

AdTech: How Advertising Technology Works

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What AdTech Is and Why It Exists

The Core Idea

Digital advertising¹ is paid communication by which an organization tries to influence the knowledge, attitude, or behavior of an audience in a digital environment. A company with a subscription app wants to find potential customers; the owner of another app wants to earn money from its audience; the user wants to receive content or a service and, at the same time, encounters advertising.

AdTech² is the technology that coordinates this exchange: it helps buy and sell advertising opportunities, select a suitable ad, deliver creative³, measure events, build reporting, and carry out settlements.

The key mental model:

advertiser brings demand: budget and the intent to buy access to an audience
 publisher brings supply: advertising opportunities in their media environment
 AdTech coordinates selection, delivery, data, and settlements between the parties
 user gets the product experience and encounters advertising

This is not one mandatory technical pipeline. A deal can be direct, pass through several platforms, or happen entirely inside a closed ecosystem. A single provider may combine several roles, and some specialized systems connect only for [4](#) or quality control.

Advertising as a Market of Coordination

The market has three basic participants.

- **Advertiser**[5](#) funds advertising for the sake of a business result (business outcome): for example, an app install, a subscription purchase, or growing awareness. It buys not a person, but the opportunity to address an audience in a specific context.
- **Publisher**[6](#) owns or operates the environment where an advertising opportunity arises: a website, a mobile app, a video service, a game. Advertising makes it possible to monetize that environment.
- **User** uses a website, an app, or another media product. Their attention makes advertising meaningful, but the user is not inventory[7](#), usually does not sell advertising, and does not pay for media.

Using two mobile apps as an example:

Participant	What it contributes	What it wants to get	Main constraint
An app with a paid subscription — advertiser	Budget, goal, creative	Attract users who will take out a subscription	Not spending budget on unsuitable opportunities
A content or gaming app — publisher	Media environment and advertising opportunities	Earn 8 without ruining the user experience	Balancing monetization, quality, and ad load
A person — user	Attention, context of use, and a possible reaction	Content or app functionality on acceptable terms	Relevance, privacy, safety, and not being overloaded with ads

The value exchange is not symmetric. The advertiser pays for media access; the publisher receives advertising revenue; the user gets the product and the advertising experience, but at the same time bears a cost in the form of time, attention, and possible use of their data. That is why effectiveness for the advertiser, revenue for the publisher, and quality of experience for the user can conflict. A significant part of AdTech exists precisely to manage these conflicting goals at scale.

Supply, Demand, and Advertising Inventory

Demand[9](#) is the budgets and intent of advertisers to buy suitable advertising opportunities. Around it sits the buy side or demand side: people and systems that help plan and buy media.

Supply[10](#) is the advertising opportunities available from publishers. Around it sits the sell side or supply side: people and systems that help describe, sell, and deliver advertising.

These words denote sides of the market, not specific technologies. A DSP (Demand-Side [11](#)) belongs to the demand side not because it “creates demand,” but because it acts in the buyer’s interest. An SSP (Supply-Side [12](#)) belongs to the supply side because it helps publishers manage the sale of opportunities.

The subject of the deal is **advertising inventory**: the set of available or projected opportunities to show an ad. Inventory is bounded by the environment, the placement, the format, the timing, the publisher's rules, and the acceptable audience context. It is not a list of users, and it does not mean that future impressions already exist in a warehouse. Supply and inventory are not synonyms: supply is a side of the market (who sells, and why), inventory is the subject of the deal (what exactly is sold); inventory without a seller is not yet supply.

It is useful to distinguish three levels:

1. **Placement**¹³ or ad slot — a pre-defined location or rule for when advertising appears: for example, a full-screen block after a level is completed in a game.
2. **Ad opportunity**¹⁴ — a concrete opportunity to select and show an ad that arises when the user reaches that location.
3. **Impression**¹⁵ — a delivery or display event of the selected ad, registered by a system according to a specific rule.

placement exists in the app's design

↓ user completed a level

an ad opportunity arises

↓ the system selected a creative

the ad is delivered; an impression is registered according to the system's rule

Even that last statement requires care. Served¹⁶, rendered¹⁷, and viewable impression¹⁸ are different states: sending an ad does not prove that it rendered and actually entered the person's field of view. Precise definitions and metrics will appear in chapter 3.

From a Market Problem to Technology

Without technology, an advertiser would have to negotiate separately with every publisher, manually transfer materials, agree on formats, and reconcile incompatible reports. A publisher would have to find buyers for a huge number of short-lived opportunities. In a digital environment, a single opportunity can appear and disappear faster than a human can make a decision.

AdTech appears where the market requires repeatable technical execution:

Market problem	Required function	Typical solution categories
Many advertisers and publishers	Aggregation: pool demand or supply	DSP, ad ¹⁹ , SSP
Each opportunity needs a suitable buyer and creative	Matching and decisioning	DSP, ad network, ad ²⁰ , publisher stack
There is often little time left to make a decision	Automated execution	Buying/selling platforms, ²¹
The creative must reach the right environment and format	Ad serving and interoperability	Ad server, SDK, platform integrations
Parties see events from different vantage points	Measurement and reporting	Ad server, measurement providers; in mobile — MMP (Mobile Measurement ²²)
A delivery may be unsuitable or low-quality	²³ and risk controls: verification is an independent assessment of display conditions, fraud detection is a separate function	Verification provider, fraud detection and quality-control systems

Market problem	Required function	Typical solution categories
	that identifies invalid traffic (chapters 36–37)	
Participants need to reconcile volumes and payments	Reconciliation and settlements	Reporting, billing, and finance systems

Standards and shared protocols reduce the number of pairwise integrations: it becomes easier for the parties to describe inventory consistently, pass decisions along, and understand the chain of sellers; for example, ads.txt shows a buyer who is authorized to sell a given publisher’s inventory, and sellers.json shows who actually stands behind each seller and intermediary in the chain (chapter 38). One example is RTB (real-time ²⁴, where an individual opportunity can be auctioned in real time. But RTB is only one mechanism inside programmatic²⁵, i.e. automated buying and selling; and programmatic is only part of AdTech. Direct deals, reserved buying, and closed platform ecosystems also use AdTech.

Why Intermediaries Exist

Intermediary²⁶ is a participant that connects the sides of the market or performs a specialized function. Intermediaries arise not from a need to add more companies to the chain, but from the division of labor:

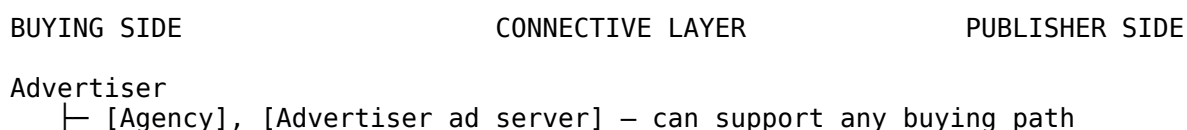
- an ²⁷ manages media buying on behalf of the advertiser;
- a demand-side provider aggregates access to supply and performs selection for the advertiser;
- a sell-side provider aggregates buyers and helps the publisher sell inventory;
- a connective layer passes opportunities and decisions between the parties;
- an ad server manages the selection and delivery of creative;
- measurement and verification providers provide an independent point of observation;
- data ²⁸ supply permitted signals, while identity ²⁹ link identifiers across systems.

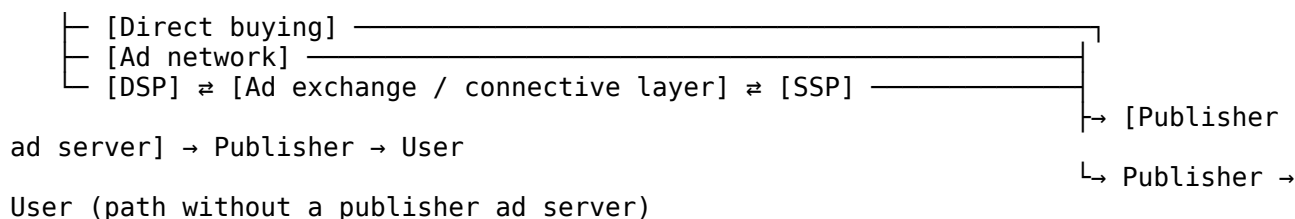
An intermediary is justified when the value from ³⁰, aggregation, interoperability, speed, measurement, or risk control exceeds its cost and complexity. But not every intermediary is needed in every deal. The short path is not always better functionally, and the long one is not always more effective. What needs to be evaluated is the function performed, its cost, its transparency, and its conflicts of interest.

One publisher, two ways to sell. A gaming app sells its full-screen block after a level directly to an agreed advertiser: the path is short, with no intermediary fees, but with its own integration, its own reporting, and reach limited to the buyers the publisher has managed to strike deals with. It opens the remaining opportunities in the same block to many buyers through an SSP: the path is longer and the platform keeps a fee, but the publisher gains demand aggregation, automated execution, and the filling of opportunities that would otherwise go unsold. Both paths work at the same time, and for every hop the question is the same: what function did it perform, and did that function justify its cost?

A Map of the Advertising Ecosystem

The following diagram shows logical roles and possible paths, not a universal order of HTTP calls:





Cross-cutting functions connected to several participants:

[Measurement providers]
[Verification] [Data / identity providers]

The branches show possible paths that can be combined; the square brackets denote logical roles, not necessarily separate companies. In reality:

- one company may combine DSP, ad network, exchange, SSP, or ad server;
- an SSP and a publisher ad server may participate in the same flow: the SSP provides access to programmatic demand, while the publisher ad server matches that and other sources and manages delivery; paths also exist without one of these links;
- direct buying can bypass part of the connective layer;
- a closed platform can hide several roles behind a single API and a single commercial contract;
- measurement, verification, and identity usually work across the chain, not “between” two mandatory neighbors.

For now, the categories on the map are only needed as navigation:

Category	Where it sits	One core function
Agency	Advertiser side (buy side)	Plans and executes media buying for the advertiser
DSP	Advertiser side (buy side)	Automates buying opportunities from several supply sources
Ad network	Between buyers and publishers	Aggregates and packages supply/demand as a manageable offering
Ad exchange	Connective layer	Connects buyers and sellers for an automated deal
SSP	Publisher side (sell side)	Helps the publisher manage buyer access to inventory
Ad server	Advertiser or publisher side	Selects, delivers, and registers advertising according to defined rules
Measurement provider; a specialized mobile category — MMP	Across the chain	Measures advertising events and outcomes; an MMP specializes in mobile acquisition and 31
Verification provider	Across the chain	Independently evaluates the quality and conditions of display
Data / identity provider	Across the chain	Supplies or connects permitted data signals for 32 and measurement

Full definitions, varieties, and combinations of these roles are the topic of chapter 2.

The Three Flows of a Single Advertising Deal

The main mistake when reading the ecosystem map is to imagine that creative, data, and money move along a single arrow. Let's look at one ad for a subscription app inside a publisher's content app.

1. The Display and Delivery Flow

```
user opens a screen in the publisher app
  → the publisher creates an ad opportunity
  → available systems select an ad
  → the selected creative, or an instruction to load it, is returned to the app
  → the app loads and renders the creative
  → the user may notice the ad and interact with it
```

In a typical flow, the process starts on the publisher's side, because that is where the opportunity arises. The decision may come from a direct [33](#), an ad network, a DSP/SSP path, or a closed platform. The creative, meanwhile, may be delivered not by the same service that made the commercial decision: an ad server or a CDN often participates in delivery separately.

