



SUMMIT
ONLINE

A N A 0 7

Supercharged customer experience with AWS Amplify, Amazon Pinpoint, and Amazon Personalize

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Amazon Web Services

Agenda

Understanding the challenges

Customer engagement with Amazon Pinpoint

Using AWS Amplify for rapid prototyping

Creating engine for data flow

Personalisation using Amazon Personalize

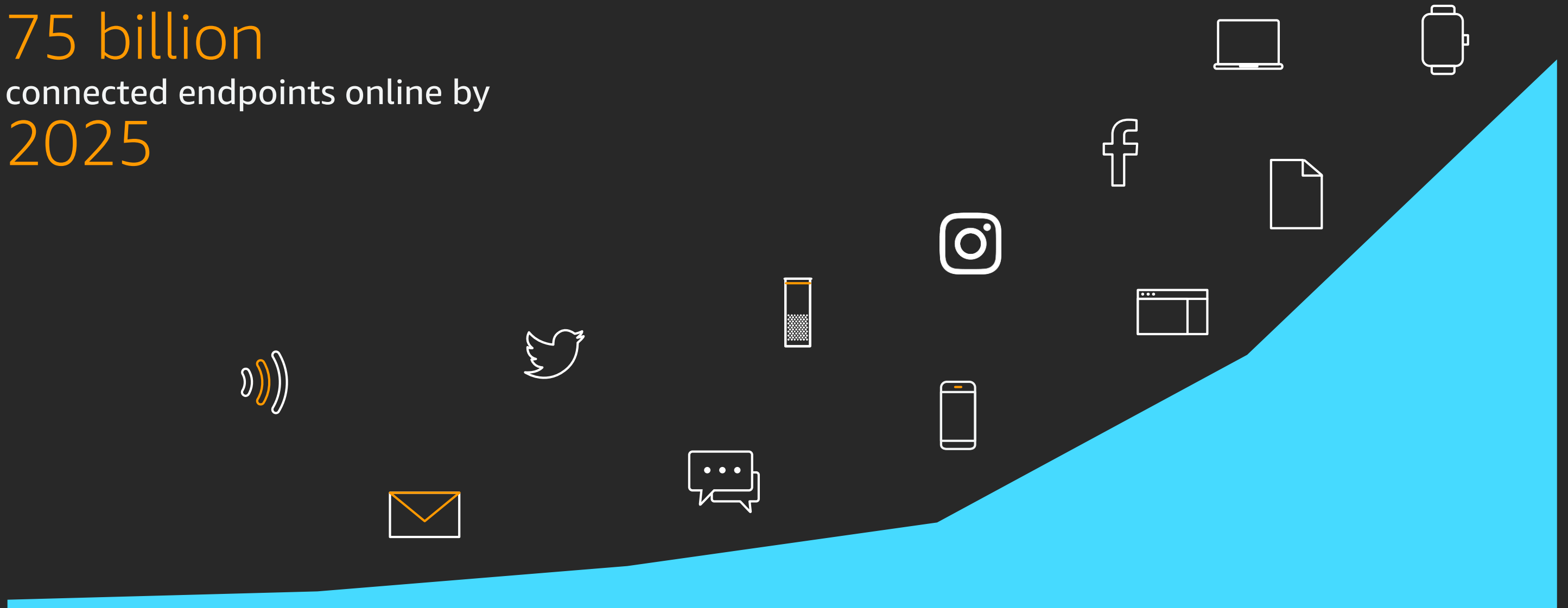
Bringing it all together

True personalisation comes when you reach the right customer with the right message through the right medium at the right time

What are the challenges?

Users' attention is increasingly scattered

75 billion
connected endpoints online by
2025



Sources: McKinsey & Co., Inc., Statista

84%

of customers say being treated like a person, not a number, is very important to winning their business



51%

of marketing leaders don't believe they provide an experience completely aligned with customer expectations

Our learnings on personalisation



Rule based strategies are not effective and are effort intensive to maintain

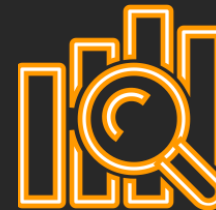
Machine learning (ML) based techniques perform well but need to solve multiple hard problems



Real time recommendations and handling Coldstart scenarios (new user/new item)



Avoid a bias for recommending popular items



One single ML algorithm is not a good fit for all personalisation use cases



Building accurate and effective personalisation models requires ML experts

Current 'state of the art'

Rule based systems



Poor performance



Poor scalability



High effort to maintain

DIY machine learning tools



Hard to build and manage



Do not adapt to changing customer intent



Do not handle personalisation for new customers

Build: E-Commerce experience

AWS Amplify



Amazon Pinpoint



Amazon Personalize





All things Alexa

Introducing echo show 5

"Alexa, what's
the weather?"



