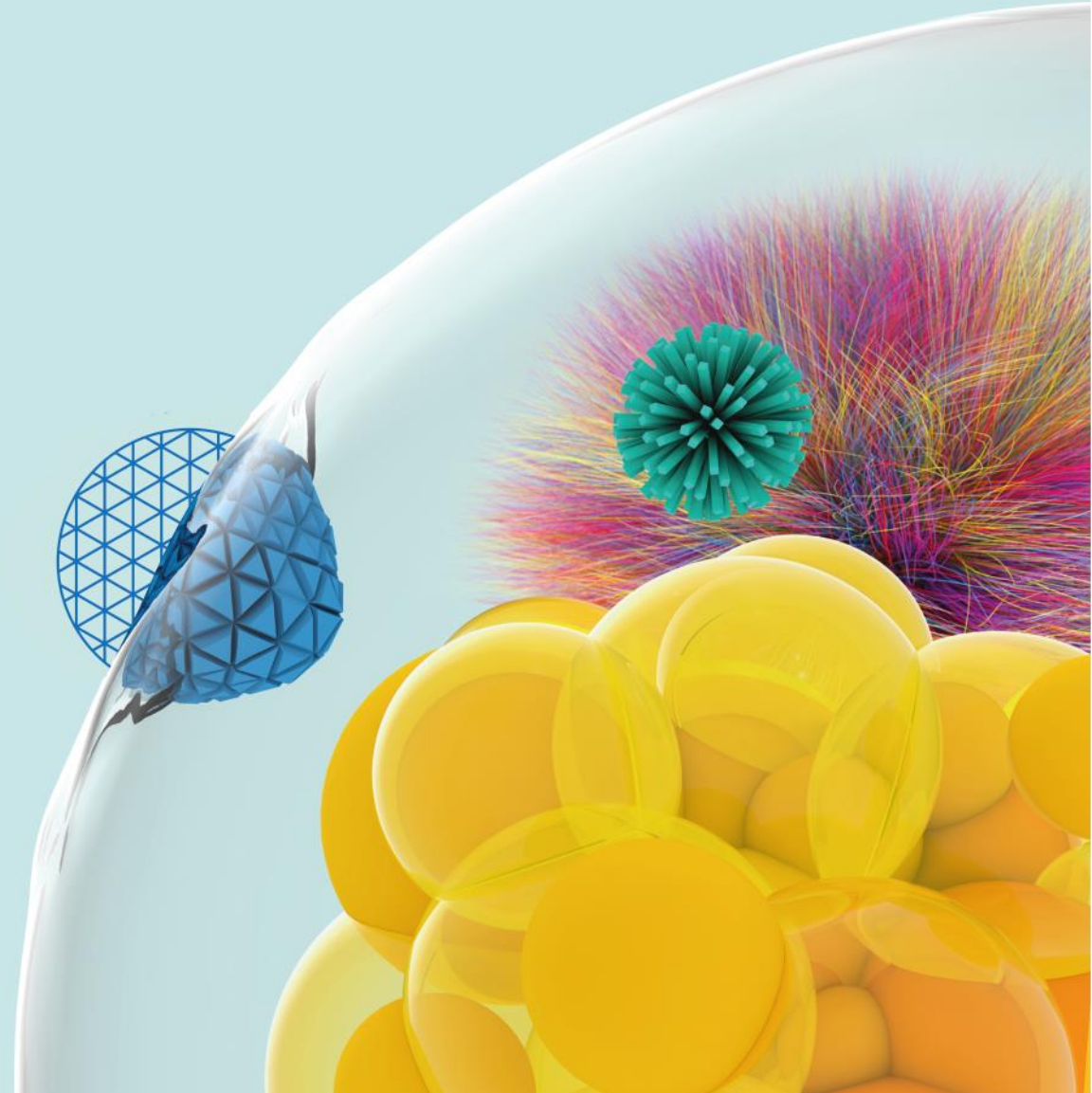
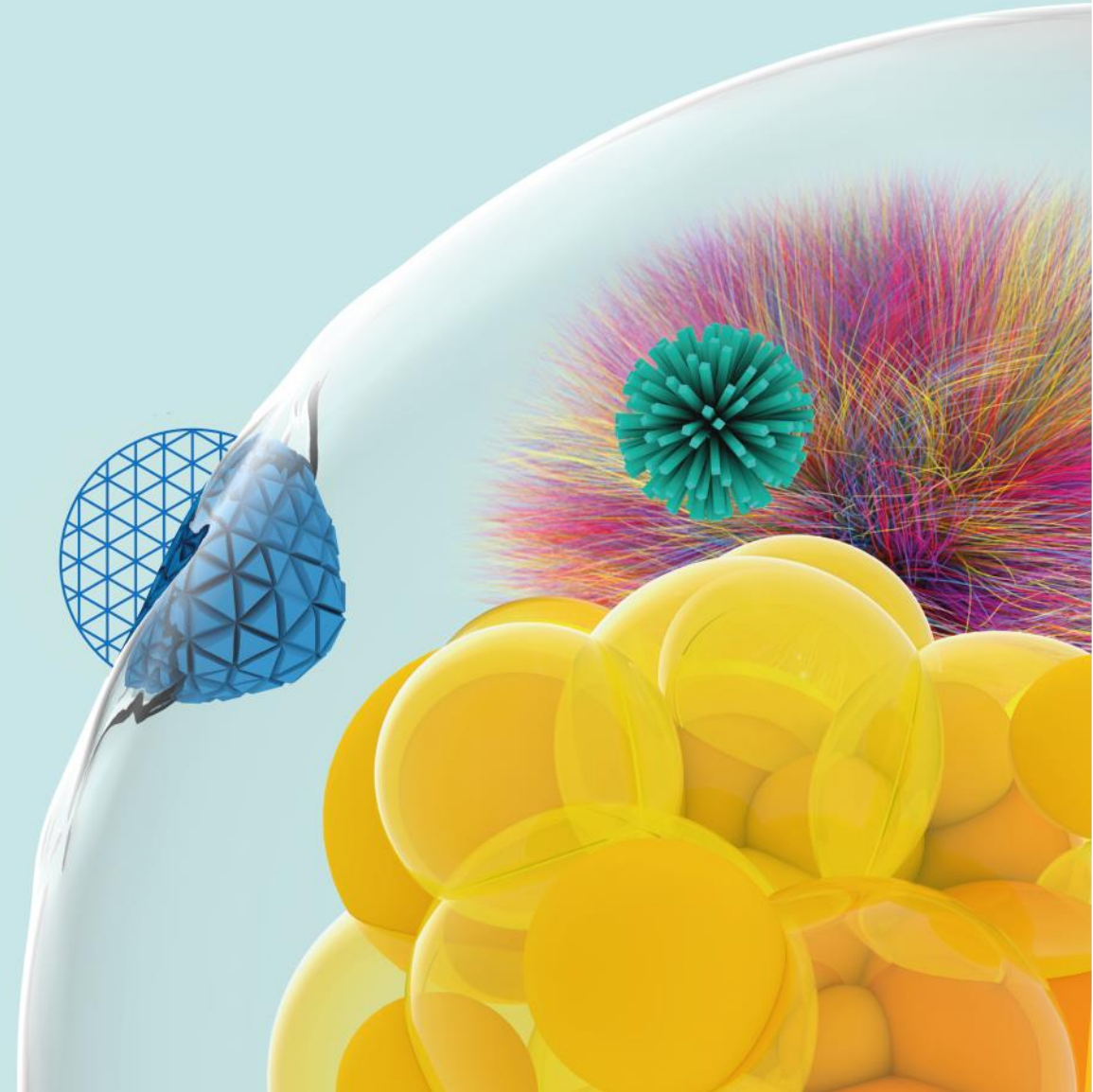


Bango Technology & Market Strategy Day 2022



Introduction



Today's speakers



Ray Anderson
Executive Chair &
Co-Founder



Tom Tahara
NTT Docomo
Partner video



Wayne Griffiths
COO
*What is the
Bango Platform?*



Karen Langley
Liberty Global
*Customer
speaker*



David Haughton
VP Engineering
*Onboarding, integration
& migration*



Cei Sanderson
Director of Product
Management
Product innovation



Anil Malhotra
CMO & Co-founder
*Market innovations
drive growth*



Stefana Pesko
Product Madness
*Customer fireside
chat*



Rebecca Jamieson
Head of Investor
Relations

Other members of the Bango team here to meet you



Matt Garner
CFO



Sukey Miller
VP Marketing
Communications



Jo Parsons
Product Manager



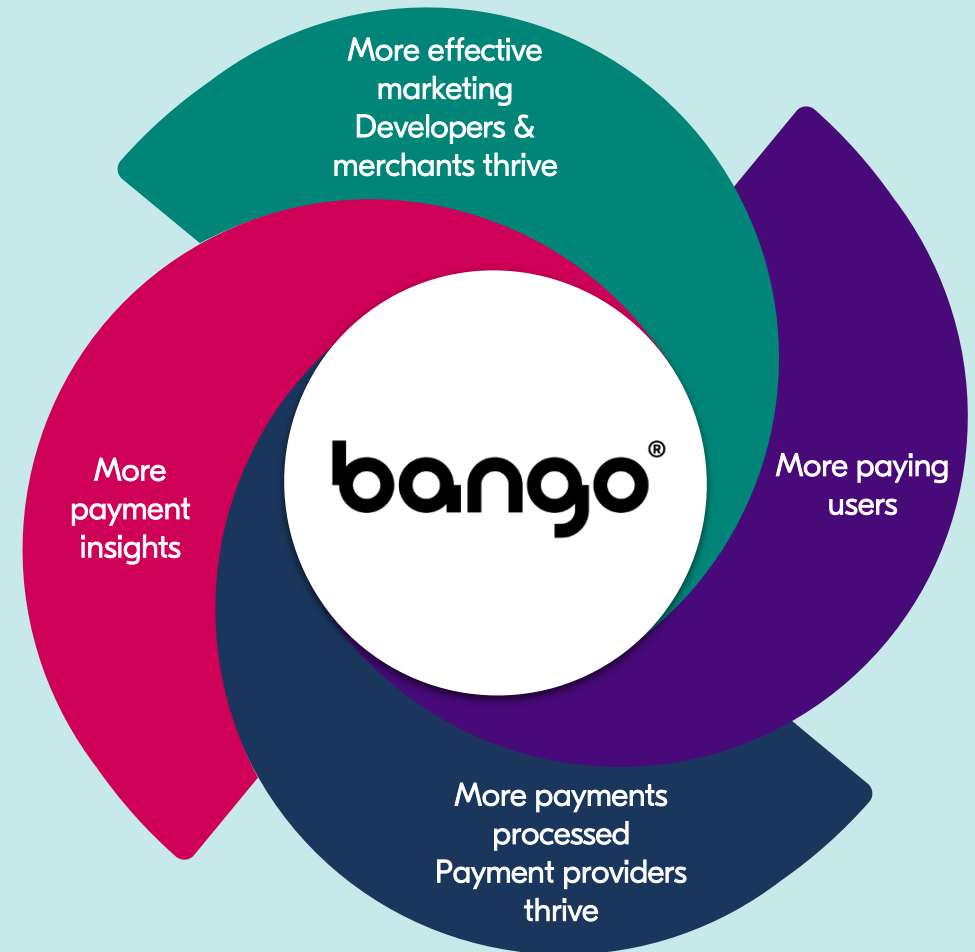
Neil Ginsburg
SVP Sales, EMEA
& Asia



Lisa Huxley
Director, Strategic
Accounts

Bango strategy – the virtuous circle

- Bango Payments – driving transaction volumes through the platform generating masses of data
- Bango Audiences – using advanced techniques on the data to make Bango indispensable in online marketing
- The **more payment** data Bango processes, the **more effective and valuable** Bango Audiences become
- Marketing that generates **more purchase activity** produces more data insights, which continuously improves marketing effectiveness



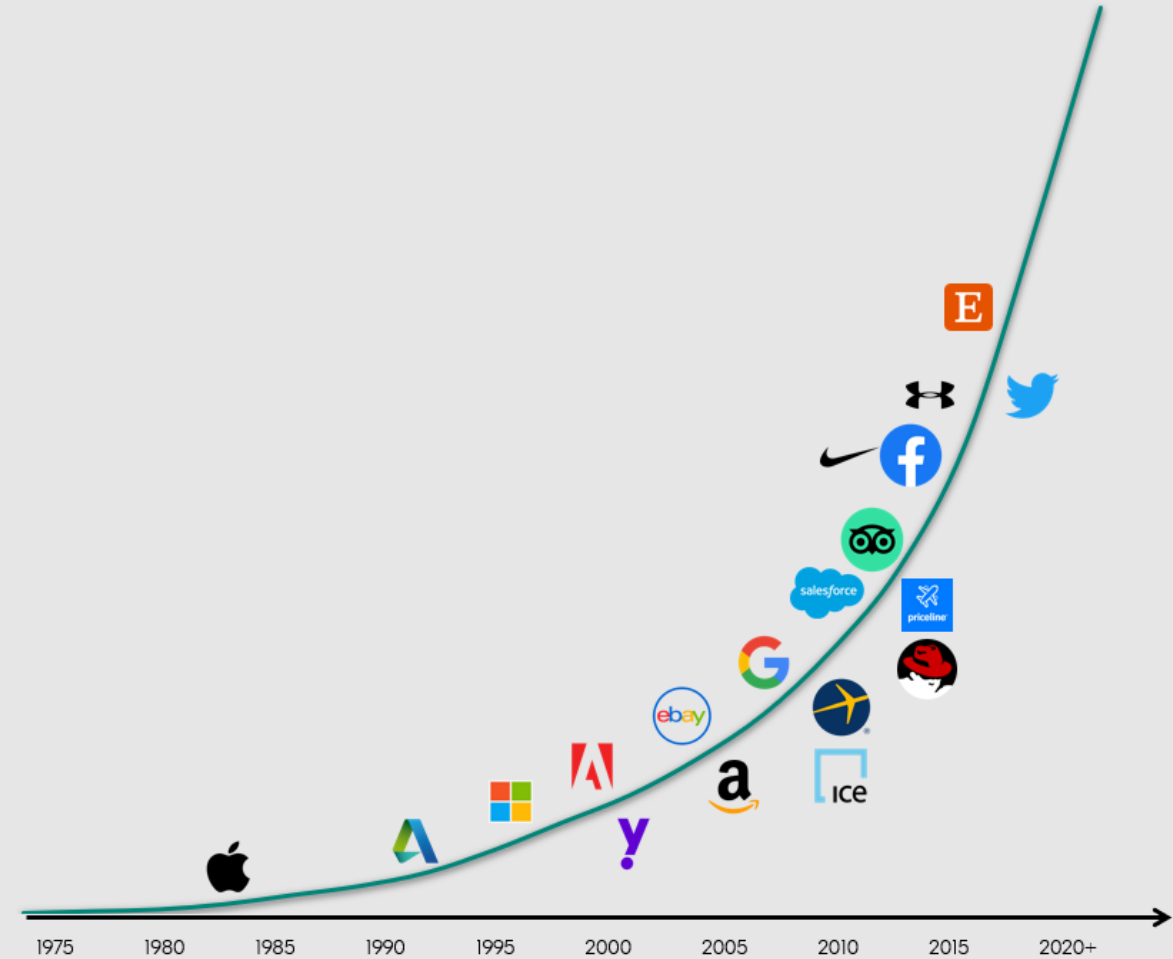
What is a platform?