2. The Data Flow

```
advertiser side:
goal + campaign rules + creative metadata
      ↓
publisher context → selection systems → selected ad + delivery metadata
      ↓
impression / click / outcome events → measurement + reporting → optimization
```

Campaign is an organized set of advertising activity with a goal, a budget, and creatives. Before delivery, the advertiser side tells the systems the conditions of that activity. When an opportunity arises, the publisher side may pass a description of the app or site, the placement, the format, the time, and — as permitted by platform rules — signals about context, device, or audience. The selection systems match supply with demand and return a result.

The systems link objects and events with identifiers such as `request_id`, `campaign_id`, and `creative_id`; the specific fields and rules depend on the integration. After delivery, different participants may separately register an impression and a click [34](#). If the user installs the advertised app and takes out a subscription, the outcome event may reach measurement systems — provided the right integrations exist and within platform/privacy restrictions.

This reverse flow is usually asynchronous and does not have to travel the same network path as the ad request. The advertiser, the publisher, and intermediaries may have different points of observation, timestamps, and counting rules, so their reports do not have to match perfectly.

3. The Money Flow

```
Advertiser media spend
  → buying channel / media seller or sellers
  → publisher revenue
```

```
Separately, depending on contracts:
advertiser or publisher → service / SaaS fee → technology provider
```

Media spend³⁵ is the money an advertiser allocates to buying advertising. A portion passes to media sellers and ultimately forms **publisher revenue**³⁶; along the way, **fees** may be deducted. But not every provider takes a share of every advertising payment. An agency often receives a percentage of media spend, sometimes a fixed ³⁷; an ad server, an MMP, a verification or data provider may receive a separate service fee, SaaS fee, or other contractual payment. Some participants only pass along or measure events and never touch media money at all.

Therefore, the three sums must not be treated as synonyms:

- advertiser spend — the buyer's cost;
- intermediary fee — payment for a specific intermediary or technology function;
- publisher revenue — the revenue of the inventory seller.

Exact pricing models, margins, and the path of a hypothetical \$100 are covered in chapter 4. What matters here is the direction: advertising and data move in both directions, while money mostly flows from the advertiser to the owners of supply and to service providers.

The Advertising Lifecycle: Not a Line, but a Feedback Loop

Advertising work begins before the first impression and does not end with a render:

business goal

- planning and setup
- preparing campaigns and creatives
- access to media and ad selection
- delivery and render
- user reaction and business result
- measurement and reporting
- optimization, reconciliation, and settlements
- ↻ next planning iteration

Let's walk through the cycle for a subscription app.

1. **Business goal.** The advertiser decides to acquire users who take out a subscription with acceptable economics.
2. **Planning and setup.** It defines the audience, the available channels, the budget, and the method of measurement. This is where demand is formed.
3. **Preparation.** A campaign and several creatives are created. The systems receive delivery rules and the necessary integrations.
4. **Access to media and ad selection.** The publisher provides opportunities directly or through sell-side systems. Buying systems find suitable opportunities and select a creative. The specifics of bidding, ³⁸, and ³⁹ will appear in later chapters.
5. **Delivery and render.** The creative is delivered to the publisher app and rendered; events corresponding to the participants' points of observation are registered.
6. **Reaction and result.** The user may ignore the ad, click it, install the app, and later buy a subscription. The presence of an event does not prove the ad's causal impact.
7. **Measurement and reporting.** The systems aggregate the observed impressions, clicks, and outcomes. Attribution and mobile measurement require separate mechanisms and will be covered later.
8. **Optimization and settlements.** The advertiser redistributes future demand based on the available signals; the publisher adjusts its monetization strategy; the participants reconcile reports and carry out settlements.

The feedback loop is the reason AdTech is not just delivery infrastructure. Value arises when observations about the past change future decisions, but the quality of those decisions is limited by data completeness, measurement correctness, and the participants' misaligned incentives.

AdTech and MarTech: A Working Boundary

MarTech⁴⁰ is technology for the broader management of marketing and the customer lifecycle: customer data, communications, and the advertiser's owned channels. The boundary is not standardized, so it is more useful to classify a system by its primary job than by the label on the vendor's website.

Question	AdTech	MarTech
Primary object	Paid media and advertising opportunities	Customer relationships and marketing operations
Main coordination	Between the buying side and the selling side	Inside the advertiser and its owned channels
Typical channels	Publisher sites and apps, ad platforms, media marketplaces	Email, CRM, push, the brand's own site or app, customer journeys
Typical systems	DSP, SSP, ad network, exchange, ad server	CRM, marketing automation, ⁴¹ email/push platforms
Primary result	Buy, sell, select, deliver, and measure advertising	Manage customer data and communications across the lifecycle

The overlap is large. Measurement, attribution, identity, CDP, and activation can serve paid media and owned channels at the same time. For example, a subscription-purchase event lives in product/backend systems, may enter a MarTech retention process, and at the same time become an outcome signal for AdTech measurement. That is why AdTech vs MarTech is a working rule of thumb, not an impermeable boundary.

Common Confusions

- **“The user is the inventory.”** No. Inventory is advertising opportunities in a media environment. The user creates context and attention but remains a separate participant with their own interests and rights.
- **“An impression means the person saw the ad.”** Not necessarily. Served, rendered, and viewable describe different points of the process, and viewability by itself does not prove human attention.
- **“Every intermediary resells media and keeps a share of the spend.”** No. Some receive a separate service/SaaS fee, and some take no part in the media money flow at all.
- **“The more intermediaries, the worse.”** Additional hops add fees, latency, and the risk of opacity, but they can also provide reach, aggregation, interoperability, measurement, and quality controls. The question is what function each hop performs and what it costs.
- **“AdTech = programmatic = RTB.”** No. RTB is one mechanism of programmatic; programmatic is part of AdTech; AdTech also supports direct and closed-platform advertising.
- **“AdTech and MarTech are strictly separated.”** No. AdTech primarily coordinates paid media, while MarTech handles the customer lifecycle and owned channels, but data, identity, measurement, and activation often overlap.

What to Remember

1. Digital advertising is a market of coordination between advertiser, publisher, and user, not just the delivery of a banner.
2. The advertiser creates demand, the publisher creates supply; the sides of the market must not be confused with platform names.
3. Advertising inventory is available or projected opportunities, not users and not pre-manufactured impressions.
4. Placement, ad opportunity, and impression are different stages: a placement rule, an arisen opportunity, and a registered event.
5. AdTech exists because of scale, fragmentation, the speed of selection, delivery, interoperability, measurement, and settlements.
6. Intermediaries perform functions; no category is required to be present in every deal.
7. The display flow, the data flow, and the money flow differ in direction, participants, and timing.
8. The advertising lifecycle forms a feedback loop: measurement of past events influences future decisions and spending.

Check Yourself

1. Why is the user a participant in the advertising market but not advertising inventory?
2. How does a placement differ from an ad opportunity and an impression?
3. For the advertising of a subscription app, draw the creative flow, the event flow, and the money flow separately. Which arrows will not coincide?
4. What intermediary function can justify an additional hop, and in which case would that hop turn out to be superfluous?

Sources and Further Reading

1. [IAB Tech Lab — OpenRTB](#)
2. [IAB Tech Lab — Supply Chain & Foundations](#)
3. [IAB Tech Lab — sellers.json and SupplyChain Object](#)
4. [IAB Tech Lab — About ads.txt](#)
5. [Competition and Markets Authority — Intermediation in open display advertising](#)
6. [IAB UK — Demand Side Platform \(DSP\)](#)

AdTech Ecosystem Participants

The Core Idea: roles, not boxes

In the first chapter we saw the two economic sides of the market: advertiser⁴² creates ⁴³, while publisher⁴⁴ creates ⁴⁵. Many systems may sit between them, but the map of ⁴⁶ becomes clear once you look not at company names but at **roles** — logical functions in an advertising deal.

Role, company, and product are different levels:

- **role** — the function performed here;
- **company** — the organization that signs the contract; it may perform several roles;

- **product** — a specific offering of that company: a UI, an API, a managed service, or a set of tools.

Therefore a logo cannot be placed in one cell of the map forever: one product suite may buy media, sell access to ⁴⁷, deliver ads, and build reporting, while one role may be split by the advertiser between its own team and several providers.

To analyze any role, use a single card (role card):

Question	What it clarifies
What problem does the role solve?	The reason it exists
Who is the customer?	Who uses the product or service
Who is the beneficiary?	Who receives the economic benefit
Who is the ⁴⁸	Who pays for media or the service under contract
What data comes in and goes out?	The technical boundaries of the function
What decision is made or executed?	The actual work, not a marketing label
How does money move?	Media money, a separate fee, or no payment in this flow

Customer, beneficiary, and payer may not coincide: a media ⁴⁹ works in a platform's UI, the advertiser receives the benefit, and the ⁵⁰ pays the invoice. Without this distinction, contracts, data flows, and reports are hard to read.

Let's fill in the card for the main economic participant. The advertiser wants to change the knowledge or behavior of an audience, funds the ⁵¹, hands over the goal, the budget, and the **creative**⁵² — the ad material itself: an image, a video, or text — and receives outcomes and reporting. The advertiser is usually the beneficiary and the source of money, but may delegate the operational work and the payment of specific invoices to an agency. In a specific campaign some roles will be absent and others will hide behind a single contract — which is why the card is more useful than a linear diagram of seventeen mandatory boxes.

Who sets the goal and who executes the purchase

Advertiser — an organization that funds advertising for the sake of a business outcome. For an app with a paid subscription, the outcome may be immediate — a trial or a paid subscription — or more delayed: knowledge of the product and the willingness to consider it later. The advertiser defines the goal, the acceptable spend, the audience, and the success criteria; on its own or through contractors, it decides where to buy media.

This gives rise to two advertising orientations:

- **brand advertising**⁵³ primarily changes awareness, consideration, or perception — knowledge of the product, consideration of it, and attitude toward it;
- **performance advertising**⁵⁴ is driven around a measurable action or outcome and the cost of obtaining it: registrations, trials, installs, or purchases.

These are not two mutually exclusive kinds of companies. One subscription app may simultaneously run a video campaign to introduce the brand and an acquisition campaign optimized for trials. Moreover, a single user may first encounter the product through brand advertising and

later respond to performance advertising. What differ above all are the goal, the evaluation horizon, and the expected evidence of results.

Publisher — an organization that owns or operates a media environment where advertising ⁵⁵ arise: a website, an app, a game, or a video service. The publisher defines ⁵⁶ and serving rules, provides context and access to inventory, receives delivery information, and earns publisher ⁵⁷. Its interest is to sell opportunities profitably enough while preserving the quality of the product and the user experience.

Between the advertiser's business goal and the technical purchase there often stand people and service organizations:

- **agency** — a contractor company that plans or executes marketing and media work on behalf of the advertiser. It may develop strategy, prepare creatives, choose channels, launch campaigns, manage reporting, and sometimes handle payments;
- **media buyer** — a person, team, or function that chooses media, platforms, and purchase terms, allocates spend, and sets up campaigns. A media buyer may work inside the advertiser, inside the agency, or inside another buying organization.

Agency and media buyer are not synonyms: the former is an organization and a contractual role, the latter an operational function. A media buyer is also not a ⁵⁸: a human formulates and configures decisions, while a DSP executes part of the buying workflow at scale.

Role	Problem and beneficiary	Typical payer	Data in	Decision or result
Advertiser	Achieve a business outcome; the advertiser itself receives the benefit	Source of media ⁵⁹ and many service fees	Business goal, constraints, customer data	Campaign goal, budget, success criteria
Publisher	Monetize the media environment; the publisher receives the benefit	Usually not a payer in the media sale; may pay technology providers	Placements, context, inventory rules	Available opportunities, delivery rules, publisher revenue
Agency	Perform the work for which the advertiser does not build a team or expertise	Advertiser; sometimes the agency acts as payer on downstream invoices	Brief, budget, creatives, results	Plan, settings, execution, and reporting
Media buyer	Turn the goal and budget into concrete purchases	Not a separate payer as a function; paid by employer/client	Campaign goals, available channels, reports	Choice of media and platforms, allocation, and settings

The advertiser may buy media with its own team (in-house), hand the buying entirely to an agency, or split the responsibility. This determines the control boundary: who has access to the account, raw data, and the contract; who is responsible for setup mistakes; and who can reallocate spend.