Smart displays

Everything you love about Alexa, and now she can show you things. Get the weather forecast, watch the news, and see lyrics with Amazon Music.



Echo Show 5 (Charcoal)

Amazon



\$89.99 ✓prime



Echo Show 5 (Sandstone)

Amazon



\$89.99 ✓prime



Echo Show

Amazon



\$179.99 ✓prime



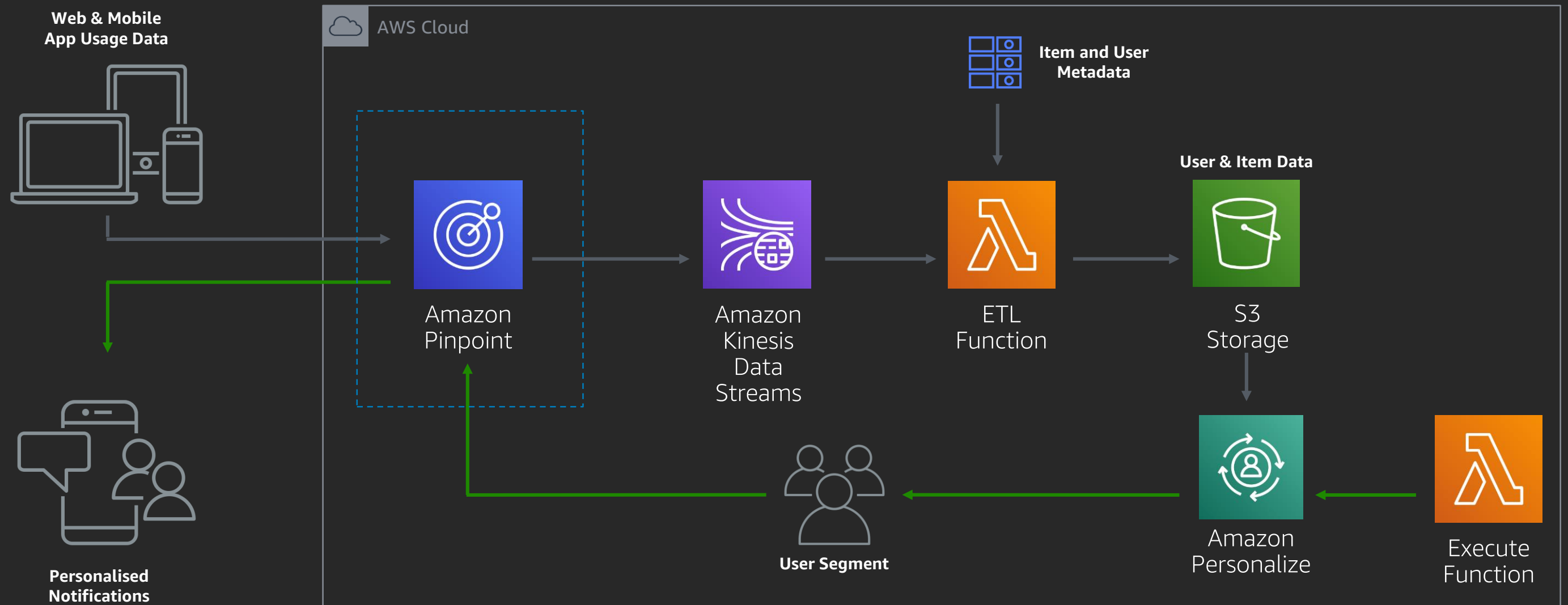
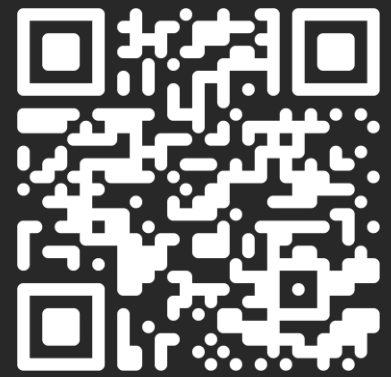
Echo Spot

Amazon



\$129.99 ✓prime

Solution Architecture: Predictive user engagement



Amazon Pinpoint

Pinpoint



Custom attributes



All projects

BalancedMeals

FavoriteFood

Amazon Restaurants (demo account/dummy data)