“A business model that creates value by facilitating exchanges between two or more interdependent groups”

- Bango platform connects merchants to payment providers
- Multiple points of value creation
 - Finding paying users
 - Processing payments
- The Network Effect
 - The benefits from the Bango Platform increase as the number of people using it grows
 - It is in everyone's interest to encourage others to join
- The Bango Platform is uniquely positioned to deliver value no one else can



Platform businesses in the S&P 500 over the past 40+ years



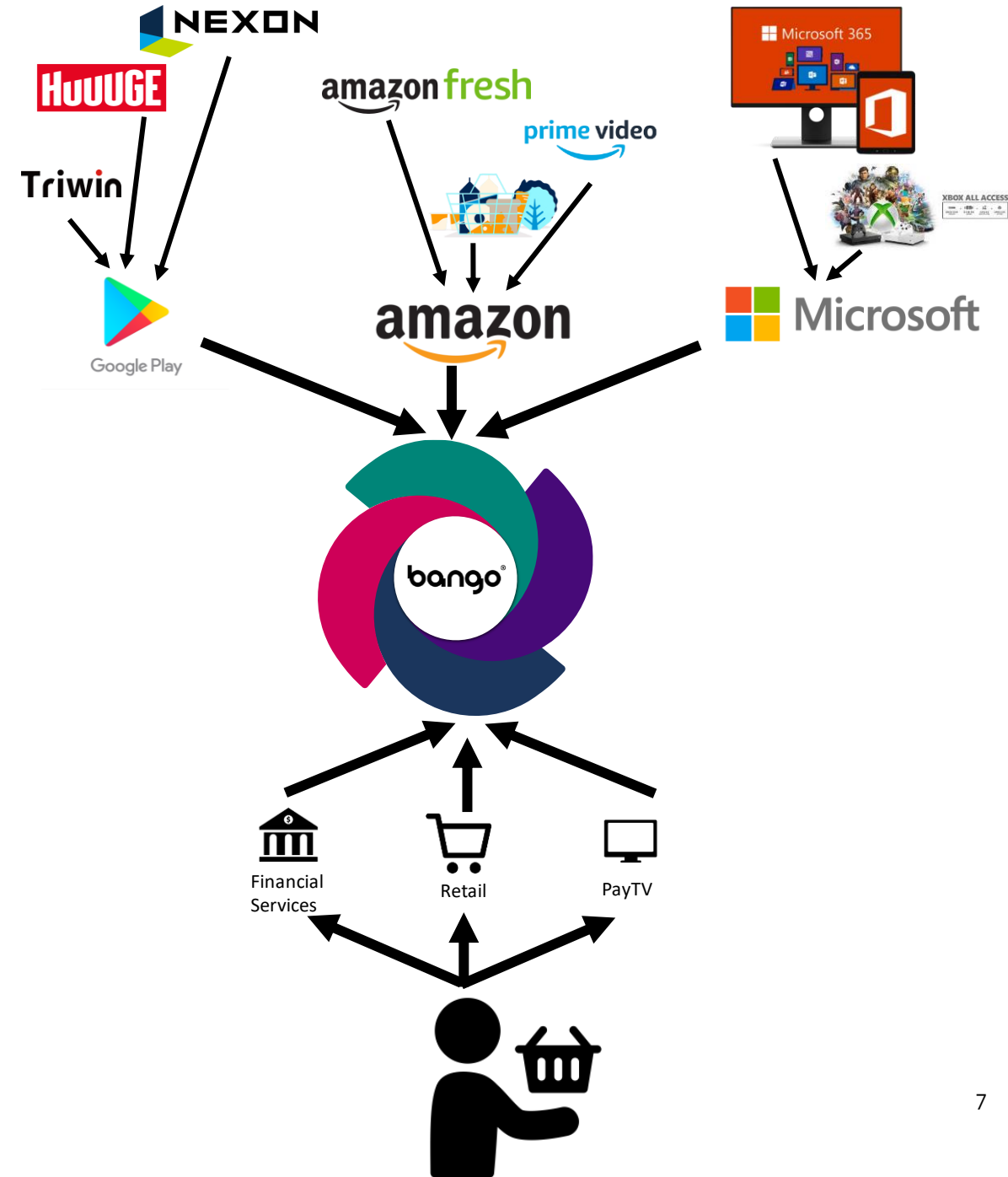
Source : <https://www.applico.com/blog/what-is-a-platform-business-model/>

Companies that could join the S&P 500

Unique Bango Platform differentiator

- Bango has data that nobody else does
- Bango platform sees what users purchase across *multiple* merchants via *multiple* channels
- Benefit from broader customer knowledge
- Example insights:
 - Increase payment success by timing subscription billing when the customer is most likely to have available funds
 - Find new paying users by targeting using purchase behavior. A customer who purchases lots of games in the app store = potential Xbox All Access customer
- Advantages to merchants:
 - Scale with simplicity
 - Speed to market
 - Maximize revenue opportunity
 - Allows focus on brand differentiators

bango[®]



Leading brands have adopted the Bango platform



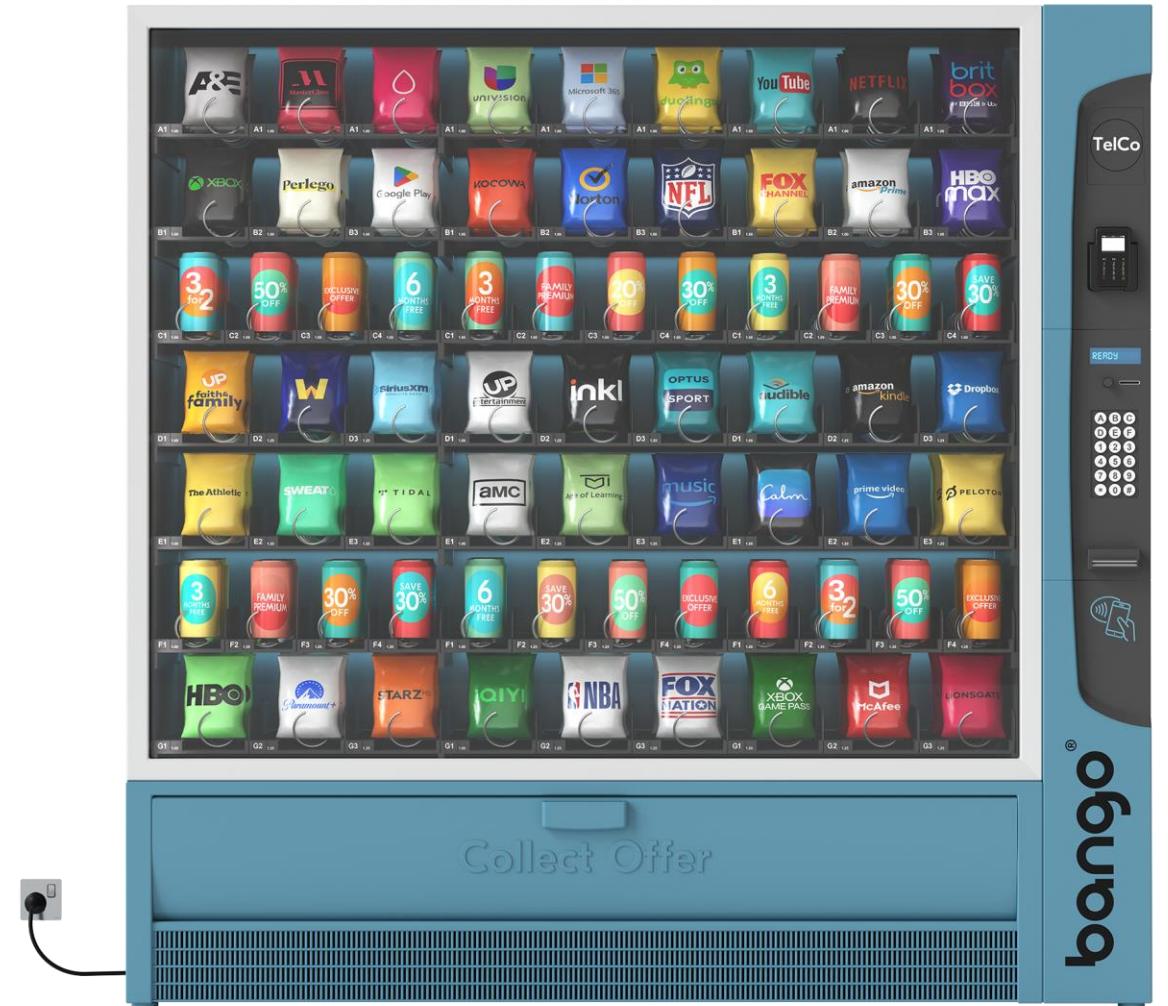
verizon[✓]

T Mobile[™]



NTT
docomo

bango[®]



bango®

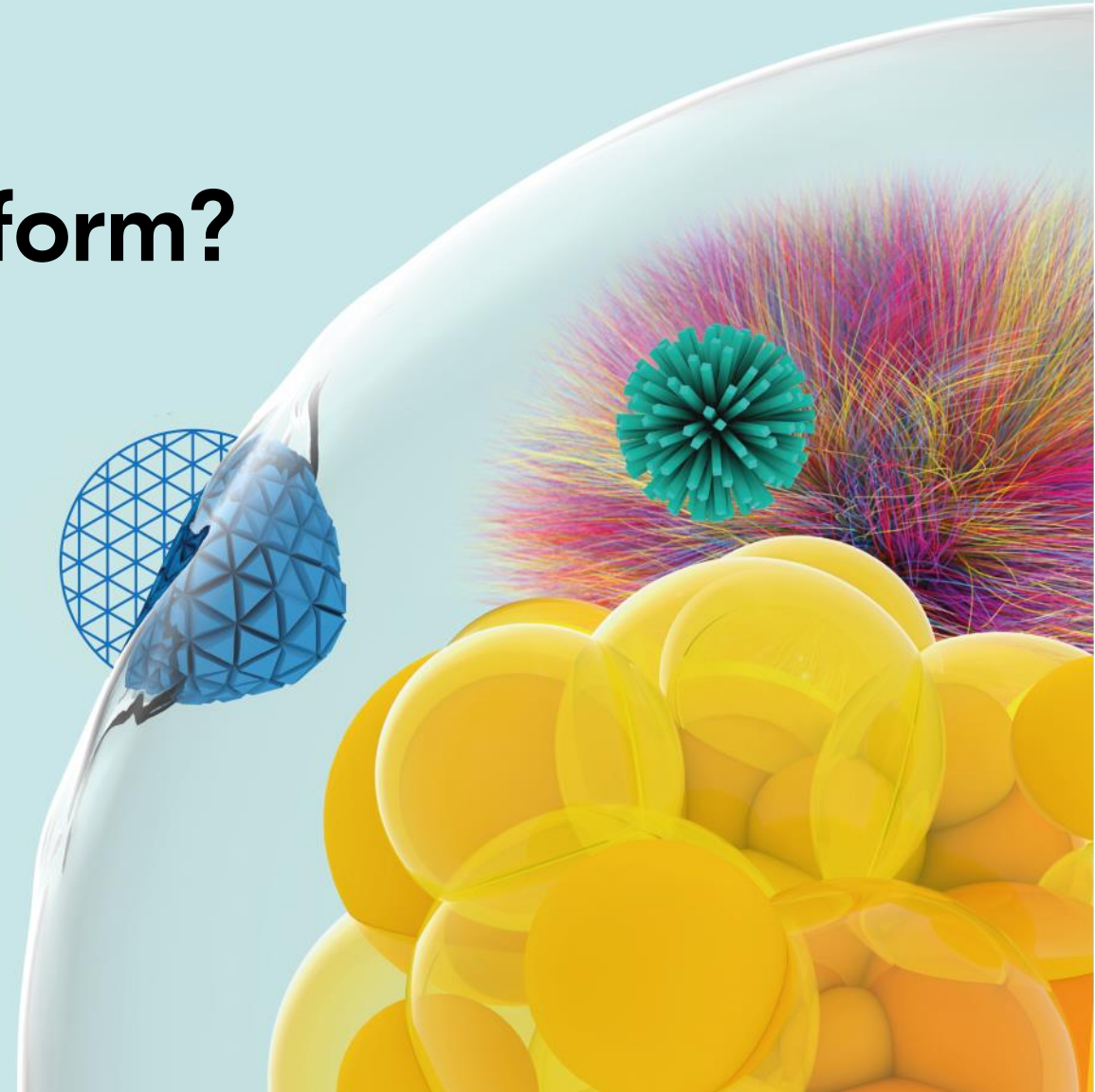
**NTT
docomo**



What is the Bango Platform?

