

# Omni-CAPI: A Reference Architecture\* for a Non-Linear Journey

ACCELERATING CLIENTS' CAPI ADOPTION THROUGH REUSE

\*for educational purposes

v6 October 2024

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## Problem Statement

[P5 4<sup>th</sup> pillar] Some clients still struggle with sending good quality 'signals' - the raw material for Meta's state-of-the-art machine learning.

[P5 2<sup>nd</sup> pillar] Clients might have suboptimal ASC+ campaigns' results without a proper signals integration.

[P5 4<sup>th</sup> pillar] Customers can become confused with so many CAPI "flavors", resulting in an overhead due to multiple CAPI integrations.

\* Meta Performance 5 (P5): [en](#), [pt-br](#)

## Solution

CAPI is CAPI: it should be a single "pipeline" between the client's and Meta's servers.

A reference architecture can provide clients with recommended structures and integrations of IT components to form a single CAPI solution yet encompassing all channels.

This material could be used for:

- i) a technical consultation (1:1);
- ii) technical advocacy (1:few) events; and
- iii) scalable technical acceleration (1: many) – together with the open-source sample program.

## WHY SHOULD CLIENTS CARE?

Having the right **solutions architecture** in place allows clients to save business time and money.

CHANNELS & SYSTEMS



Mobile App



WhatsApp



Consumers



Physical Store



Website

Client's **Cloud** Computing Environment



CRM

*lower-funnel events*



CDP



3<sup>rd</sup> Party Platform