Analytics

Usage

Revenue

Events

Feedback

Logistics

Campaigns

Transactional messaging

Segments

Campaigns

Journeys

Test messaging

Notifications

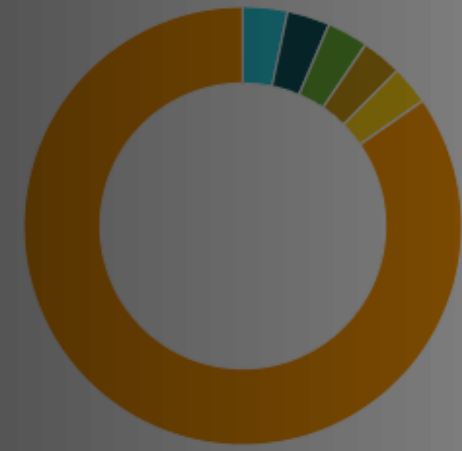
Settings

Message templates

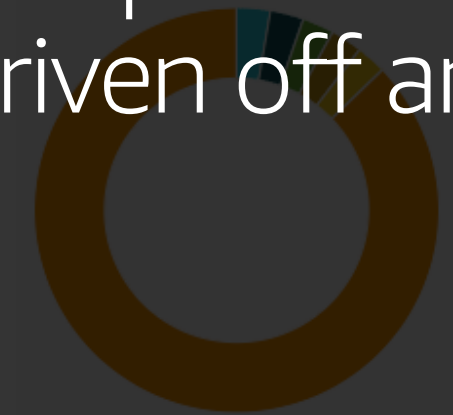
Deliverability dashboard



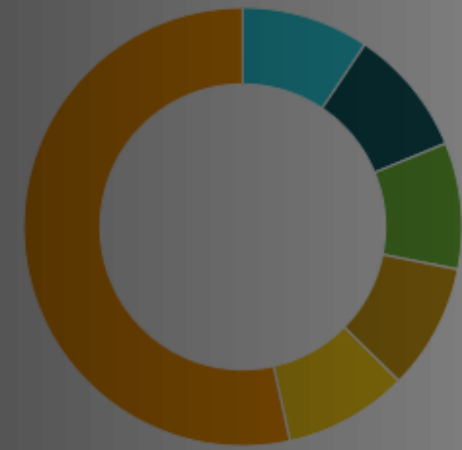
● People who wish this was really pie ● People who eat healthy



● Mac and cheese ● Tacos ● Cake ● Poutine ● Gyro sandwich ● Other



● Let's Taco ● Paseo Caribbean ● Otter Bar and Burger ● Sizzling Pot King ● Buca di Beppo ● Other



● Takeout ● Free Wi-Fi ● Good for groups ● Delivery ● Dogs allowed ● Other

What is Amazon Pinpoint?

Managed service for personalised user engagement across channels, driven off analytics

