

AWS  
re:Invent

TRH201-L

# Leadership session: Travel & Hospitality

## **David Peller**

Head, Travel &  
Hospitality

Amazon Web Services

## **Kenneth Chang**

Chief Information  
Officer

Korean Air

## **Brian Kirkland**

Chief Technology  
Officer

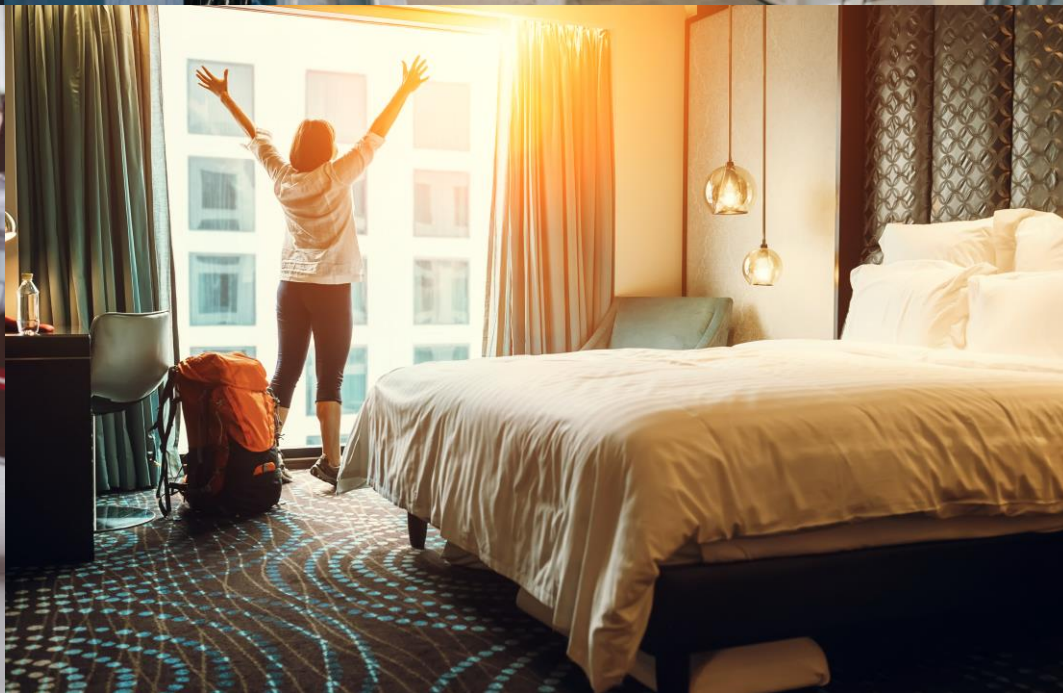
Choice Hotels Int'l

## **Will Sprunt**

Chief Information  
Officer

Deliveroo (Roofoods)







Welcome





# AWS Travel & Hospitality

Other AWS re:Invent sessions

## **TRH202 — Personalizing customer experiences in Travel and Hospitality**

Wednesday, December 4, 12:15 p.m.

MGM, Level 3, Chairman's Ballroom 360

## **TRH302 — Turn Travel and Hospitality call centers into profit centers (Chalk Talk)**

Thursday, December 5, 1 p.m.

MGM, Level 3, South Concourse 304



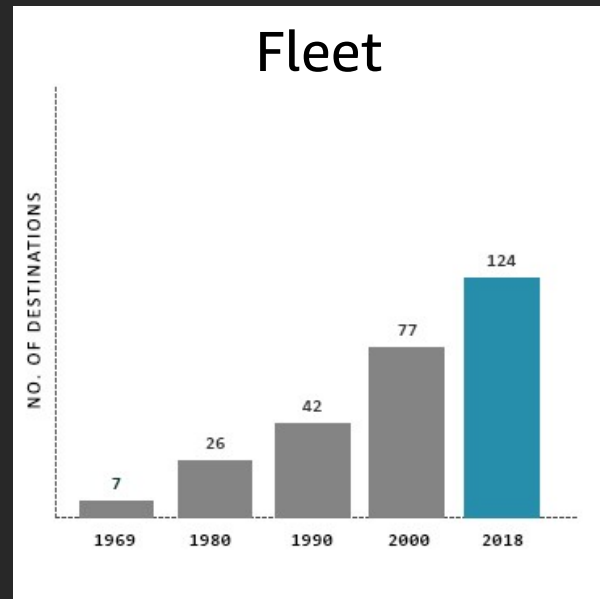
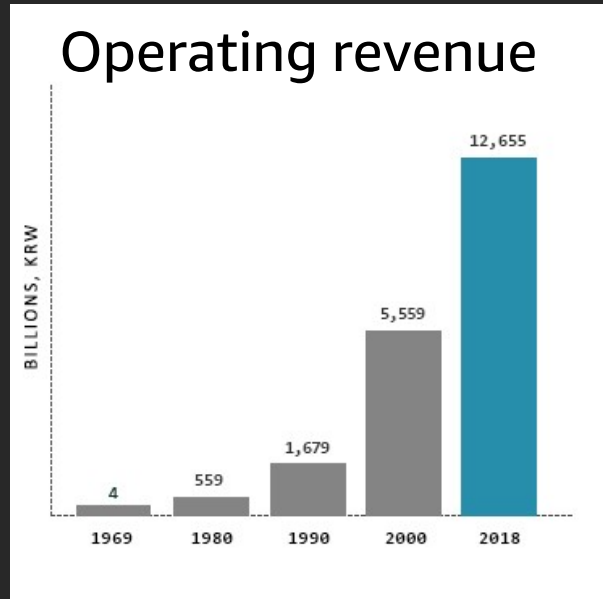
travel and  
hospitality