Wayne Griffiths

Chief Operating Officer

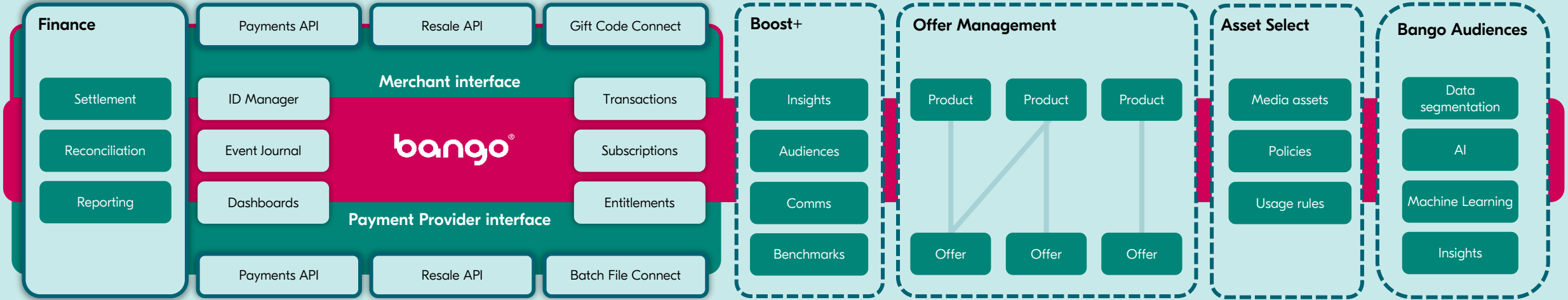


Delivering the Bango Platform

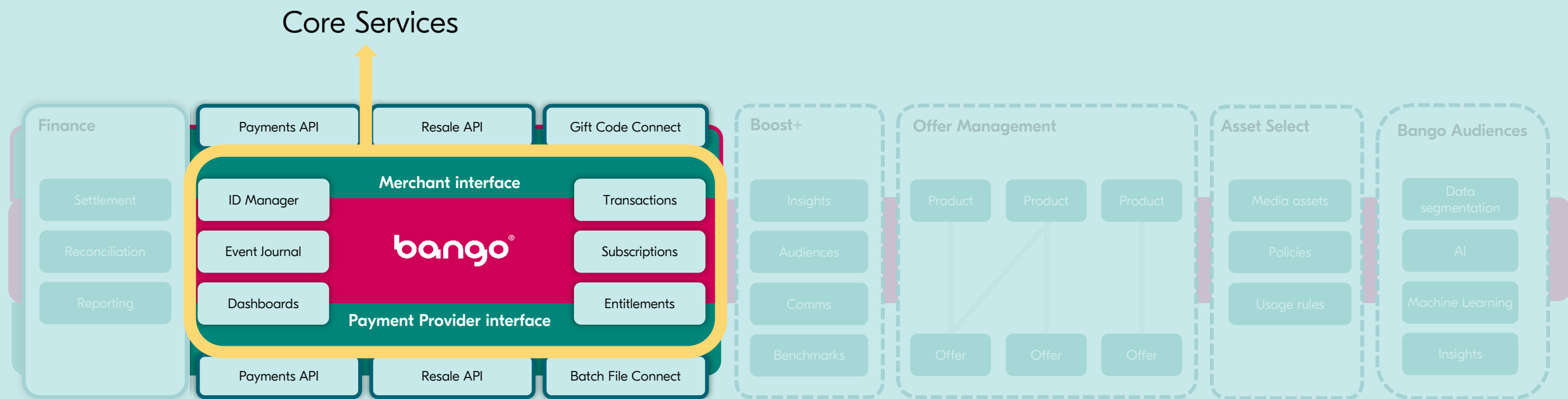
- **Flexibility** for enhancement and evolution is key
 - The Platform is optimized for any kind of transaction, not just payment processing. E.g. entitlements, offer activation, payments, audience sharing.
- **Supports business critical activity** for partners
 - Record sales, revenue capture, find paying users.
- **Built to scale**
 - Handle large activity peaks from promotion of new releases, seasonal events.
- **Secure and resilient**
 - Bango's 'cloud first' solution is paramount to achieve this. Using best in class technology to ensure high quality service to our customers.



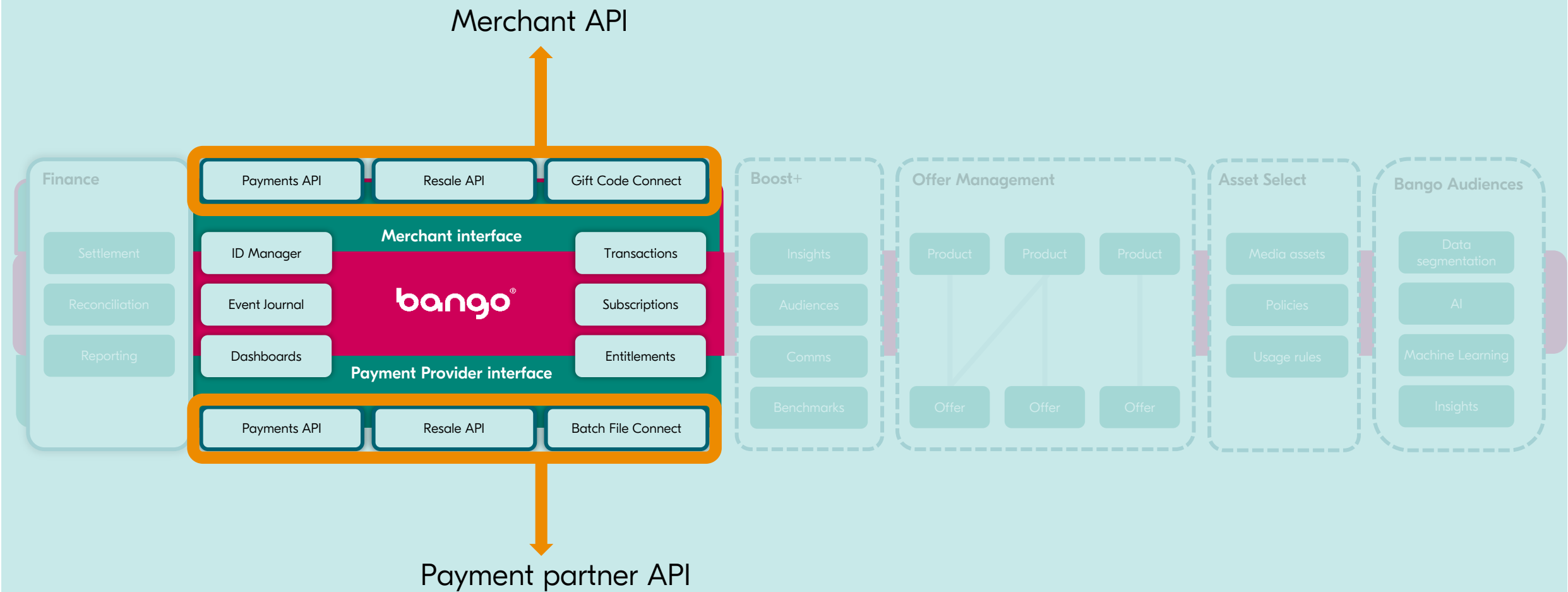
The Bango Platform



Bango Platform – internal workings



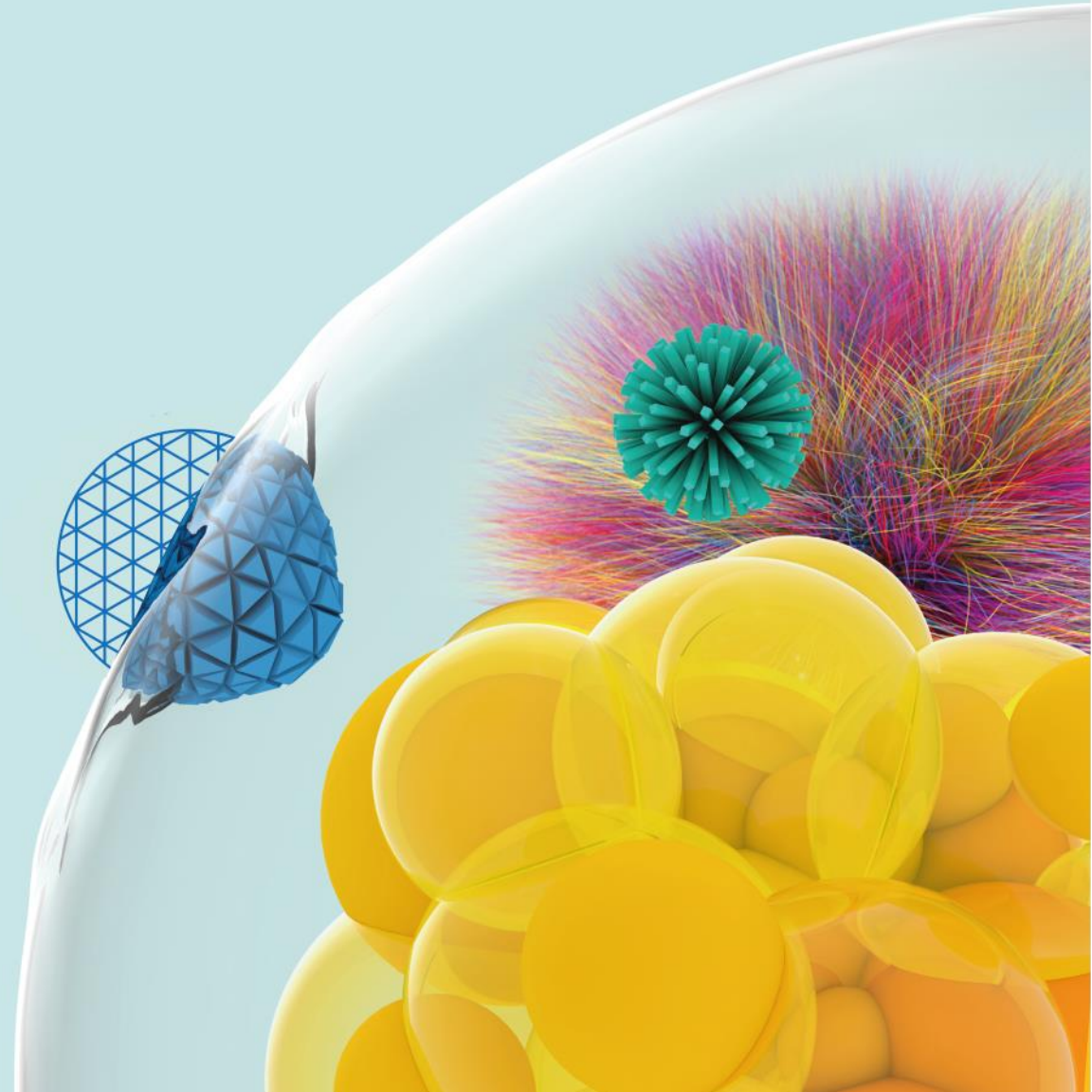
Bango Platform – internal workings



Customer Speaker: Liberty Global

Karen Langley

VP Digital Strategy & Architecture



Liberty Global - introduction



OUR BRANDS



OUR PRODUCTS



WIFI



TV PLATFORMS



5G NETWORKS



GIGABIT
BROADBAND



MOBILE

HIGHLIGHTS

MOBILE SUBSCRIBERS

44.2M

FIXED LINE CUSTOMERS

12.3M

GIGABITHOMES

30.3M

OPERATING COUNTRIES IN EUROPE



HQS IN DENVER, LONDON &
AMSTERDAM



Liberty Global – our journey

Moving beyond telco

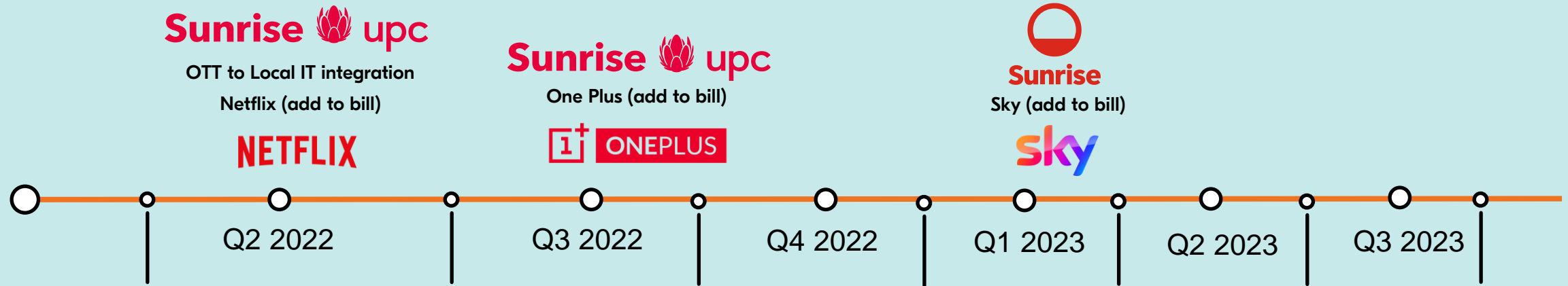


- The future is personalized orchestration of services
 - Our digital journey is a move from selling telco & cable services to selling more and we must move at speed.
- We see the importance of customer specific value propositions
 - We have a trusted billing relationship with our customers, but market trends are showing for all companies in the sector that average revenue per customer (ARPU) is reducing on current products. We are looking at ways to offer our customers more.
- Bango helps us provide more ‘adjacent to telco’ services to our customers faster
 - We have a short window with a saturated market of OTT providers establishing relationships with our customers



Liberty Global ↔ Bango - where we are today

Through Bango, we've deployed OTT offerings rapidly



Creating a central gateway platform for all operating companies to use providing repeatable and rapid deployments of OTT partner offerings across our omnichannel – STB, Web, call centre or App



OTT to Local IT integration
Netflix, Disney +
STB integration (Netflix)



Prime Video
prime (Amazon logo) and Virgin media (Virgin Media logo)

OTT to Local IT integration
Netflix, Disney +





Tomorrow's connections today

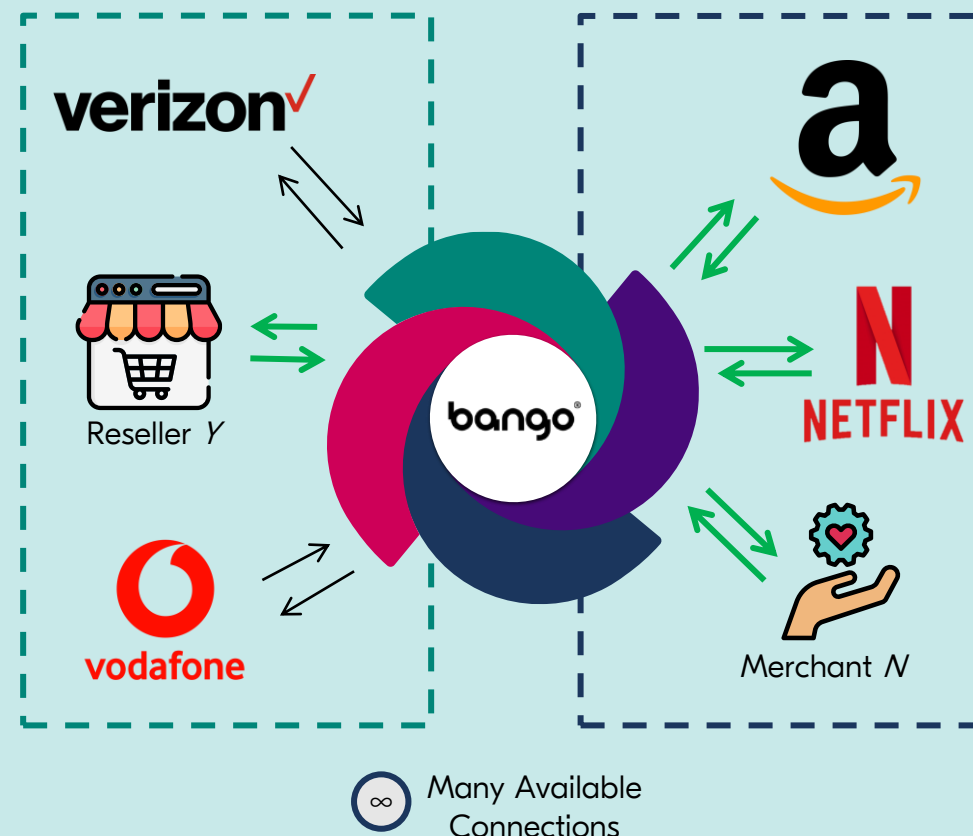
Onboarding, Integration, Migration

David Haughton
VP Engineering



Onboarding with Bango

- Merchants and payment/resale partners integrate to Bango through a standard API
- Connect once to activate multiple routes
- New services added are automatically available to all existing partners
- Platform design insulates partners from changes to 3rd party systems



Integrating with Bango



1. Defacto standard in Billing and Resale

2. Simple design that abstracts complexity

3. Publicly accessible documentation

“Your position as the global leader in billing integration, simple API, speed to market and availability to support our team when and where they need it is what ultimately won you the business.”