Five major pillars to Amazon Pinpoint



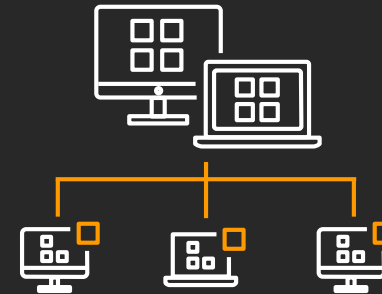
User
management



Audience
management



Targeting

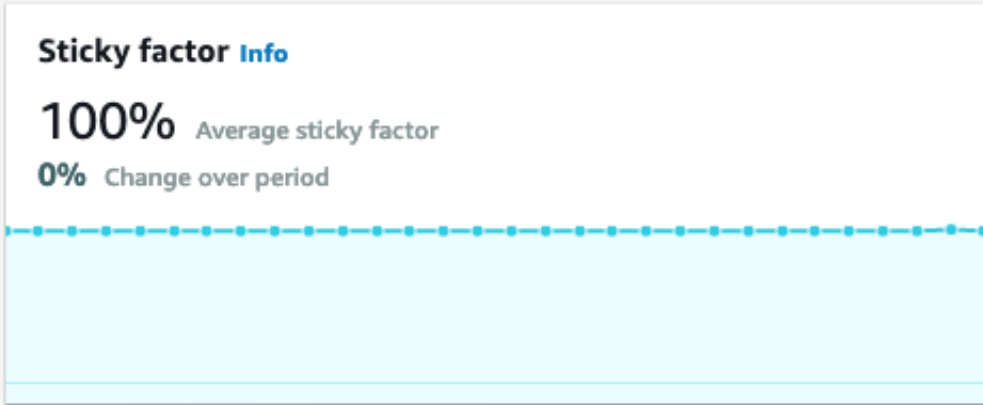
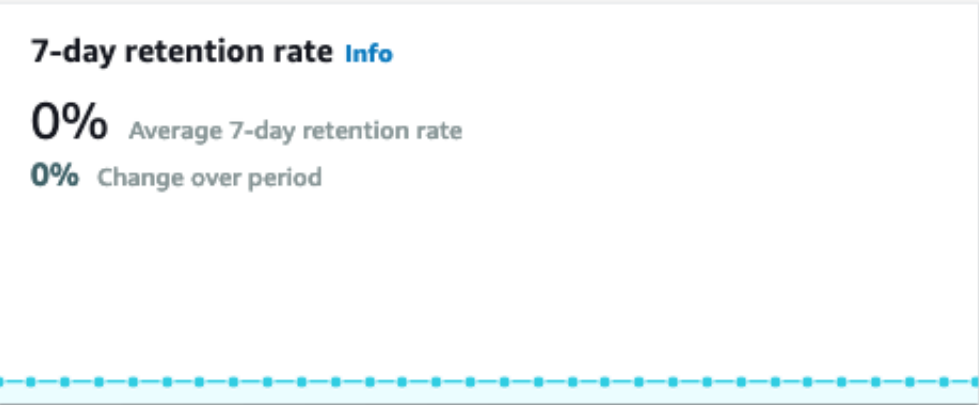