# Korean Air

# Korean Air: *Beyond 50 years of excellence*



## Mission

Excellence in flight

OPERATIONAL  
EXCELLENCE

INNOVATIVE  
EXCELLENCE

SERVICE  
EXCELLENCE





# Korean Air with AWS

Partner with AWS for the next  
50 years of excellence

This is a foundation for a  
broader digital transformation  
journey



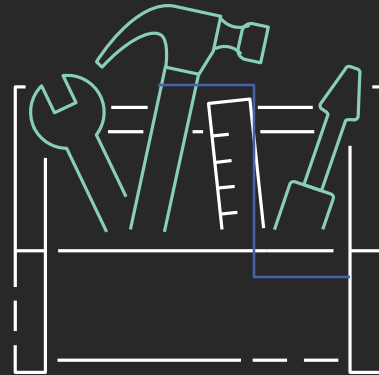
# Business challenges

**Business  
agility**



**For operational  
excellence**

**Predictive  
maintenance**



**For innovative  
excellence**

**Customer  
experience**



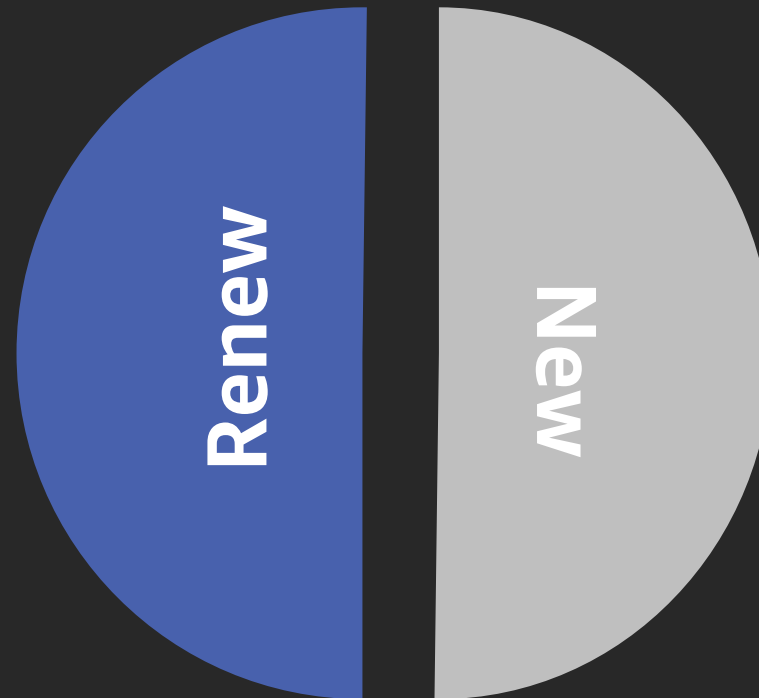
**For service  
excellence**



# Korean Air strategy: Ambidextrous

## Optimization

Short-term  
Present focus  
Solving  
Incremental



## Innovation

Long-term  
Future focus  
Anticipating  
Disruptive

### Business agility

Phased all-in  
migration



Data warehouse  
migration



Operational  
excellence

Predictive  
maintenance



Innovative  
excellence

Homepage & mobile  
redevelopment



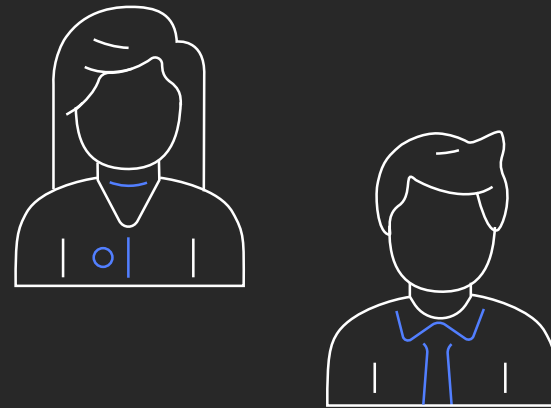
Service  
excellence

# Solution with AWS: Business agility

## Phased all-in migration



Migration planning  
Landing zone  
Security and compliance  
CCoE  
Etc.