Who connects demand and supply

Neither the advertiser nor the publisher can negotiate every short-lived impression with thousands of counterparties by hand. The next group of roles solves the scale problem, but does so from different sides:

```

advertiser ————— direct buying —————> publisher
advertiser ————— ad network —————> publisher
advertiser / buyer → DSP ≈ exchange / SSP functions → publisher

```

advertiser ad server and publisher ad server can support different branches;
no single line is a mandatory universal pipeline.

Ad network⁶⁰ aggregates supply and/or demand and sells a managed media offering. The buyer usually chooses the available offer, the goal, and the constraints, while the network takes on a significant share of traffic distribution and publisher relationships. The pricing axis belongs to the network: it usually sets its own price for the buyer and itself decides from which publisher, and at what price, to take the impression, so the purchase price is opaque to the buyer. The network usually accepts media money and settles with supply partners; the specific commercial model depends on the contract.

DSP (Demand-Side Platform) — a buying platform that helps a media buyer evaluate and purchase opportunities from several supply sources according to campaign rules. The customer is an advertiser, an agency, or another buyer. The key trait: the decision is made for each incoming opportunity separately and in real time — in ⁶¹ this is a ⁶² in an ⁶³; the deep comparison with networks is in chapter 16, auction mechanics in chapter 18.

SSP (Supply-Side Platform)⁶⁴ — a sell-side platform for the publisher. It describes available opportunities, gives demand sources access to inventory, and helps manage its sale. The publisher is the primary customer and beneficiary, although the SSP often takes its payment within the media ⁶⁵ — the actual movement of money between participants, as distinct from the invoice as the issued claim.

Ad exchange⁶⁶ — a transaction layer or function that connects buyers and sellers and performs matching or an auction. An exchange is not necessarily a separate company between DSP and SSP: exchange and SSP functions are often combined in one product. A useful distinction is this: the SSP represents the publisher’s sell-side workflow, while the exchange performs the automated transaction function between the parties themselves.

Ad server⁶⁷ selects, delivers, and records ads according to given campaign or inventory rules. It is not just a CDN with files: a CDN may deliver creative bytes, while an ad server applies rules and creates an observable point of delivery.

- An advertiser ad server helps the buyer side manage creatives, their delivery, and event recording independently of the specific place of purchase.
- A publisher ad server matches available demand sources and manages delivery on the publisher’s inventory.

Detailed order, line item, priorities, and serving mechanics will appear in chapter 11.

Role	Primary customer	Data in	Decision or result	Money relationship
Ad network	Advertiser/agency; also needs supply partners	Campaign constraints, creatives, aggregated supply	Managed distribution and reporting	Usually a ⁶⁸ : sets its own price for the buyer, accepts media money, and

Role	Primary customer	Data in	Decision or result	Money relationship
DSP	Advertiser, agency, media buyer	Campaign settings, creatives, opportunity signals	Buying decision, access to supply, reports	settles with publishers itself at a price opaque to the buyer Paid by the buyer: media cost plus a platform fee, usually a percentage of spend Paid by the seller side: usually retains a share
SSP	Publisher	Inventory rules, opportunity and context signals	Access to demand, sale decision metadata, reports	(revenue ⁶⁹) of the clearing price (the final auction price) before paying the publisher Usually a share of the clearing price on the sell side; if
Ad exchange	Buyers and sellers or their platforms	Opportunity descriptions and buying responses	Matching/transaction result	the exchange is combined with the SSP, this is one deduction, not two Usually a separate license or usage fee from its own customer; media money usually does not pass through the ad server
Ad server	Advertiser or publisher	Campaign/inventory rules, creatives, delivery signals	Selection, delivery, and event registration	

Who measures and verifies

A platform that sold or bought media sees only its own ⁷⁰ points and is at the same time interested in the outcome of the deal. Therefore advertisers and publishers may connect cross-cutting providers. They are not a mandatory link in the commercial chain, although their code may execute inside creative delivery: integrations receive events and return separate conclusions.

Attribution provider⁷¹ matches available advertising touchpoints — for example, an ⁷² or a ⁷³ — with outcomes such as a registration or a purchase, and applies rules for assigning credit. The result answers the question “to which source, under the chosen rules, is this ⁷⁴ attributed?”, not “was the advertising the true cause of the action?” Attribution does not prove causality.

MMP (Mobile Measurement Partner)⁷⁵ — a mobile-specialized category of measurement and attribution providers for app acquisition, installs, and in-app outcomes. Its primary role is to match available acquisition signals with app events and to give the advertiser a consistent picture across all media sources. The motive is clear: without an independent party, each network attributes the install to itself under its own rules, and the sum of self-reported installs usually exceeds the real number; an MMP applies uniform rules to all sources. An MMP is not a synonym for product analytics: product analytics primarily studies behavior inside the product, whereas an MMP links acquisition to advertising sources. Technical details of SDKs, install matching, postbacks, and platform privacy restrictions belong to chapters 27–29.

Verification provider⁷⁶ creates a separate point for evaluating the conditions and quality of ad delivery. Depending on the integration, it may analyze available delivery, render, placement, context, and quality signals and return verification results to the advertiser, the publisher, or a platform. Verification is broader than fraud detection alone — the questions may also concern the serving environment — but it is not absolute truth: the completeness of its conclusions depends on the environment, the available signals, and the methodology.

For a single app ad, the systems may receive partially overlapping events:

```

impression / click signals ┌→ buying and selling platform reports
                           │→ attribution provider / MMP
delivery / context signals └→ verification provider

```

install / subscription events → MMP and the advertiser's systems, if integrations allow it

Discrepancies between reports are not necessarily an error. Platform reporting answers what the platform itself observed; the MMP applies its own attribution rules to acquisition and app events; the verification provider evaluates the delivery conditions available to it. These are different questions and different measurement boundaries.

Who supplies, organizes, and connects data

The word data hides several different tasks. Supplying an external dataset, managing an audience [77](#), storing a customer record, and matching identifiers are not one role. A separate operation is **activation**[78](#): handing data or a segment to a system that will apply it to real impressions, for example a buying platform for [79](#); before activation, a segment remains a record in storage.

Role	Customer and data in	Persistent state	Result and activation	What the role itself does not do
Data provider ⁸⁰	Advertiser, publisher, or platform; its own or collected datasets	Datasets, attributes, or segments	Data for permitted activation, decisioning, or analysis	Not required to store its client's customer record or make media decisions
DMP ⁸¹	Advertising/marketing team; audience data and campaign signals	Audience profiles and segments in the chosen product model	Segmentation and activation through advertising integrations	Not required to be the system of record for the full customer lifecycle
CDP ⁸²	Advertiser; first-party events and customer data from the product,	Persistent unified customer record	Customer profiles, events, and segments made	Not required to buy media or

Role	Customer and data in	Persistent state	Result and activation	What the role itself does not do
Identity provider ⁸³	CRM, and other systems		available to downstream systems	assign attribution credit
	Advertiser, publisher, or platform; identifiers from permitted sources	A mapping or identity graph within the specific solution	Linked or translated identifiers for activation and measurement	Does not create consent, does not register all events, and does not prove the identity of a real person

Data provider sells or provides datasets, attributes, or audience segments. The customer pays for an additional signal: for example, a context classification or an audience attribute that can be used legally and technically.

DMP (Data Management Platform) — an advertising-oriented system for managing, segmenting, and activating audience data. **CDP (Customer Data Platform)** maintains a persistent unified customer record and makes customer data available to downstream systems. The historical rule “DMP — cookies and anonymous data only; CDP — PII only” is unreliable: modern products and deployment models overlap. The working boundary lies in the primary task and the record model — advertising audience activation versus a durable customer record.

Identity provider links or translates identifiers for permitted activation, measurement, and adjacent use cases. For example, one integration may know the advertiser’s customer ID while another knows a platform-specific ID; the identity function helps establish a permissible correspondence.

Distinguish four operations:

```
identity    → links users, devices, or their identifiers
tracking    → records events
attribution → assigns conversion credit according to rules
consent     → expresses permission or a choice in a separate governance/legal context
```

An identity provider does not create legal permission merely by matching. Specific identifiers, resolution algorithms, and privacy rules will be covered in chapters 24 and 40–42.

In the running example, the subscription app sends first-party trial and subscription events to the CDP to maintain the customer record. A DMP or platform integration can form and activate a permitted audience segment. An identity provider helps link the necessary identifiers between permitted environments, and an external data provider can enrich the segment with an additional attribute.

One campaign: data and money kept separate

Let’s assemble the roles in one scenario. A subscription app is advertised inside a mobile game. The advertiser has hired an agency; a media buyer at the agency runs acquisition through a DSP. The game’s publisher provides the opportunity through an SSP whose product also includes an exchange function (in mobile in-app, this sell-side role is often performed by a mediation platform or an SDK network — chapter 12). An MMP measures mobile acquisition, a verification provider optionally evaluates delivery, and the data/identity functions are connected only where they are needed and permitted.

This is one possible composition, not a mandatory chain: the advertiser could have bought media directly or through an ad network, and several roles could have belonged to one company or been absent altogether.

Data flow

advertiser / media buyer

— campaign goal, settings, creative metadata → buying and serving systems

publisher app

— opportunity, placement, format, permitted context → sell-side and decision systems

decision systems

— the selected ad + delivery metadata → publisher app

publisher app and participating systems

— impression / click / delivery events → reporting, MMP, verification

subscription app / advertiser backend

— install, trial, subscription events → MMP, CDP, and advertiser reporting

Not every participant receives every event: the set depends on integrations, the environment, contracts, and privacy/platform restrictions. The event flow is often bidirectional and asynchronous; it need not repeat either the creative path or the financial relationships.

Money flow

The direction is the same as on the map in chapter 1: the advertiser's media spend goes through the buying channel to media sellers and becomes publisher revenue, while technology providers receive separate fees. What is new here is who exactly pays whom in a typical programmatic setup:

Who pays	Whom	For what	Kind of money
Advertiser	Agency	Planning and running campaigns	Usually a fee or a percentage of spend; sometimes inside the media invoice
Advertiser or agency	DSP	Purchased media and use of the platform	Media cost plus a platform fee, usually a percentage of spend
DSP	Exchange / SSP	Won opportunities at the clearing price	Media money
Exchange / SSP	Publisher	Sold opportunities	Publisher ⁸⁴ : clearing price minus the sell-side revenue share
Advertiser	MMP	Attribution and acquisition measurement	⁸⁵ or usage fee
Advertiser	Verification provider	Evaluation of delivery conditions	Usage fee, usually by volume of measured impressions
Publisher or advertiser	Its own ad server	Selecting, delivering, and recording ads	Usage or SaaS fee

Who pays	Whom	For what	Kind of money
Advertiser or agency	Data provider	Audience segments or attributes	Often a data ⁸⁶ — a surcharge on media cost, billed through the DSP

The advertiser is the economic source of media spend, but the contractual payer on the DSP's invoice is often the agency: the advertiser sees one consolidated invoice, while the money is then distributed across several contracts. Invoice and settlement also differ: the former is the issued claim, the latter the actual payment, and the amounts may not match because of adjustments. The deductions of ⁸⁷ at each step and the path of a hypothetical \$100 are the subject of chapter 4.