*upper-funnel events*



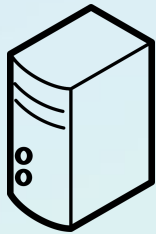
Tag Manager



IT Team

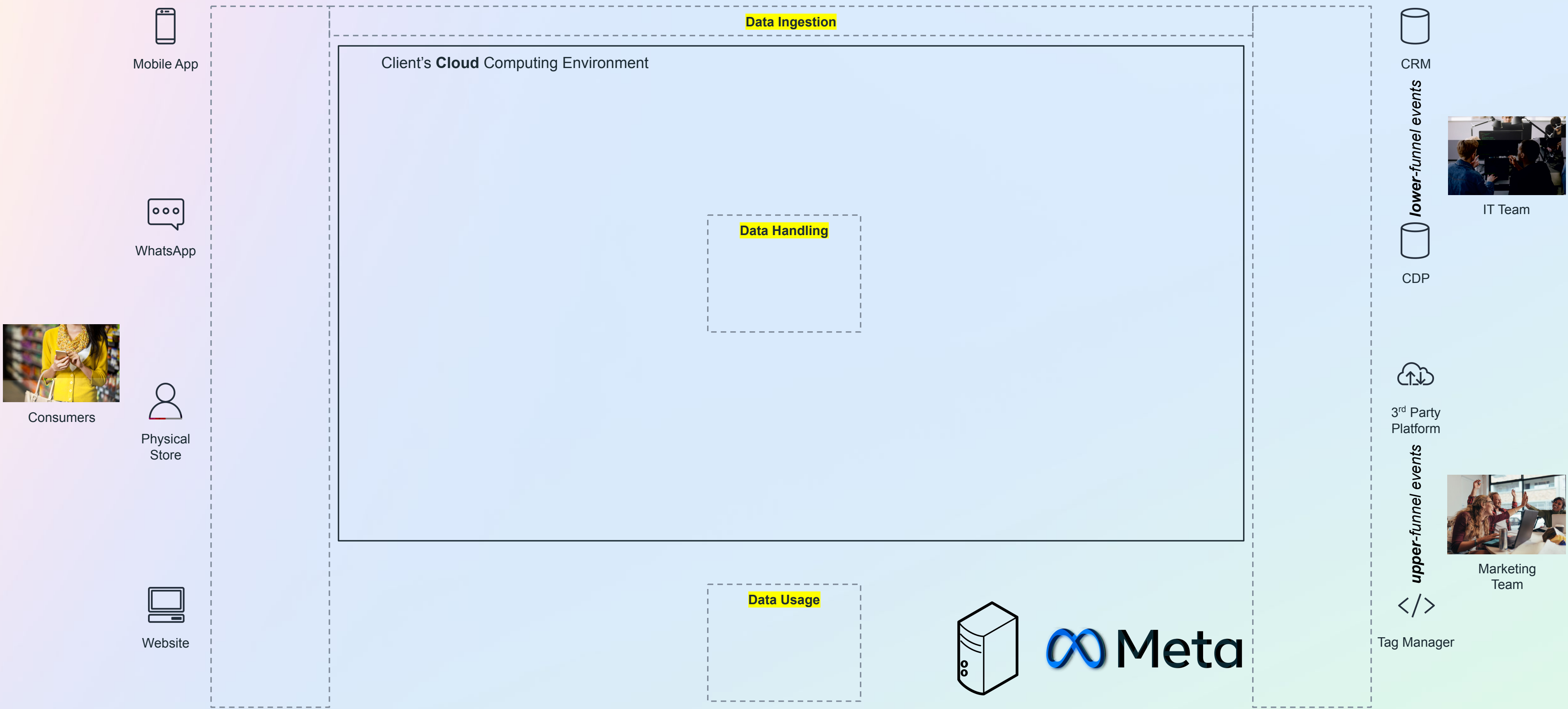


Marketing Team

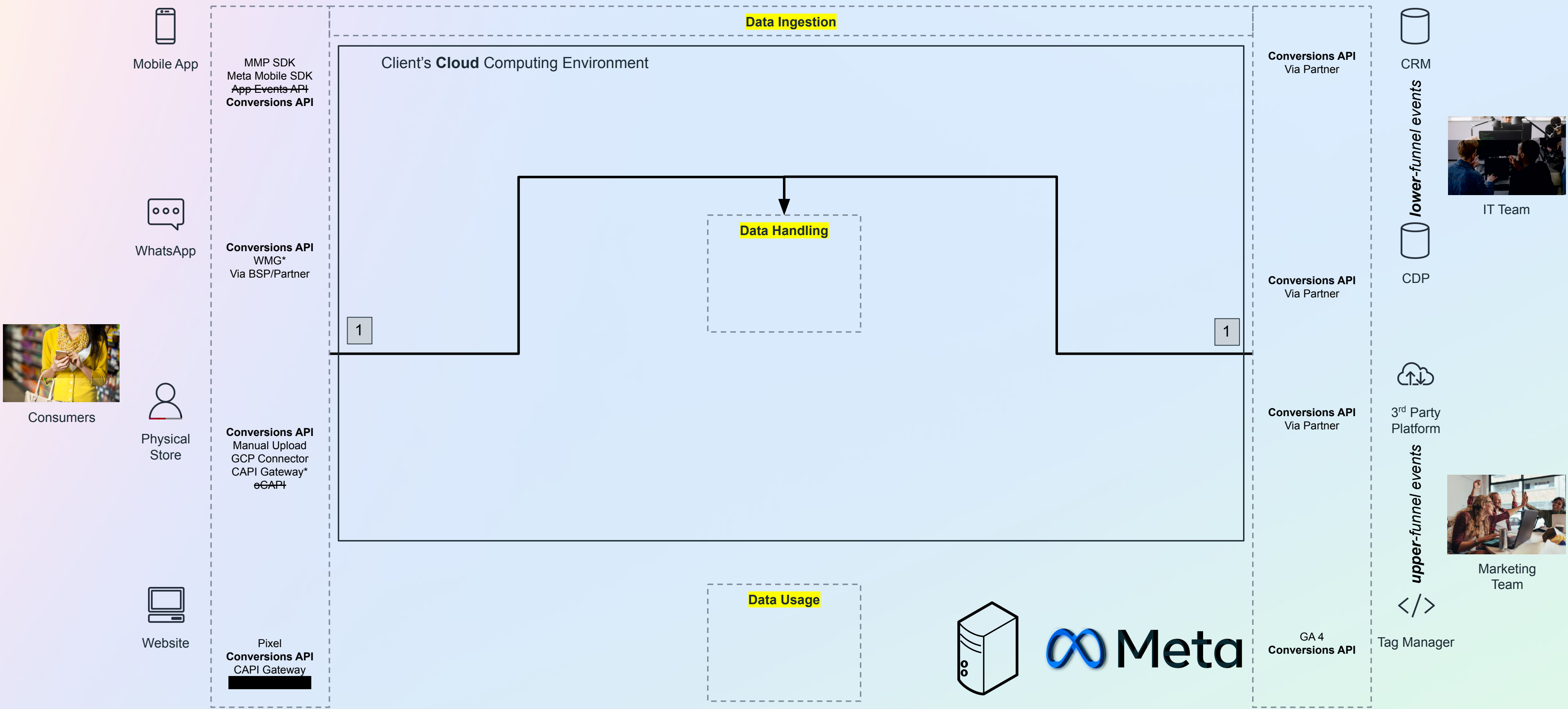


Meta

MACRO PROCESSES

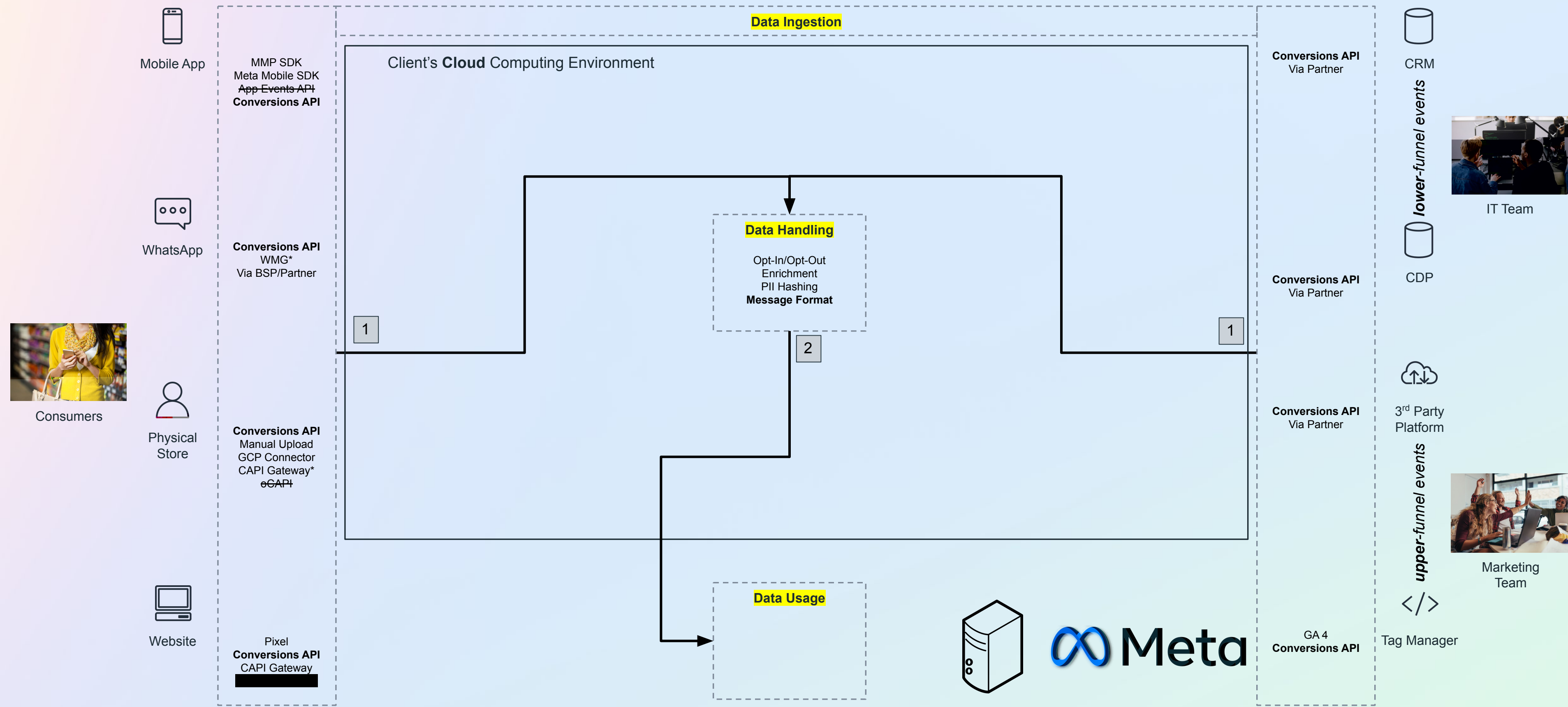


KNOW YOUR INGEST OPTIONS



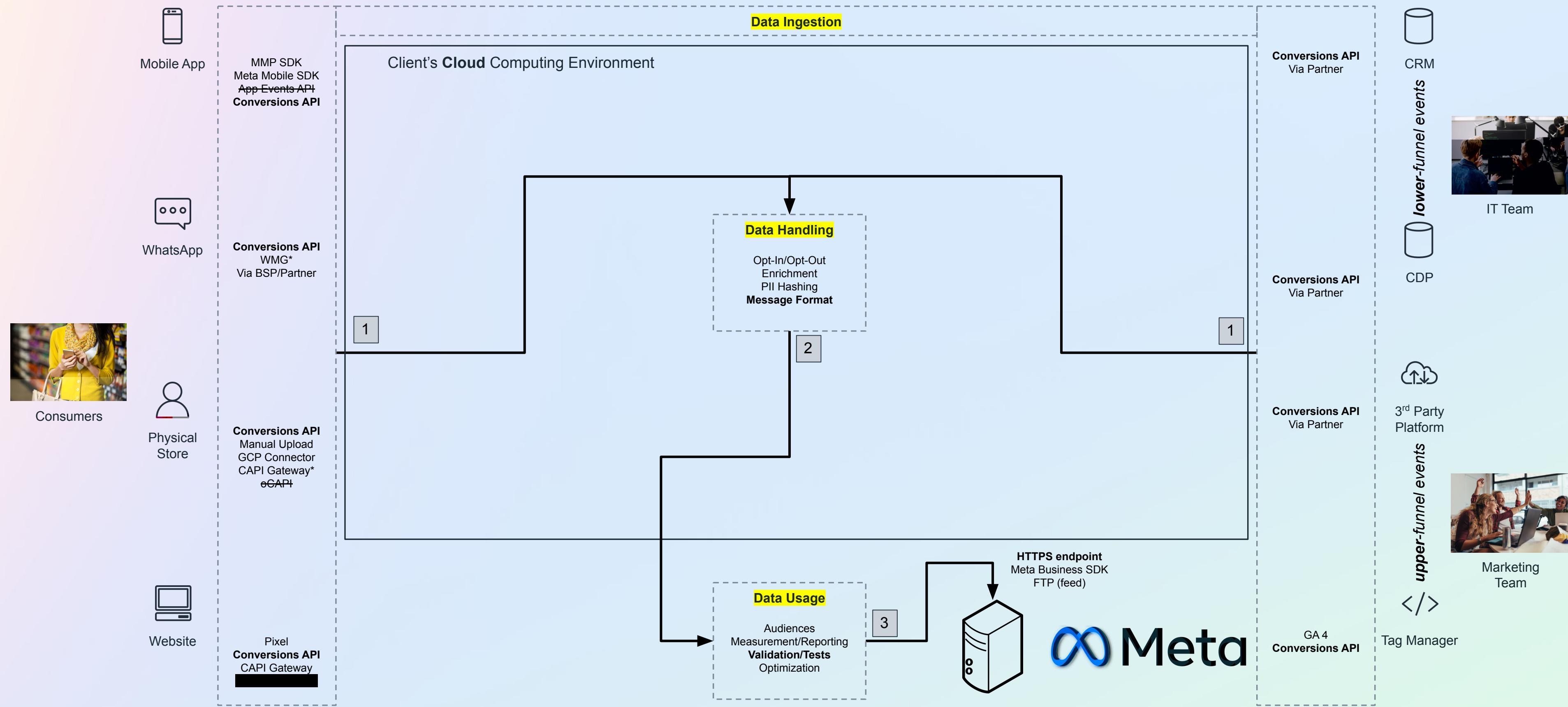
\*alpha/beta products

TAKE PRIVACY INTO ACCOUNT



\*alpha/beta products

(P5) BUSINESS RESULTS VALIDATION



\*alpha/beta products



# Event-Driven Architecture

- An architectural approach/pattern that **applications can leverage regardless of their programming language** or platform.
- A system of **loosely coupled microservices** that exchange information with each other through the **production and consumption of events**.
- **Advantages** include:
  - Producers do not need to worry about how the events they produce will be consumed (so **additional consumers can be added without affecting producers**).
  - **Consumers don't need to worry** about how events were produced.
  - This loose coupling provides a level of **resiliency within the system**, so, if a microservice goes down, the application can continue running in its absence.
    - This is achieved by **storing events in the messaging backbone** so that the consuming service can retrieve them when it recovers.

**OMNI-CHANNEL CAPI AS AN EVENT-DRIVEN ARCHITECTURE**

The diagram illustrates the flow of data from various consumer touchpoints through a Client's Cloud Computing Environment to Meta, and then to various downstream systems.

