

# Introduction to AWS

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# Why are organisations using the Cloud?

# #1: Agility

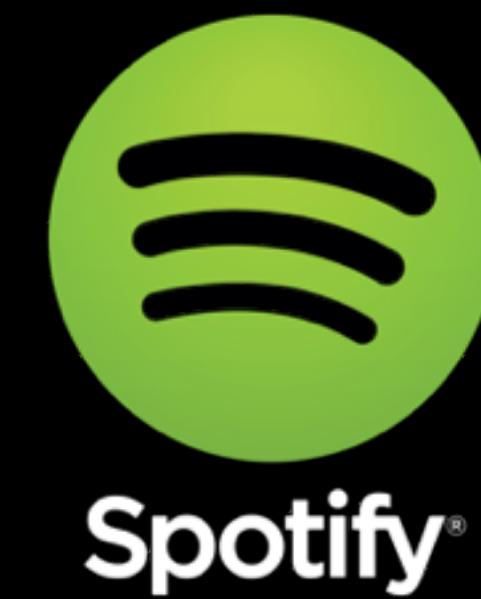
The primary reason businesses are moving so quickly to AWS and the cloud



Why does agility matter?



Hotels



Music



Magazines



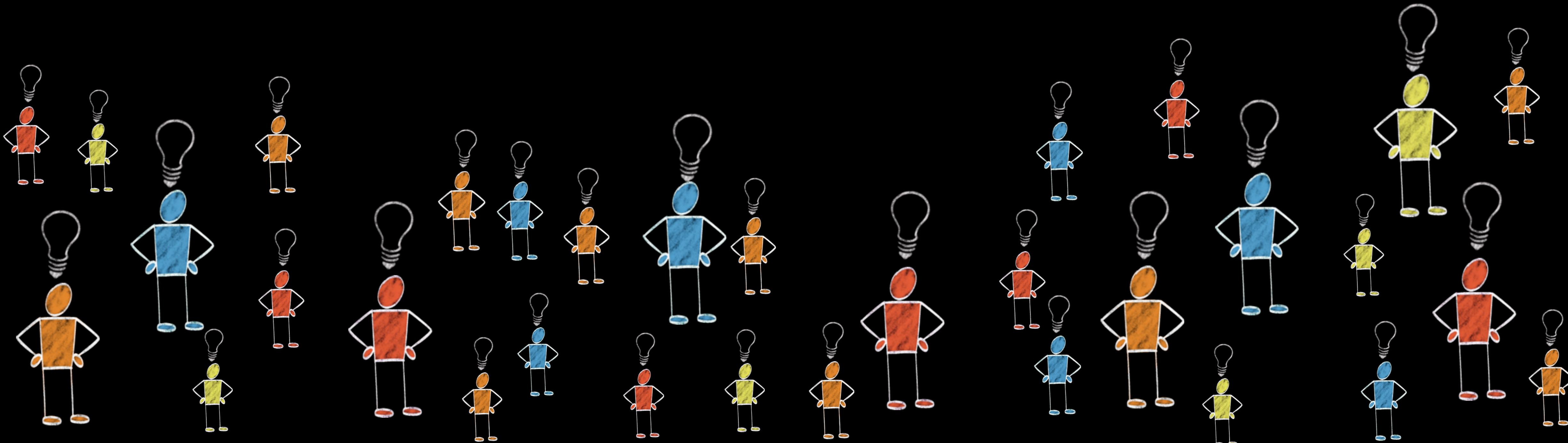
Storage

# Enterprises Can't Afford to Be Slow



Old World:  
Infrastructure in  
**weeks**

# A Culture of Innovation: Experiment Often & Fail Without Risk





## #2: Platform Breadth

A broad and deep platform helps customers  
build sophisticated, scalable applications

## Enterprise Applications



Virtual Desktops



Sharing & Collaboration

## Platform Services

### Analytics



Hadoop

### Real-time Streaming Data



Real-time Streaming Data

### Data warehouse



Data warehouse

### Data Pipelines



Data Pipelines

### App Services



Queuing & Notifications



Workflow



App streaming



Transcoding



Email



Search

### Deployment & Management



One-click web app deployment



Dev/ops resource management



Resource Templates



Code Deploy



Code Pipeline



Code Commit

### Mobile Services



Identity



Sync



Mobile Analytics



Push Notifications

## Administration & Security



Identity Management



Access Control



Usage & Resource Tracking



Service Catalog



Key Storage & Management



Monitoring and Logs

## Core Services



Compute  
(VMs, Auto-scaling  
and Load Balancing)



Storage  
(Object, Block  
and Archival)



CDN



Databases  
(Relational, NoSQL,  
Caching)



Networking  
(VPC, DX, DNS)