Finally, the **invoice path**, the actual **settlement path**, the creative delivery path, and the HTTP/event path may have different endpoints: the creative may come from an ad server or a CDN, and a conversion event may go asynchronously to the MMP and never return through the SSP.

Why one company occupies several places on the map

Companies combine roles because of acquisitions, shared infrastructure and data, and the desire to offer a managed service, a single workflow, reporting, and contract. When one company controls several consecutive levels of the value chain, this is called **vertical integration**⁸⁸; in this course we also speak of combining roles.

For the customer, combining roles means fewer integrations, lower operational overhead, faster data exchange, and one UI for setup and reports. But the same properties create risks:

- a conflict of incentives when one side simultaneously represents buyer and seller;
- opacity of fee boundaries and internal money transfers;
- an advantage for its own supply or demand in decisioning;
- self-measurement, when the executor of the deal evaluates its quality itself;
- difficulty exporting data and comparing external alternatives.

Imagine a hypothetical Platform X: it sells a packaged media offering, gives the media buyer DSP-style controls, delivers creatives, and shows an attribution report in one UI. Calling it merely a “DSP” is not enough. Let's break the suite into functions:

Platform X function	Separate role card
Packages and sells access to media	Ad network-like managed offering
Selects opportunities according to campaign rules	DSP-like buying/decisioning
Delivers the creative and records delivery	Ad serving
Links touchpoints with outcomes	Attribution/measurement

A shared login and a shared invoice do not make these functions one role. This is the way to analyze an unfamiliar AdTech company: first list the roles it performs, then fill in for each one problem → customer → payer → data in/out → decision → money and ask where the fee arises and whose interests it may conflict with. Only then does it make sense to compare vendors by their labels.

Common Confusions

- **“A brand advertiser and a performance advertiser are different kinds of companies.”**
No: these are orientations of activity. One company can run both.
- **“Ad network is the old name for a DSP.”** A network sells managed media aggregation at its own price; a DSP leaves the decision on each opportunity to the buyer’s rules. Real suites may combine both functions.
- **“An SSP and an exchange must be different companies” or “they are complete synonyms.”** Both extremes are wrong: the sell-side workflow and the transaction function are distinguishable, but often combined in one product.
- **“An MMP knows the true reason for an install, and a verification provider sees the absolute truth of an impression.”** Both work with available measurement points and methodologies. Attribution credit is not causality; a verification result is limited by the integration.
- **“Data provider, DMP, CDP, and identity provider are four names for the user base.”**
They respectively supply data, organize audience activation, maintain the customer record, and link identifiers.

What to Remember

1. The AdTech map describes logical roles, not a mandatory list of companies.
2. The advertiser funds advertising for the sake of an outcome; the publisher creates the media environment and opportunities.
3. Brand and performance are orientations of goals and measurement that one advertiser may combine.
4. An ad network sells media at its own price; a DSP decides on each opportunity with a bid under the buyer’s rules and charges the buyer a platform fee; an SSP serves the sell-side workflow and usually retains a share of the clearing price; an exchange performs the transaction function.
5. Advertiser-side and publisher-side ad servers apply different sets of rules, although both roles select, deliver, and record ads.
6. MMP/attribution, verification, data, and identity are cross-cutting functions, not mandatory links in the commercial chain; they usually receive a fee for their function rather than a share of media money.
7. The data flow, the delivery path, the invoice path, and the settlement path need not coincide.
8. One company may perform several roles; vertical integration reduces integration friction but raises questions about incentives, fees, data boundaries, and measurement independence.

Check Yourself

1. Why can a subscription app simultaneously be a brand and a performance advertiser?
2. How does a media buyer differ from an agency and from a DSP?
3. Why might a publisher use an SSP and a publisher ad server in one flow without considering them one role?
4. A hypothetical suite offers publishers an SSP, a publisher ad server, and verification in one UI under one invoice. Which separate role cards need to be filled in, and where does such a combination create a conflict of interest?

Sources and Further Reading

1. [IAB Tech Lab — Programmatic Auction Definitions](#)
2. [UK Government — Online Advertising Programme consultation](#)
3. [Competition and Markets Authority — Intermediation in open display advertising](#)

4. [Adjust — What is a Mobile Measurement Partner](#)
5. [IAB Tech Lab — Open Measurement SDK](#)
6. [IAB Tech Lab — Identity Solutions Guidance and Recommended Practices](#)
7. [CDP Institute — What is a CDP?](#)
8. [Oracle Marketing Cloud — CDP vs CRM vs DMP](#)

Core Advertising Metrics

The Core Idea: a metric is a contract, not a formula

An advertising metric is not a formula but a contract about how it is counted: an agreement on which event is counted, at which point, after which filters, on which denominator, and in whose money. The arithmetic here is simple — division and multiplication by a thousand — but the semantics are hard: [89](#) and [90](#) mean different events in different systems, and one metric name hides different contracts. That is why one [91](#) produces three simultaneously truthful reports — for the [92](#), the [93](#), and the platform — with different numbers. The chapter follows the order of the flow: from the appearance of an ad slot to impression, click, and outcome, then the price of an event, money and return, user value, and monetization — and brings it all together in one end-to-end example.

Why a number without a definition says nothing

An advertising campaign passes through several systems. The publisher observes the creation of ad slots and ad delivery; the buying platform — the requests and deals available to it; the advertiser — spend and business outcomes. Each system aggregates its own slice of the flow. That is why a column reading Impressions: 8,000 says nothing by itself about what actually happened, or why its number should or should not match a neighboring report.

A **metric contract**[94](#) is the complete definition of a metric by which a number can be reproduced and interpreted:

```
event definition + measurement point
+ filters and deduplication
+ numerator / denominator
+ dimensions
+ period and event/reporting/attribution window
+ currency
+ perspective and ledger boundary
```

For example, $CTR = 2\%$ [95](#) is not yet a contract. You need to know which clicks and impressions are eligible, where they are recorded, whether repeats are excluded, over what period, and for which campaign. For a monetary metric, the currency, the currency conversion and refund rules, and whose money it is additionally matter. From here on, the word **qualifying** means an event that passed the filters and validation of a specific system under its contract, and **eligible** means an event that system admitted to the calculation (usually in the denominator).

The basic metric classes answer different questions:

Class	What it measures	Example
count	How many qualifying events or units of account were recorded	8,000 impressions

Class	What it measures	Example
rate	What share of one count falls on another	160 clicks / 8,000 impressions = 2% CTR
unit/effective metric	How much 96 or 97 falls on a unit of outcome	\$96 / 160 clicks = \$0.60 CPC 98
return metric	How the measured value compares to the investment	\$480 / \$96 = 5.0x ROAS 99

Before comparing two columns, ask seven questions:

Who counts?
 What is counted and at which measurement point?
 Where does the measurement boundary run?
 When did the event occur and which period/window did it fall into?
 Which filters and deduplication were applied?
 What is the denominator?
 Which currency is it in, and whose money is it?

This contract matters more than the name. Even an arithmetically simple formula answers a different question once rendered impression[100](#) is swapped for served impression[101](#), click for install, or advertiser [102](#) for publisher [103](#).

From opportunity to a possible exposure

On a media surface the publisher first gets an **ad opportunity**[104](#) — a concrete chance to show an ad, for example a full-screen [105](#) after a level is completed in a game. A **request** is already a technical message sent to a specific system asking it to select an ad, return a [106](#), or take part in an [107](#). These are different levels:

- an opportunity may not produce a request because of a local rule or filter;
- one request may carry several ad objects;
- one opportunity may fan out into several downstream bid requests;
- retries increase the request count without a new opportunity;
- a batch combines several opportunities in one message.

The IAB Tech Lab Programmatic Auction Definitions use Ad Request for information about an impression opportunity put up for auction. At the OpenRTB 2.6 protocol boundary, a single BidRequest contains one or more Imp objects. This is a sufficient reason not to treat HTTP requests as an unqualified proxy for user-facing opportunities; a specific production implementation may differ.

publisher surface

- ad opportunity
- 0..N request / bid request
- response / bid / win
- served response
- rendered impression
- measurable → viewable impression
- click
- advertiser-defined conversion
- attributed revenue / customer value

This is a map of [108](#) points, not a universally strictly decreasing funnel. Fan-out and retries can produce more requests than opportunities; a video pod — an ad break made of several video ad

units in a row (chapter 48) — yields several impressions for one opportunity; one user can make several clicks or [109](#); filters, deduplication, and different windows change the set of events between reports.

An **impression** is a recorded ad event according to the counting rule of a specific system. The word without a qualifier proves neither render, nor viewability, nor human attention.

State	Minimal evidence	What it does not prove
served impression / served response	The server or platform recorded issuing an ad response, code, or creative instructions	That the device loaded and started displaying the creative
rendered impression	The client/device started a render under the applicable rule	That a sufficient part of the creative was on screen long enough
measurable	The measurement tool was able to determine the geometry/time conditions of exposure	That the viewability conditions are met
viewable impression 110	A valid rendered served impression met the applicable geometry/time criteria	That a human actually looked at the ad or paid attention
non-viewable	Measurement occurred, the criteria were not met	That the impression was non-measurable
non-measurable / undetermined	The available signals are insufficient to determine viewability	That the impression was viewable or non-viewable

The MRC Desktop Display Impression Measurement Guidelines require, for a qualified client-side count, that the creative was downloaded and the render at least began. The MRC Viewable Ad Impression Guidelines (v2.0) tie a viewable impression to a valid rendered served impression. The classic benchmark of the Viewable Guidelines 2014/2015 is at least 50% of pixels for one continuous second for display and two continuous seconds for video; the Digital Audience-Based Standard 2017 uses the same one. This is not a universal rule for every format and environment: the MRC publishes separate guidelines for mobile, video, OTT/CTV (streaming and connected TV; chapter 49), in-game, and AR; the details belong to chapter 37.

Reach and frequency: from events to audience

Reach [111](#) is the de-duplicated number of unique audience units (entity: a person, a device, or a household) that received at least one qualifying exposure in a period, or the share of such units in an explicitly declared population:

reach count = unique entities with ≥ 1 qualifying exposure in the period
reach rate = reached unique entities / declared universe $\times 100\%$

The audience unit must be named: person, device, household, account, or modeled audience. 20,000 device IDs, 20,000 modeled persons, and 20,000 households are not interchangeable counts. Without the size of the universe — the declared audience against which the share is computed — the reach rate cannot be computed; without identity coverage and cross-device deduplication rules, the completeness of reach cannot be assessed.

Frequency [112](#) is the average number of qualifying exposures per reached audience unit over the same period:

$\text{frequency} = \text{qualifying impressions} / \text{reached unique entities}$

An illustrative example: 60,000 qualifying viewable impressions in a week are distributed across 20,000 de-duplicated persons from the chosen population. The reach count is 20,000 persons, and the average frequency is $60,000 / 20,000 = 3$. This does not mean every person saw the ad exactly three times: frequency is an average.

The MRC Digital Audience-Based Standard (2017) uses qualifying viewable impressions as its measurement basis. Product dashboards may count reach on a different impression basis, by devices, or with modeling. That is why reach and frequency are comparable only with an identical audience unit, exposure rule, population, de-dup scope, and period.

From exposure to response and outcome

A **click** is a qualifying user-initiated interaction with an ad. Even a single action has several measurement points:

```
user initiates click
  → click tracker / redirect      # measured click
  → destination receives request # received click
  → landing page resolves/loads  # resolved click
```

The user may close the screen, the network may drop, the redirect may not complete, and different systems may apply different filters. So initiated, measured, received, and resolved clicks need not match. The IAB/MRC Click Measurement Guidelines v1.0 (2009) are still listed by the MRC as a measurement baseline, but their browser/HTTP wording is legacy and does not exhaustively describe modern app and platform interactions; the redirect above is a typical, not the only, flow.

