

**SCALING AND  
RE-ARCHITECTING  
SYSTEMS UNDER  
FIRE!**



2004

**YOU GET BUY-IN**





**VICKI  
KALMANOVICH**

Senior Engineering  
Manager, **TomTom** 

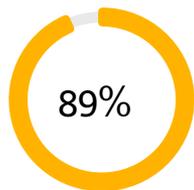


VICTORIYA KALMANOVICH



@VickiToVictory1





89%

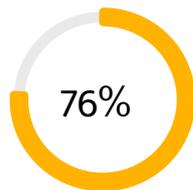
**App**

372 Mentions

“Super easy to use ”

“User friendly ”

“Very intuitive”



76%

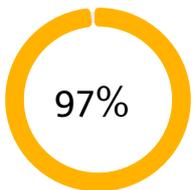
**Battery Life**

957 Mentions

“Strong battery”

“Outstanding”

“Could be better ”



97%

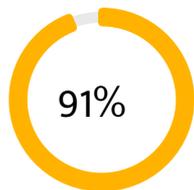
**Monitor**

505 Mentions

“Easy to use ”

“Works great ”

“Accurate ”



91%

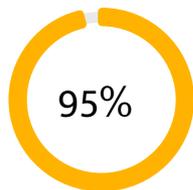
**Comfort**

834 Mentions

“Comfortable”

“Super happy”

“Big like ”



95%

**Workouts**

1120 Mentions

“Great for runners”

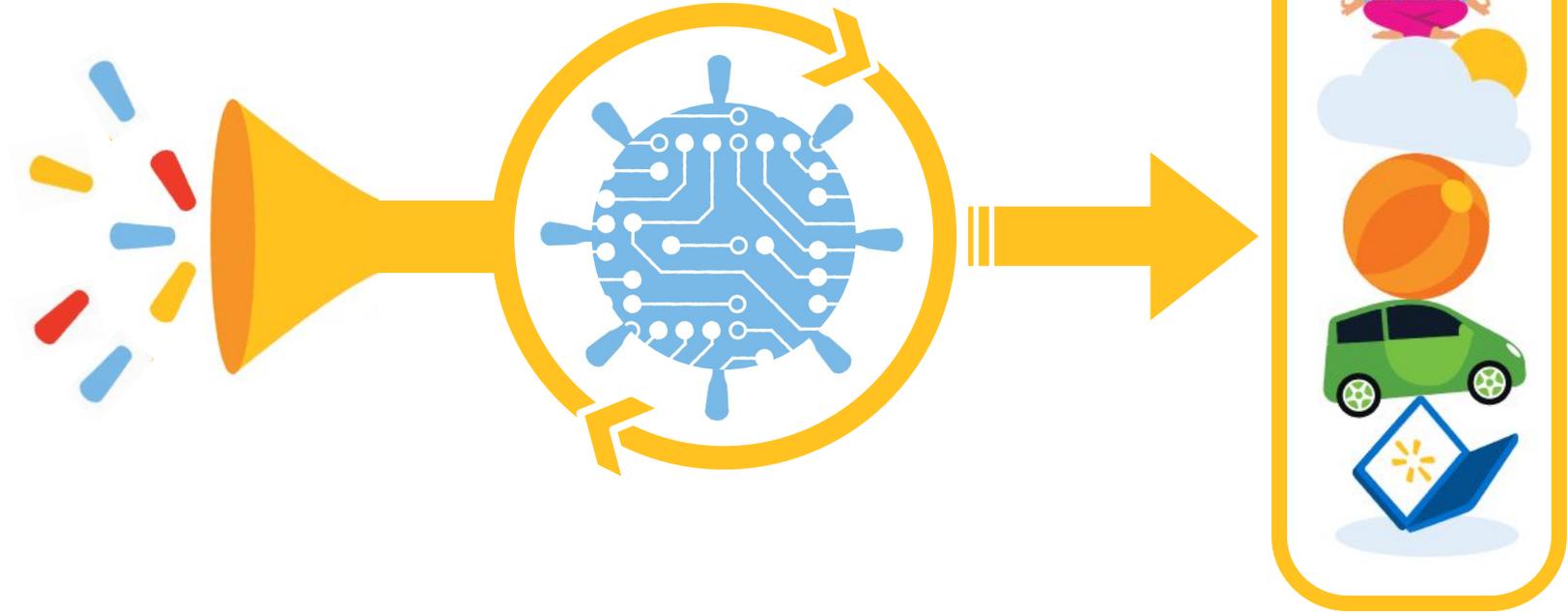
“Accurate”

“Recommended”

## DATA COLLECTION

## DATA ANALYSIS

## DATA APPLICATIONS



# **REVIEWS COLLECTION PLATFORM**



Departments

Services

Search everything at Walmart online and in store



Reorder My Items

How do you want your items?