## Infrastructure



Regions



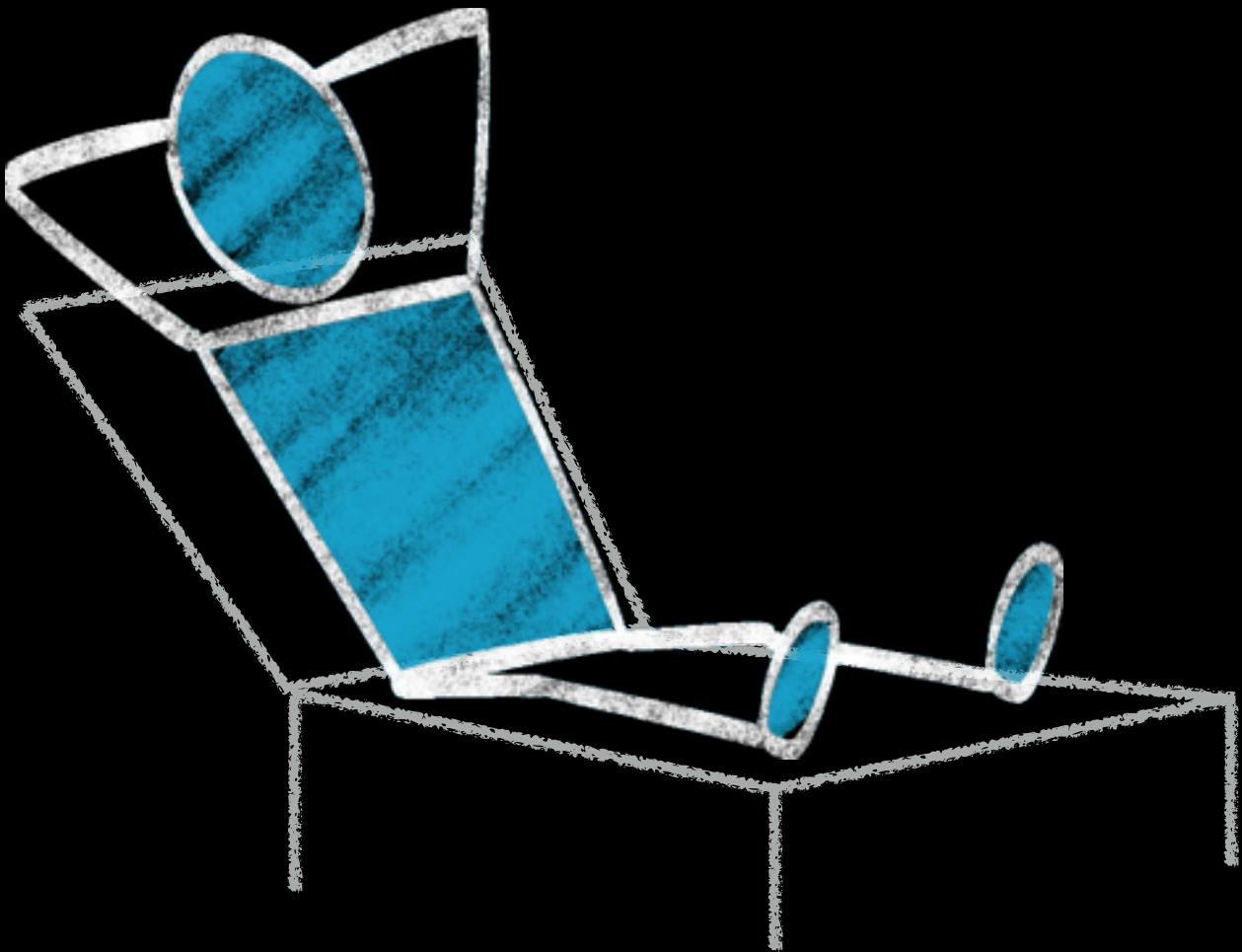
Availability Zones



Points of Presence

### #3: Continual Iteration and Innovation

AWS continuously upgrades infrastructure, so you don't have to



## Small, “Two Pizza” Teams

Small, autonomous teams

Roadmap ownership

Decoupled launch schedules

## Get Core Functionality in the Hands of Customers, Quickly

Operational stability

High scale

Limited initial feature set

## Iterate Based on Customer Feedback

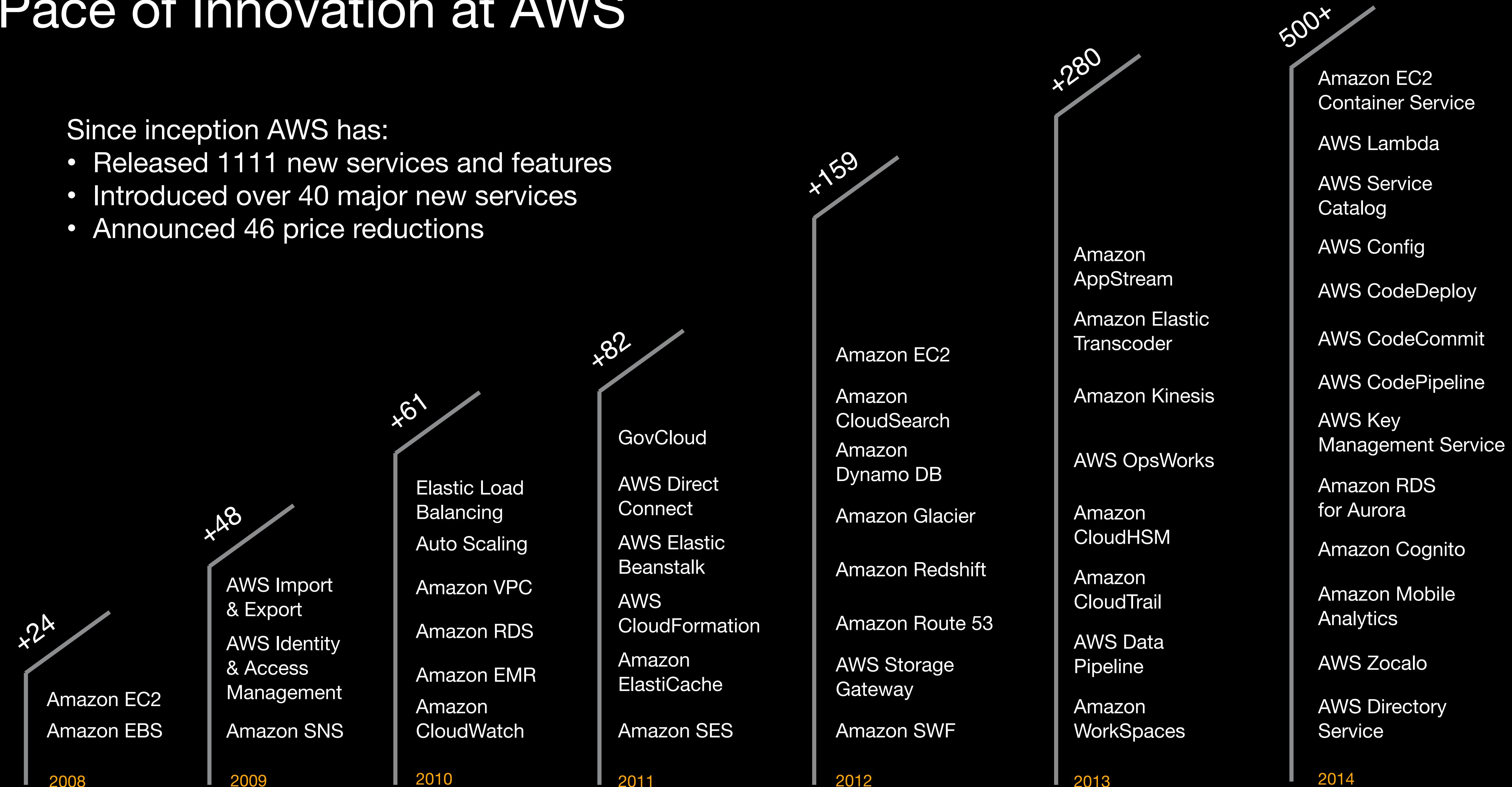


Epic  
Collaboration

# Pace of Innovation at AWS

Since inception AWS has:

- Released 1111 new services and features
- Introduced over 40 major new services
- Announced 46 price reductions