CTR (Click-Through Rate) shows the share of the selected impressions after which the selected clicks were registered:

$\text{CTR} = \text{qualifying clicks} / \text{counted impressions} \times 100\%$

If an advertiser report counts 160 clicks and 8,000 impressions under one contract, $\text{CTR} = 2\%$. Swapping served impressions for rendered, all clicks for filtered clicks, or a campaign-level population for a creative-level population will change the number. A high CTR by itself does not mean quality traffic, conversions, or causal lift.

A **conversion** is a valuable action or outcome that the advertiser defined as meaningful and that the system credited under its measurement and [113](#) rules. For a subscription app it can be an install, a trial, the first paid subscription, or a renewal. These actions must not be summed without an explicit counting rule: one click can lead to an install, a trial, and a subscription — that is, to several conversions.

An observed purchase means the event was recorded. An **attributed conversion** means a chosen attribution rule assigned an ad touchpoint credit for that outcome. Counts depend on the conversion definition, the attribution/lookback window (the time after a touchpoint during which an outcome can still receive credit; chapter 25), filters, late-arriving events, and the counting mode. Neither an observed nor an attributed conversion by itself proves that the ad caused the outcome: attribution distributes credit, while causality requires proof of incrementality — an experimental estimate of the lift the ad produced (chapter 34).

CVR (Conversion Rate)[114](#) is meaningful only with a named precursor event:

$\text{CVR} = \text{qualifying conversions} / \text{declared eligible precursor events} \times 100\%$

Full name	Numerator	Denominator	Which transition it measures
click-to-install CVR	attributed installs	eligible clicks	Click → install
install-to-trial CVR	qualifying trials	attributed installs	Install → trial
click-to-subscription CVR	attributed subscriptions	eligible clicks	Click → subscription

A bare CVR hides different funnels. Even a value above 100% is not always an error: for example, Google Ads counts conversions on trackable ad interactions, and the Every mode (count every conversion after an interaction rather than one) together with several conversion actions can yield more than one conversion per interaction. The denominator and the counting rule are part of the metric's name.

Normalized price of an event: CPM, eCPM, and cost-per-X

Absolute spend does not allow comparing activities of different sizes. Unit metrics divide recognized cost or revenue by an explicitly defined event. In a post-fact report these are actual averages; the same names may denote a pricing model, a [115](#), or an optimization [116](#), which does not guarantee they match the realized average.

Metric	Actual formula	Perspective and denominator	Main ambiguity
CPM (Cost per Mille) 117	advertiser cost or spend / counted impressions × 1,000	Buyer; a thousand counted impressions	May mean a pricing 118 , a rate, a bid, or the observed average CPM
eCPM (effective CPM) 119	recognized revenue / counted impressions × 1,000	Usually publisher/seller; a thousand counted impressions	Revenue and impression scope depend on the seller contract
CPC (Cost per Click)	cost / qualifying clicks	Buyer; clicks under a disclosed rule	A bid/target CPC is not the actual average CPC
CPA (Cost per Action) 120	cost / qualifying actions	Buyer; advertiser-defined action	The action can be a trial, order, lead, or subscription, not necessarily a new customer
CPI (Cost per Install) 121	cost / qualifying installs	Mobile acquisition; attributed installs	The install count depends on measurement and attribution rules
CPL (Cost per Lead) 122	cost / qualifying leads	Lead generation; business-defined lead	Lead definition and quality vary; a lead is not yet a customer
CAC (Customer Acquisition Cost) 123	allocated acquisition costs / new customers	The advertiser's business; new customers	The numerator may include media, 124 , sales, and onboarding costs

Mille means a thousand. The observed CPM answers: how much did the buyer spend per thousand counted impressions? The eCPM answers: how much recognized revenue did the seller receive per

thousand counted impressions? The formulas are symmetric, but the numerators belong to different ledger [125](#). A publisher can use eCPM to compare [126](#) paid on CPM, CPC, or CPA on a common realized-revenue basis. eCPM also appears on the buy side — as a normalized cost: a [127](#) paying on CPC or CPA converts its spend into a price per thousand impressions to compare it with CPM-priced inventory. So CPM and eCPM are not automatically two names for one number.

CPC, CPA, CPI, and CPL follow one pattern, recognized cost / qualifying events, but the event defines the business meaning. A low CPL is useless if the lead does not pass qualification; a low CPI does not say the install will convert to a subscription; a CPA cannot be read without the name of the action.

CAC is broader than platform CPA. If a platform report shows a \$4 CPA for a subscription, it uses platform cost and the attributed subscription action. A business may count as a new customer only the first confirmed payment and include media, agency, sales, and onboarding in acquisition costs. Until the customer event, period, cost allocation, and refunds are agreed, a platform CPA cannot be renamed CAC.

Whose money and what return

One amount changes its name depending on the participant and the ledger boundary:

advertiser: spend / media cost
→ selling or buying platform:
revenue on one boundary,
downstream media/traffic cost on another boundary
→ publisher: recognized publisher revenue

Revenue is the amount recognized by the chosen participant under its rules. **Spend** is the buyer's expenditure on media in the chosen scope. **Cost** is the expenditure of the participant whose economics are being analyzed; for an advertiser it can be media cost, for a platform downstream cost, for a business a broader set of expenses. Estimated dashboard value, invoiced amount, settled amount, and recognized revenue can belong to different states. To compare, you must agree on period, timezone, currency conversion, taxes/refunds, and participant. Gross/net [128](#), take [129](#), and [130](#) are covered in detail in chapter 4.

ROAS (Return on Ad Spend) measures media efficiency:

$$\text{ROAS} = \text{attributed conversion value or revenue} / \text{ad spend}$$

The result can be written as 5.0x or 500%. It depends on the attribution rules and the chosen value field. **ROI (Return on Investment)** [131](#) assesses the profitability of a broader investment scope:

$$\begin{aligned} \text{ROI} &= \text{net profit} / \text{total relevant investment cost} \\ &= (\text{return} - \text{total relevant cost}) / \text{total relevant cost} \end{aligned}$$

In the illustrative walkthrough, the advertiser receives \$480 of attributed conversion value against \$96 of ad spend: ROAS is 5.0x. If the \$480 is treated as attributed revenue and the full agreed cost — including media, product delivery, agency, and operations — is \$600, net profit is -\$120 and ROI is -20%. A high ROAS is compatible with a negative ROI because the denominators and cost scopes differ. Both ROAS and attributed revenue remain attribution-dependent: without a causal design they do not prove incremental return.

User value over time: ARPU, ARPPU, and LTV

An acquisition metric says how much it cost to obtain an event or a customer; a product-value metric says how much the chosen user population brought in — or, according to a model, will bring in.

Metric	Working formula	Required contract
ARPU (Average Revenue per User) ¹³²	selected revenue / all eligible users	User definition, revenue categories, period, cohort/population
ARPPU (Average Revenue per Paying User) ¹³³	selected purchase revenue / paying users	Payer event, purchase revenue, refunds, period
LTV (Lifetime Value) ¹³⁴	cumulative observed or predicted value / cohort members	Cohort, horizon, identity, observed/predicted status, revenue/contribution basis

An illustrative subscription cohort: in a month, 1,000 active users generate \$1,000 of selected recognized revenue, 100 of whom pay; for simplicity, all revenue in the example is purchase revenue. Then $ARPU = \$1,000 / 1,000 = \1 and $ARPPU = \$1,000 / 100 = \10 . ARPU includes the non-paying users of the chosen population; ARPPU divides only by payers. These numbers say nothing about lifetime without a cohort and a horizon (cohort analysis — chapter 33).

The Google Analytics Data API, for example, defines ARPU as total revenue per active user with purchase, subscription, and ad revenue, and ARPPU as purchase revenue per paying active user. This is a product-specific contract, not a universal vocabulary: another company may define active user, payer, revenue, taxes, and refunds differently.

Observed LTV sums the value actually recorded for a cohort up to a given horizon, for example 30-day revenue LTV. **Predicted LTV** estimates future value with a model and assumptions, for example 12-month predicted contribution LTV. Revenue LTV does not subtract expenses; contribution/profit LTV uses an agreed margin basis. GA4 User Lifetime unifies lifetime interactions and supports observed and predictive metrics, but the identity method and sampling affect the result. That is why a user's LTV without a cohort, horizon, identity rule, value basis, and model status is not a defined number.

Where monetization is lost: fill rate and win rate

Fill and win describe different stages of the flow and belong to different owners. They are not complements of each other adding up to 100%.

Metric	One common contract	Stage and owner	Why the number changes further
Fill rate ¹³⁵	filled responses / eligible ad requests	Publisher/ad ¹³⁶ : request → fill	A filled response may not render and may not become a counted impression, so fill on a response basis is higher than the share of delivered impressions
Bid rate	submitted bids / eligible bid requests	Buyer: request → bid/no-bid	The buyer filters opportunities and does not respond to every request

Metric	One common contract	Stage and owner	Why the number changes further
Win rate ¹³⁷	winning bids / submitted eligible bids	Buyer/deal: bid → auction win	A win notice is not yet a delivery or billing event

Fill rate has no single safe vendor-neutral denominator. A product may divide filled responses, counted impressions, or another fill event by requests, opportunities, or ad units — and these are different metrics. The Google Ad Manager sell-through documentation uses $\text{Total impressions} / \text{Total ad requests}$; for optimized video pods, part of the requests/unfilled units is derived from durations and the configured ad opportunity duration. This is an exact product definition, not a rule for every ad server. Match rate, response rate, delivery rate, and fill rate may name adjacent transitions rather than aliases.

Win rate also requires a disclosed population. An auction may receive a bid, select it as the winner, send a win notice, and still not deliver the creative or create a billable ¹³⁸. OpenRTB distinguishes a win notice from a billing notice; billing policy may depend on delivery, viewability, or other rules. Legacy Google Ad Manager reporting had the formula $\text{Deals win rate} = \text{winning bids} / \text{bids}$; this is a dated example of a denominator, not a universal taxonomy.

One campaign, three truthful reports

Let us assemble the metrics on one consistent scenario. All numbers below are **illustrative**; their scale is arbitrary and chosen for simple arithmetic. A subscription app is advertised inside a mobile game; the period is, say, one week, and the currency is USD. Each calculation uses its own explicitly named contract rather than assuming a shared global event store.

Advertiser: outcome and acquisition efficiency

The advertiser report contains only its slice: 8,000 counted impressions, 160 qualifying clicks, 80 attributed installs, 24 attributed subscriptions, \$96 of spend, and \$480 of attributed conversion value.

CTR	=	$160 / 8,000 \times 100\%$	=	2%	
CPM	=	$\$96 / 8,000 \times 1,000$	=	\$12	
CPC	=	$\$96 / 160$	=	\$0.60	
CPI	=	$\$96 / 80$	=	\$1.20	
CVR	=	$80 / 160 \times 100\%$	=	50%	# click → install
CVR	=	$24 / 80 \times 100\%$	=	30%	# install → subscription
CVR	=	$24 / 160 \times 100\%$	=	15%	# click → subscription
CPA	=	$\$96 / 24$	=	\$4	# action = attributed subscription
ROAS	=	$\$480 / \96	=	5.0x	

Here \$12 CPM, \$1.20 CPI, and \$4 CPA are post-fact averages, not claims about a billing model or a bid. The three CVRs describe three different transitions of one funnel and are not comparable without the label. \$480 is attributed value, not proven causal value.