Cedar Park, 78613 Cedar Park Supercenter

Deals Mother's Day Grocery & essentials Fashion Home

### Customer reviews & ratings

# 4.8 out of 5

★★★★★ (738 reviews)

See all reviews

Write a review



\$7.94 44.1 cloz

Price when purchased online

Buy now

Add

Pickup, today at Cedar

Aisle G14

Delivery from store

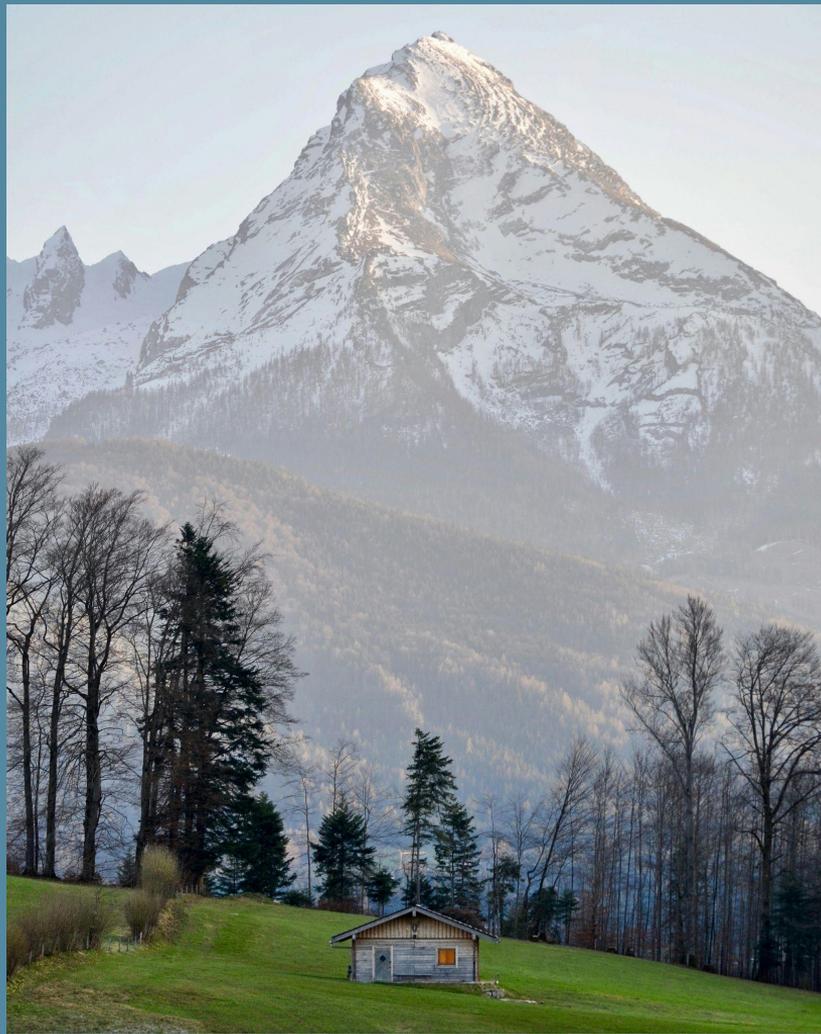
Shipping, arrives by t

Sold and shipped by

Free 90-day returns

... helpful negative review





**GET BUY-IN ON EVERY  
STEP**

# AGEND A

- 1. GET BUY-IN ON THE PAINS**
- 2. GET BUY-IN ON THE SOLUTIONS**
- 3. GET BUY-IN DURING THE PROCESS**

**GET BUY-IN ON THE  
PAINS**

**AVAILABILITY**  
**Y**

**SCALABILITY**

**RELIABILITY**



**CALLS TO  
SERVICE**

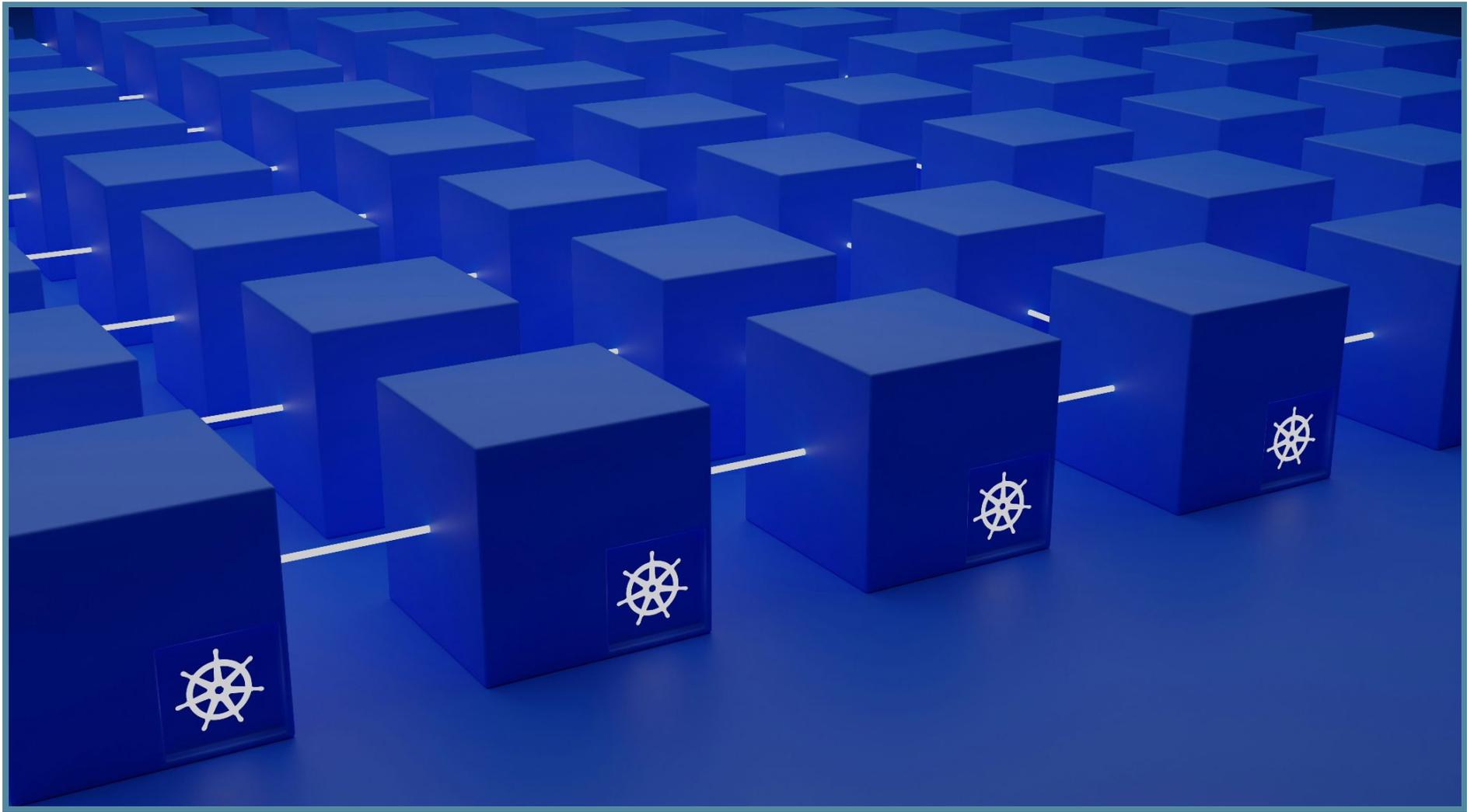
**VOLUME OF DATA**

**SYSTEM  
BEHAVIOUR**

**FOCUS ON IMPACT  
AND VALUE  
PROPOSITION**

**GET BUY-IN ON THE  
SOLUTIONS**