# #4: Cost Savings and Flexibility

1

Trade Capex for  
variable expense

2

Economies-of-scale  
provide lower costs  
than companies can  
do on their own

3

Pricing model  
choice to support  
variable & stable  
workloads

4

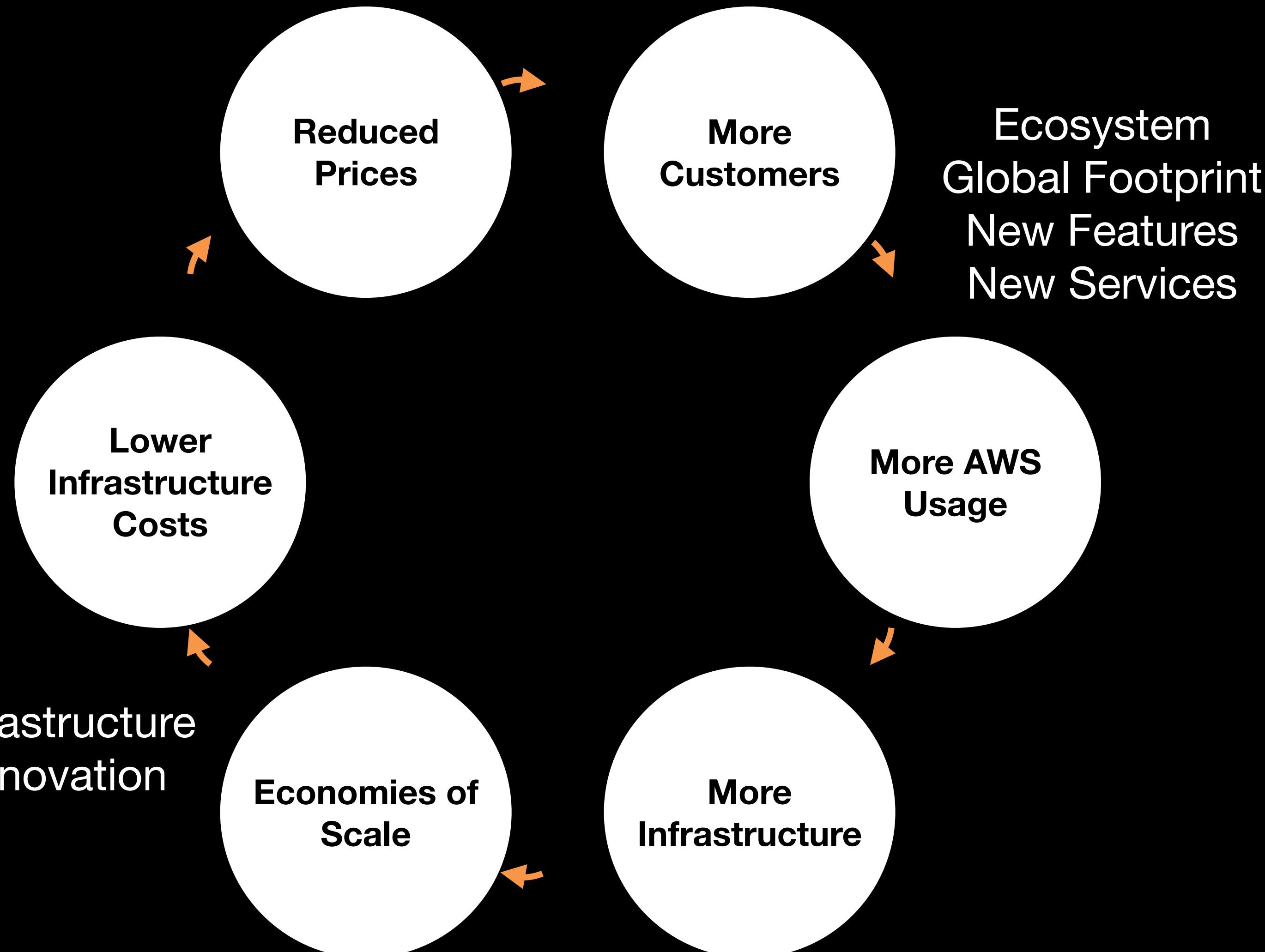
Save more  
money as you  
grow bigger

46 price reductions  
since 2006

On-demand  
Reserved  
Spot

Tiered pricing  
Volume  
discounts  
Custom pricing

# AWS PRICING PHILOSOPHY



**46**  
**PRICE  
REDUCTIONS**

We pass the savings along to our  
customers in the form of low  
prices and continuous reductions

Who is using AWS and what are the benefits?

# Startups on AWS





Ian ▾

✉ Help ▾

List Your Space

# WELCOME HOME

Rent unique places to stay from local hosts in 190 countries.

How It Works

Where do you want to go?

Check In

Check Out

1 Guest ▾

Search



airbnb

200,000

people are hosted  
on any given night



# Total Number of Guests

15M

12M

9M

6M

3M

January 2013  
4 Million

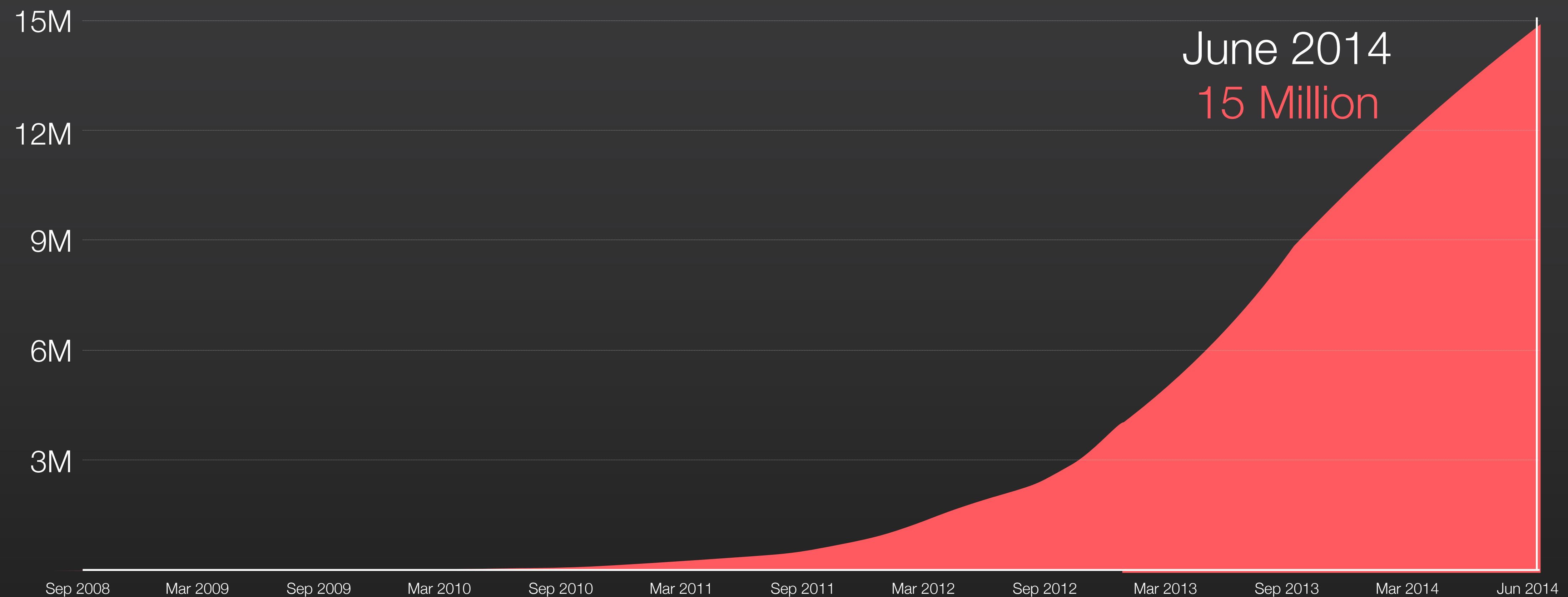
Sep 2008 Mar 2009 Sep 2009 Mar 2010 Sep 2010 Mar 2011 Sep 2011 Mar 2012 Sep 2012 Mar 2013 Sep 2013 Mar 2014 Jun 2014