T Mobile™

Integrating with Bango

Self certification for resellers

- ✓ Allows resellers to connect to the Bango Platform agnostic of any merchant — ensuring compatibility
- ✓ Bango defined test playbook
- ✓ Simulates merchant behaviors through the Bango Platform
- ✓ Provides example request and response formats
- ✓ Enables faster onboarding



Integrating with Bango

Self certification for merchants

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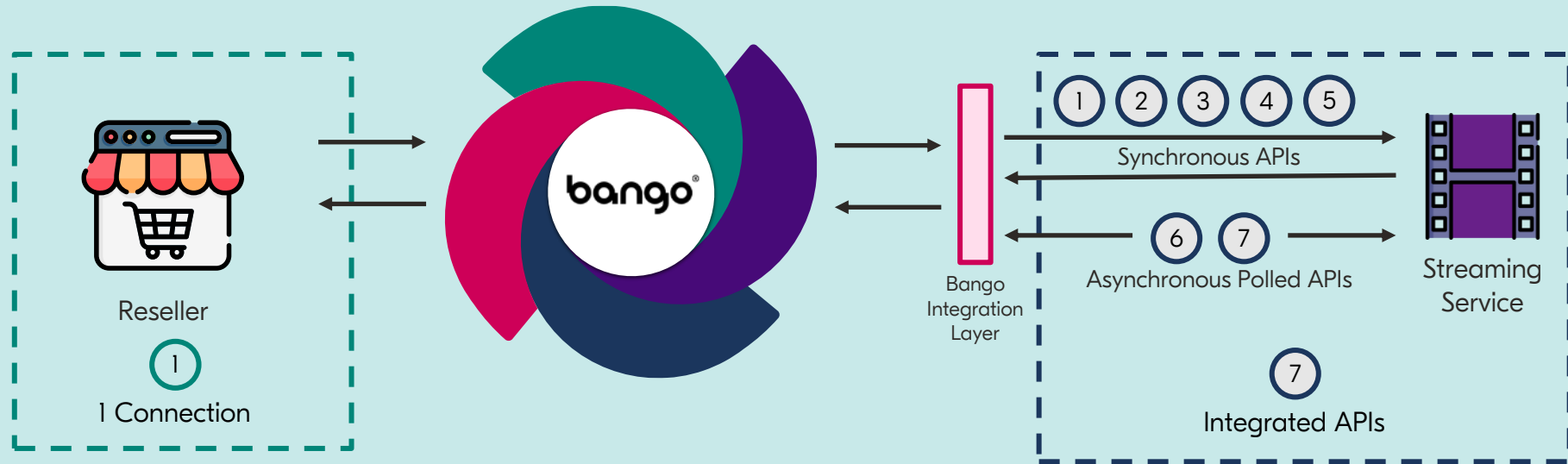


Bango integrations – for legacy systems, we can install an integration layer



1. Build integrations against Bango's API specification
2. Ensure the Bango Platform is the data source of truth
3. Adhere to Bango's connect once, access many principle

Bango integrations abstract complexity



1 simple connection with Bango provides access to 7 merchant APIs

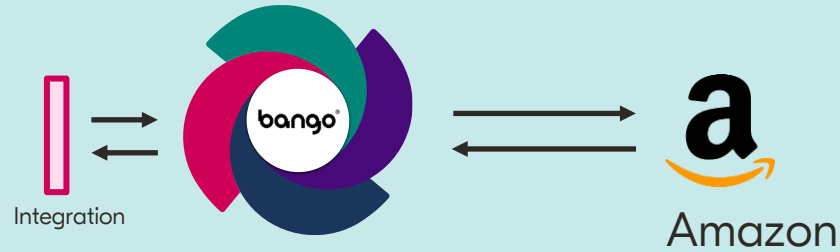
“Bango has given us timely deliverables. Working diligently to turn things over within a short time frame.”

“When Bango delivers code, it is tested thoroughly before it is turned over to Verizon resulting in little to no issues. Bango's stance on quality is impressive.”

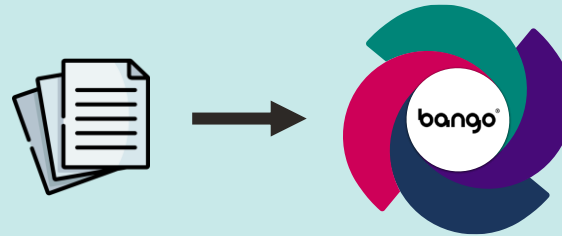
verizon✓

Case Study: migrating Amazon routes from a competitor

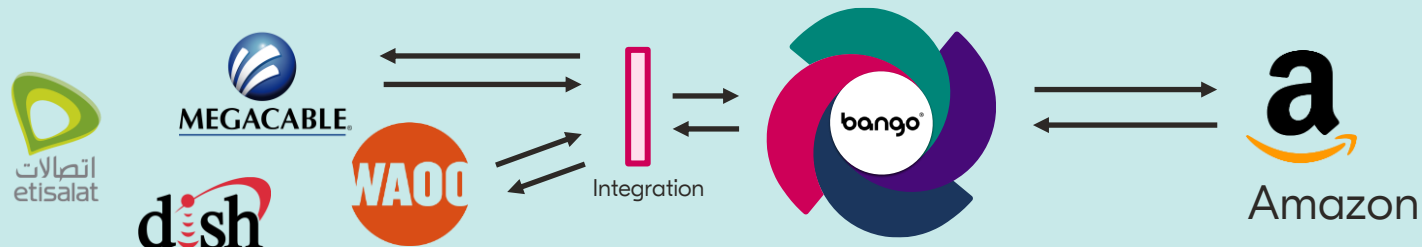
Step 1 – Develop integration layer



Step 2 – Validate & migrate existing transactions using Bango's batch processing service



Step 3 – Resellers update endpoint, directing requests to Bango



“Bango de-risked this for us by a country mile.”

“Kudos to Bango as they were able to produce the most feasible solution in regard to the integrator migration.”



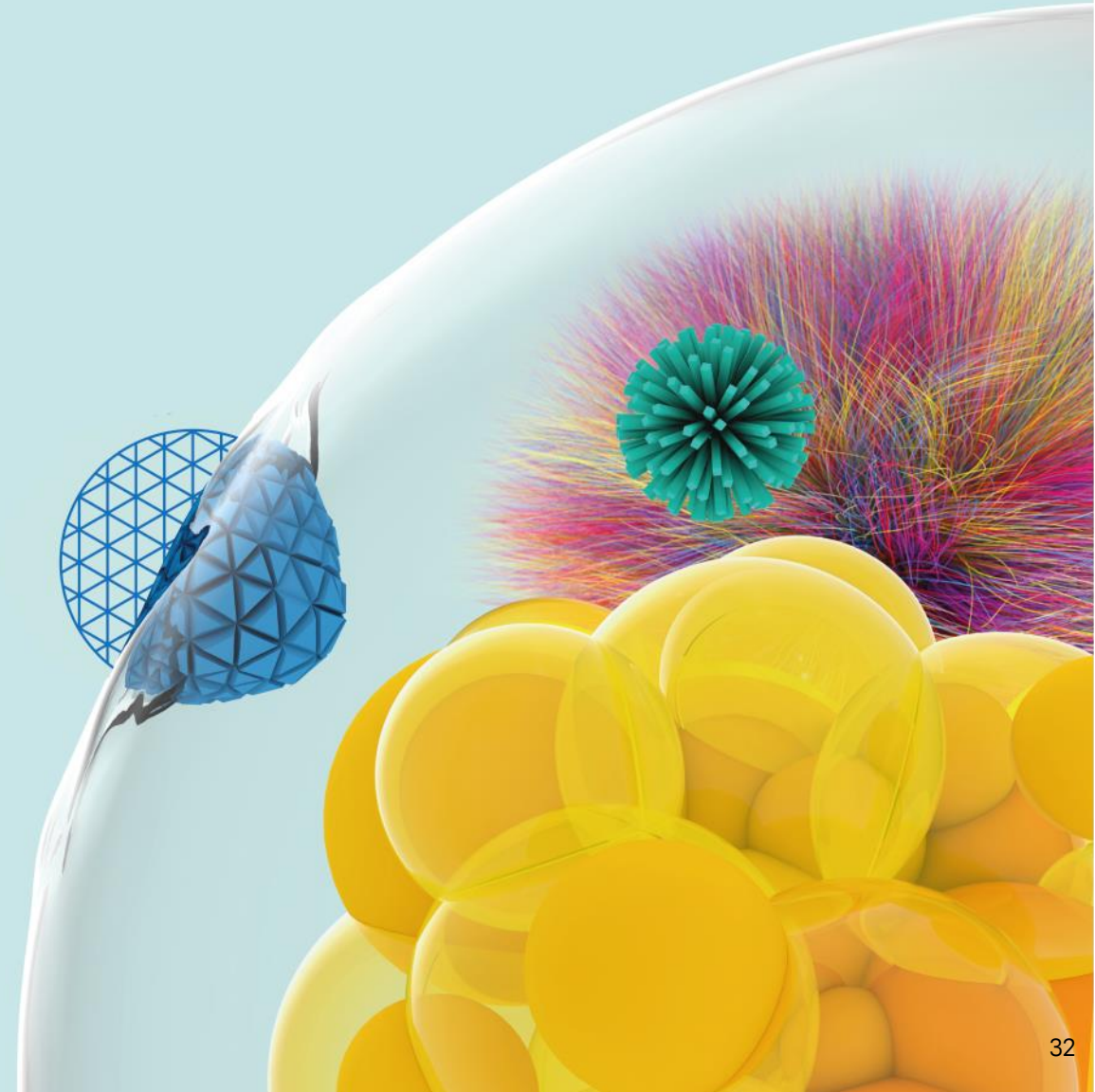
Summary

- ✔ Simple, yet powerful API enabling our customers to integrate quickly
- ✔ Connect once, access many
- ✔ Bango Platform and tools make integration simple for everyone
- ✔ Successful track record with complex migrations