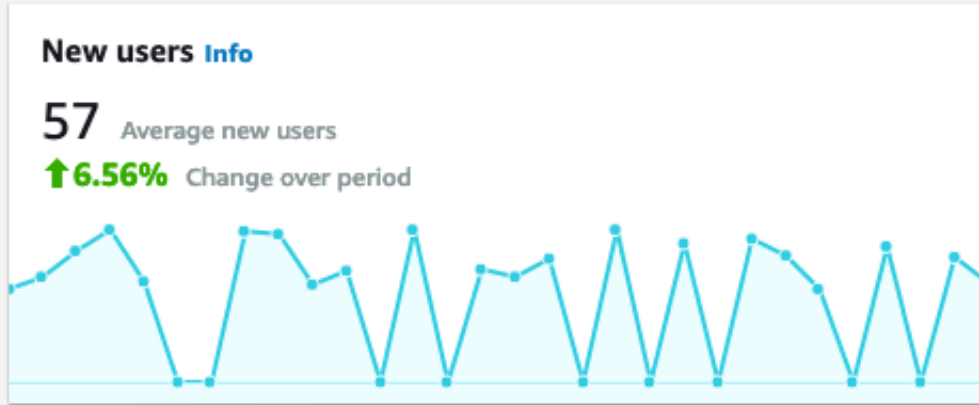
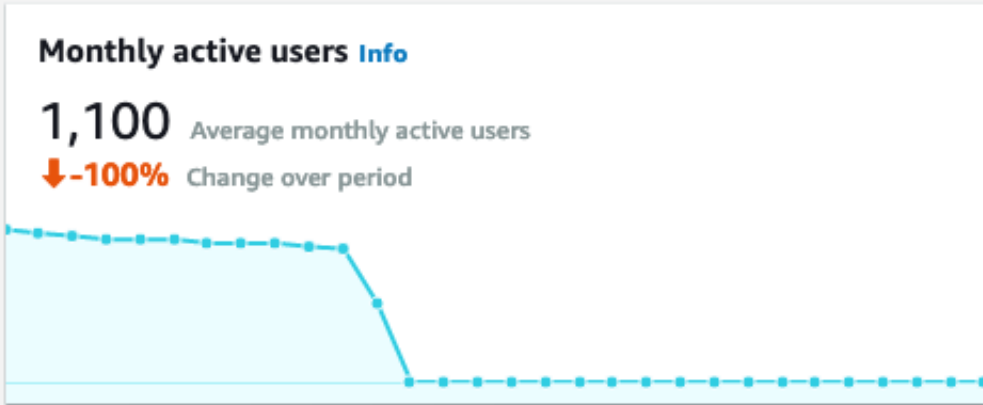
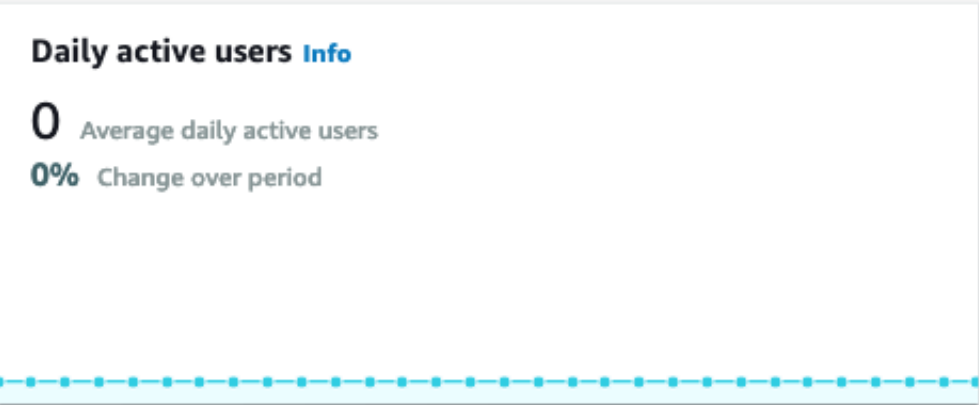
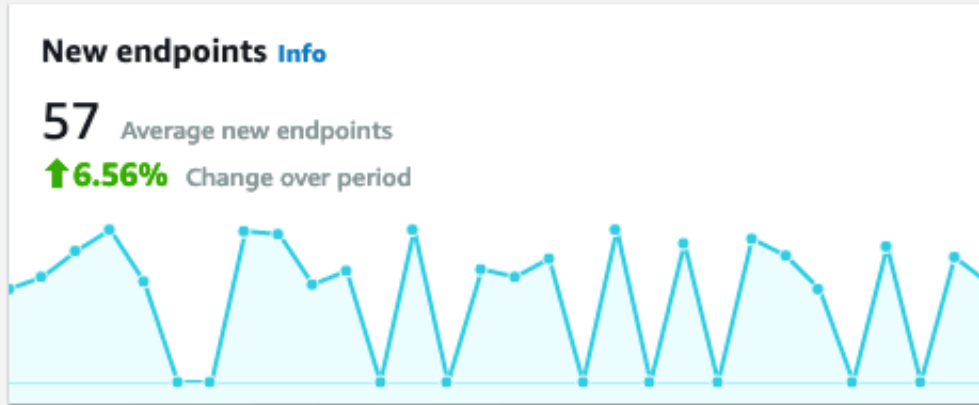
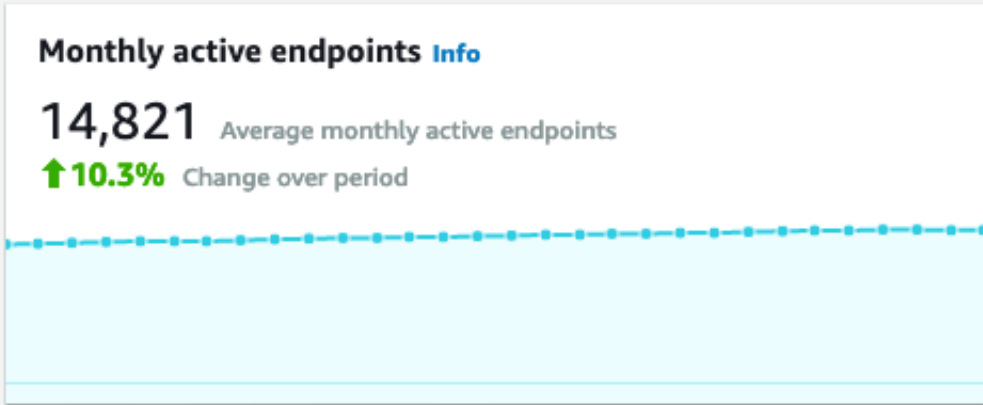
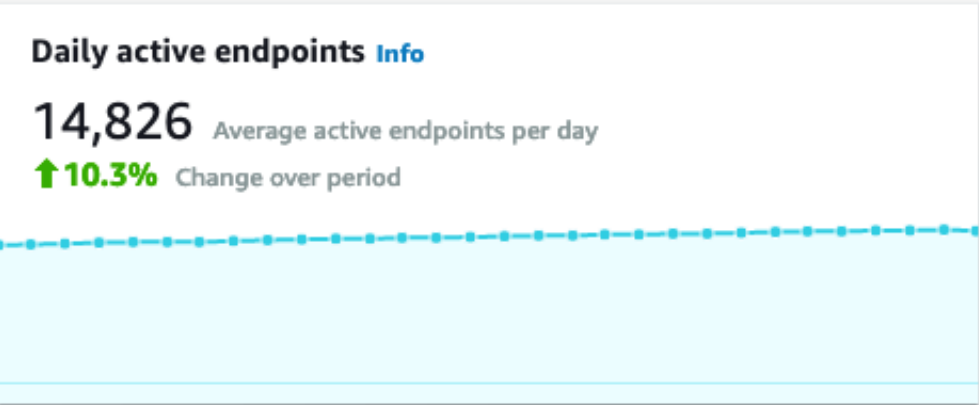