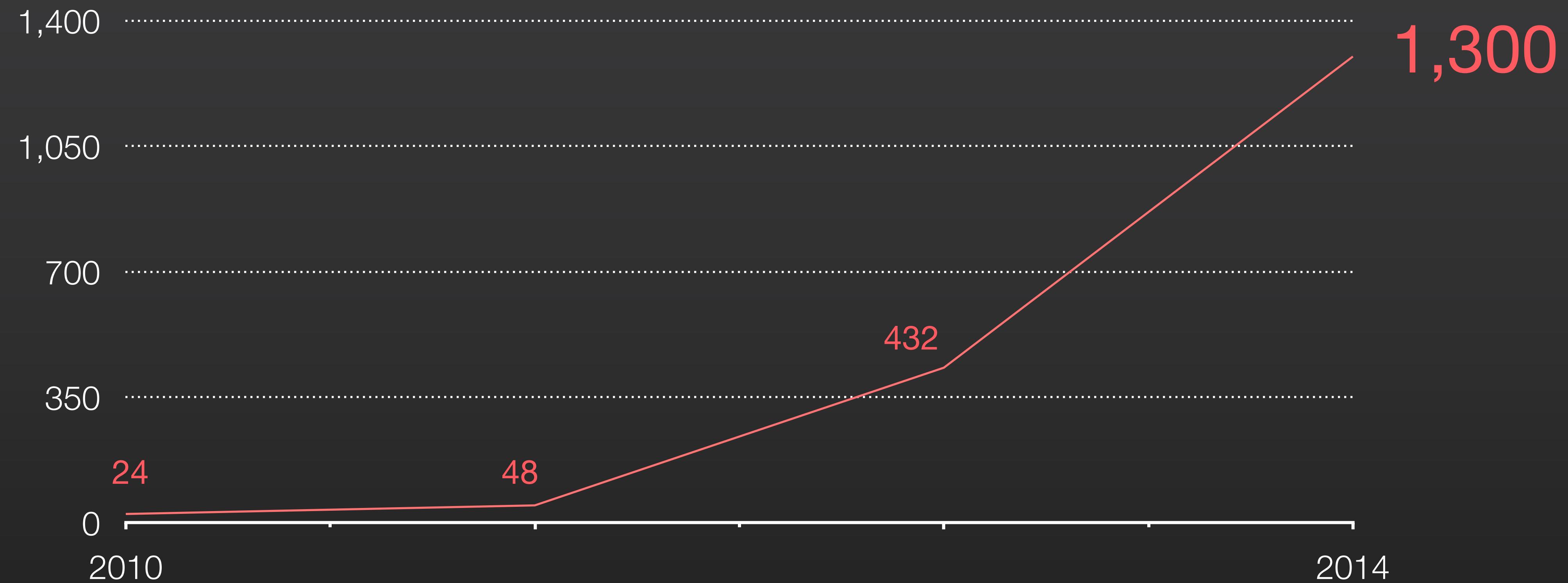
# Total Number of Guests

Up by Over 10 Million in One Year





# Total Number of EC2 instances

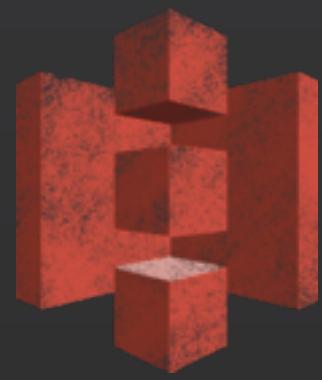
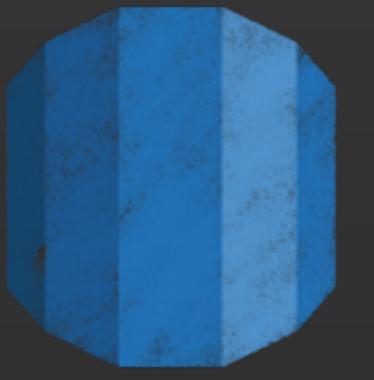
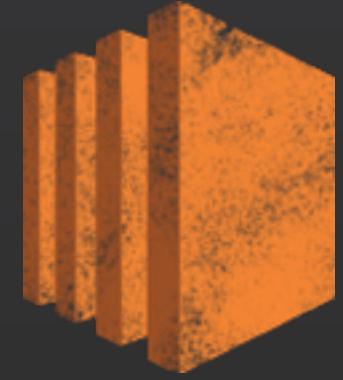


# Why AWS?



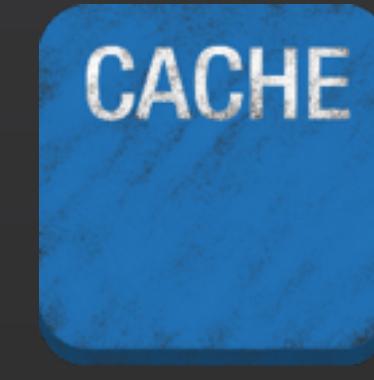
## RDS

All Relational Databases



## DynamoDB

Rollups, Metadata



## EC2

Servers, Production Traffic,  
Hive, Hadoop

## S3

Storage, User Generated  
Content

## ElastiCache

Memcache



“ We have a 5 person  
operations team. ”

AWS allows us to devote our resources  
and mindshare to the core business.

# Enterprises on AWS





How can I use AWS services to develop,  
deploy and scale my applications?

## Enterprise Applications



Virtual Desktops



Sharing & Collaboration

## Platform Services

### Analytics



Hadoop

### Real-time Streaming Data



Real-time Streaming Data

### Data warehouse



Data warehouse

### Data Pipelines

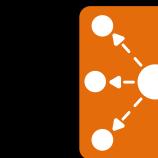


Data Pipelines

### App Services



Queuing & Notifications



Workflow



App streaming



Transcoding

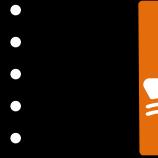


Email



Search

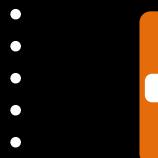
### Deployment & Management



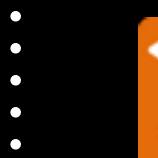
One-click web app deployment



Dev/ops resource management



Resource Templates



Code Deploy



Code Pipeline



Code Commit

### Mobile Services



Identity



Sync



Mobile Analytics



Push Notifications

## Administration & Security



Identity Management



Access Control



Usage & Resource Tracking



Service Catalog



Key Storage & Management



Monitoring and Logs

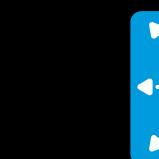
## Core Services



Compute  
(VMs, Auto-scaling  
and Load Balancing)



Storage  
(Object, Block  
and Archival)



CDN



Databases  
(Relational, NoSQL, Caching)



Networking  
(VPC, DX, DNS)