Product innovation

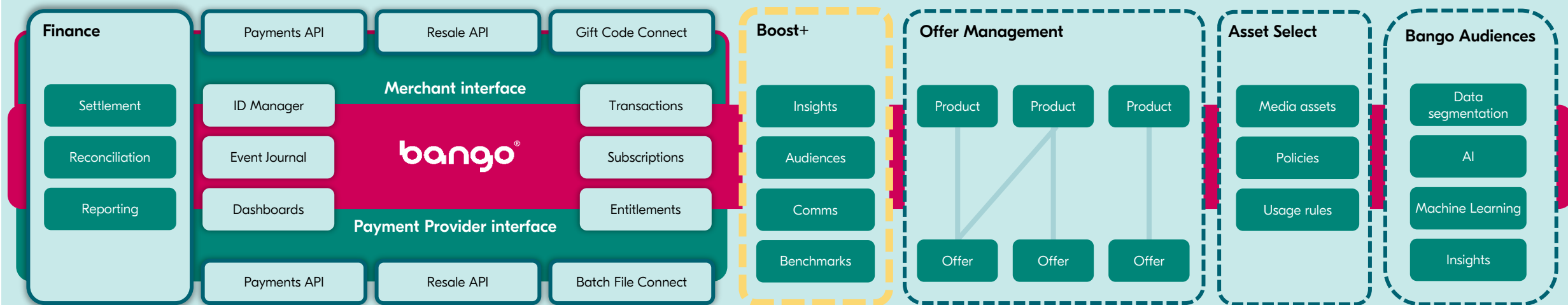
Cei Sanderson

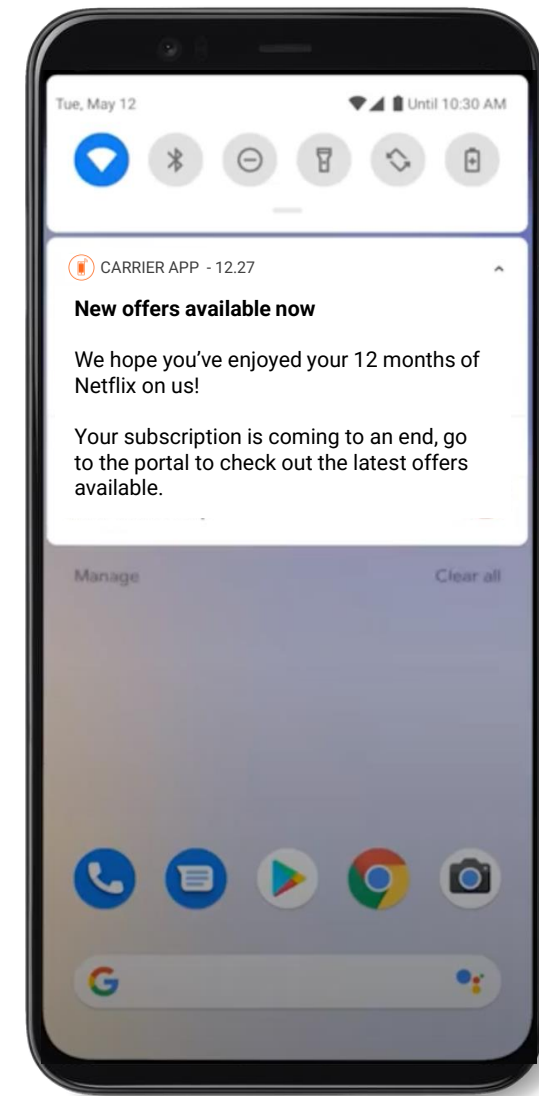
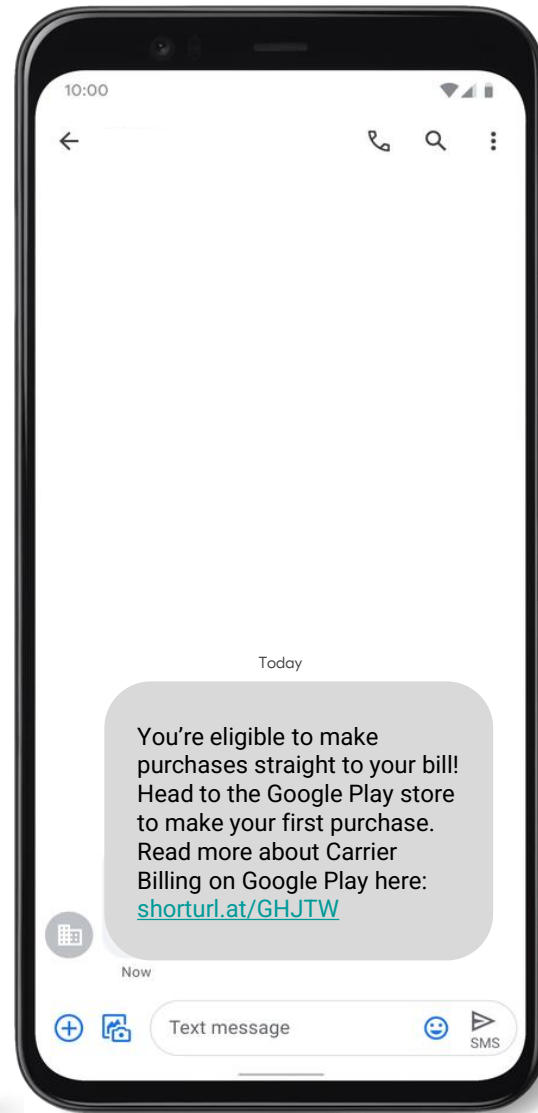
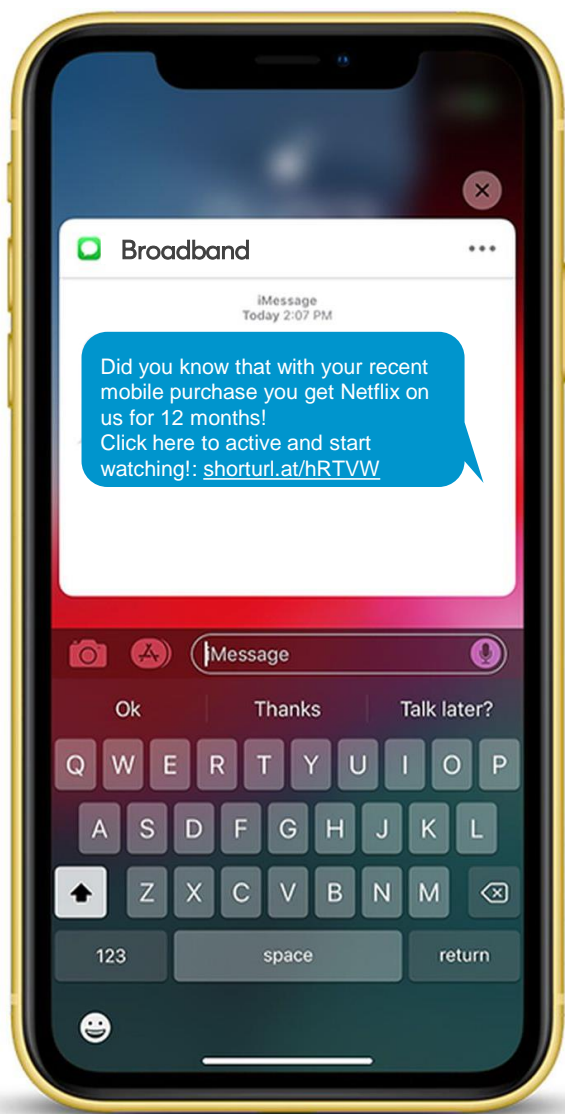
Director of Product Management



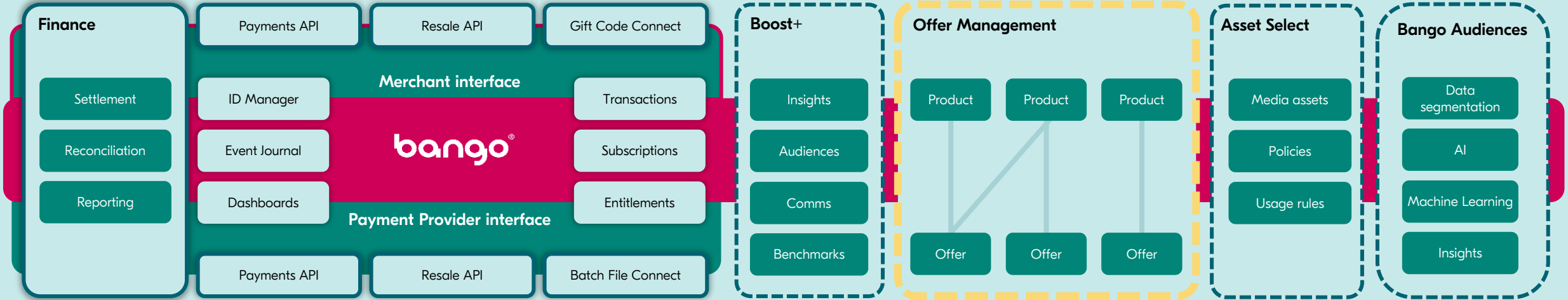
Boost+

Helping Bango partners acquire and retain more customers and grow revenue across their business





Bango Platform – offer management



Offer management

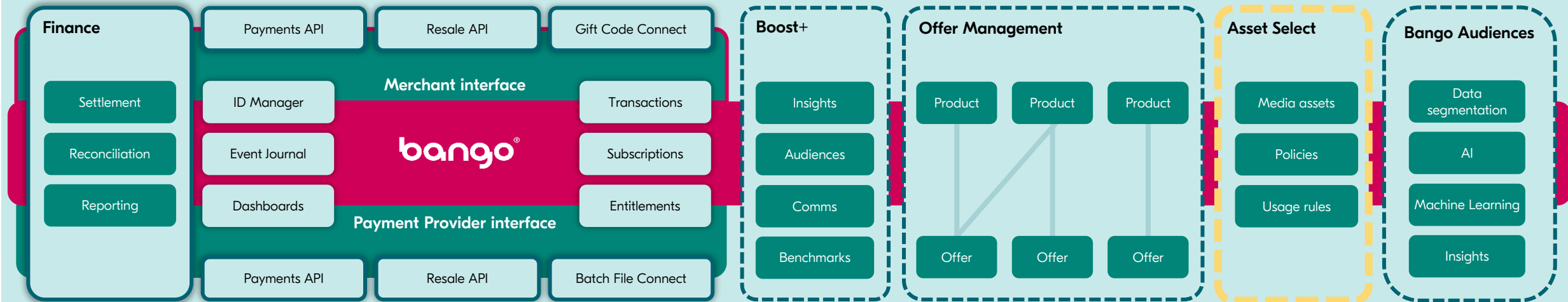
Offers on demand, the secret to super-bundles

- ✓ The right offer for the consumer
- ✓ The right time to make the offer to the consumer
- ✓ The ability to make it happen in that time to market



Bango - asset select

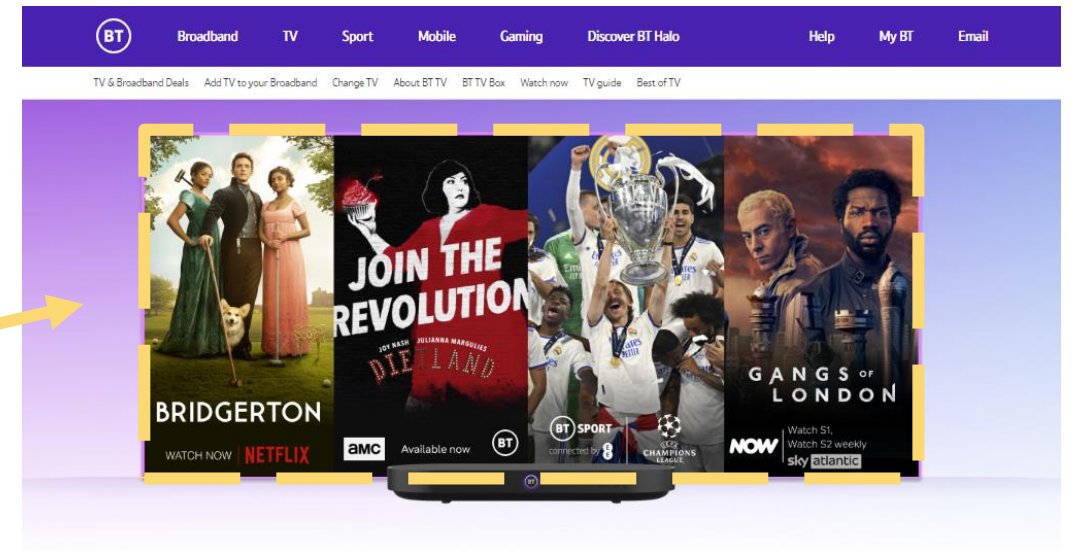
Ensure the best media asset is selected for each product offer – every time



Asset select

Ensure the best media asset is selected for each product offer — every time

- Co-branded campaign themed assets
- Targeted content
- Target offers and assets



Add TV to your existing broadband package

Add flexible BT TV to your Superfast Fibre broadband package. That includes Netflix, NOW Entertainment (RRP: £9.99 p/m) giving you access to the latest Sky content on channels such as Sky Atlantic, Sky Max and Sky Witness and much more. Choose this TV package now and change it later, that's the beauty of flexible BT TV.

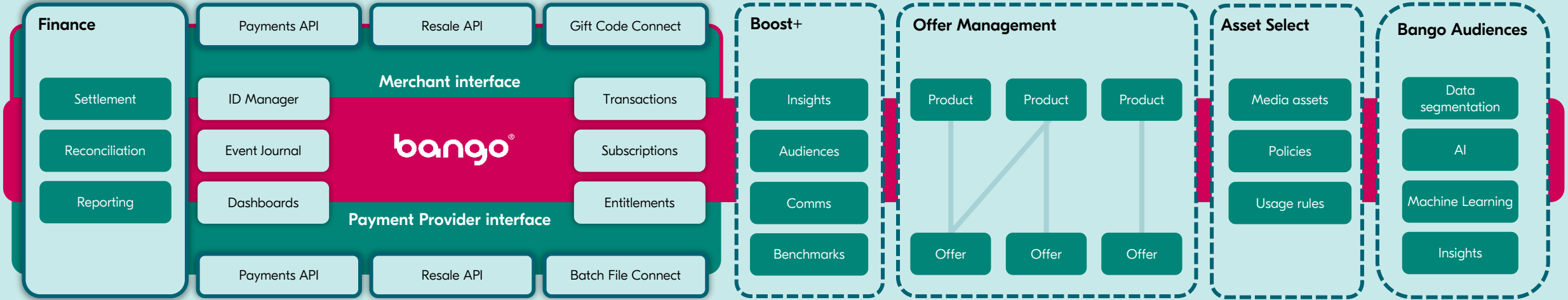
NETFLIX [Already have Netflix?](#)

NOW [Already have NOW?](#)



Entertainment	Sport	Big Entertainment
 See channels included Sky Atlantic and more with a NOW Entertainment Membership (RRP: £9.99 a month) + Netflix + AMC + Free-to-air channels See all the details	 See channels included The Premier League, UEFA Champions League and loads more action on BT Sport See all the details	 See channels included Sky Cinema, Sky Atlantic and more with a NOW Cinema Membership (RRP: £9.99 a month) and NOW Entertainment Membership (RRP: £9.99 a month) + Netflix + AMC + Free-to-air channels See all the details
£18^Δ a month 24 month contract £39.99 Upfront What's this? See details Add and continue	£17^Δ a month 24 month contract £39.99 Upfront What's this? See details Add and continue	£28^Δ a month 24 month contract £39.99 Upfront What's this? See details Add and continue