**Touchpoints (Left):**

- Mobile App: MMP SDK, Meta Mobile SDK, App Events API, Conversions API
- WhatsApp: Conversions API, WMG\*, Via BSP/Partner
- Physical Store: Conversions API, Manual Upload, GCP Connector, CAPI Gateway\*, eCAP†
- Website: Pixel, Conversions API, CAPI Gateway

**Client's Cloud Computing Environment (Center):**

- Data Ingestion:** event of interest (topic) → Store Event (μservice) → events (queue)
- Data Handling:** Handle Event (μservice) → signals (event + id) (queue)
- Data Usage:** Forward Signal (μservice) → Audiences, Measurement/Reporting, Validation/Tests, Optimization
- Additional Data:** + hashed external\_id [e.g., membership #, and Fbp (cookie) and "GA's id"] + not hashed Fbc (cookie) + not hashed IPv6
- Event Volume:** → up to 1K events fbtrace\_id ← (logs)

**Meta (Bottom Center):**

- HTTPS endpoint, Meta Business SDK, FTP (feed)

**Downstream Systems (Right):**

- CRM: lower-funnel events
- CDP: lower-funnel events
- 3rd Party Platform: upper-funnel events
- Marketing Team: upper-funnel events
- Tag Manager: GA 4, Conversions API

**IT Team (Bottom Right):**

The diagram also includes a small image of a person in a yellow jacket, likely representing a consumer or a team member.

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**Meta (Bottom Center):**

- HTTPS endpoint, Meta Business SDK, FTP (feed)
- Meta logo

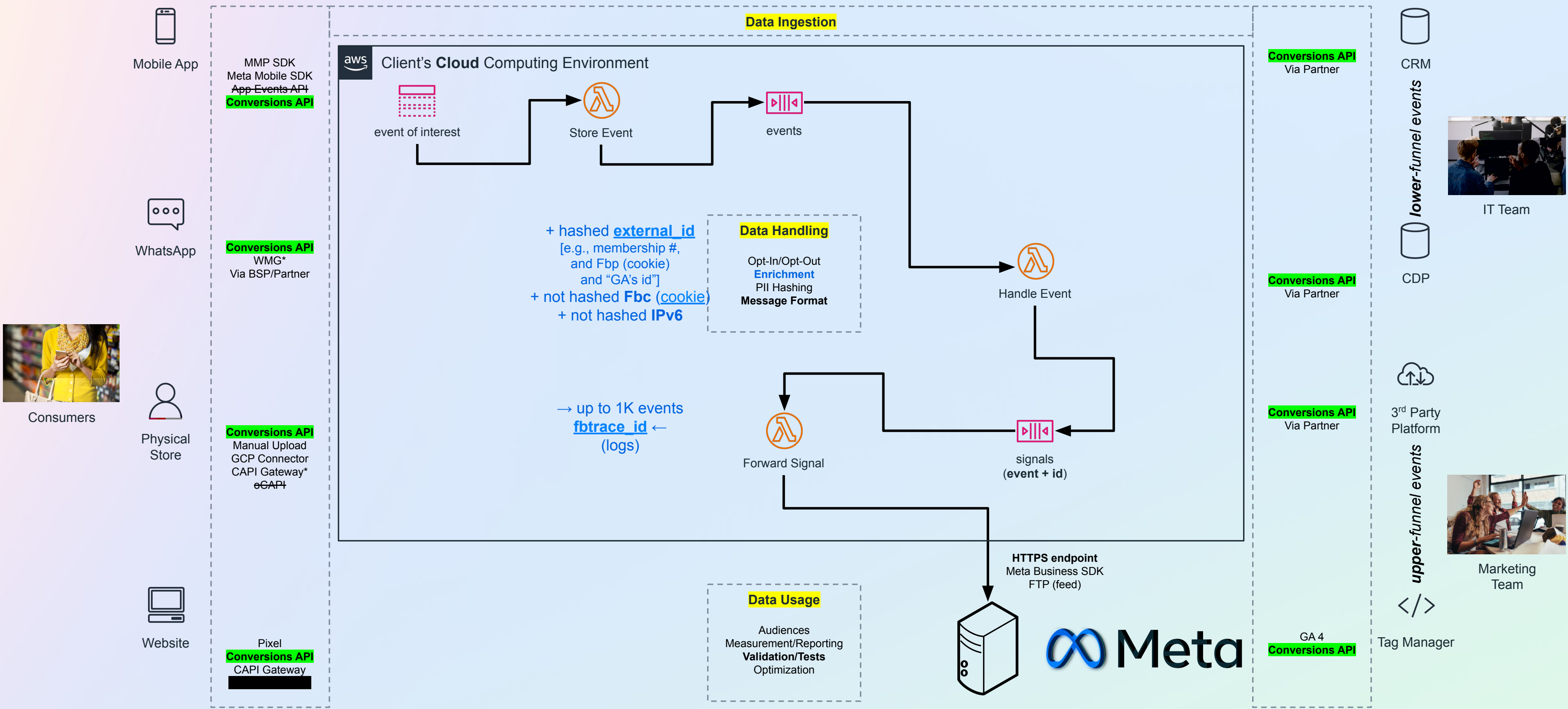
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- CDP: Conversions API Via Partner
- 3rd Party Platform: Conversions API Via Partner
- Tag Manager: GA 4 Conversions API
- Marketing Team: upper-funnel events
- IT Team: lower-funnel events