## Infrastructure



Regions



Availability Zones



Points of Presence

# Infrastructure

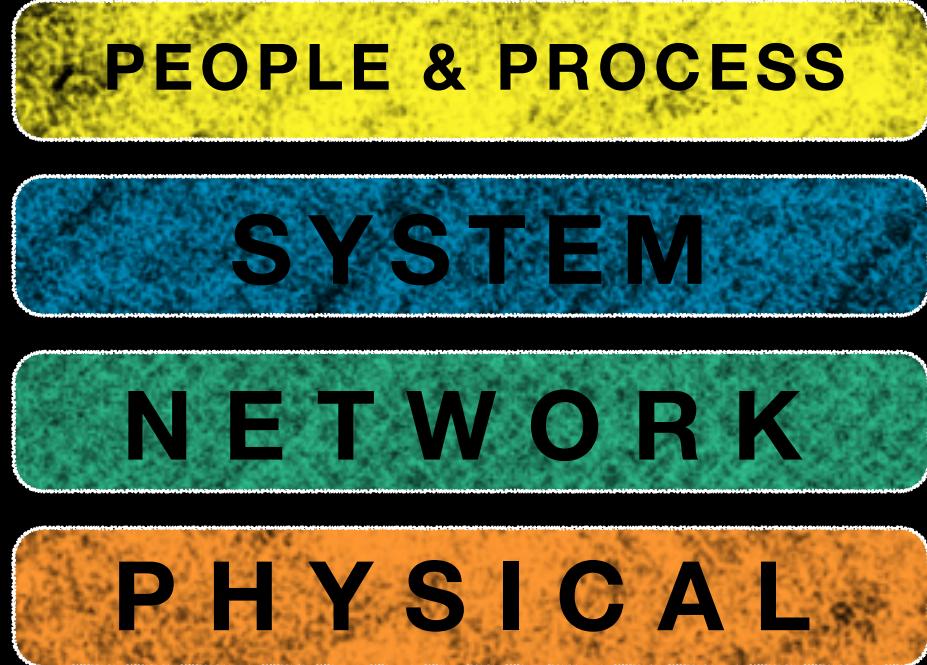
11 regions

28 availability zones

51 edge locations



# Comprehensive Security Capabilities, Validated by Experts



Familiar security model



Customer ecosystem

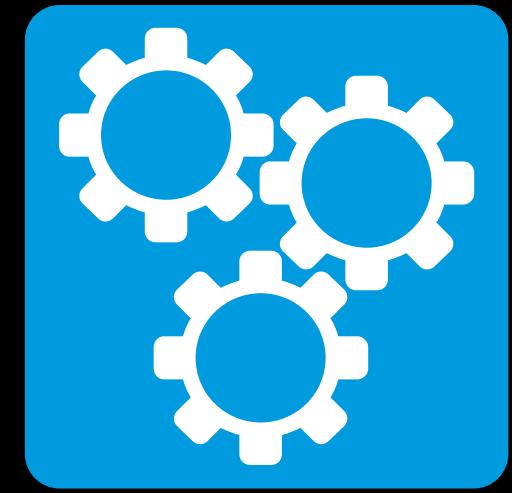


Partner ecosystem



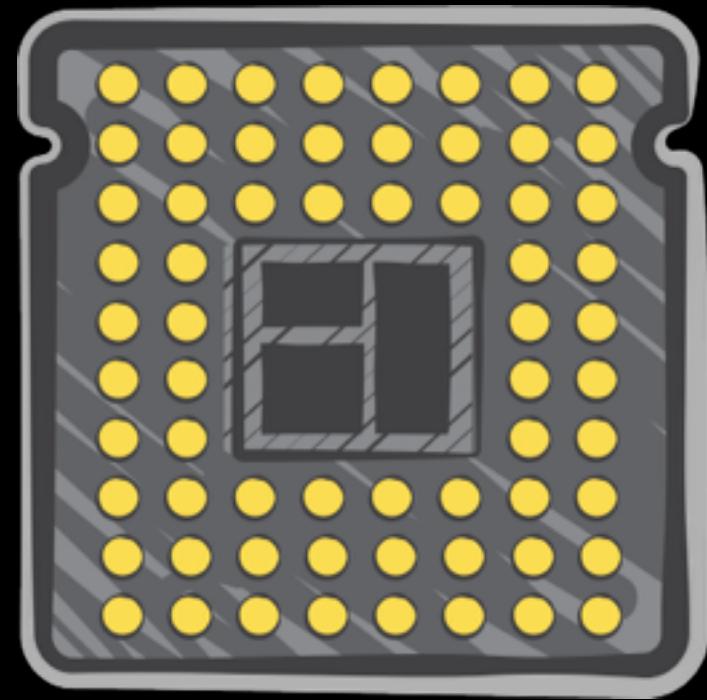
Every customer benefits

# Compute



Compute  
(EC2 Instances, Auto-scaling and Load Balancing)

new



New EC2 Instance Type: C4

# Compute Optimized

2.9 GHz E5 v3 (Haswell)

Up to 36 vCPUS

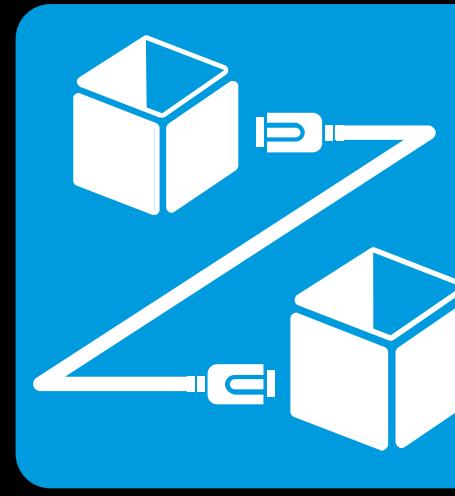
EBS-optimized by default, at no extra cost

# Networking, Security & Access Control



Security

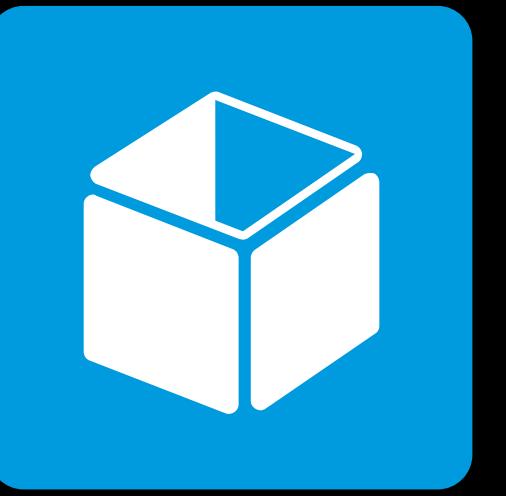
IAM  
CloudTrail  
CloudHSM



Networking

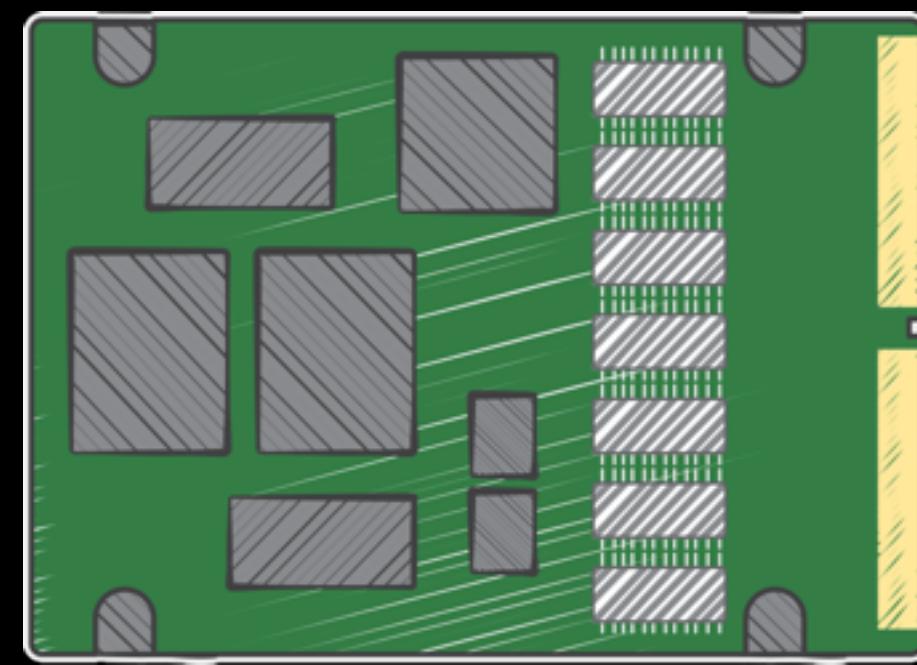
VPC  
Route 53  
Direct Connect

# Storage



Storage  
(Object, Block and Archive)