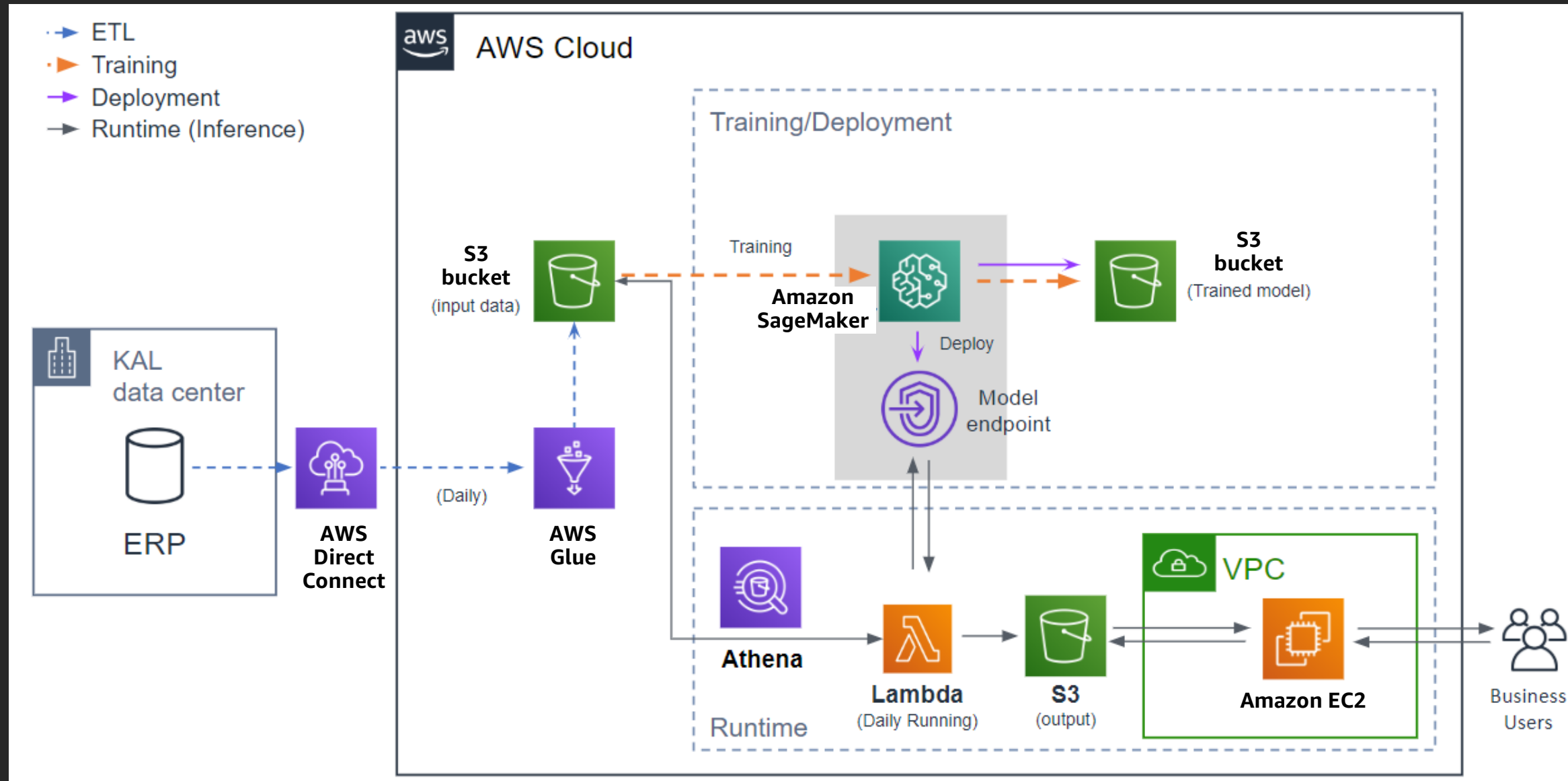
With AWS  
Professional Services

## Data warehouse migration



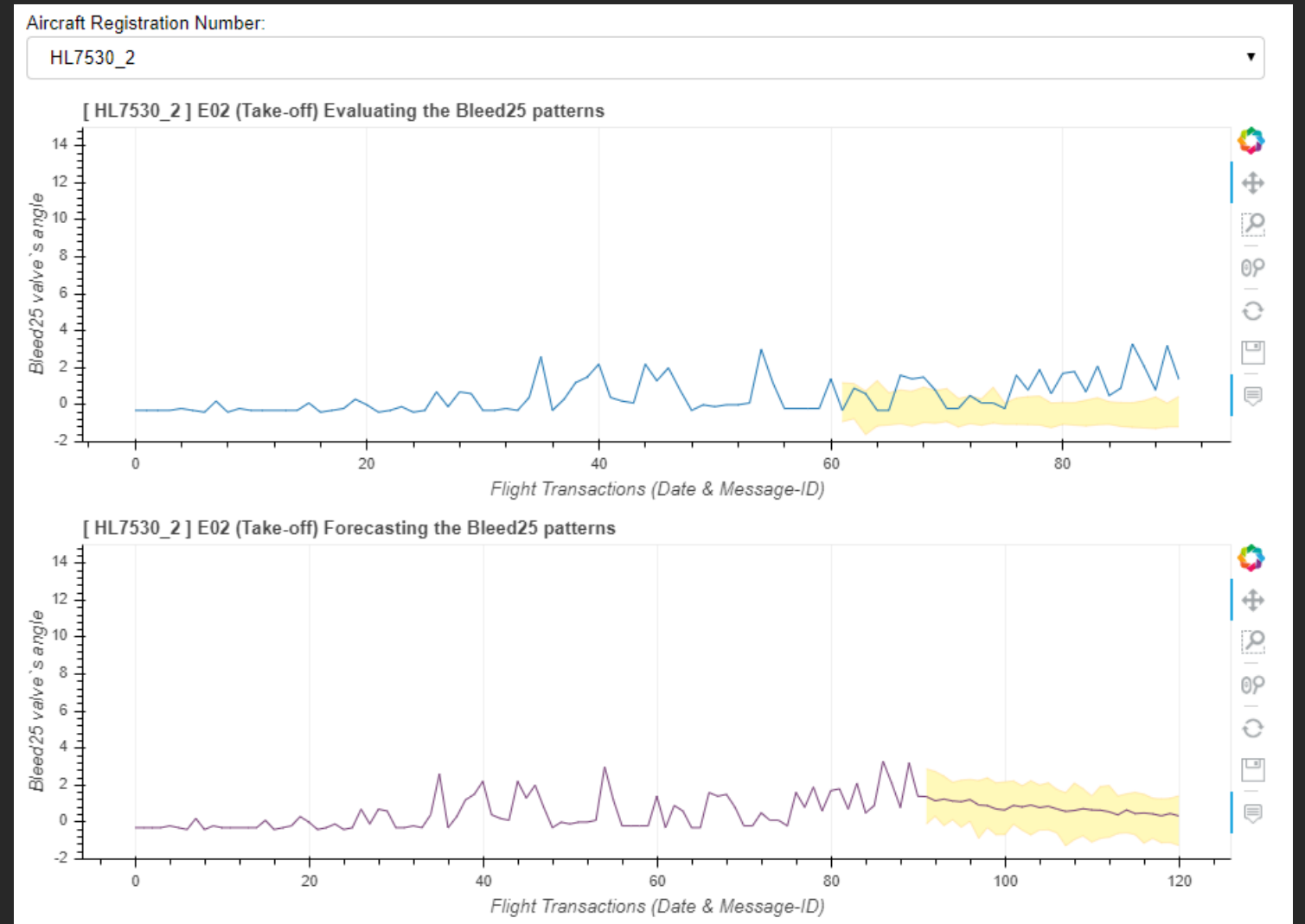
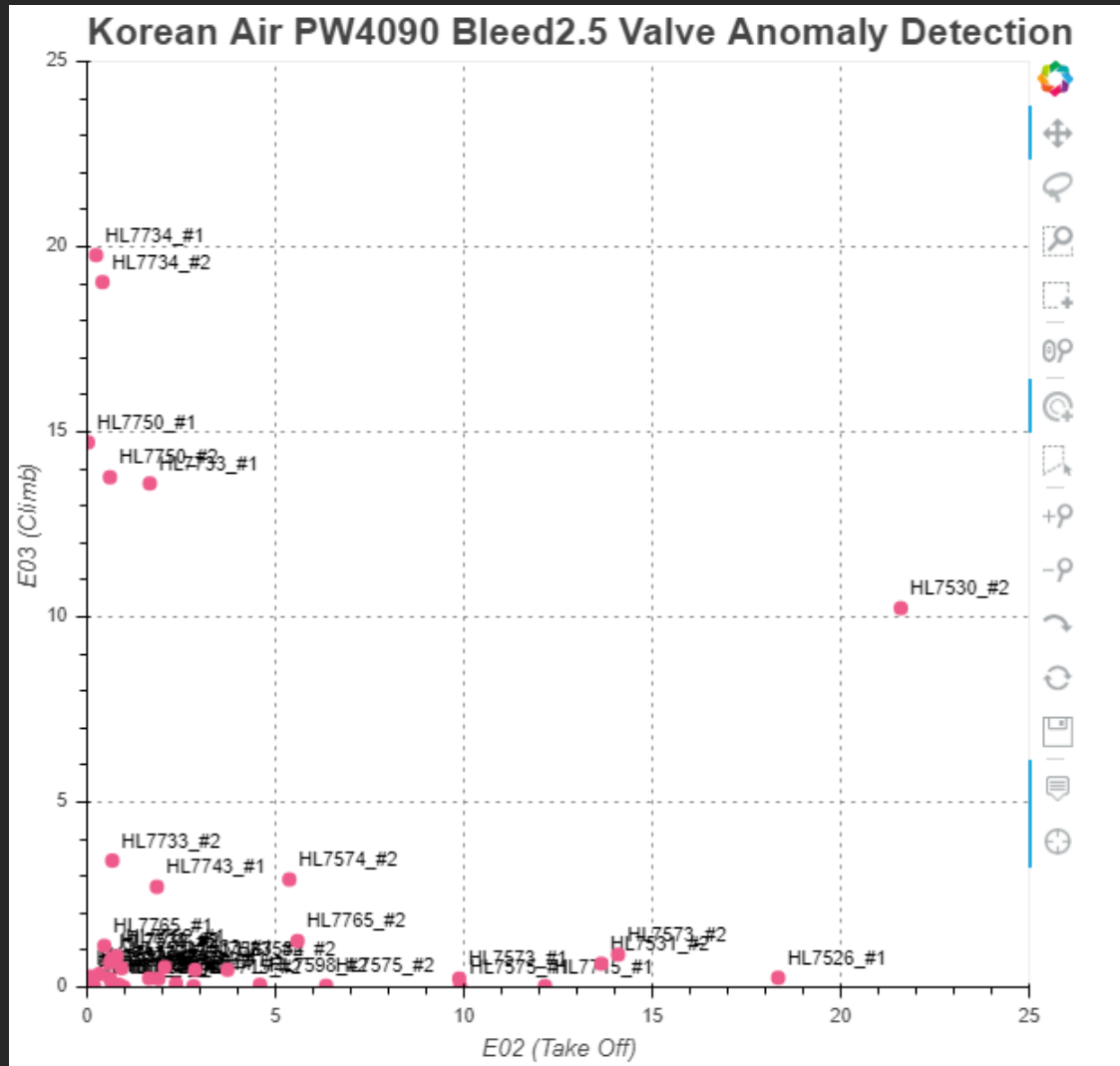
Data migration  
ETL migration  
CI/CD  
Services enablement  
Etc.

# Solution with AWS: Predictive maintenance (1/2)

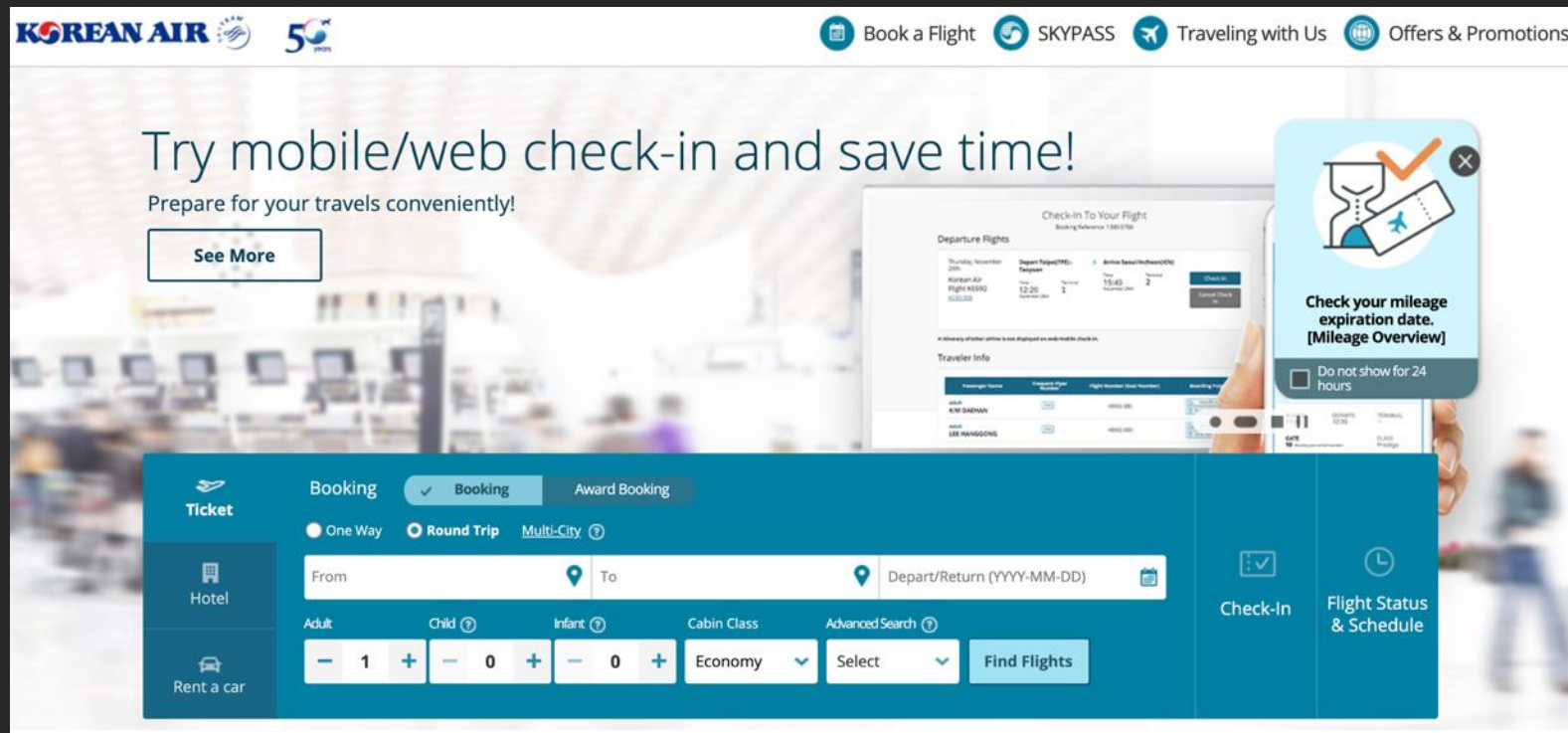




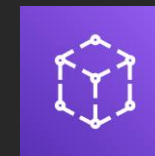
# Solution with AWS: Predictive maintenance (2/2)