**Legend:**

- \*alpha/beta products

[EXAMPLE] OMNI-CHANNEL CAPI AS A NEAR REAL-TIME EVENT-DRIVEN ARCHITECTURE ON AWS



\*alpha/beta products

# Let me give you Six Next Steps

1. Make sure you familiarize yourself with our [Performance 5](#) (P5) framework for growth
2. Keep improving your [event match quality](#) (signals) for better performance
3. Leverage both strategies for [lead acquisition](#): Lead Ads and Conversion Leads
4. Take advantage of the growing impact of [Short-Form Video](#) in your product catalog
5. Understand the key for getting the most out of Advantage+ ads: [a strong catalog](#)
6. Consolidate your omni-channel presence by learning more about your customers using [app-based signals](#)



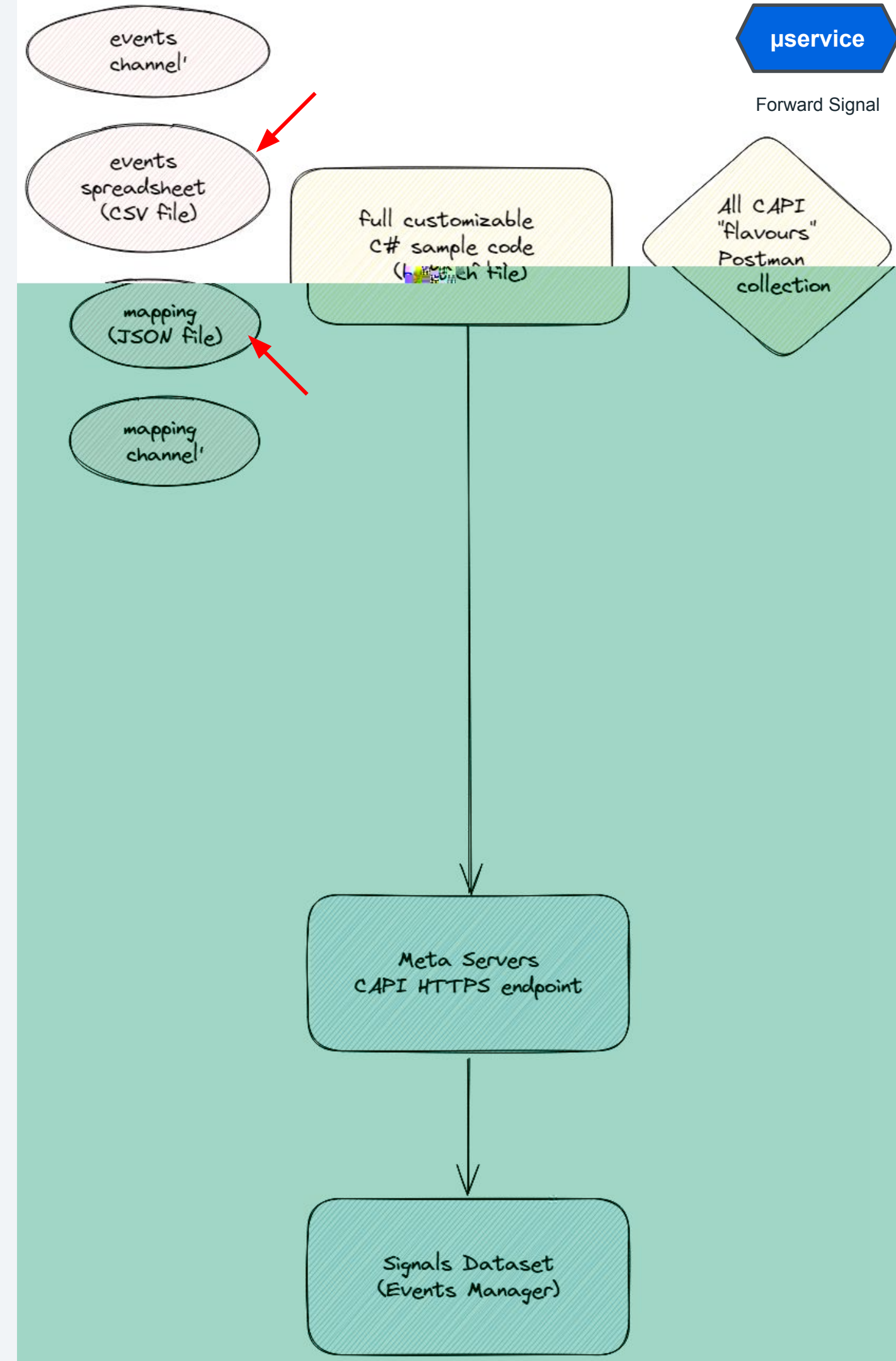
BUT WAIT... THERE'S MORE!