Channels



Analytics

User metrics

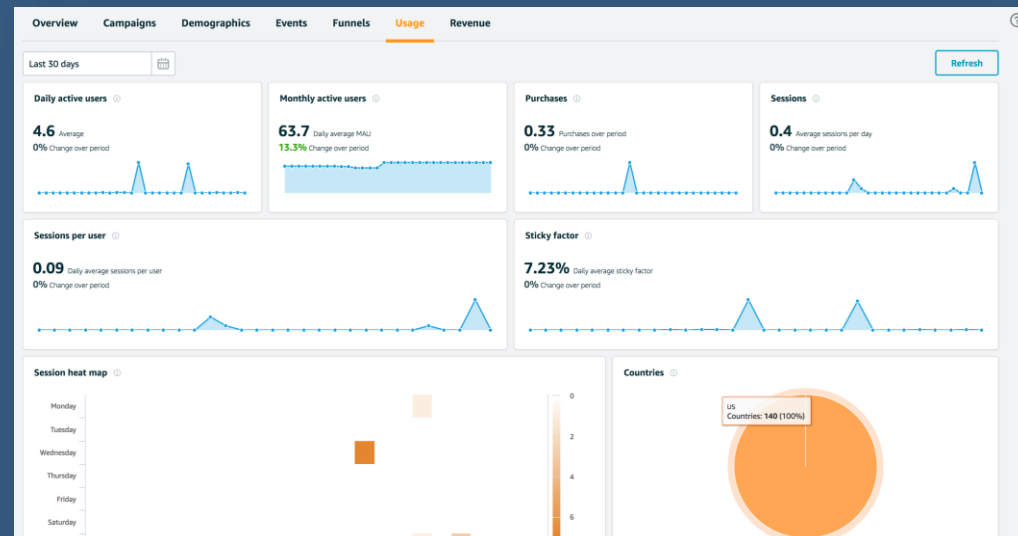


Setup event streaming to Pinpoint

```
Analytics.autoTrack('pageView', {  
  enable: true,  
  events: ['click'],  
  eventName: 'pageView',  
  type: 'SPA',  
  getUrl: () => {  
    return window.location.origin + window.location.  
    pathname;  
  }  
});
```

Configure and enable event streaming

Capture custom application events



View events in the Pinpoint console

AWS Amplify – a development platform

Components

- CLI
- Client Libs (iOS, Android, JS)
- UI Components

Open Source
Framework

- Console – CI/CD and Hosting
- Device Farm

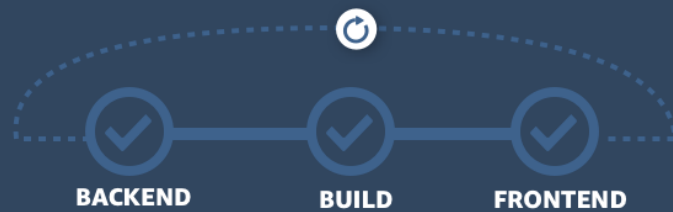
AWS Managed
Developer Services



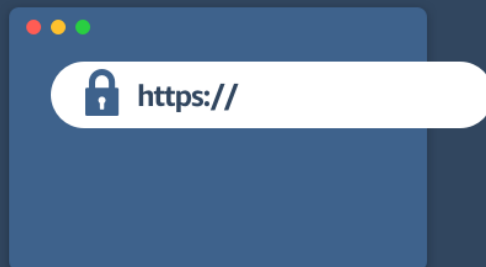
Build a site using Amplify



- Clone code from repository
- Initialise Amplify application
- Configure project settings



- Deploy backend services
- Build front-end application



- Deploy front-end application

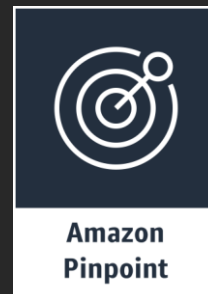
Adding analytics

1. Create analytics service



```
$ amplify add analytics
```

```
$ amplify push
```

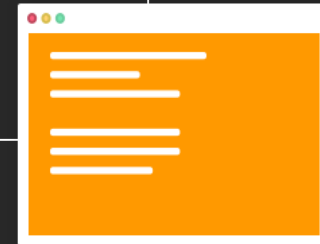


Adding analytics

2. Import Analytics API



```
import { Analytics } from 'aws-amplify'
```



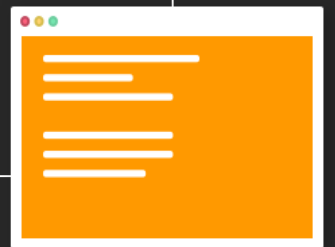
Adding analytics

3. Record events



```
Analytics.record({ name: 'albumVisit' })
```

```
Analytics.record({  
  name: 'albumVisit', // Attribute values must be strings  
  attributes: { genre: 'nu-metal', artist: 'RATM' }  
})
```