new



## New EBS Volumes

### General Purpose (SSD)

Up to 16TB

10,000 IOPS

Up to 160MBps

### Provisioned IOPS (SSD)

Up to 16TB

20,000 IOPS

Up to 320 MBps

# Databases



Relational



NoSQL

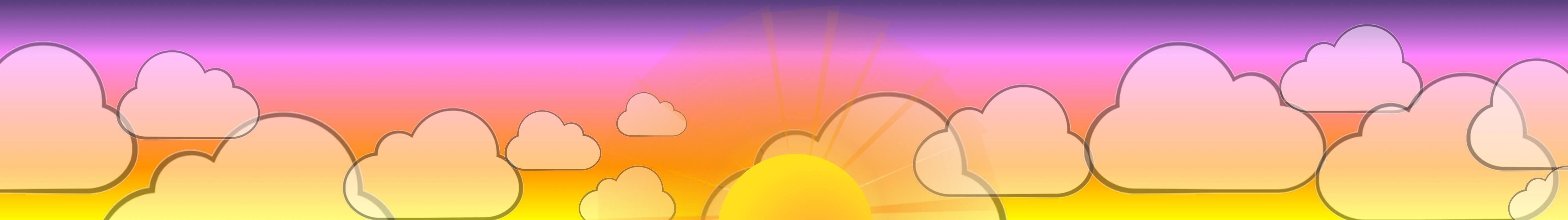


Caching

# Introducing Amazon Aurora

new

Commercial-grade Database Engine at Open-source Cost



# Introducing Amazon Aurora



Commercial-grade Database Engine at Open-source Cost

MySQL compatible

5X better performance than standard MySQL

Available, durable and fault tolerant

Highly scalable and secure

Available through Amazon RDS

**1/10th** the cost of the  
leading commercial  
database solutions

# Analytics



Hadoop



Real-time



Data warehouse

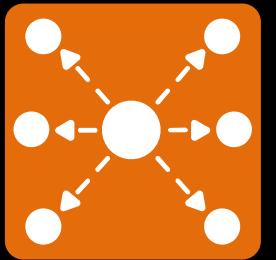


Data workflows

# App Services



Queuing



Orchestration



App Streaming



Transcoding



Email



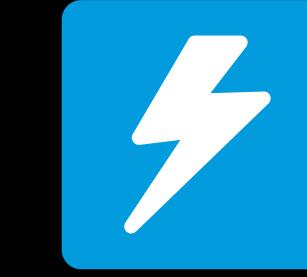
Search

# Introducing AWS Lambda

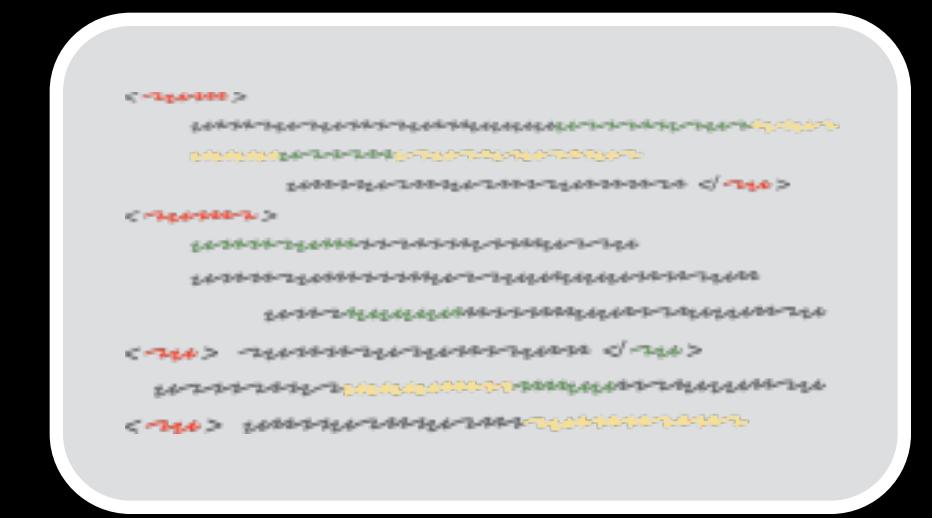


An event-driven computing service for  
dynamic applications

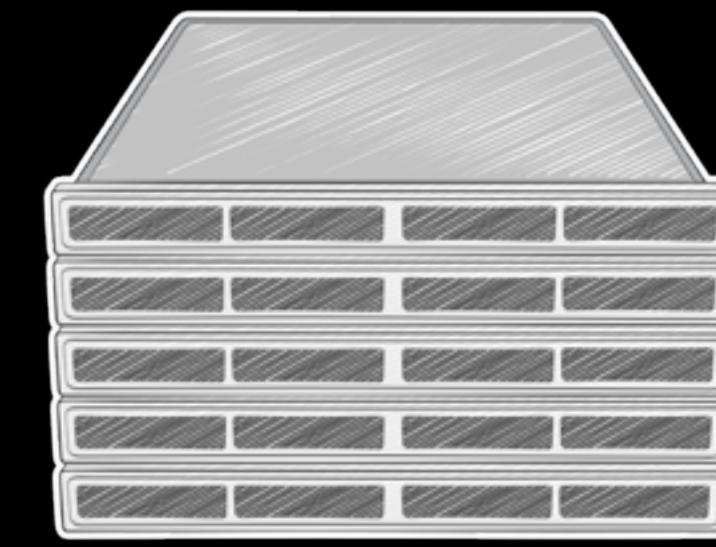
# A Focus on Functions, Data and Events



Events from AWS services



Cloud Functions



Automatic

# Deployment & Management



Containers



Dev/ops Tools



Resource Templates



Usage Tracking



Monitoring and Logs



AWS Key  
Management Service



AWS Config



AWS Service  
Catalog

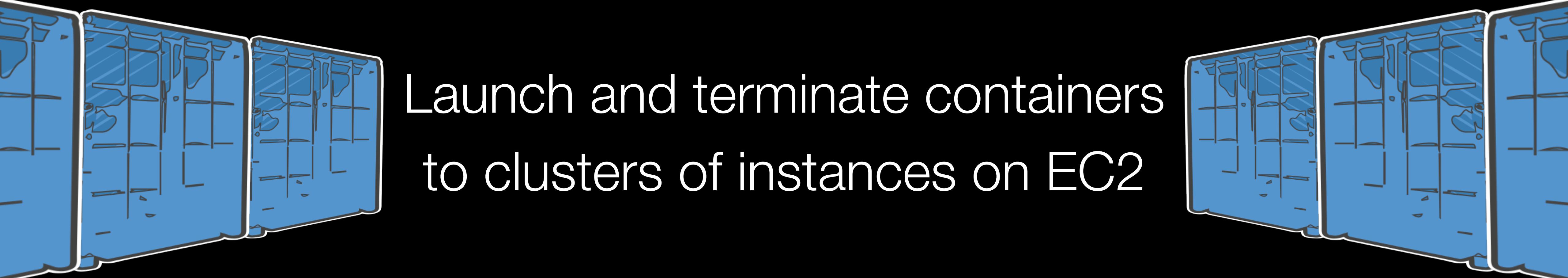


new

# Introducing the Amazon EC2 Container Service

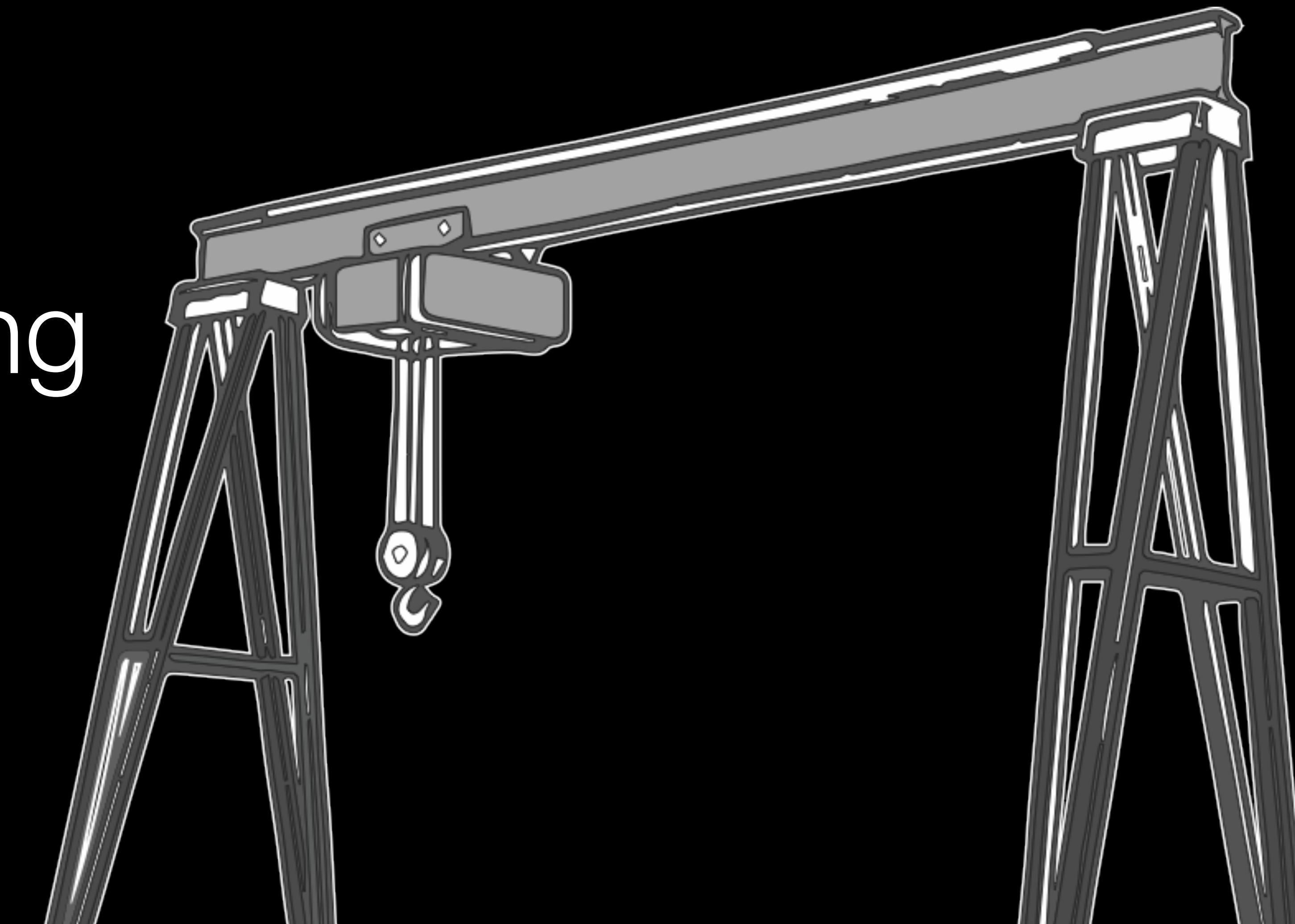
A highly scalable, high performance  
container management service