# New Omni-CAPI Technical Accelerator

- C# Open-Source **sample** leveraging our Postman [collections](#)
  - Adaptable for running in the cloud (serverless)
  - Customizable for different spreadsheet columns/names
  - Can **forward data** from different channels (formats)
- Illustrates some **best practices** for a CAPI integration
- Allows for **bootstrapping** an **Omni-CAPI** integration
  - Can **reduce time-to-market**
    - Getting dev teams up to speed by not starting from scratch

[source code] <https://github.com/fbsamples/lead-ads-webhook-sample/tree/main/omni>

[workshop recording pt-br] <https://events.atmeta.com/metaperformancehub#to3597944662>



SAMPLE: CSV FILES – PHYSICAL STORE AND WEBSITE

Physical Store

AutoSave 1 Off

store-signals-07252024.xlsx No Label Saved to this PC

Search

França ZP

File Home Insert Draw Page Layout Formulas Data Review View Automate Help

Paste Copy Format Painter

Calibri 11 A A

B I U

Merge & Center

General % .00

Normal Bad Good Neutral Calculation Check Cell

Insert Delete Format

AutoSum Fill Clear

Sort & Filter Find & Select

Sensitivity

Add-ins

Analyze Data

Comments Share

O1

custom\_data

custom_data									
event_name		event_time	action_source	ct	zip	country	order_id		
							currency	value	contents
							id	quantity	
Purchase	1721903653	physical_store	q7697679b3cc5d16d34c89933e71388e3393226e0fd5e63	01c93cc631347f6c9afo1a079d0c44cc9daLp7f7a734a643ef72c74aLaa9dLee	883636a0cfa3dfff3c5e036c79df48982b32bc3098514ed37ce0673a0aLaa3c4Co	ATV10003	ori	220.00	product3

Website

AutoSave 1 Off

web-signals-07252024.xlsx No Label

Search

França ZP

File Home Insert Draw Page Layout Formulas Data Review View Automate Help

Paste Copy Format Painter

Calibri 11 A A

B I U

Merge & Center

General % .00

Normal Bad Good Neutral Calculation Check Cell

Insert Delete Format

AutoSum Fill Clear

Sort & Filter Find & Select

Sensitivity

Add-ins

Analyze Data

Comments Share

A1

event\_name

event_name	event_time	event_id	event_source_url	action_source	external_id	em	ph	cl	ip_address
Purchase	1721903253	a89b54c2-85f9-4444-a0f6-60197a3944da	http://jaspers-market.com/product/100	website	629f4cf9337b0d0c76f305d860f98894cfa8c279516b425747514ca8710deb97	7b17fb0bd173f625b58636b796407c22b3d16fc78302d79f0fd30c2fc254aa248acb47dd654ca3ea53f48c2c26d641d23d7e2e93a1ec56258	123.123.123.123	Mozilla/5.0 (Win...	
Purchase	172190326	a0e94f89-242a-4fbb-bdcb-cc233a4d63b1	http://jaspers-market.com/product/101	website	629f4cf9337b0d0c76f305d860f98894cfa8c279516b425747514ca8710deb97	7b17fb0bd173f625b58636b796407c22b3d16fc78302d79f0fd30c2fc254aa248acb47dd654ca3ea53f48c2c26d641d23d7e2e93a1ec56258	123.123.123.123	Mozilla/5.0 (Win...	