Demo

The need for personalisation



Help customers discover products and services they need



Improve customer engagement with your website, app, and content



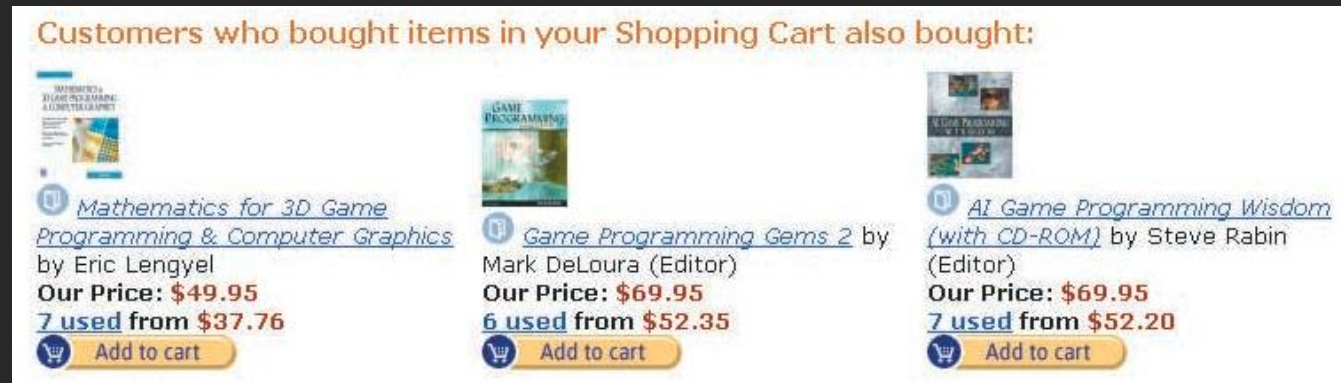
Increase conversion – purchases, subscriptions, app downloads, movie, and music streams



Increase revenue for your business

History of personalisation at Amazon

First personalised experience on Amazon.com



- Feature launched and patent filed in 1998.
- Early investment in personalization to make shopping easy.
- Over two decades of research in personalisation techniques.
- Early features such as '**Customers who bought this, also bought...**' loved by all.

Amazon Personalize

Based on the technology that powers personalisation at Amazon

- Fully managed service for generating personalised recommendations
- Uses the same ML technology as being used at Amazon
- Generates highly relevant recommendations using deep learning techniques
- Requires no ML expertise to use
- Builds custom and private ML models using your own data

Delight your customers

Improve customer experience with Amazon Personalize



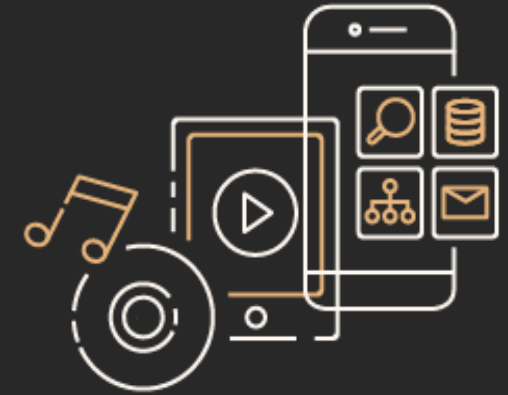
Deliver high quality
recommendations



Adapt to changes in
customer intent in
real time



Train a
recommendation
model with a
few clicks



Generate recommendations
for almost any
product or content

Industry use cases

Financial Services

Check and credit card notification, trade confirmation, low balance alert and cross selling of services such as brokerage, mortgage, credit card and insurance

Entertainment and Media

Primary user scenarios include login/password, live event offers and updates, content recommendations, ticketing and fantasy sport updates

Retail

Digital Coupons, order confirmation and delivery, electronic receipt, inventory updates, digital product recommendations, profile preference updates and brand sentiment tracking

CPG

Digital buyer analytics, coupons and loyalty programs, supply chain notifications, electronic receipts and purchase confirmations

Travel

Airfare price changes, departure updates and cancellations. Check-in, safety updates, traveler authentication and mileage loyalty offers

Hospitality

Reservations, in-room service confirmation, same day confirmation, loyalty offers and delivery updates

Life Sciences and Healthcare

Appointment reminders, prescription replenishment, MD/patient login tracking, in-home care monitoring, virtual care and diagnosis, health monitoring tools