Publisher: delivery and monetization

Over the same period the publisher aggregates all buyers, not just this advertiser: 100,000 eligible ad requests, 80,000 counted impressions, and \$800 of recognized publisher revenue.

$\text{fill rate} = 80,000 / 100,000 \times 100\% = 80\%$ # numerator – counted impressions under this ad server's contract

$$\text{eCPM} = \$800 / 80,000 \times 1,000 = \$10$$

The publisher totals are naturally larger than the advertiser's slice. Its \$800 revenue is not the advertiser's \$96 spend: it is a different set of impressions and a different ledger boundary. The gap between the buyer's \$12 CPM and the seller's \$10 eCPM is made up of intermediary fees along the money path and of a different mix of impressions; intermediary fees are the subject of chapter 4.

Platform: auction and delivery boundary

The platform in question — in the illustrative example a DSP through which only this advertiser buys — sees 60,000 eligible bid requests, submits 45,000 bids, receives 9,000 wins; 8,000 of those events become counted/billable impressions under the chosen contract. That is why its 8,000 billable impressions match the advertiser's 8,000 counted impressions; in reality even this match is not guaranteed.

$$\text{bid rate} = 45,000 / 60,000 \times 100\% = 75\%$$

$$\text{win rate} = 9,000 / 45,000 \times 100\% = 20\%$$

The difference between 9,000 wins and 8,000 counted/billable impressions need not be an error: win and billing/delivery are different event points. Likewise, the platform's 60,000 requests need not equal the publisher's 100,000 requests because of measurement boundaries, routing, batching, fan-out, and filters.

Perspective	Observed subset	Key decisions	Monetary meaning
Advertiser	Bought impressions, clicks, attributed outcomes	Acquisition and value efficiency	Spend/cost and attributed value
Publisher	All eligible requests and demand sources	Delivery and monetization	Recognized publisher revenue
Platform	Traversed requests, bids, wins, and its billing events	Auction participation and the delivery boundary	Its own revenue, spend, or downstream cost under a specific ledger

Here the data flow and the money flow diverge. Impression/click/conversion events may arrive asynchronously into different reports; invoicing and settlement need not follow the same network path. Arithmetic consistency within each metric contract does not prove that raw events are equal across systems. For primary diagnostics, the seven questions from the first section are needed again. Detailed reconciliation belongs to chapter 32.

Common Confusions

- **An opportunity, an ad request, and a bid request are not one event.** An opportunity arises on the media surface; requests are system-bound messages subject to batching, fan-out, retries, and filtering.
- **An impression does not mean a human viewing.** Served, rendered, measurable, and viewable provide different levels of evidence; viewable means a standardized opportunity to see, not attention.
- **Non-viewable is not the same as non-measurable.** In the first case measurement completed and the criteria were not met; in the second the status could not be determined.
- **CPM is not eCPM, and CPA is not CAC.** The first pair differs in ledger perspective; the second in action/customer definition and cost scope.
- **ROAS is not ROI.** ROAS normalizes attributed value against ad spend; ROI uses net profit and the full chosen investment cost.

- **Fill rate and win rate are not one auction metric seen from two sides.** Fill belongs to publisher delivery; win belongs to the bid → win transition under a disclosed auction contract.

What to Remember

1. A metric is a contract of measurement, not just a name and a formula.
2. Reach requires a definition of the audience unit and the universe; frequency requires a shared impression basis, reached population, and period.
3. CTR and especially CVR are comparable only with named numerators, denominators, and filters; a CVR is named as a specific transition.
4. CPM/CPC/CPA/CPI/CPL can be a contractual price, a bid/target, or actual averages; eCPM usually normalizes seller revenue.
5. Conversion, ROAS, and attributed revenue depend on attribution rules; attribution is not causality.
6. ARPU, ARPPU, and LTV require user, revenue, cohort, period/horizon, and model definitions.
7. Advertiser, publisher, and platform can simultaneously have correct but different reports on one campaign: they see different boundaries and ledgers, and one amount (spend, cost, revenue) changes its name when it crosses a boundary.

Check Yourself

1. One opportunity produced three downstream bid requests. Which count describes the media event, and which one the protocol messages?
2. Why can $CVR = 15\%$ not be compared with another $CVR = 12\%$ until the denominators and conversion rules are disclosed?
3. How can a campaign with $5.0\times$ ROAS have a negative ROI?
4. Which metric contracts allow an advertiser CPM of \$12, a publisher eCPM of \$10, and a platform win rate of 20% at the same time without contradiction?

Sources and Further Reading

1. [MRC — Standards & Guidelines](#)
2. [MRC/IAB — Desktop Display Impression Measurement Guidelines v1.1](#) and [MRC — Viewable Ad Impression Measurement Guidelines v2.0](#)
3. [MRC/IAB — Digital Audience-Based Measurement Standards, Final 1.0](#)
4. [IAB/MRC — Click Measurement Guidelines v1.0](#)
5. [MRC — Outcomes and Data Quality Standards](#)
6. [IAB Tech Lab — Programmatic Auction Definitions](#) (final version dated June 24, 2026) and [OpenRTB 2.x](#)
7. [Google Ad Manager — Sell-through](#) and [Report metrics](#) (checked August 27, 2026; the Reports tool has since been replaced by Interactive reports)
8. [Google Ads — CTR](#), [Conversion rate](#), [ROI](#), [Google Analytics Data API schema](#) and [GA4 User lifetime](#) (checked August 27, 2026)

AdTech Economics and Business Models

The Core Idea: the price follows the contract, not the label in the dashboard

CPM¹³⁹, CPC¹⁴⁰, or CPA¹⁴¹ in an interface does not yet explain what is being paid for. The same label can be a contractual price, a bid¹⁴², an optimization¹⁴³, or a post-event average. The monetary obligation is created by the contractual **pricing basis**¹⁴⁴ together with the definition of a **billable event**¹⁴⁵ — a qualifying event after which an amount can be charged. Even an auction¹⁴⁶ does not have to be billable in itself (in ¹⁴⁷ buying, chapters 15–18).

To read the economics of a deal, break it down into six independent layers:

Layer	Main question	Example
Contractual pricing	On which basis was payment agreed?	\$10 CPM per thousand qualifying ¹⁴⁸
Billing	Which event creates the charge, and for what amount?	Render or another billing signal per contract policy
Optimization	Which outcome changes the system's future decisions?	target CPA on a subscription
Participant ¹⁴⁹	For whom is the amount ¹⁵⁰ , cost, payout, or retained ¹⁵¹ ?	\$100 ¹⁵² spend; \$80 media ¹⁵³ of the ¹⁵⁴
Accounting presentation	What does a particular company recognize as ¹⁵⁵ and cost? When did the accrual become an invoice, and the obligation cash?	Gross or net presentation Month-end invoice, paid later

The \$100 and \$80 come from the chapter's running example: a managed ¹⁵⁷ (an ad network that buys media itself and sells the advertiser a finished result) resells for \$100 media it bought for \$80; the full walkthrough is in the section "The path of the instructional \$100".

Pricing basis is the contractual rule for calculating the price: per impression, ¹⁵⁸, action, share of ¹⁵⁹, a period of access to software, or another agreed object. **Billable amount** is the amount calculated under this rule after counts, rates, validation, and contractual adjustments. It is not necessarily invoiced yet, recognized as revenue, or paid in cash.

This decomposition explains the whole chapter: the parties choose not a pretty metric but the boundary of an observable event, a price, and a risk allocation; then each side records the result in its own ledger.

CPM, CPC, and outcome pricing: who bears the risk until the next event

The funnel from an ad ¹⁶⁰ can stop after any step:

opportunity → qualifying impression → qualifying click → install/lead/action → business value

The deeper the billable event, the longer the [161](#) — the party awaiting payment — finances delivery without a guaranteed charge. But the risk does not “migrate” wholesale: after the paid event, the buyer still risks the quality of the next outcome.

Pricing model	Contractual billable event	Payee risk before the charge	Advertiser risk after the charge	What must be defined
CPM	A thousand qualifying impressions	Receive and confirm the chosen impression event	Click, 162 , and subsequent value may never occur	served 163 , rendered 164 , viewable 165 , or another impression basis; filters and who keeps the count
CPC	Qualifying click	Impressions may not lead to a click	The click may be low-quality and not produce a conversion	Click point, user initiation, deduplication, invalid-click filters
CPA	An agreed action, such as a paid subscription	Bring the user to the action and obtain valid 166 /validation	The action may have low margin, retention, or lifetime 167	Exact action name, attribution rule, validator, approval state
CPI 168	Valid attributed install	Delivery and clicks may not lead to a counted install	The install may not launch, retain, or monetize	Install definition, who performs attribution/validation, reinstall policy
CPL 169	Qualifying lead	Traffic may not produce an accepted lead	The lead may not pass further qualification or become a customer	Lead fields and criteria, duplicate/rejection rules, who accepts the lead

The table shows a shift of risk, not its disappearance: the deeper the billable event, the more delivery, conversion, and [170](#) risk the payee takes on, while the advertiser keeps the risk of the quality and monetization of the outcome. Fraud, attribution disputes, and caps can change the accepted count; their mechanics are covered later.

The billable event is set by contract policy, not automatically by the protocol. In the programmatic flow, IAB Tech Lab distinguishes the auction win from the event after which the auction becomes billable. OpenRTB also separates the win notice (nur^l) from the billing notice (bur^l): a win does not guarantee delivery, and the billing signal depends on the policy of the [171](#) or [172](#). This is a programmatic example of the general rule, not a universal contract for all advertising.

The same instructional billable amount of \$100 can be produced by five **alternative**, not simultaneous, contracts:

Contract	Qualifying volume and rate	Where the risk boundary passes
CPM	10,000 impressions at \$10	CPM → Impression \$100
CPC	200 clicks at \$0.50	CPC → \$100 Click
CPI	20 installs at \$5	CPI → \$100 Attributed install

Contract	Qualifying volume and rate	Where the risk boundary passes
CPL	25 leads at \$4 CPL → \$100	Accepted lead
CPA	10 subscriptions at \$10 CPA → \$100	Attributed subscription

An equal amount does not mean equal risk. In CPM the buyer already owes \$100 even if there are no subscriptions. In CPA for a subscription, the payee receives no charge for impressions and clicks that did not reach the accepted action.

The model is chosen by who sees which events and whose count is trusted. The publisher and the [173](#) observe the impression in their own systems but cannot see an install or a subscription inside the advertiser's app, so they usually sell on CPM — the billable event lies inside their measurement boundary. An advertiser who does not trust the quality of someone else's traffic but is willing to send conversion postbacks moves the billable event deeper — to CPI or CPA — and shifts the delivery risk onto the payee, usually in exchange for a higher price per event. The deeper the event, the more the payee depends on someone else's count, so the contract must name the validator and the rejection rules.

Billing, optimization, and the realized metric are different objects

Imagine a product-specific flow: the advertiser actually pays for qualifying clicks, while the bidding system optimizes decisions toward a target CPA. After the period, the dashboard can compute the realized CPM, CPC, and CPA from actual spend and events.

optimization target: target CPA on a subscription
 billing basis: CPC per qualifying click
 realized metrics: observed CPM, CPC, and CPA after the period

Here target CPA does not turn the contract into CPA billing. A bid also expresses a decision input or willingness to pay, and does not prove an actual charge. The payment model establishes the contract; the realized average describes what has already happened; the optimization target influences future decisions.

How intermediaries and software providers earn

An intermediary can retain a portion of the media transaction, resell media with a [174](#), or receive separate payment for a service/software. These models cannot be added together until the contract boundary and the calculation base are known.