SAMPLE: MAP FILES – PHYSICAL STORE AND WEBSITE

Physical Store – phone number on column “G”

```
1 {
2   "EVENT_NAME": 0,
3   "EVENT_TIME": 1,
4   "ACTION_SOURCE": 2,
5   "EXTERNAL_ID": 4,
6   "EMAIL": 5,
7   "PHONE": 6,
8   "FIRST_NAME": 7,
9   "LAST_NAME": 8,
10  "DATE_OF_BIRTH": 9,
11  "CITY": 10,
12  "ZIP": 11,
13  "COUNTRY": 12,
14  "ORDER_ID": 14,
15  "CURRENCY": 15,
16  "VALUE": 16,
17  "CONTENT_ID": 17,
18  "CONTENT_QUANTITY": 18
19 }
```

Website – phone number on column “I”

```
1 {
2   "EVENT_NAME": 0,
3   "EVENT_TIME": 1,
4   "EVENT_ID": 2,
5   "EVENT_SOURCE_URL": 3,
6   "ACTION_SOURCE": 4,
7
8   "EXTERNAL_ID": 6,
9   "EMAIL": 7,
10  "PHONE": 8,
11  "CLIENT_IP_ADDRESS": 9,
12  "CLIENT_USER_AGENT": 10,
13  "FBC": 11,
14  "FBP": 12,
15
16  "ORDER_ID": 14,
17  "CURRENCY": 15,
18  "VALUE": 16,
19  "CONTENT_ID": 17,
20  "CONTENT_QUANTITY": 18,
21  "CONTENT_DELIVERY": 19
22 }
```

## DATASET (EVENTS MANAGER)

França's - [REDACTED]

Jun 27, 2024 - Jul 24, 2024 ▼

Create ▼

## Overview

## Test events

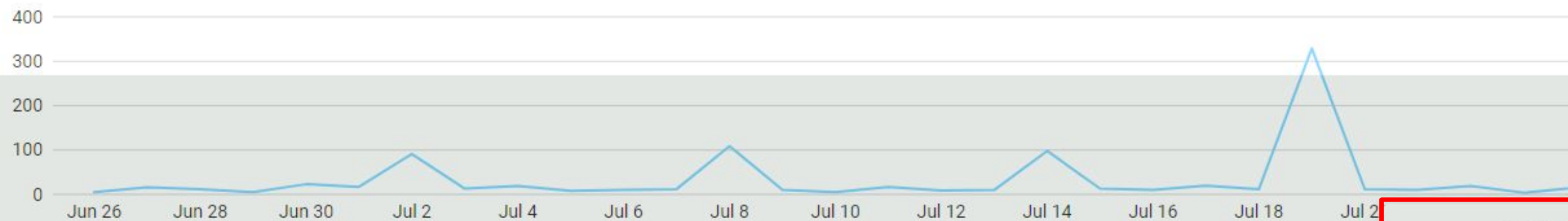
## Diagnostics

## History

## Settings

### Event Activity

This chart displays any events from your business' website, mobile app or server that we've processed and received within the selected date range. Events may take up to 30 minutes to appear.



2 Active Integrations

Manage Integrations

Websites

+4 more

Dataset ID

Add Events ▼

🔍 Search

7/24/24, 9:00 PM

Events received from:

Website	14
---------	----

Physical Store	1
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■ Total Events	15
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America/Sao Paulo  
Timezone

Last received 1 day ago

9  
Last received 5 hours ago



## REVIEWERS WHO CONTRIBUTED TO THIS WORK

# Thank You

**Ezequiel** González Busquin – Business Engineer

**Sean** Bedford – Business Engineer

**Vitaliy** Sobur – Solutions Architect

**Ashish** Kharbanda – Solutions Architect

**Erion** Fishta – Solutions Architect

**Akash** Puri – Solutions Architect

**Alan** Wong – Business Engineer