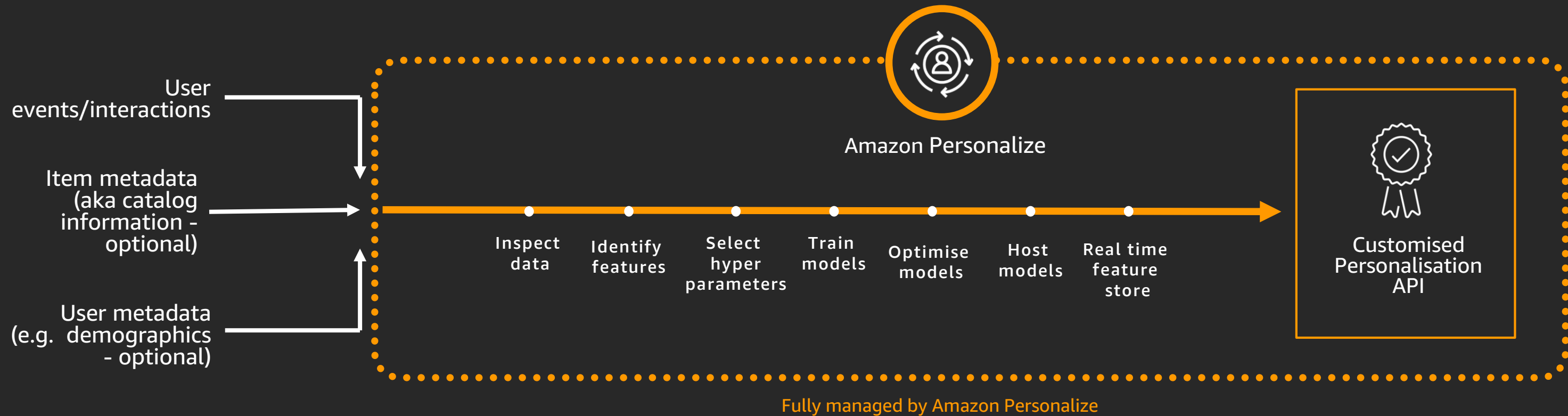
Amazon Personalize

How it works

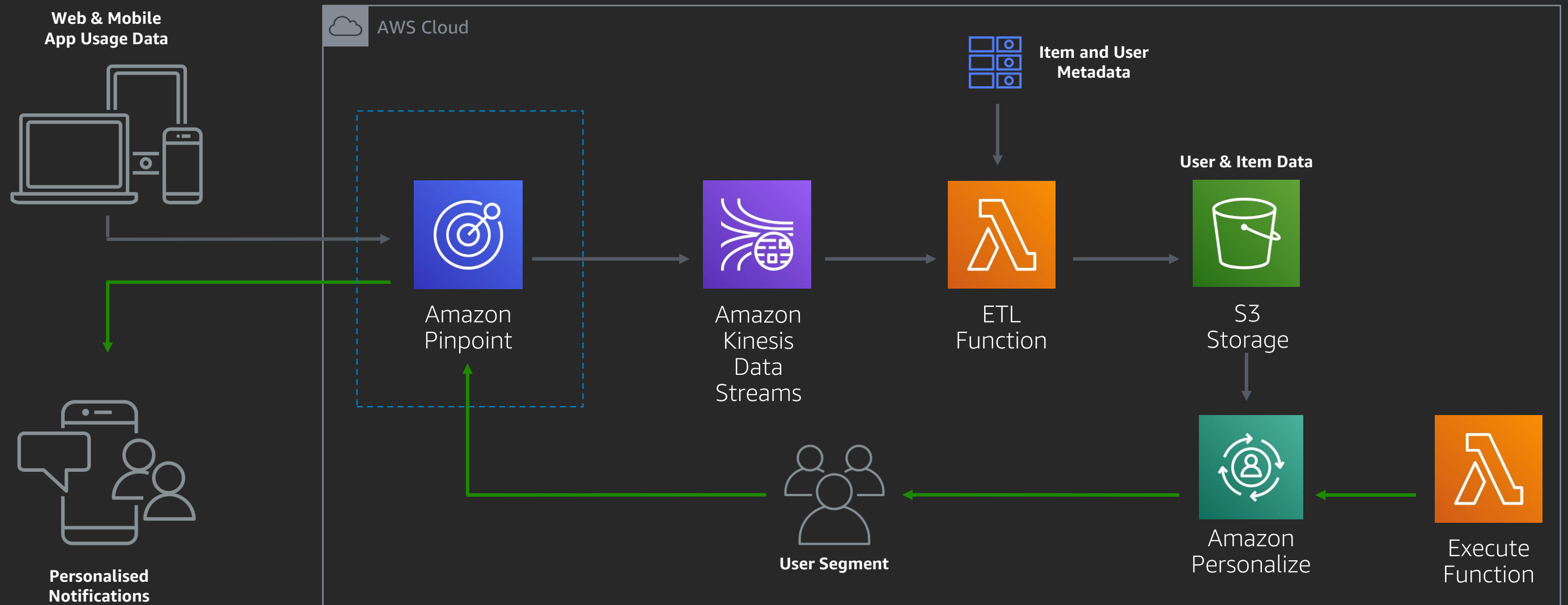
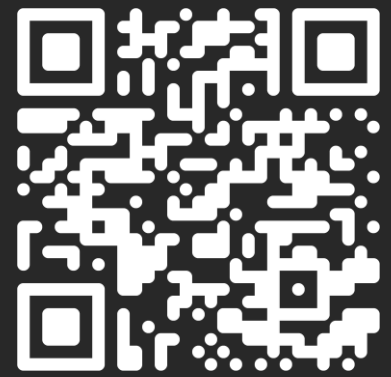


Amazon Personalize

Behind the scenes



Solution Architecture: Predictive user engagement



Thank you!

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