Model	Who pays	Calculation rule	Relation to the media dollar	Main risk or caveat
Revenue share 175	The party passing on proceeds under the contract	A share of a named revenue/proceeds base for a period	Usually divides the amount at a specific media boundary	The base, allowable deductions, and adjustments must be named
Fixed fee 176	The client of the service provider	A pre-agreed amount for a period, scope of work, or deliverable	Usually fully separate	The provider carries the risk that the agreed scope will require more work

Model	Who pays	Calculation rule	Relation to the media dollar	Main risk or caveat
SaaS pricing ¹⁷⁷	The customer of the software platform	Subscription, seats, usage tier, or processed volume	Usually a separate software/service flow	A usage event does not automatically become a media event
Markup	The buyer pays the selling price to the intermediary	¹⁷⁸ relative to the acquisition/base cost	Yes, if the intermediary resells media	The percentage is computed on cost (acquisition cost in the denominator), not on the selling amount
Take rate ¹⁷⁹	Depends on the boundary	Retained amount / named transaction flow	Usually characterizes retention at the chosen boundary	Without numerator, denominator, and included fees, the rate is not comparable

Revenue share: a percentage without a base is undefined

Proceeds is the amount of transaction inflow before the agreed distribution at the chosen boundary. **Revenue share** is the contractual distribution of a named revenue or proceeds base. The contract must answer: whose proceeds, at which boundary, for which period, before or after which agreed adjustments, and who performs the calculation.

In the running example, the SSP receives \$80 gross proceeds at its boundary and, under the seller contract, retains 15%:

SSP retained amount = \$12 / \$80 SSP-boundary proceeds = 15%
 publisher share = \$68 / \$80 SSP-boundary proceeds = 85%

The numerator of the first percentage is \$12, the denominator \$80. That is not 15% of the original advertiser spend of \$100: relative to the original \$100, the same \$12 is 12%. The word gross here describes the transaction base before the split, not automatically gross revenue¹⁸⁰ in financial reporting.

Markup, spread, and take rate

Spread is the absolute difference between the selling amount and the acquisition/downstream amount at a named boundary. If a managed network buys media for \$80 and sells it to the advertiser for \$100, the spread is \$20.

Markup measures the uplift over the base cost:

network markup = \$20 spread / \$80 acquisition cost = 25%

Take rate measures the retained amount relative to a named transaction flow at the same boundary:

network take rate = \$20 retained / \$100 advertiser spend = 20%

25% markup and 20% take rate describe the same \$20 spread with different denominators. Neither percentage can be compared with someone else's rate without the participant boundary,

numerator, denominator, and the list of included fees. Markup is also not gross [181](#); gross margin uses accounting revenue and cost of [182](#), not arbitrarily chosen buy/sell amounts.

Fixed fee and SaaS: separate money flows

A **fixed fee** does not depend on the volume of the media transaction. Typical cases: an [183](#) retainer for running [184](#); a setup or managed-service fee; a minimum monthly commitment that the client pays even when volume falls short; a flat sponsorship fee for a placement over a period. It is chosen for budget predictability and to remove the “fee grows with spend” conflict of incentives: a provider paid a percentage of spend benefits from spending more. The risk is allocated differently than in media models: the provider risks that the agreed scope of work will take more effort, the client that it pays the same amount for low volume or a weak result.

A SaaS flow often runs alongside the media flow. Suppose the advertiser pays an ad [185](#) or measurement platform \$2,000/month for software access. The contract shapes this in one of two ways: a fixed \$2,000/month regardless of volume (a fixed fee), or a usage tier where the amount depends on the number of processed impressions (usage pricing, not a fixed fee — but also not a CPM purchase of [186](#)). In both variants the amount:

- is a service/software charge under a separate contract;
- is not deducted from the instructional \$100 media flow;
- does not become a publisher [187](#) or an intermediary take rate.

Including the \$2,000 in the media dollar is valid only if a specific contract genuinely combines these charges. Otherwise you get two money flows: the media transaction and the SaaS subscription.

One transaction, different ledgers and points in time

Ledger — a particular party’s records of accrued amounts and obligations. A single transaction has no single neutral monetary label: one party’s inflow is another party’s outflow, and the intermediary simultaneously sells upstream and buys downstream. The same amount changes its label along the chain:

advertiser: \$100 spend / media cost
→ network: \$100 billed (receivable) | \$80 downstream media cost (payable)
→ SSP: \$80 proceeds (receivable) | \$68 publisher payout (payable)
→ publisher: \$68 receivable

- **Advertiser spend** — the amount charged to the advertiser for a chosen set of media/services. The dashboard may include or exclude platform/data fees, taxes, credits, and adjustments; the set must be named.
- **Media cost** — the cost of acquired media for a particular party: for the advertiser in our narrow example \$100, for the network the downstream acquisition cost of \$80. Without a named owner, media cost is undefined.
- **Publisher payout** — the amount that, under the seller contract, must be transferred to the publisher after the share, fees, and adjustments. For the SSP it is a payable; for the publisher, a receivable and part of its economics, and which part it recognizes as publisher [188](#), and in which period, is determined by its accounting policy.

Receivable — an amount a counterparty owes the company. **Payable** — an amount the company owes a supplier or another party. These words describe the direction of an obligation, not the

moment cash moves.

It helps to distinguish states:

accrued → qualifying events reconciled; the amount is earned or incurred under the contract

billed → the amount is included in an invoice; a formal payment request exists

settled → the obligation is discharged in cash or another agreed way

Taxes, credits, refunds, and FX can change the invoiced or settled amount, but their mechanics are not covered here.

Event and data flow

10,000 qualifying impressions

→ contract-specific billable count at the network and the SSP

→ participant event records with their own measurement boundaries

→ period reconciliation

→ ledger amounts: \$100, \$80, and \$68 at different boundaries

Events can travel from publisher-/sell-side systems to buyers and reporting systems asynchronously. They prove the basis for the calculation, but no money moves along this path itself.

Invoice and cash flow

network → invoice \$100 → advertiser

SSP → invoice \$80 → network

SSP → statement \$68 → publisher (or publisher → invoice → SSP, per contract)

later, cash:

advertiser → \$100 → network → \$80 → SSP → \$68 → publisher

Who issues the invoice and how settlement is arranged is set by the contract; the event path, invoice path, and cash path do not have to match in direction, participants, or timing.

Gross/net revenue and gross margin: a separate accounting boundary

Reporting entity — the company whose financial statements we are reading. **Recognized revenue** — the amount it presents as revenue under the applicable accounting policy; it is not just any invoice, collection, or cash inflow. **Gross billings**¹⁸⁹ — a broader amount invoiced to customers or passed through collection before the exclusion of supplier components; gross billings are not a synonym for recognized revenue.

Gross revenue and net revenue are not “money before expenses” and “money after expenses”. The presentation in the financial statements depends on whether the company is a **principal**¹⁹⁰ or an **agent** with respect to the specific promised good or service:

- **Specified good/service** — the specific promise to the customer being assessed: for example, to provide advertising delivery or to arrange access to ¹⁹¹.
- A **principal** controls the specified good/service before it is transferred to the customer; under that conclusion, the agreed payment is usually presented gross as revenue, with the supplier component presented separately under the applicable cost policy.

- An **agent** arranges for another party to provide the specified good/service; under that conclusion, revenue is usually the net fee or commission.
- **Control** here means the ability to direct the use of and obtain substantially all of the benefits from the good or service before transfer — not the existence of an API, an invoice, or a product name.

What did the company promise the customer?

→ which specified good/service is transferred?

→ did the company control it before transfer?

principal conclusion → revenue usually presented gross

agent conclusion → usually presented as net fee/commission

Primary responsibility, inventory risk, and pricing discretion can serve as indicators, but they do not form a mechanical scoring test. The conclusion is made for a specific promise and transaction: one AdTech [192](#) can be a principal in one flow and an agent in another.

One transaction economics, two mutually exclusive presentations

Take only the network boundary: \$100 sell / \$80 supplier component. The table is illustrative; in real reporting, one cannot choose a presentation for a prettier margin.

Illustrative conclusion	Recognized revenue	Supplier component as cost of revenue	Gross profit before other CoR	Gross margin before other CoR
Principal / gross	\$100	\$80	\$20	20%
Agent / net	\$20 fee	\$0 (the supplier's \$80 is outside revenue and CoR)	\$20	100%

Cost of revenue (CoR) — the expenses the reporting entity classifies as directly associated with obtaining recognized revenue under its policy. It is not just any cash outflow. **Gross profit** and **gross margin** are computed on one company and one accounting basis:

gross profit = recognized revenue – cost of revenue

gross margin = (recognized revenue – cost of revenue) / recognized revenue

In the net row, 100% is a mechanical result of the instructional isolation: \$20 recognized revenue and \$0 of other shown cost of revenue. It is not a benchmark and not a claim that a platform runs for free: a real company incurs infrastructure, data, and operations expenses, some of which may fall into cost of revenue under its policy, while operating expenses, interest, and taxes sit below gross profit and likewise do not turn a retained amount into profit.

The numerical coincidence of the 20% gross margin in the gross row with the network's 20% take rate is also instructional: both times the calculation is \$20 / \$100, because there is no other cost of revenue. The definitions differ: take rate divides the retained amount by the transaction flow, while gross margin divides gross profit by the recognized revenue of the same company; under net presentation the same economics yield a 100% margin at the same 20% take rate.

Public filings show the contract-specific nature of this boundary:

- In its Form 10-K for 2025, Magnite described net presentation for most platform transactions — the company does not control the inventory and does not set the auction price — and gross

presentation for some insertion-order campaigns, where it considers itself the primary obligor for delivery.

- In its Form 10-K for 2025, The Trade Desk separated gross billings and the related receivables/payables from net recognized revenue, with an agent conclusion for supplier components.

These are examples of specific companies' policies for a specific period, not a universal classification of an SSP or [193](#). ASC 606, IFRS 15, the contract, and professional accounting judgment determine the actual conclusion; the chapter provides a mental model, not accounting advice.

Arbitrage: a spread in exchange for accepted risk

Arbitrage[194](#), in the broad AdTech sense, arises when an intermediary buys media/traffic cheaper and resells it at a higher price, or buys on one pricing basis and sells on another. Its economics depend on the spread and the risk between boundaries.

A simple variant:

network buys batch media for \$80
network sells the same agreed scope to the advertiser for \$100
buy/sell spread = \$20

In the chapter's main example, the network buys per impression at \$8 CPM and pays only for impressions actually delivered: it carries no volume risk, only price risk. Volume risk appears with a prepaid batch or a guaranteed commitment: if the network committed to pay downstream \$80 but did not sell the whole agreed scope, or the customer did not accept the delivery, the spread shrinks or becomes a loss. Then it carries inventory/volume, fulfillment, and reconciliation risk to the extent set by the contracts.

Basis mismatch[195](#) adds performance risk. An intermediary can buy impressions on CPM and sell clicks or actions on CPC/CPA. Its revenue then depends on the realized [196](#)[197](#) and validation. If clicks or actions occur worse than expected, the original media cost remains, and the downstream billable amount does not cover it.

Not every intermediary fee is arbitrage, and arbitrage does not automatically mean abuse.

Transparent fees, revenue share, or a resale spread can pay for aggregation, [198](#), service, and accepted risk. The opacity problem arises when the customer does not understand the buy/sell basis, the size of the spread, the intermediary's function, or the conflict of incentives. The CMA's 2020 study illustrates this mechanism in UK open display, but its rates cannot be used as a current benchmark.

The path of the instructional \$100 from advertiser to publisher

Let us assemble the layers in one scenario. A subscription-app advertiser buys media in a mobile publisher's app through a managed network and an SSP. All numbers are **instructional**, not a market benchmark and not a claim about a typical chain length.