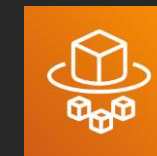
# Solution with AWS: Homepage & mobile redevelopment



Redesign phase based on microservice architecture, considering many options



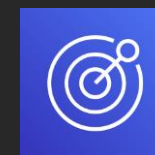
AWS App Mesh



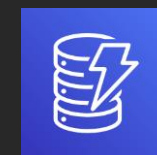
AWS Fargate



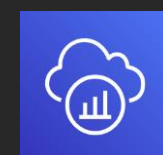
AWS Lambda



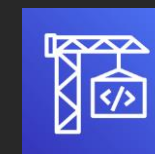
Amazon Pinpoint



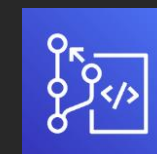
Amazon DynamoDB



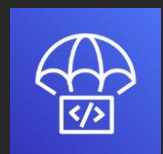
AWS X-Ray



AWS CodeBuild



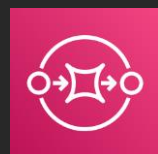
AWS CodeCommit



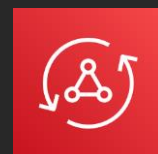
AWS CodeDeploy



AWS Professional Services



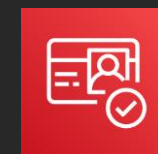
Amazon Simple Queue Service



AWS AppSync



Amazon API Gateway



Amazon Cognito

# Benefits

Business agility

brought

**2x faster experiments**

for the new services





# Benefits

Predictive maintenance

Challenge B777 aircraft bleed 2.5

**Zero fault!**



# Korean Air with AWS



# Choice Hotels





# CHOICE

HOTELS

Maximum  
Occupancy  
140



# CHOICE HOTELS

Enjoy the extras



Rest and refresh



Get more value



Stay awhile



Travel simply



Rentals





Enjoy the extras



Rest and refresh



Get more value



Stay awhile



Travel simply



Rentals



# Hospitality





More than **7,000 hotels** Over **40 countries**

Franchise

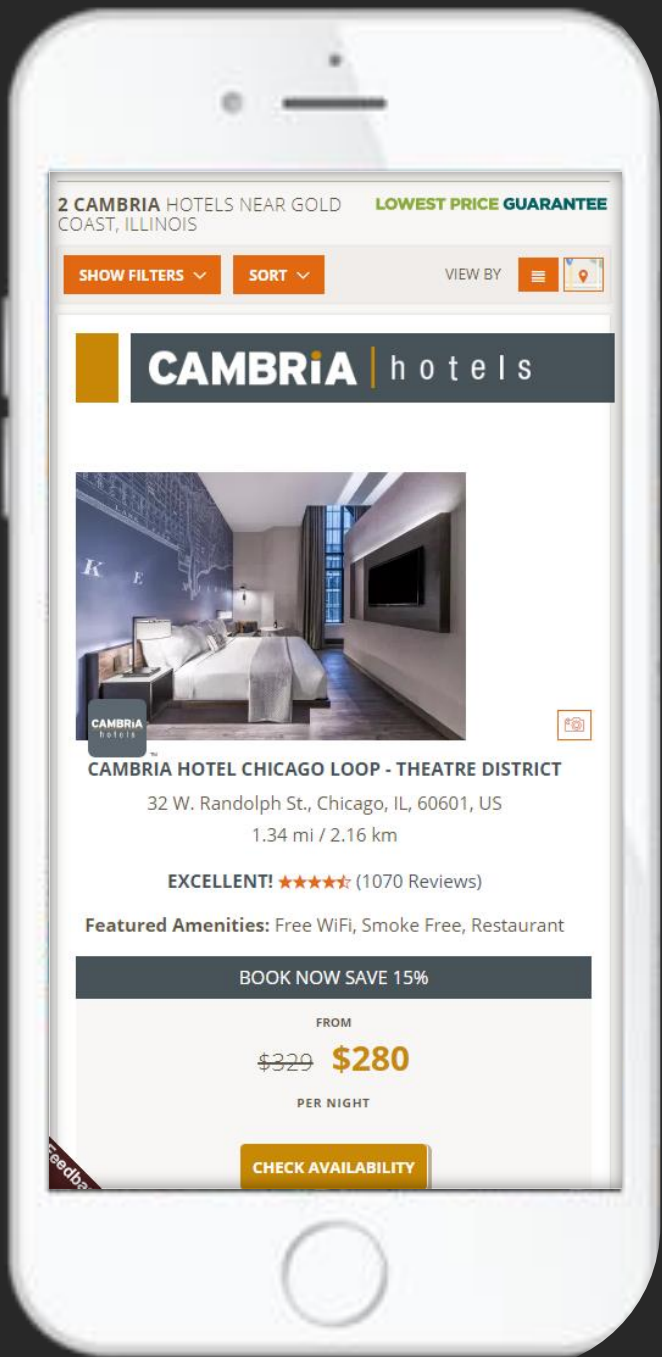
**\$9B**  
transactions

**200M**  
customers

**570K**  
hotel rooms

Technology





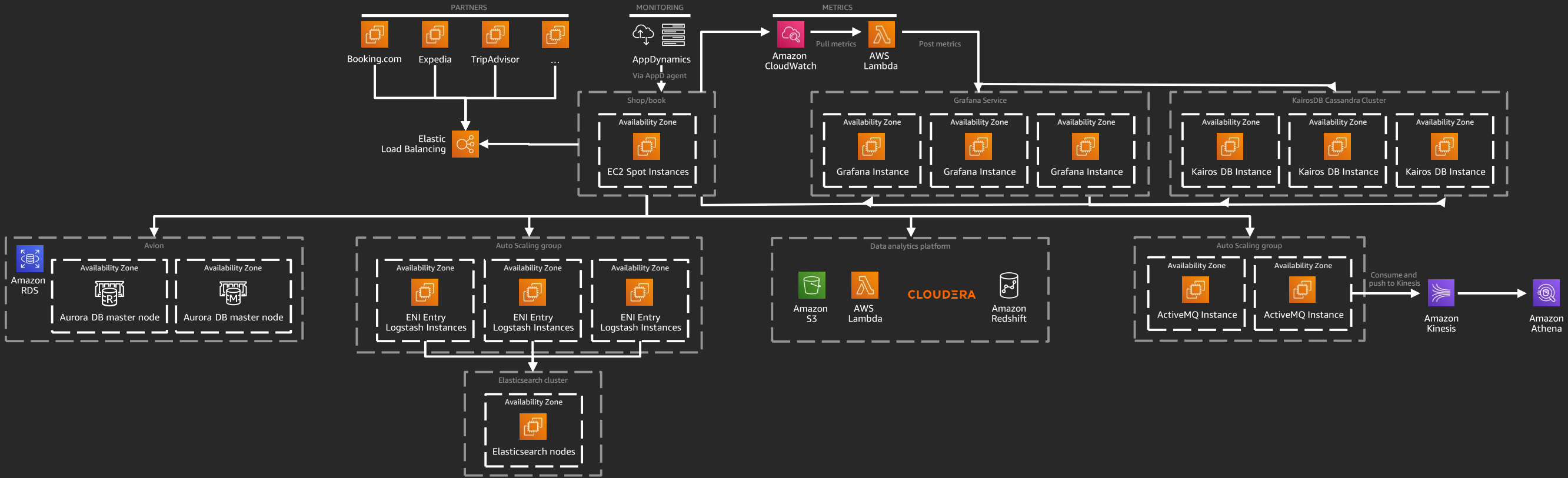


# Global reservation system





# Native on AWS from the ground up



# A game changer



Significant  
cost reduction



2x improvement in  
performance and stability



10x faster  
partner onboarding

Stepping back