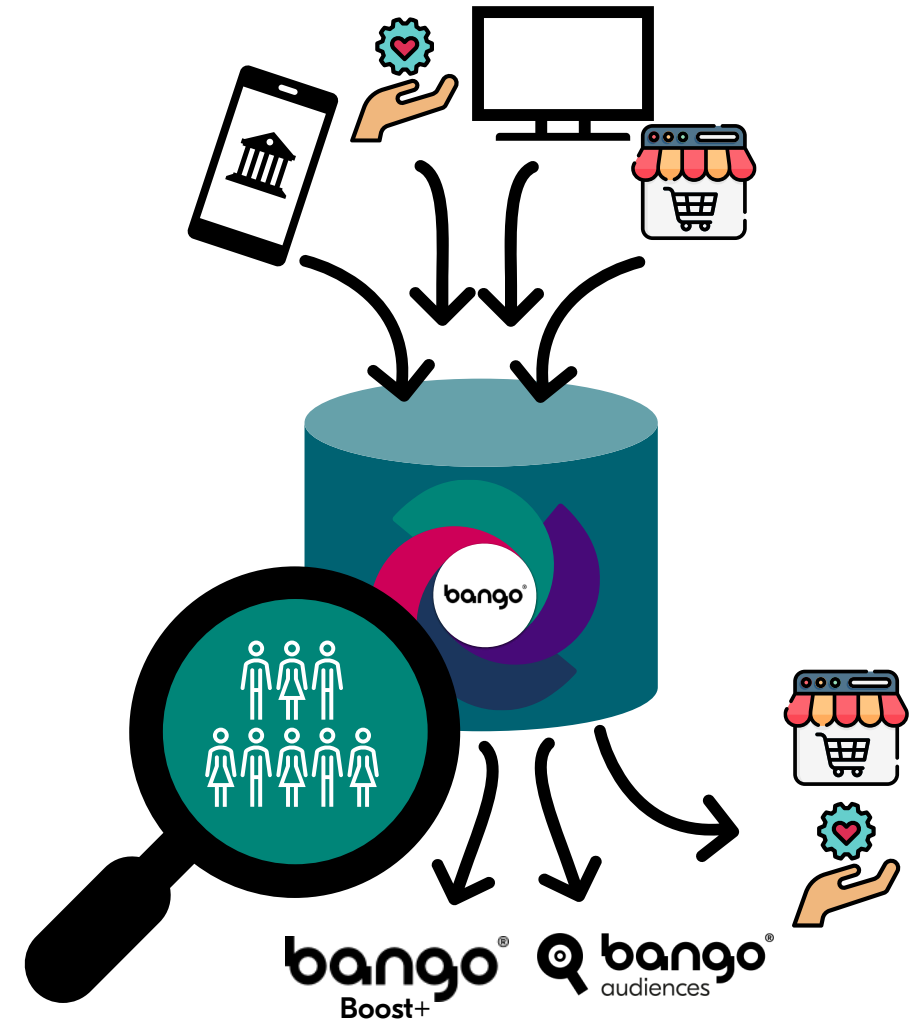
Bango Platform – data and insight



Predicting future purchase behavior

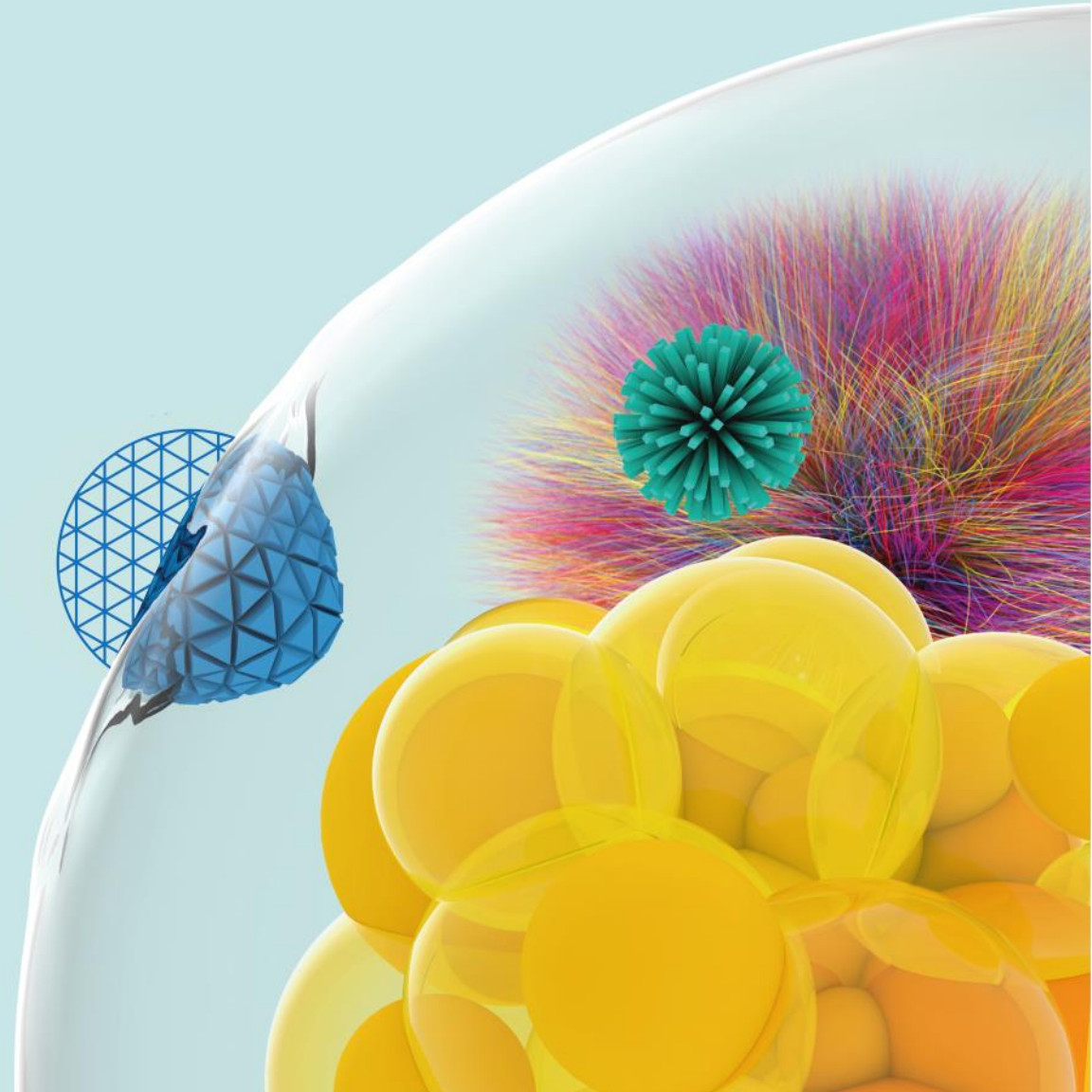
The Bango Platform provides unique, market leading data intelligence that drives;

- Superior payment conversion
- Higher take-up of bundled offers
- Marketing insights that enable purchase behavior targeting.

