Started**
- **Technical Program Manager was hired** to establish documentation and run awareness campaigns

Convinced 3+ Developers (validate)

Takeaway: Try to pilot with excited & diverse group of developers



Ran 20+ Alpha Pilots (feedback loop)

Takeaway: Be customer centric and iterate your MVP roadmap

α

WHAT
Build PMF with Feedback

WHY
Learn from early adopters

FOCUS
Bugs, blockers, missing features



β

WHAT
Launch MVP for eBay

WHY
Craft a delightful Dev-Xperience

FOCUS
Ease, usability, compatibilities

Sunset 25+ Legacy APIs (migration)

Takeaway: Drive your execution both top down and bottoms up!

Customer Success



5-Step Strategy

1. Secured 10% of Velocity budget
2. Simple instructions and demos
3. Made Domain leaders sign plans
4. Self-service Migration Monitoring
5. Newsletters and Escalation Emails

300+

JIRA
Tickets

1000+

Slack
Messages

Countless

Stakeholder
Updates

06

Today & Beyond

Feature Flags Today

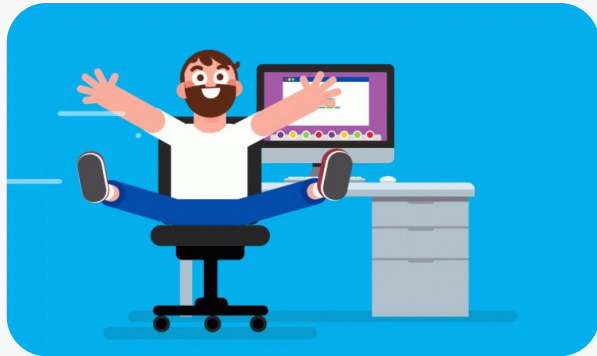
Trillions of Calls

2500+ Experiments behind Flags

1000s Active Developers

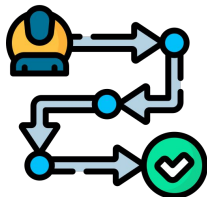
1 min Change Propagation

3 ms Evaluation Latency



Up Next on our 2025 Roadmap...

Developer Workflow (idea to customer)



Education & Empower (champion program)



Developer Happiness (DSAT score)



eBay hopes to partner with **Open** in 2025 & Beyond

Feature

Build Together

- Bulk/batch specs (proposal)
- Flag Hierarchy (christmas + bundle test)

Grow internal champions

- Product & Dev Certificate (proposal)
- Bootcamp or Speaker Series

Empower external community

- Writing / videos / docs on socio-technical why's of flagging
- Co-Host Meetups in the Valley at eBay HQ



Q&A