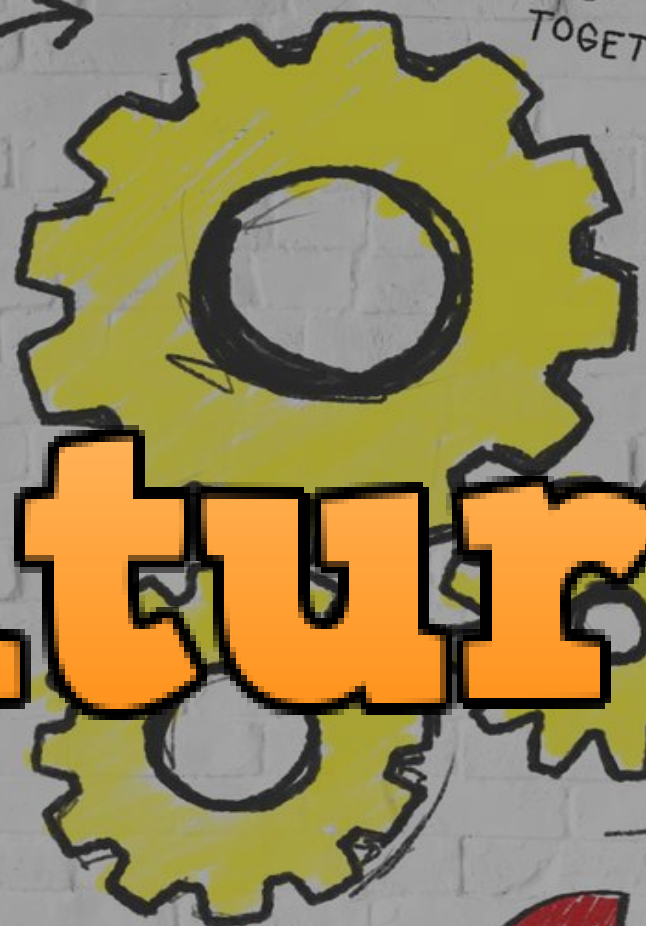


# A startup within





# Culture



TEAMWORK

SUCCESS

GROWTH

HELP!

TOGETHER

Ideas!  
Brainstorm

Vision

PARTNER

30%





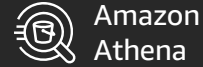




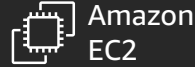
# All in on AWS



AWS  
CloudTrail



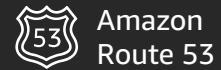
Amazon  
Athena



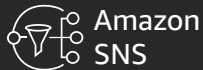
Amazon  
EC2



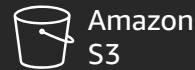
Amazon  
Kinesis



Amazon  
Route 53



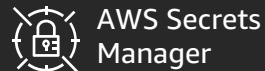
Amazon  
SNS



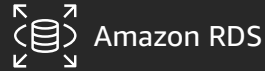
Amazon  
S3



Amazon  
QuickSight



AWS Secrets  
Manager



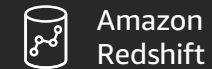
Amazon  
RDS



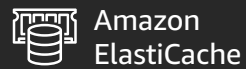
AWS Certificate Manager



AWS Config



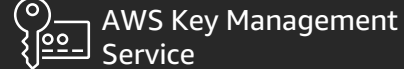
Amazon  
Redshift



Amazon  
ElastiCache



Amazon  
GuardDuty



AWS Key Management  
Service



AWS Directory Service



Amazon  
MQ



AWS IAM



Amazon  
SageMaker



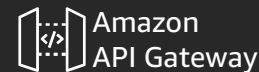
Amazon  
Kinesis



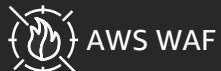
AWS  
CodeDeploy



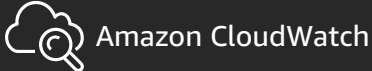
AWS IoT



Amazon  
API Gateway



AWS WAF



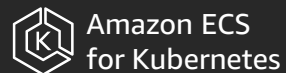
Amazon CloudWatch



AWS Cost  
Explorer



AWS  
Lambda



Amazon ECS  
for Kubernetes



AWS CloudFormation

Moving **1,000+**  
applications and  
services to AWS

**DATA MINING**

**ARTIFICIAL INTELLIGENCE**

**PROBLEM SOLVING**

**AUTOMATION**

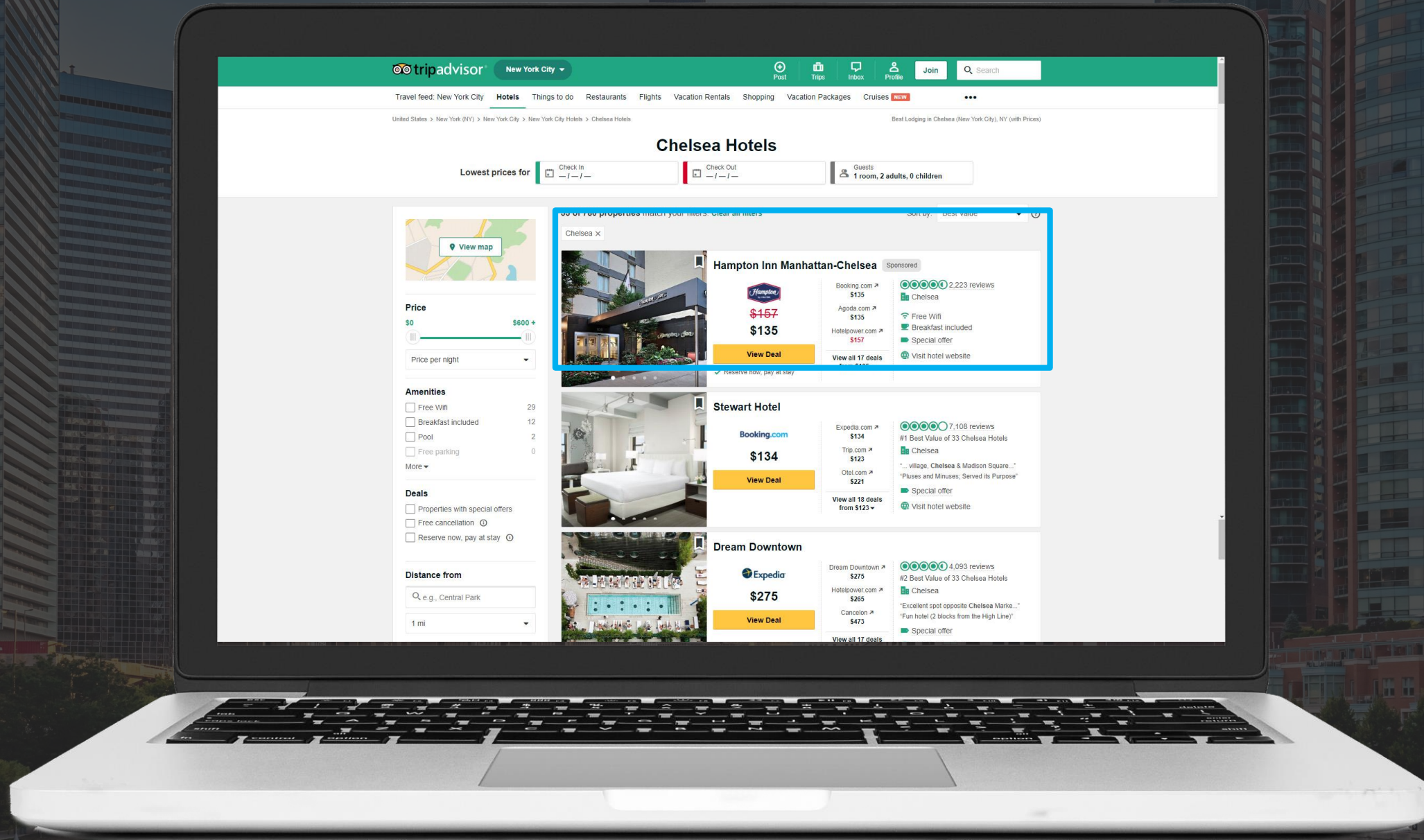
**PATTERN RECOGNITION**

**MACHINE LEARNING**

**NEURAL NETWORKS**

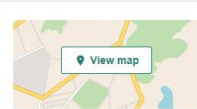
**ALGORITHM**





### Chelsea Hotels

Lowest prices for [Check In] [Check Out] [Guests: 1 room, 2 adults, 0 children]