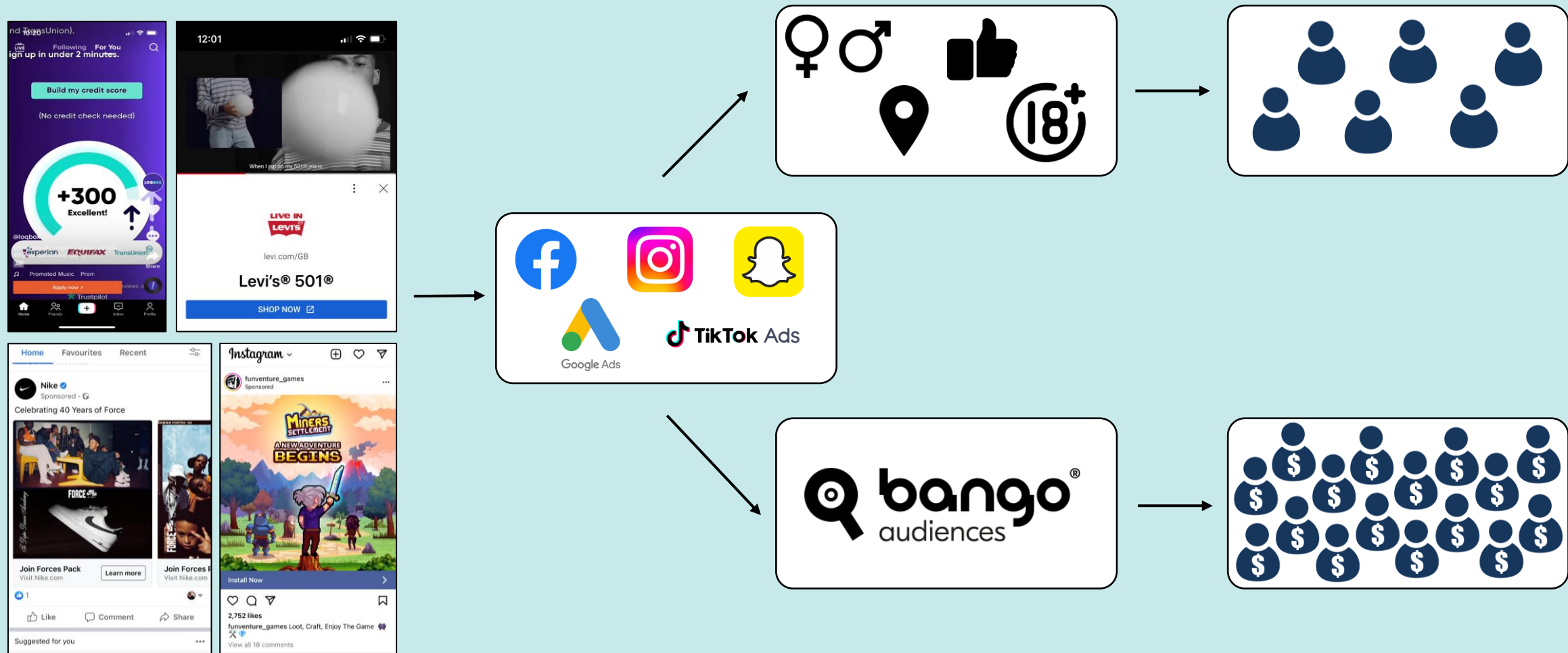


Bango Audiences

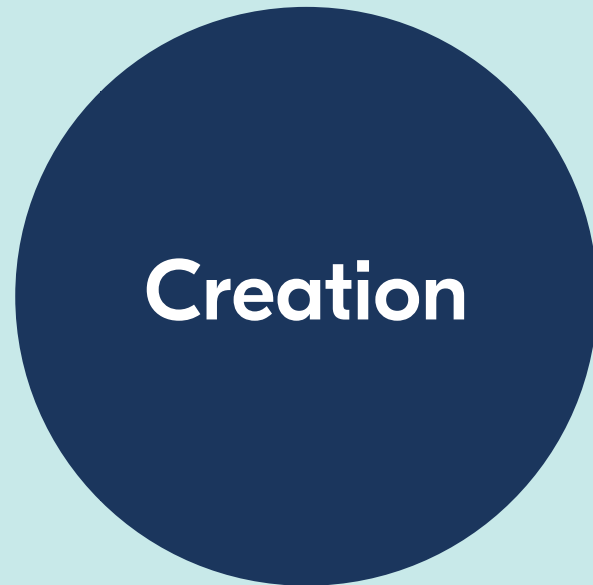
Dale Lawrence
Client Partner



Targeted in campaigns

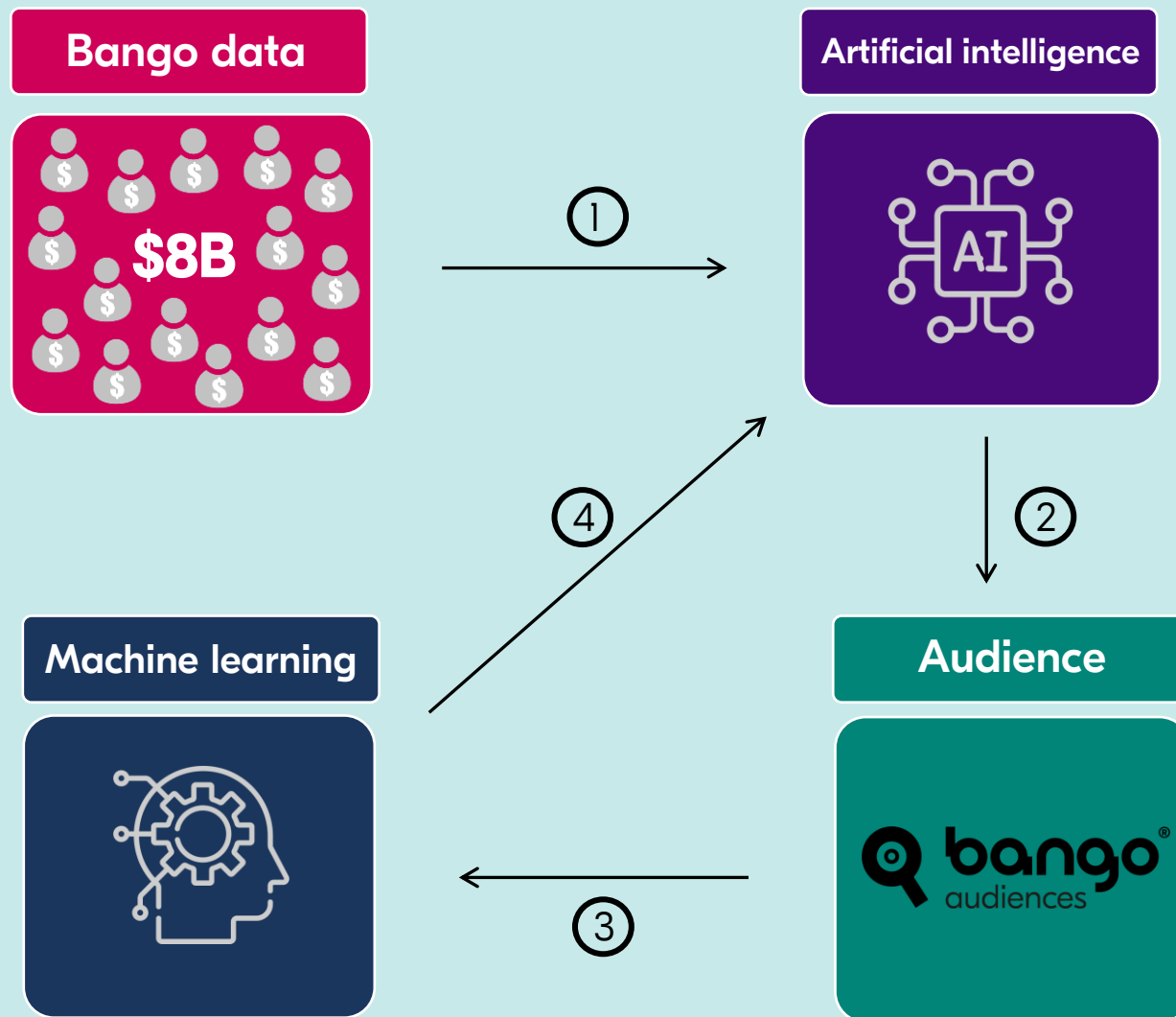


Technological advancements

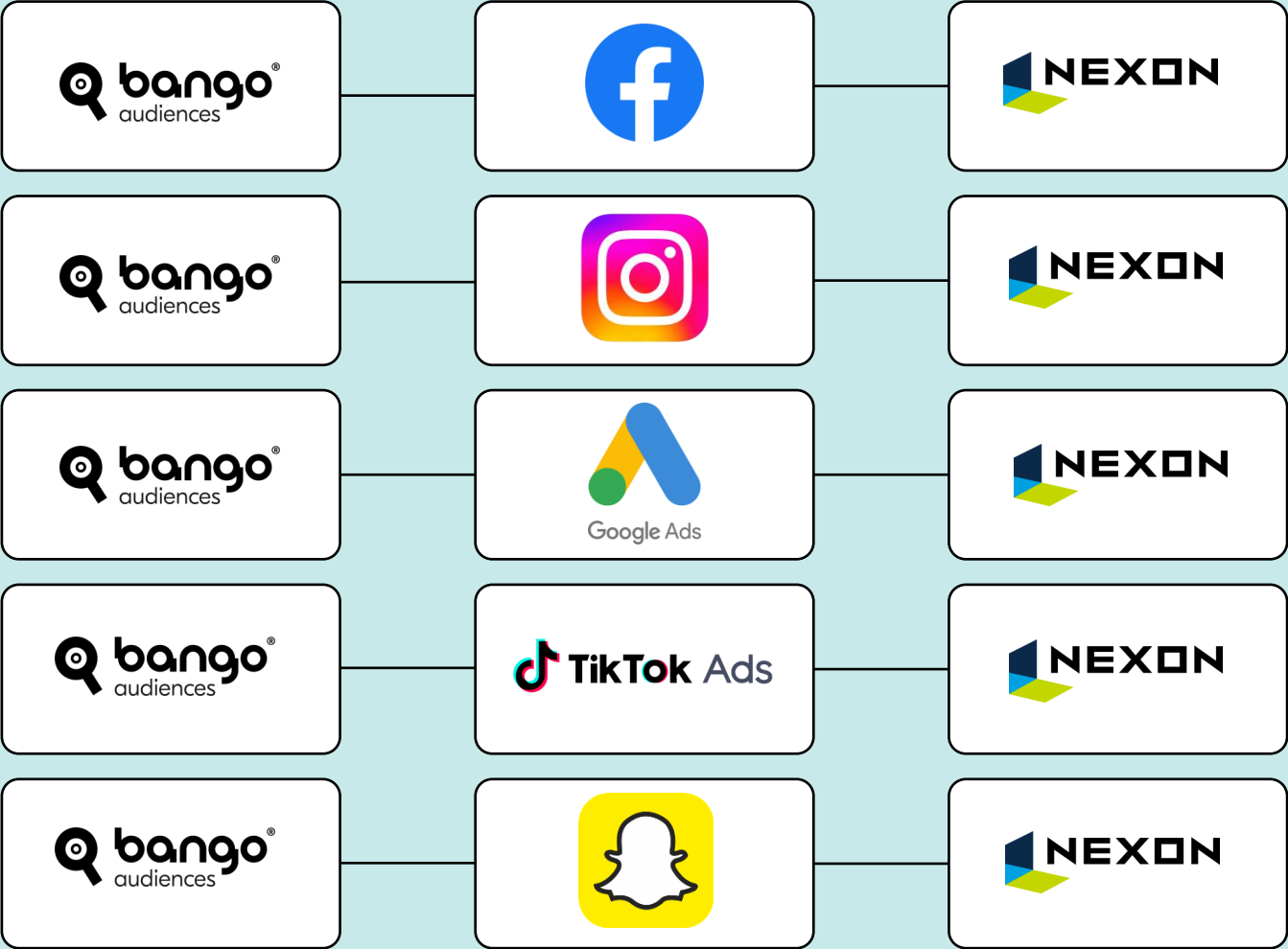


Audience creation

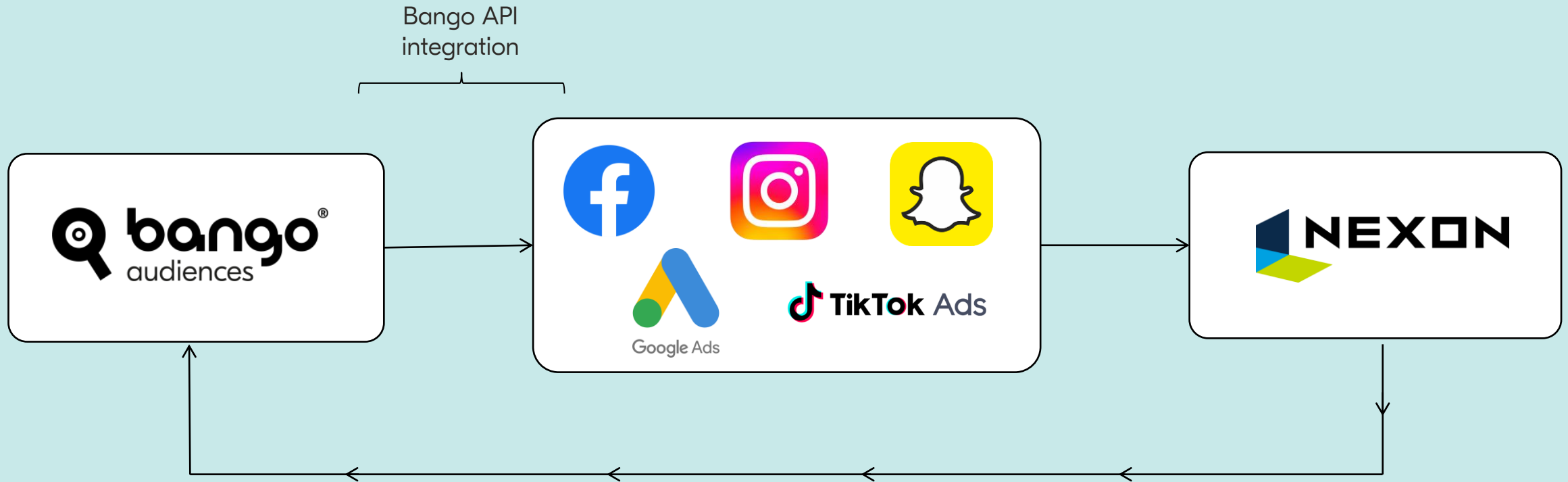
1. Feed data into our AI algorithm
2. Audience created and shared via our internal tool
3. Track audience performance
4. Enrich our algorithm with performance data



Historical Audience upload & sharing



Automated Audience upload & sharing



Data measurement & insight

35% of users who make a payment in a stock trading app also make payments or subscribe in a dating app

75% of all payments made in social casino apps are made between the hours of 6PM and 11PM



Key Bango advantages

- ✓ Machine learning and automation increases audience performance
- ✓ Increased performance data consumption through API connections
- ✓ Data visualization and tracking uncovers unique Purchase Behavior trends
- ✓ Technological advancements and development are at the core of Bango Audiences growth

Fireside chat with Product Madness

Stefana Pesko, UA Team Lead

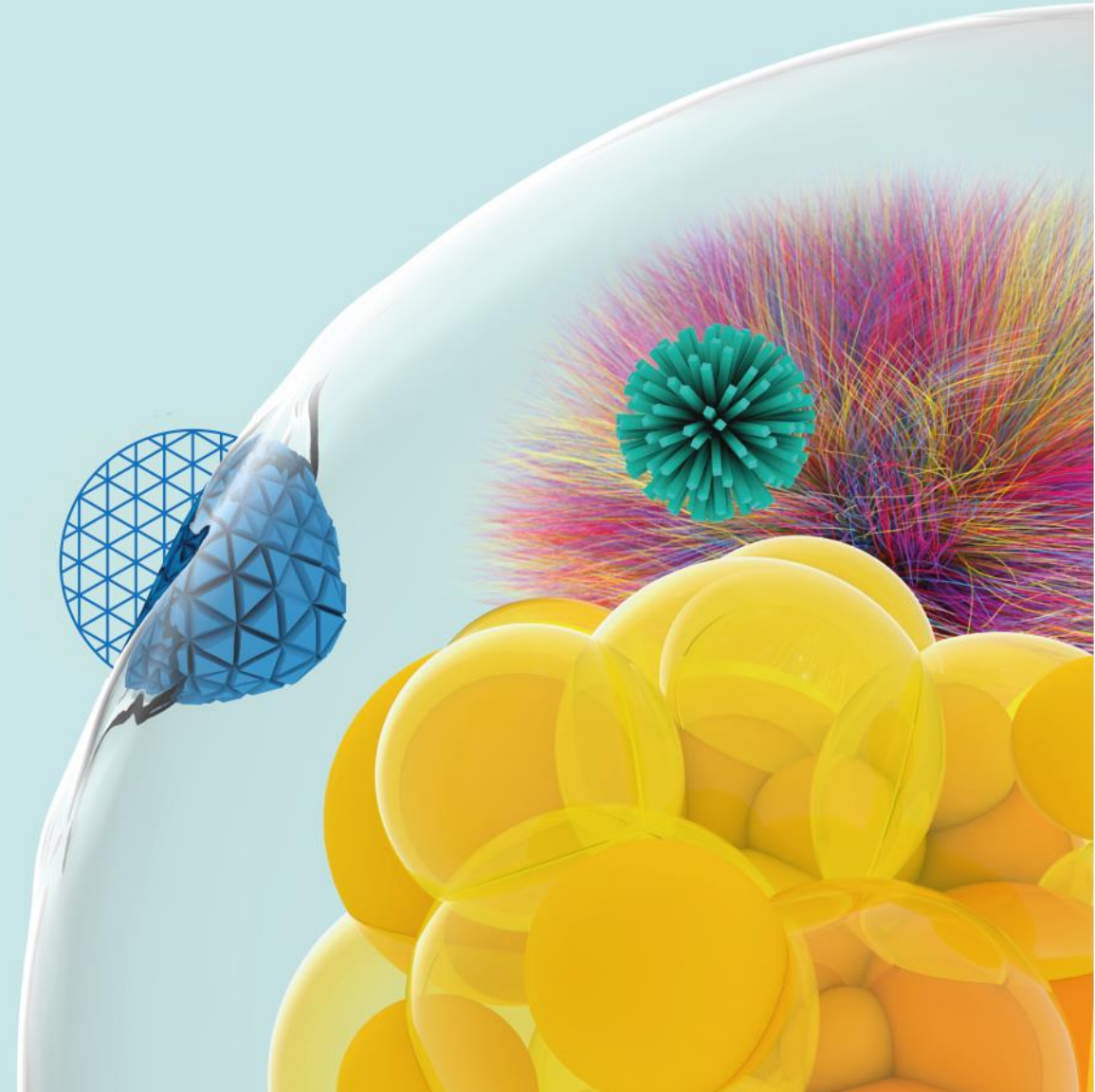
Rebecca Jamieson, Head of IR, Bango



Market innovations drive growth

Anil Malhotra

CMO



Digital commerce meets mass market

Telco Services

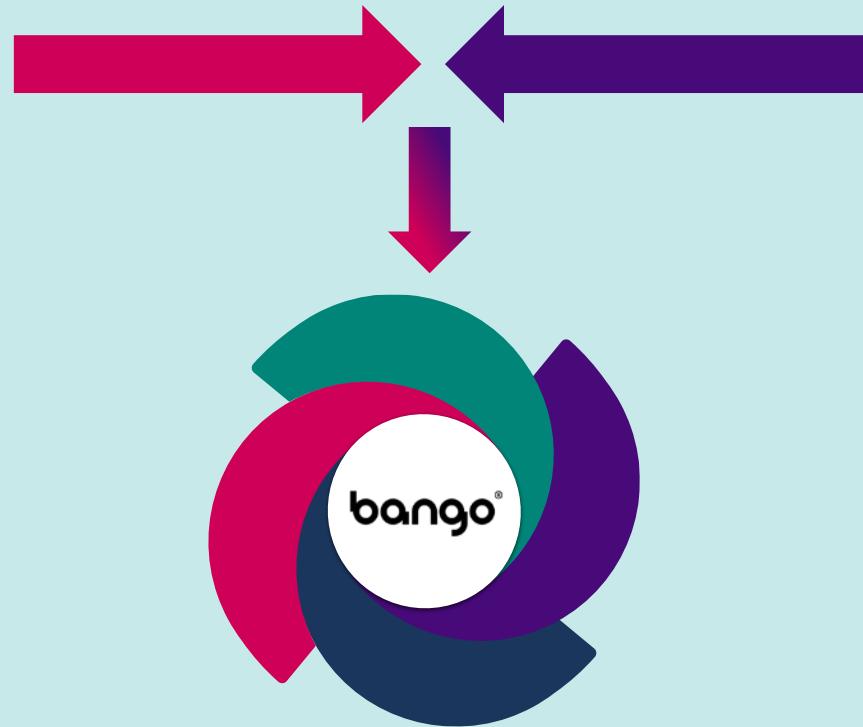


\$2.4 Trillion
(Grandview Research 2021)

Global E-commerce

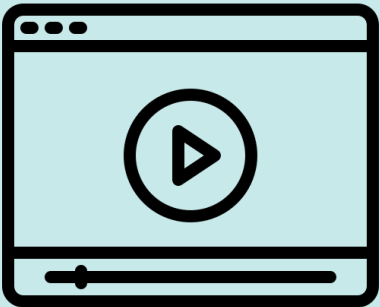


\$5.5 Trillion
(Emarketer 2022)



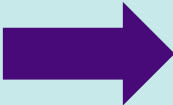
OTT services — a growth story

Video on Demand



\$140B

(2027 GlobalMarketEstimates)



Live Sports Streaming



\$87B

(2028, GlobalMarketEstimates)