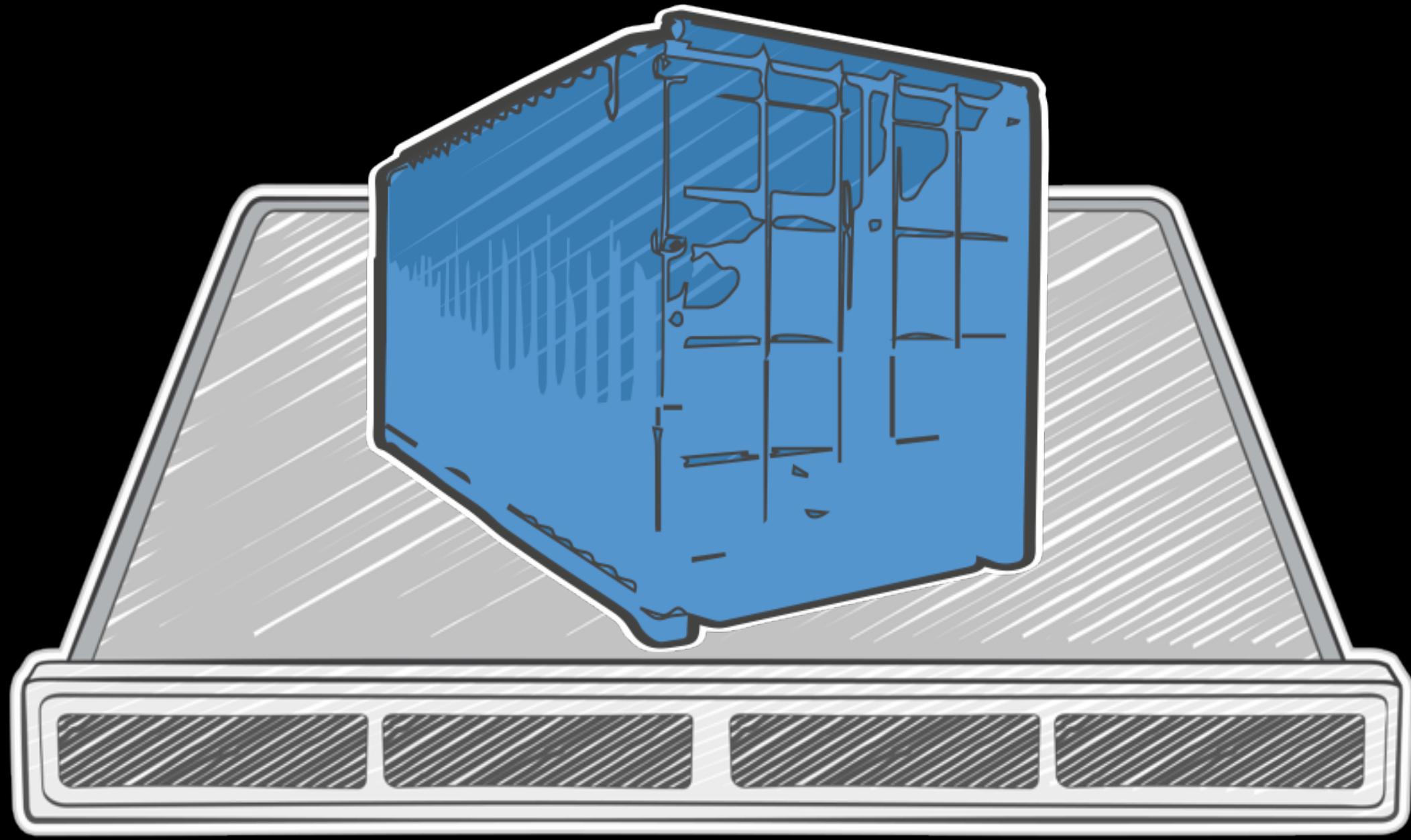
# Manage Containers at Any Scale



Launch and terminate containers  
to clusters of instances on EC2

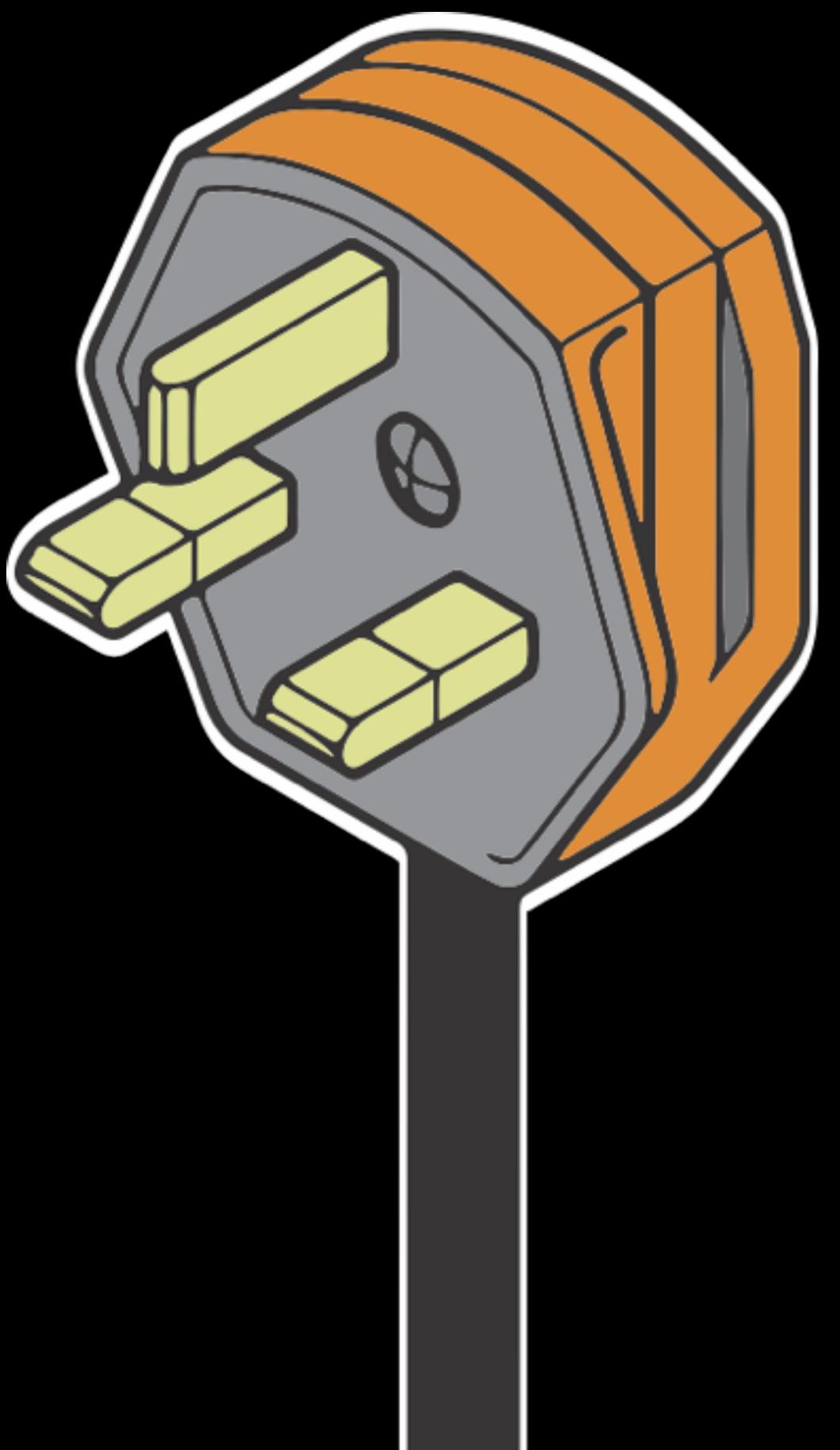
Optimized,  
Flexible Scheduling





Improve  
Resource  
Efficiency

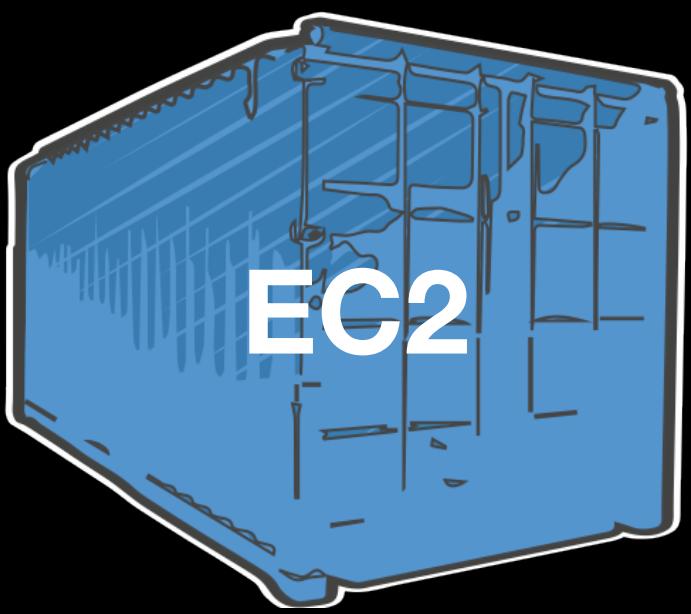
Simple API Which is  
Easy to Integrate



# Amazon EC2 Container Service



Native Docker support  
for AWS customers



Significantly easier  
to manage Docker apps