Price \$0 \$600+

Price per night

- Amenities**
- Free Wifi 29
  - Breakfast included 12
  - Pool 2
  - Free parking 0

- Deals**
- Properties with special offers
  - Free cancellation
  - Reserve now, pay at stay

Distance from [e.g., Central Park] 1 mi

100 of 100 properties match your filters. Clear all filters

**Hampton Inn Manhattan-Chelsea** Sponsored

Booking.com \$135  
Agoda.com \$135  
Hotelpower.com \$157

**\$135**

View Deal

2,223 reviews  
Chelsea  
Free Wifi  
Breakfast included  
Special offer  
Visit hotel website

**Stewart Hotel**

Booking.com \$134  
Expedia.com \$134  
Trip.com \$123  
Otel.com \$221

**\$134**

View Deal

7,108 reviews  
#1 Best Value of 33 Chelsea Hotels  
Chelsea  
"... village, Chelsea & Madison Square..."  
"Pluses and Minuses; Served its Purpose"  
Special offer  
Visit hotel website

**Dream Downtown**

Expedia \$275  
Hotelpower.com \$265  
Cancellation \$473

**\$275**

View Deal

4,093 reviews  
#2 Best Value of 33 Chelsea Hotels  
Chelsea  
"Excellent spot opposite Chelsea Marke..."  
"Fun hotel (2 blocks from the High Line)"  
Special offer







# Overbooking





# Overbooking

HOTEL  
NO VACANCY





# Building smart, predictive systems



Amazon SageMaker



Amazon Forecast



Amazon Redshift



WOODSPRING  
SUITES

AN EXTENDED STAY HOTEL





A man and a woman are seated at a dining table, smiling warmly at each other. The man is on the left, wearing a red and blue plaid shirt. The woman is on the right, wearing a blue button-down shirt. The table is set with white dishes, a glass of water, and a vase of pink roses. In the background, a sign with a red 'C' logo and the word 'Comfort' is visible. The scene is lit with warm, ambient lighting.