**LEVEL OF EFFORT + IMPACT**  
**=**  
**RETURN ON INVESTMENT**

**FOCUS ON  
RETURN ON INVESTMENT**

**GET BUY-IN DURING  
THE PROCESS**



**GET BUY-IN ON EVERY  
STEP**

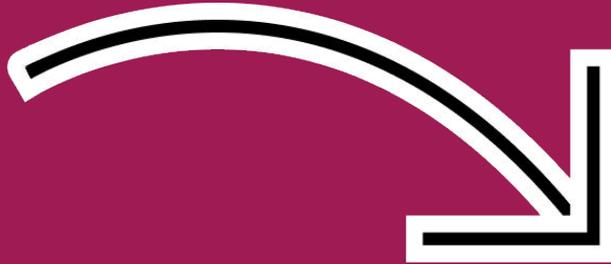
**POC (MOST) STUFF**



**DON'T SPREAD TOO  
THIN**



# **EXIT STRATEGY**





# GET BUY IN DURING THE PROCESS

1. COLLECT **METRICS**
2. GET THINGS **DONE**
3. BE **FLEXIBLE**

**FOCUS ON  
IMPACT DURING LONG  
TERM EFFORTS**

**GET BUY-IN ON EVERY  
STEP**



**THANK  
YOU!**



VICTORIYA KALMANOVICH



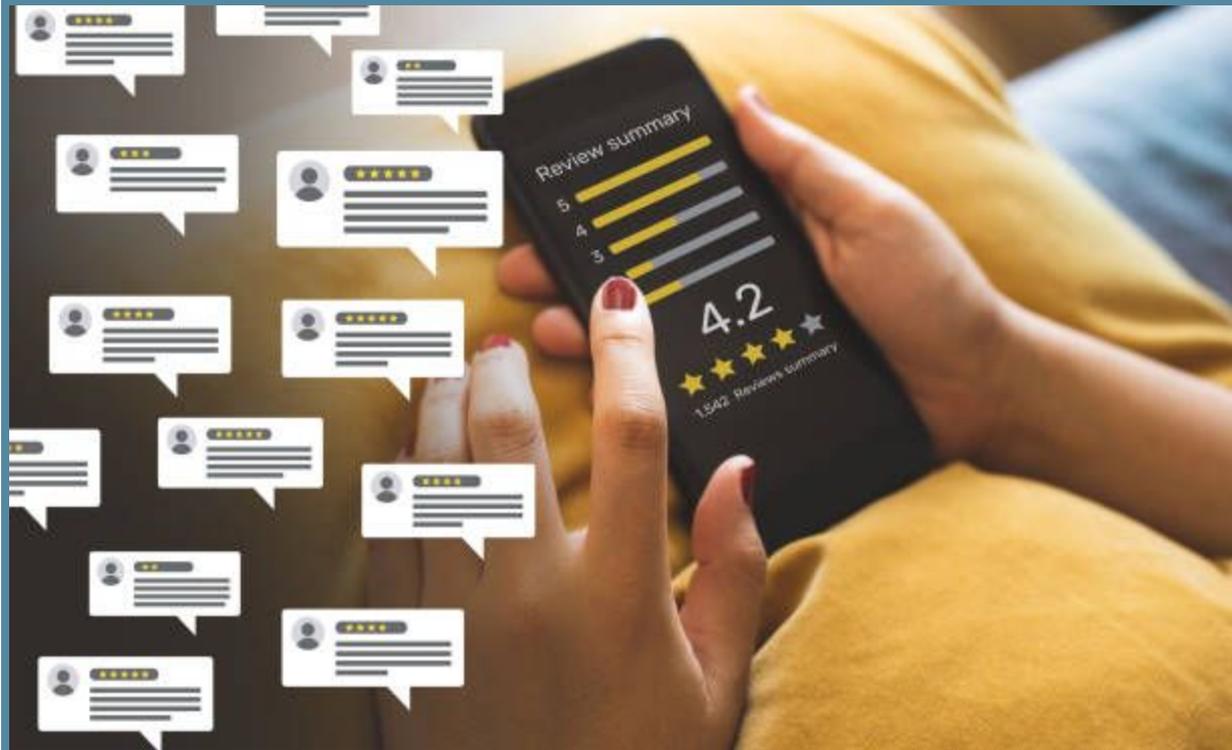
@VickiToVictory1



**Introduce queues,  
async over sync...  
More examples**



*dreamstime.*



Less effort, not the great impact we anticipated (we did find bugs easier, separation of concerns helped with weird edge cases, but no improvement in scale - we wanted to utilise the microservices scaling differently components based on their usage)

**extracted a heavy load service (the one with most pains around it) to be a microservice so it could be scaled up and we could serve more data faster while the rest would remain in the monolith, of course not a perfect solution and we've encountered problems with this one - but at least we now knew what helps get buy in - scale, both data volume and users served, availability and reliability.**



**Infra, feature, user  
bug, data quality,  
bug from CEO – didn't  
get anything done**

**Collect metrics,  
define acceptance  
criteria, define what  
is good enough,  
understand and  
communicate  
consequences of exit  
strategy and  
choosing option A**

**For today's story I could tell you about all the technical details, the code, the architecture. But actually I'd like to talk about all of these through one main point.**

**I was working for a small startup that was acquired by Walmart. We were acquired for our NLP based technology.**