Integrated with  
Docker Hub



Enables app  
portability

# Mobile Services



Identity



Sync



Mobile Analytics

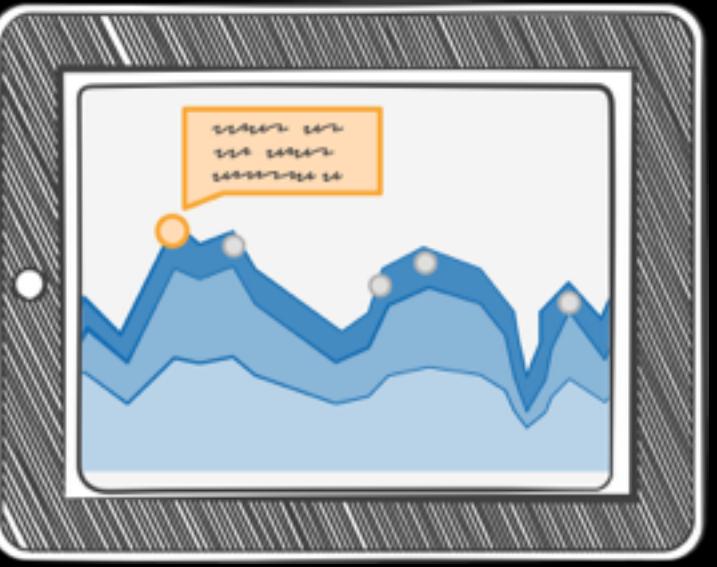


Notifications

# AWS Mobile Services



Amazon  
Cognito



Amazon  
Mobile Analytics



Amazon  
Mobile SDK



SNS Push  
Notifications

# Questions?

[aws.amazon.com/blogs/aws](http://aws.amazon.com/blogs/aws)



@AWScloud



@AWS\_UKI

# THANK YOU

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