Subscription Gaming



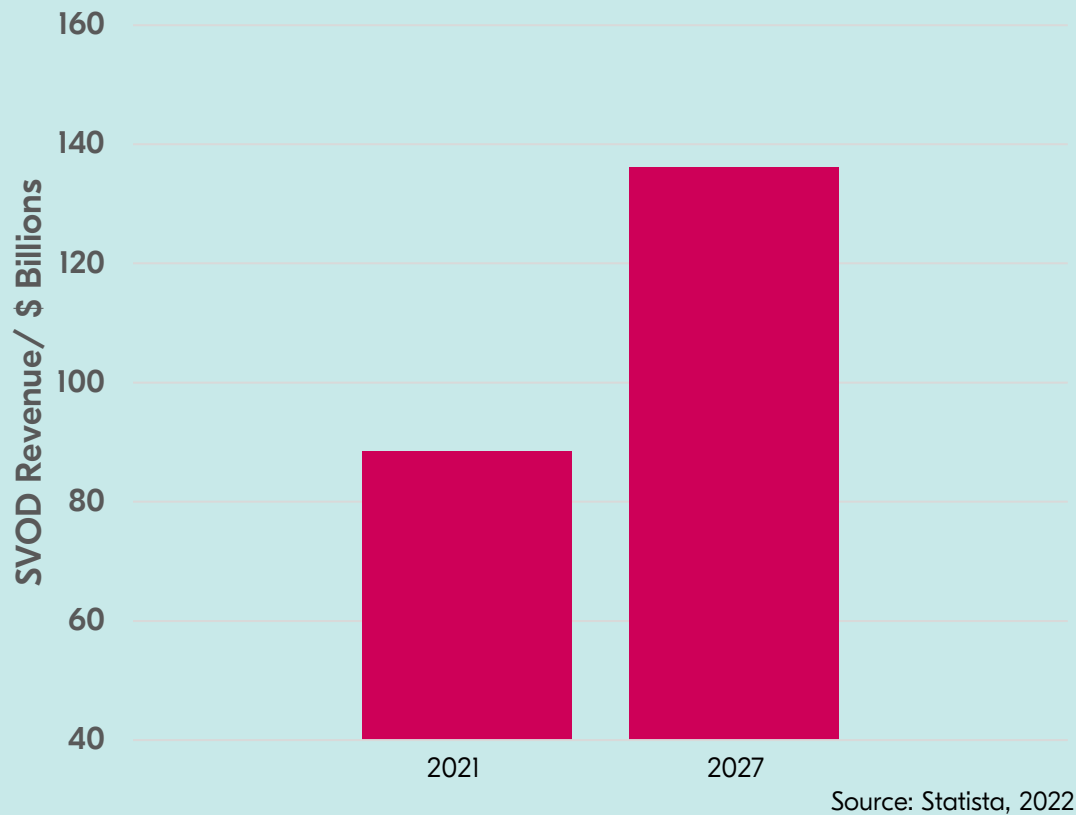
\$15B

(2027 Research & Markets)

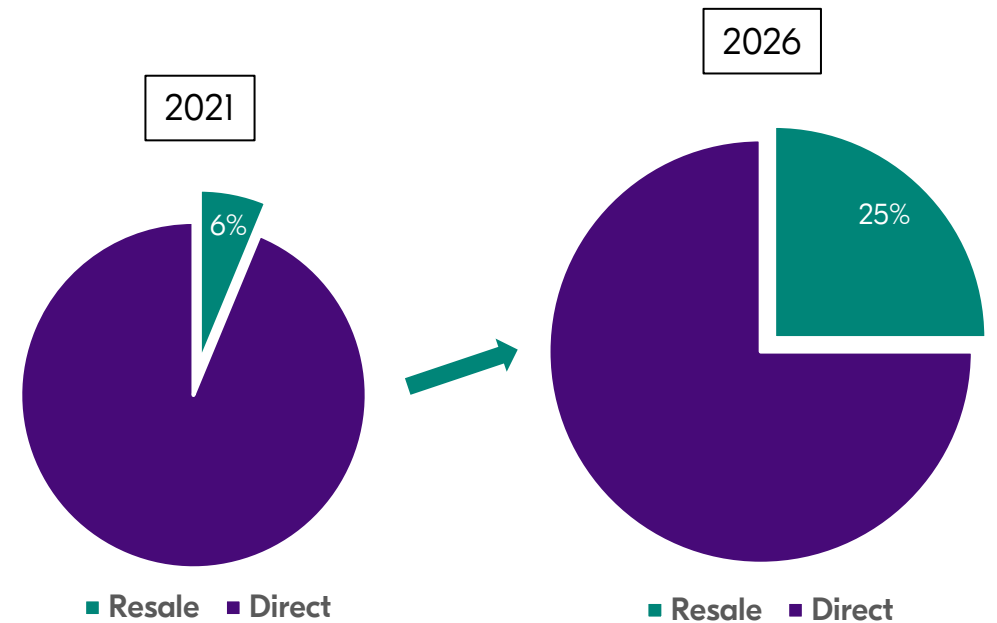


SVOD leading the charge

Subscription video on demand (SVOD) revenue is a big contributor to the growth of the subscription economy



- Resellers will increasingly become the point of sale for these services
- Bango technology and digital vending machine proposition means Bango is becoming a leader in this fast growth market



OTT drives carrier billing growth

Merchants want...

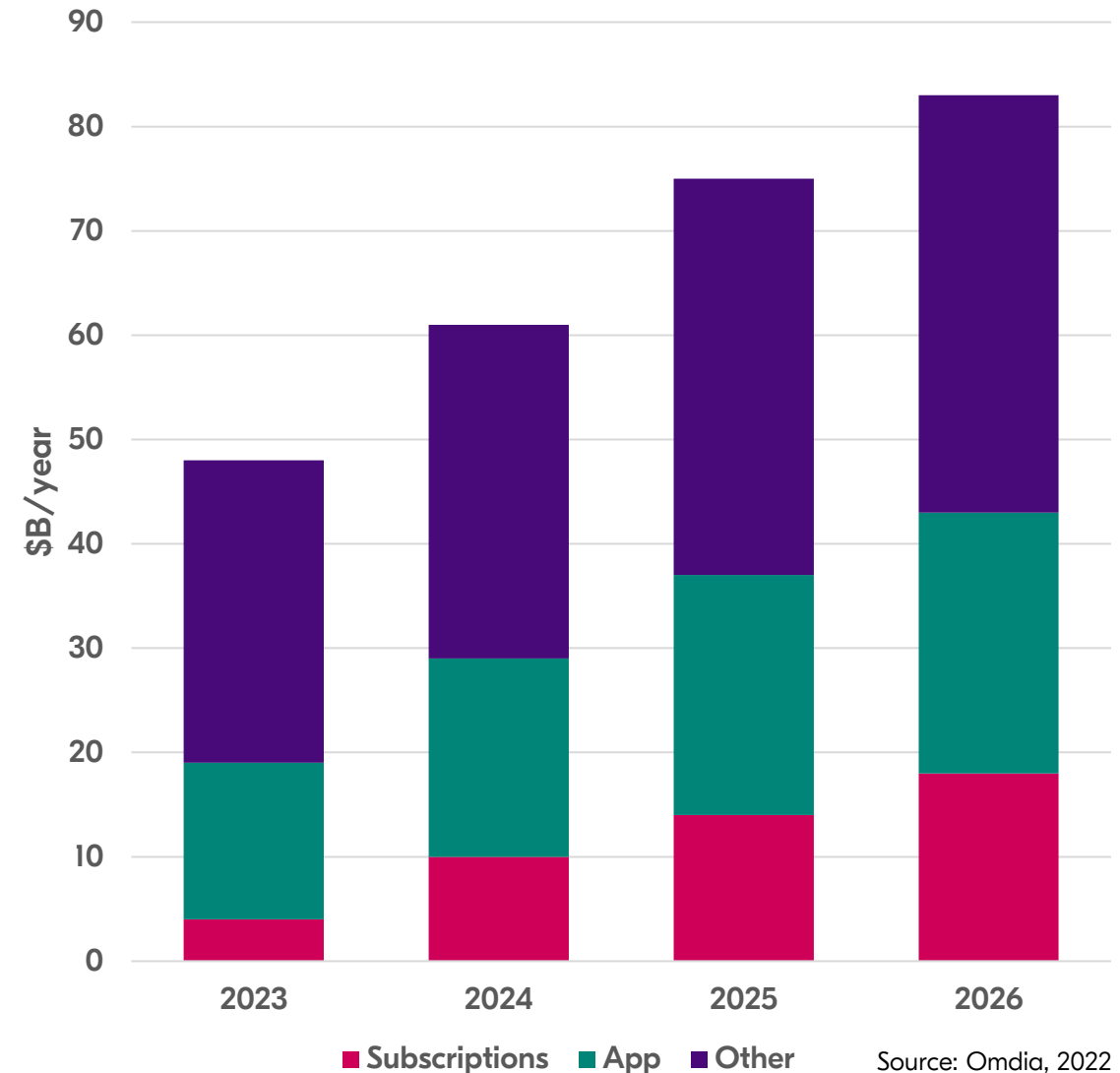
- Reach to millions of new potential customers
- Ready method of payment
- Predictable customer acquisition costs

Telcos want...

- Greater value and relevance to consumers
- Increased stickiness = higher customer lifetime value
- Attract new customers



Direct Carrier Billing Spend

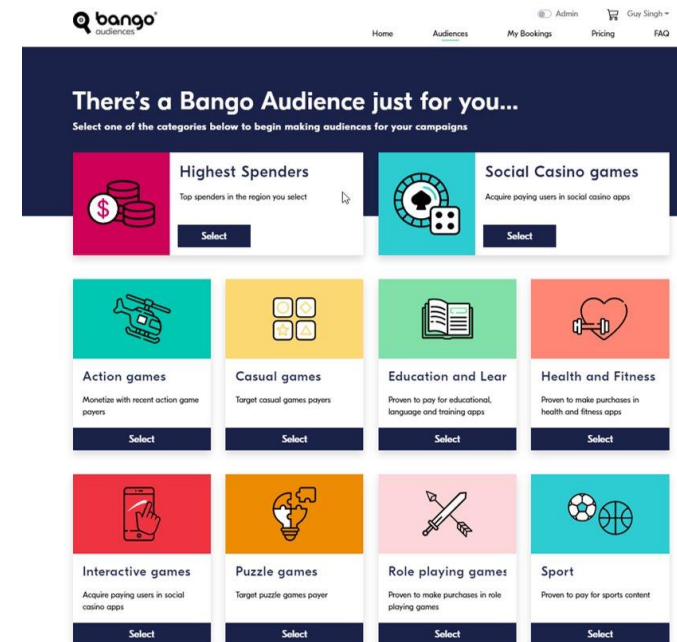


The \$multi-billion value of payment data

- Online marketplaces are ahead of the curve when it comes to monetizing payment data
- Ad revenue in these market places = up to 9% of gross market value



- Bango is enabling this functionality outside of marketplaces, making purchase behavior available to everyone



Return on ad spend drives developer marketing

App Store Spend

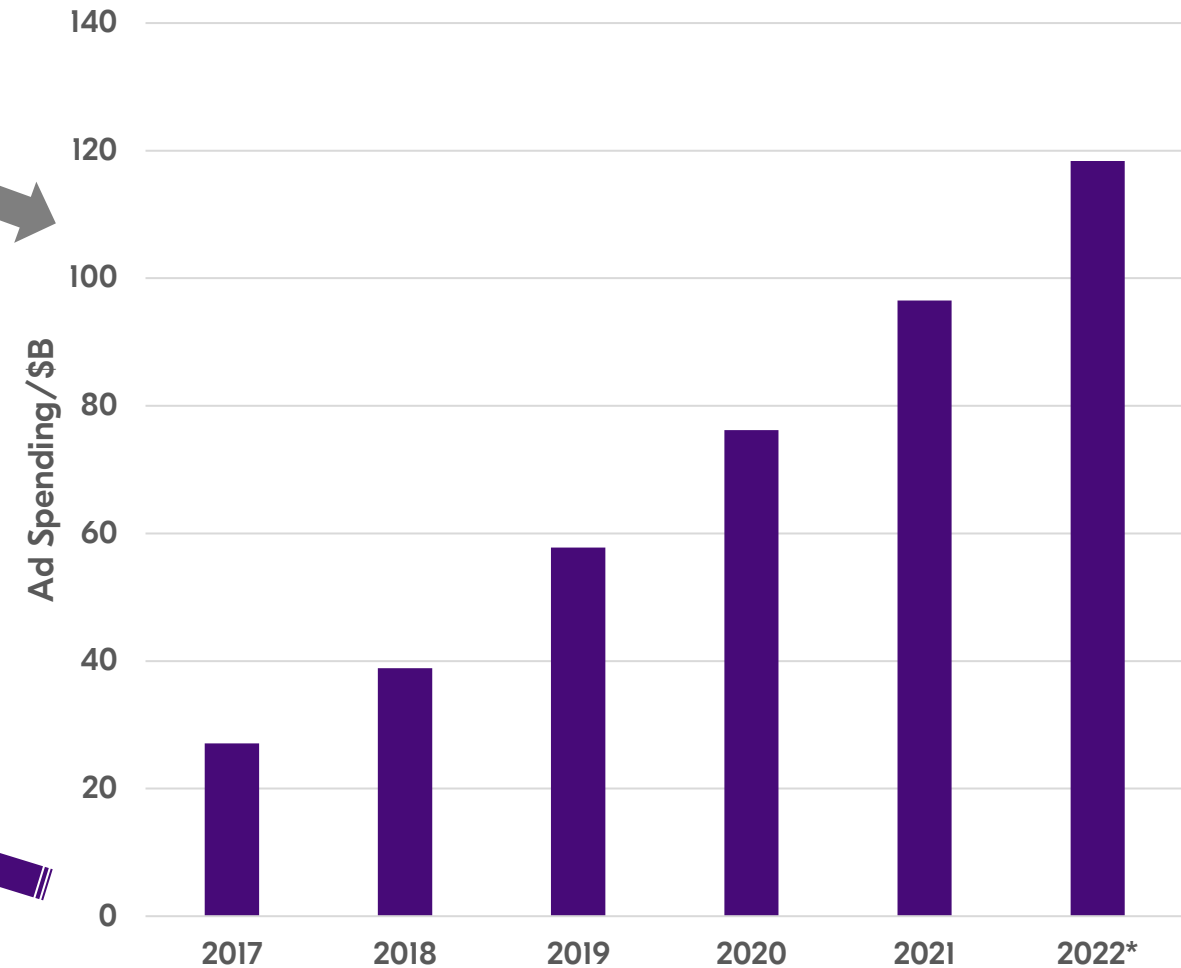


\$160 Billion
(Sensor Tower)

Growing app store spend drives app advertising spend

Higher app advertising spend grows customer numbers and increases app store spend

Mobile App Install Advertising Expenditures Worldwide



Source: Business of Apps, 2022

Summary

- Bango is strongly positioned at the convergence of online consumer spending with telco access to payments and distribution
- The Bango Digital Vending Machine is a unique and powerful technology for monetizing subscription products and services
- Resale of subscription offers through telco partnerships is driving growth in carrier billing revenues
- Purchase insights powering ad revenue growth for online marketplaces, Bango is the purchase insights platform for everyone else

Questions?