Our business is you.™



# Deliveroo: A journey with AWS


# Our mission is to become the definitive food company

INTERNET → Google

MUSIC → 

CONSUMER HARDWARE → Apple

E-COMMERCE → 

FOOD → 





# We have already started a new wave of food delivery



**WAVE I**  
Offline

**WAVE II**  
Online marketplace

**WAVE III**  
Logistics-enabled  
and marketplace

Phone ordering

Paper menus

Slow, unpredictable delivery

Online ordering

Restaurant aggregation only

Slow, unpredictable delivery

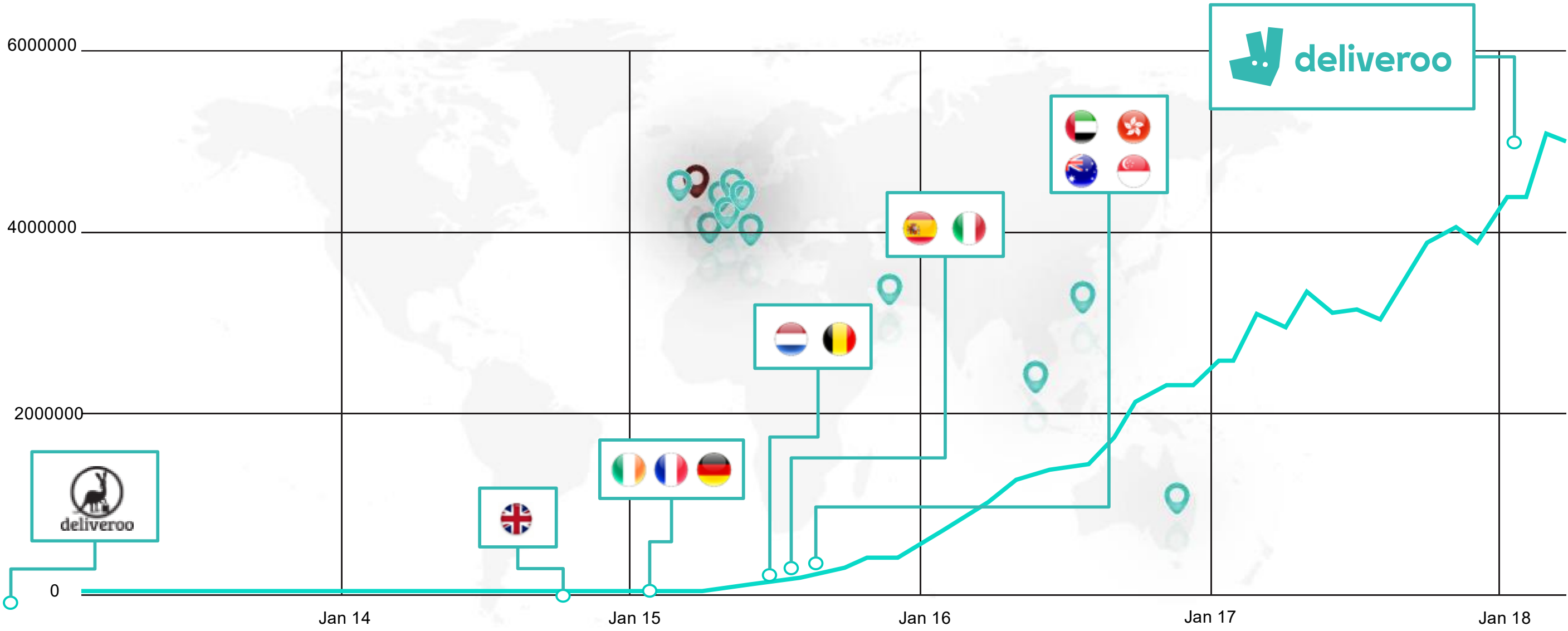
Superior selection

Ability to track orders

Fast, predictable delivery



# And built a company that is global in scale





Our ambition is to become  
the definitive food company

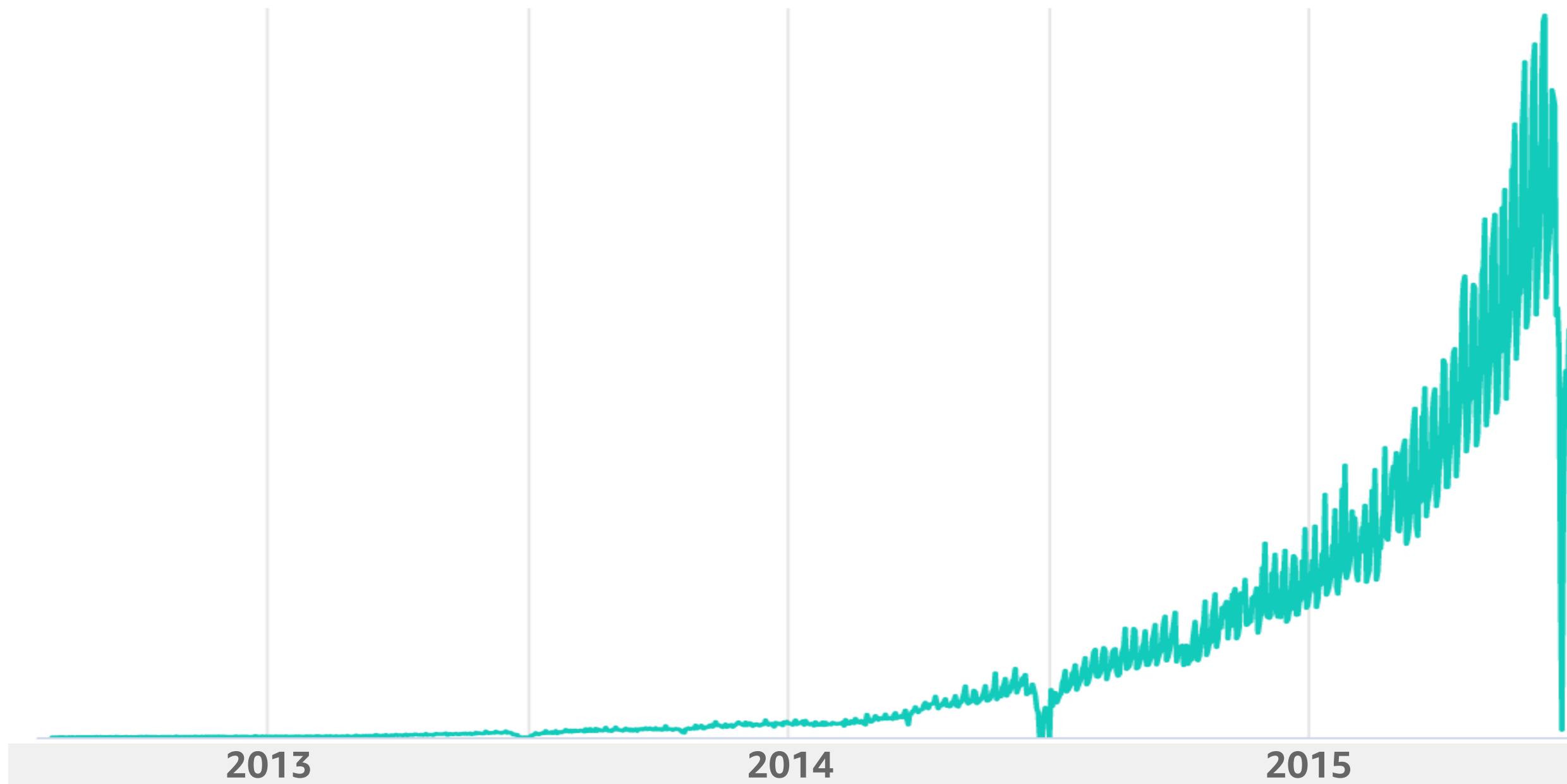
Building architecture that scales



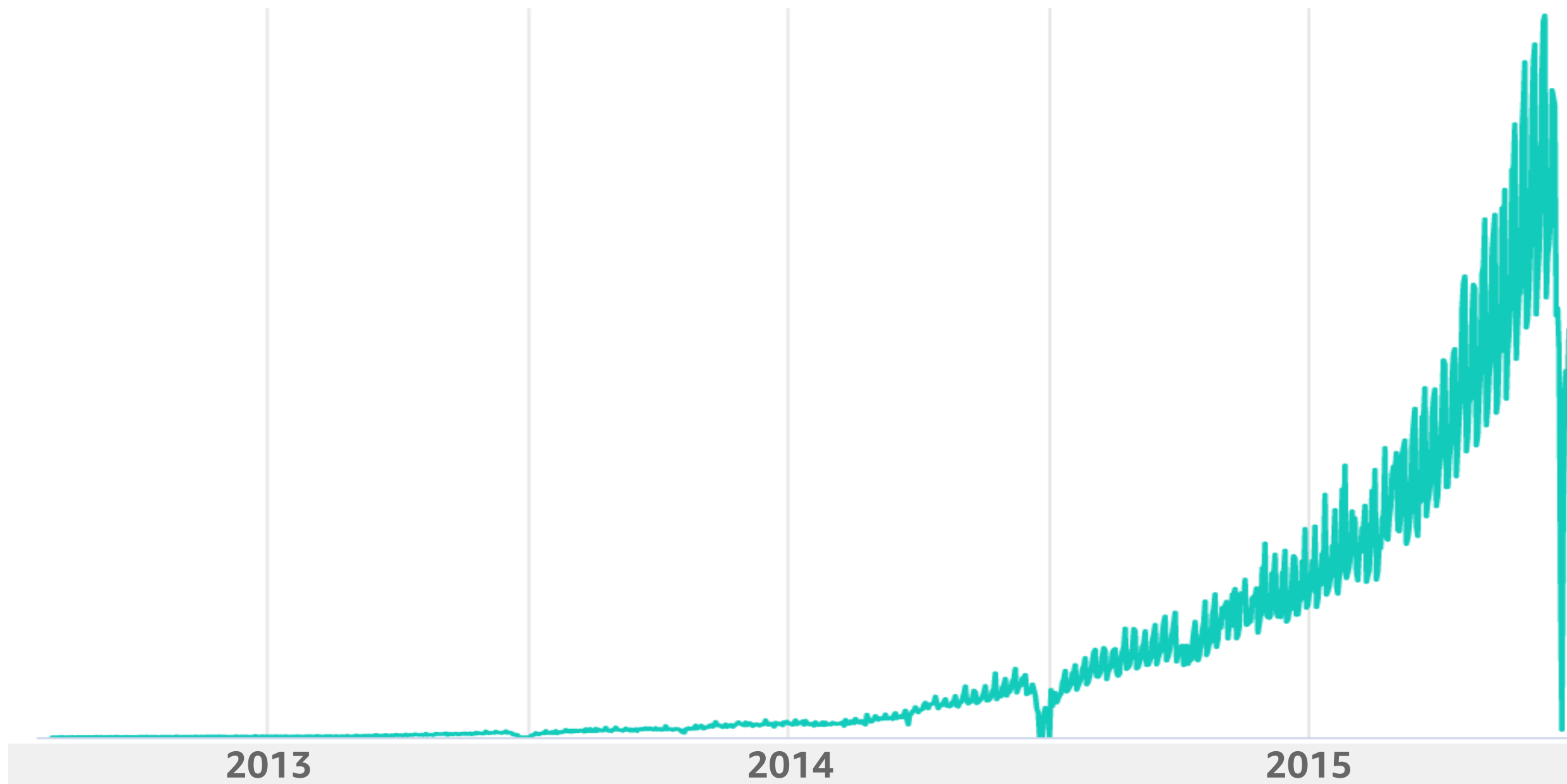
deliveroo



# Building architecture that scales

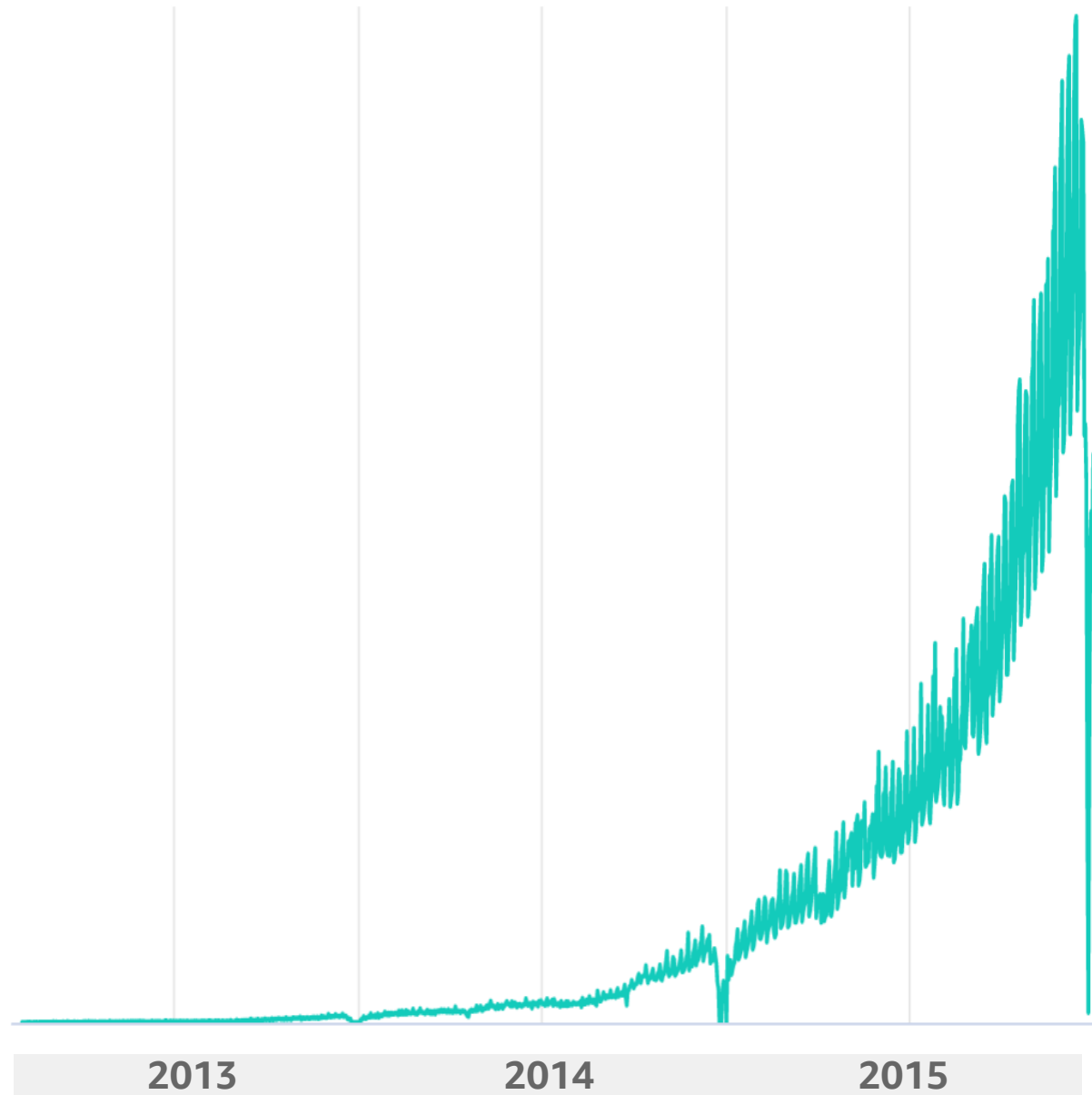


# Building architecture that scales

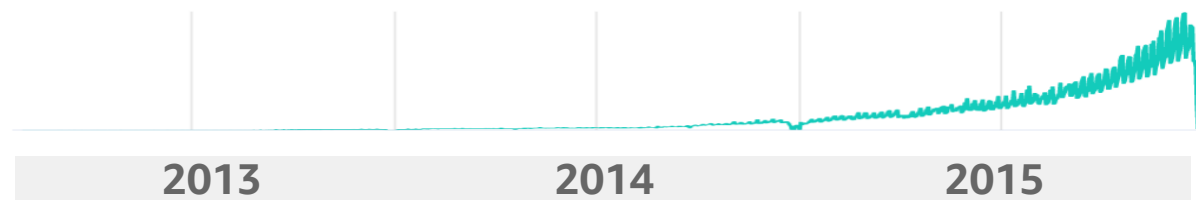




# Building architecture that scales

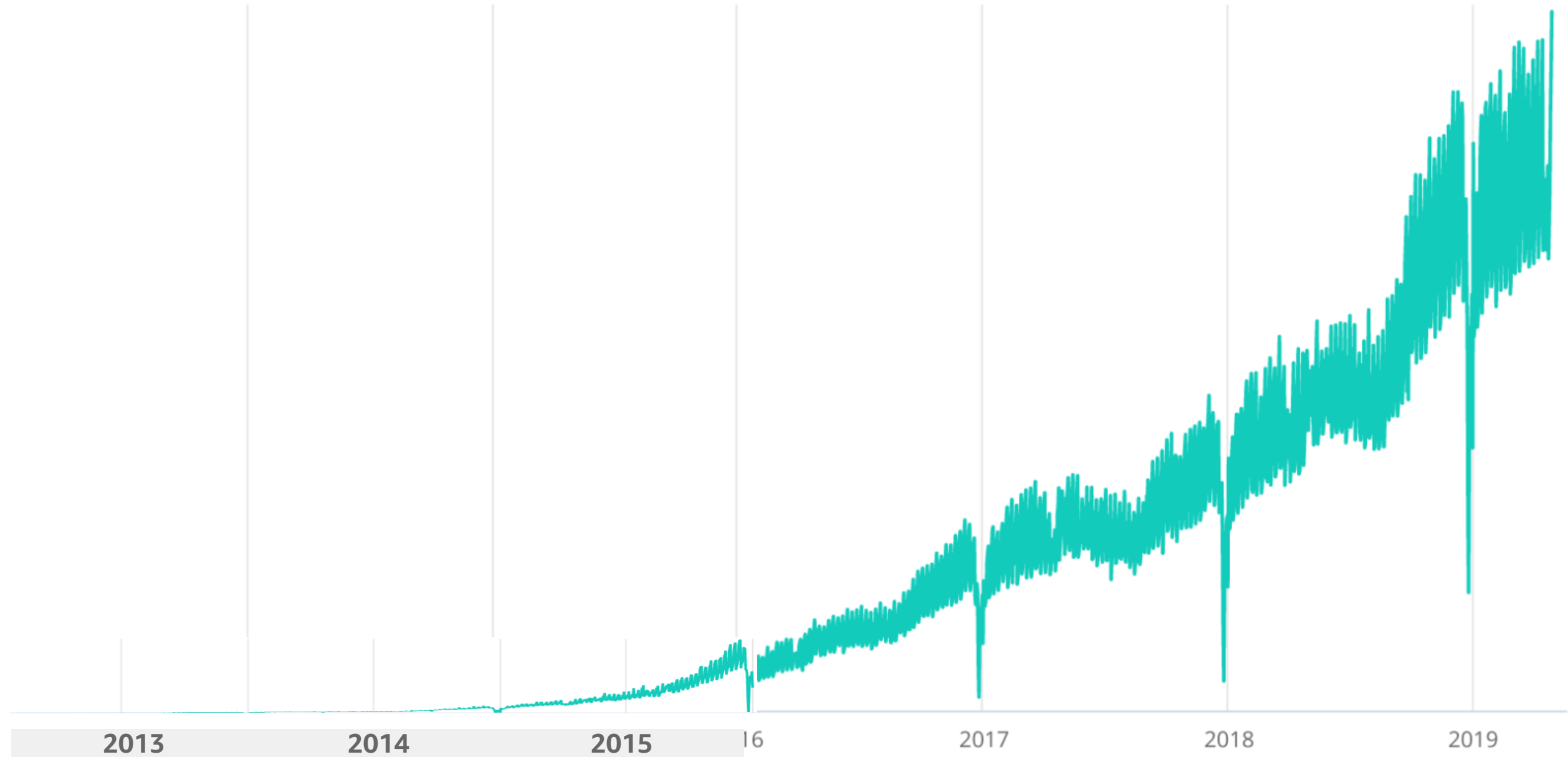


# Building architecture that scales





# Building architecture that scales



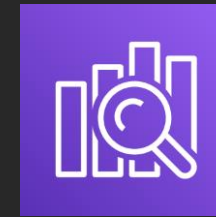
And AWS allows us to focus on growing the business



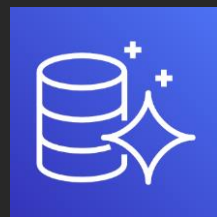
Amazon Elastic  
Container Service



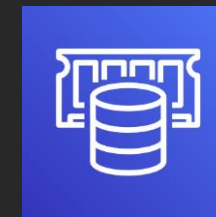
Amazon SageMaker



Amazon  
Elasticsearch Service



Amazon Aurora



Amazon ElastiCache



# Building architecture that scales

Enables business at any **scale**

Over time it can lower **fault tolerance**

Can handle constantly increasing **service complexity**

Does not sacrifice **speed of development**

Decision making with data



# Decision making with data

Ensure machines can make **high-volume decisions**

Enable scientific processes for **tight decisions**

Free up people to make **strategic choices**

Supporting the business with systems



# Supporting the business with systems

Process	Productivity	Platform	Data
Salesforce Workday	Google		Amazon S3 Datadog Snowflake

Our ambition is to become  
the definitive food company



To become the definitive food company ...

... our architecture has to match our ambition

... our data has to inform our decisions without drowning them

... our systems have to grow with our business

# AWS Travel & Hospitality resources

Be sure to check your chairs for an offer from our friends at Audible and a Travel and Hospitality sticker



Limited-edition Travel and Hospitality pins are available at the re:Invent SWAG desk

## Other sessions

### **TRH202 — Personalizing customer experiences in travel and hospitality**

Wednesday, December 4, 12:15 p.m.

MGM, Level 3, Chairman's Ballroom 360

### **TRH302 — Turn Travel and Hospitality call centers into profit centers (Chalk Talk)**

Thursday, December 5, 1 p.m.

MGM, Level 3, South Concourse 304

[Learn more at aws.com/travel](https://aws.com/travel)



# Thank you!

**David Peller**

dpeller@amazon.com



Please complete the session survey in the mobile app.