Assumptions:

- 10,000 identical qualifying billable impressions are needed only to isolate the economics;
- the advertiser/network contract uses \$10 CPM, the network/SSP contract \$8 CPM;

- the SSP/publisher contract splits the \$80 proceeds: 15% SSP, 85% publisher;
- the currency is USD; taxes, FX, refunds, rebates, fraud adjustments, and credit risk are excluded;
- amounts are accrued after reconciliation, but invoices and cash are not yet settled;
- the separate \$2,000/month SaaS is not part of the media flow.

Contract arithmetic

Advertiser → network: $10,000 / 1,000 \times \$10 \text{ CPM} = \100
 Network → SSP: $10,000 / 1,000 \times \$8 \text{ CPM} = \80
 Network spread: $= \$20$
 SSP retained share: $15\% \times \$80 = \12
 Publisher payout: $85\% \times \$80 = \68
 Check: $\$20 + \$12 + \$68 = \100

On one original advertising dollar, the contract economics are 20 cents retained by the network, 12 cents retained by the SSP, and 68 cents of publisher payout. In the full example, the intermediary retained amount is $\$20 + \$12 = \$32$. This is the decomposition of specific contracts, not an industry benchmark and not accounting profit.

Denominators

network markup on acquisition cost = $\$20 / \$80 = 25\%$
 network take on advertiser spend = $\$20 / \$100 = 20\%$
 SSP take on its boundary = $\$12 / \$80 = 15\%$
 SSP share of original spend = $\$12 / \$100 = 12\%$
 combined intermediary share = $\$32 / \$100 = 32\%$
 publisher payout share = $\$68 / \$100 = 68\%$

Every line names its numerator and denominator; that is why SSP take = 15% and SSP share of original spend = 12% are true at the same time and answer different questions.

Each participant's ledger

Participant	Contractual basis	Inflow / receivable	Outflow / payable	Economic remainder	What the record does not prove
Advertiser	$\$10 \text{ CPM} \times 10,000$	—	$\$100 \text{ advertiser spend/media cost}$	—	Invoice date, cash date, or business return
Managed network	Customer charge \$100; downstream \$8 CPM	$\$100 \text{ billed/receivable}$	$\$80 \text{ downstream media cost/payable}$	$\$20 \text{ spread}$	That \$100 is recognized revenue or \$20 is profit
SSP	Revenue-share base \$80	$\$80 \text{ proceeds at the SSP boundary/receivable}$	$\$68 \text{ publisher payout/payable}$	$\$12 \text{ retained amount}$	That \$80 is recognized revenue or that 15% refers to the \$100
Publisher	85% of SSP-boundary proceeds	$\$68 \text{ payout receivable}$	—	$\$68 \text{ publisher economics}$	That the amount is already

Participant	Contractual basis	Inflow / receivable	Outflow / payable	Economic remainder	What the record does not prove settled cash or how exactly revenue is recognized
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The labels change not because of inconsistency, but because of different reporting entities and counterparties. Transaction amount, retained amount, recognized revenue, gross profit, invoice, and cash answer different questions — about the contract, retention, reporting, profitability, the presented claim, and settlement; no record proves its neighbor.

Checklist for analyzing vendor economics

1. Name the customer, payer, payee, counterparties, and the promised product/service.
2. Record the pricing basis, qualifying billable event, rate, who performs validation, and the billable amount; separately, the optimization target and the realized metrics.
3. Draw the participants' ledgers: where the advertiser spend, media cost, publisher payout, receivable, and payable sit.
4. For each fee or share, state the absolute amount, numerator, denominator, boundary, and allowable adjustments; separate media money from a fixed/SaaS charge.
5. Check the accounting policy for the specific transaction type: specified good/service, principal/agent conclusion, recognized revenue, and cost of revenue; then compute gross profit and gross margin.
6. Place accrual, reconciliation, invoice, and cash settlement on a timeline; do not infer the accounting presentation from who issues the invoice or from the direction of payment.

Common Confusions

- **Pricing model, optimization target, and realized metric are not the same thing.** Target CPA can govern bids under CPC billing, while the observed CPA is computed only after the period.
- **An auction win is not necessarily a billable event.** The charge arises after the event and validation defined by the contract; the win notice and the billing notice can be different signals.
- **A percentage without a numerator and denominator is undefined.** An SSP share of 15% of \$80 is the same \$12 as 12% of the original \$100; one spread of \$20 yields a 25% markup on a cost of \$80 and a 20% take rate on a spend of \$100.
- **Gross/net revenue is not “before/after expenses”.** The presentation follows a contract-specific principal-agent assessment; invoices and gross billings do not by themselves determine the conclusion.
- **Gross margin is not the take rate.** The former uses recognized revenue and cost of revenue of one reporting entity; the latter, a retained amount and a named transaction flow. In the instructional gross row they coincide numerically (20%), but not by definition.
- **Not every intermediary income is arbitrage.** Arbitrage presupposes a buy/sell spread or basis mismatch and the corresponding risk; a transparent fee or revenue share can pay for a separate function.

What to Remember

1. Economics starts with the contract: the pricing basis and the billable event define the charge and allocate risk; the model is chosen by who sees the event and whose count is trusted.
2. Revenue share, markup, and take rate are comparable only after the numerator, denominator, and participant boundary are disclosed.
3. One flow of \$100 → \$80 → \$68 simultaneously creates advertiser spend, an intermediary's media cost, and a publisher payout; the retained \$20 and \$12 are transaction economics, not automatically recognized revenue or profit.
4. Fixed fee and SaaS pricing are a separate money flow; they reduce the media dollar only if the contract combines them.
5. Gross or net presentation is determined for a specified good/service through a principal-agent assessment, not by a product name; gross profit and gross margin are computed on the recognized revenue and cost of revenue of one company.
6. Arbitrage yields a spread in exchange for volume, performance, or reconciliation risk and can produce a loss.
7. The event flow, participants' ledgers, invoice flow, and cash settlement are analyzed separately; the instructional $\$20 + \$12 + \$68 = \100 shows a method, not a typical market share.

Check Yourself

1. An advertiser optimizes a campaign toward a target CPA but pays for qualifying clicks. What are the pricing basis, billable event, optimization target, and realized metric here?
2. Why can $\$20 / \$80 = 25\%$ and $\$20 / \$100 = 20\%$ simultaneously and correctly describe the network's economics?
3. Can a company issue a \$100 invoice, recognize \$20 net revenue, and later receive \$100 cash without a contradiction? Which layers does each amount describe?
4. What contract, ledger, accounting, and settlement data are needed before comparing the gross margin and take rate of two AdTech vendors?

Sources and Further Reading

1. [IAB Tech Lab — Programmatic Auction Definitions, Final](#) and [OpenRTB 2.x Implementation Guidelines, sections 7.8–7.9](#) — definitions of Billable Event, the transaction ledger, and the distinction between nurl and burl; protocol guidance does not replace contractual billing policy.
2. [Google Ads — CPC, CPM, and Bidding basics](#) — product-specific examples of pricing and optimization; this is not a vendor-neutral contract.
3. [FASB — Revenue from Contracts with Customers, Topic 606, paragraphs 606-10-55-36–55-40](#) and [IASB — IFRS 15 PIR: Principal versus Agent Considerations, AP6B](#) — the principal-agent mental model; application depends on the reporting framework, the contract, and professional judgment.
4. [FASB — GAAP Taxonomy Implementation Guide: Revenue from Contracts with Customers](#) — gross profit as the difference between revenue and cost of revenue/cost of goods sold; the composition of cost of revenue remains company-specific.
5. [Magnite — Form 10-K for the year ended 2025-12-31](#) — company-specific examples of percentages, fixed CPM/monthly pricing, and different gross/net presentations; not an industry benchmark.
6. [The Trade Desk — Form 10-K for the year ended 2025-12-31](#) — the distinction between platform fee, gross billings, receivables/payables, and net revenue; the conclusions relate to this company's contracts and policies.
7. [UK Competition and Markets Authority — Appendix M: Intermediation in open display advertising](#) and [official landing page](#) — a historical analysis of UK open display from 2020;

describes the mechanics of arbitrage and fee opacity, but its rates cannot be used as a current 2026 benchmark.

Sources checked on 2026-08-28.

How an Ad Campaign Is Structured

The Core Idea

An ad [199](#) is not a single banner or a line in a report. It is a **control-plane configuration** that translates the business intent of an [200](#) into delivery rules: what the system must optimize for, which ad opportunities are allowed, where the ad may appear, how much and when it may spend, which content to show, where to bring the user, and which signals to use for measurement.

Most platforms have a similar object tree:

```
advertiser account
├── campaign
│   ├── ad group / ad set
│   │   ├── ad
│   │   │   ├── creative
│   │   │   └── destination
```

But this is not a single industry-wide schema. Vendors and campaign types place [201](#), [202](#), optimization and [203](#) differently. A portable mental model is built not around the names of screens but around two questions: **which object owns the setting** and **which child objects receive its effect**.

Why a campaign needs a hierarchy: the account as the root of control

A single advertiser runs different products, countries, billing scopes, and teams at the same time. A flat list of [204](#) would make it impossible to safely define who has access, which currency counts [205](#), which time zone governs the schedule, and which data sources are available to objects. That is why a platform starts with an **advertiser account** [206](#), or **ad account** — a tenant within which campaigns and their related settings exist.

An account usually forms several boundaries at once:

- **Ownership and access.** It defines the owner of resources and the roles and permissions of operators.
- **Billing identity.** A [207](#), billing profile, or another contractual entity is associated with it. The exact set of fields depends on the product.
- **Currency and time zone.** These values affect reporting, budget periods, and the schedule; in some products they are hard or impossible to change after creation.
- **Namespace.** Campaign and ad resource IDs are unique at least within the platform/account context. Event identifiers (click ID, event ID) belong to other namespaces and do not follow this rule — see chapters 21–23.
- **Shared configuration.** Data sources, conversion [208](#), brand assets, URL settings, and defaults may be shared across several campaigns.

The advertiser’s legal entity and the ad account are not the same thing. One company may have separate accounts for regions, brands, currencies, or different payers. Conversely, one account may serve several initiatives of a single legal entity.

A **manager account**²⁰⁹ is an administrative layer that gives an ²¹⁰ or an internal team centralized access to several ad accounts. Access to an individual account can also be granted without it; in either case it is administrative access, not a delivery layer inside the campaign.



Object	What it represents	What you cannot conclude from it
Legal advertiser	A company or other legal party	That it has exactly one ad account
Ad account	Product, access, and billing boundary	That only one team or agency can manage it
Manager account	Delegated access to several accounts	That it participates in the delivery hierarchy of every campaign

Account-level settings are often inherited downward until a more specific object sets an override. But inheritance is a product-specific contract: the same field name does not guarantee the same precedence order. When reading a configuration, you need to record not only the value but also its source: account default, campaign value, or ad-level override.

For the running example, take an EU account of a subscription app. The agency has been granted access, but the owner and billing identity remain with the advertiser. The account uses EUR and the Europe/Berlin time zone; this zone will be the baseline for the campaign schedule. The business goal is to acquire new paid subscriptions, but the campaign itself still has to turn that goal into executable settings.

The execution tree: campaign, ad group/ad set, ad, and creative

A **campaign** is the top-level delivery container for a single business intent or a coherent flight — a delivery period with a start and an end date. It consolidates settings that must apply across several child groups and ads: the ²¹¹, shared limits, the channel/type, and other product-specific controls. A campaign is not just a folder for reporting: pausing it, rescheduling it, or constraining it can stop or change the delivery of all its descendants.

An **ad group**²¹² or **ad set** is an intermediate scope boundary for a group of ads. Both entities answer the question “which ads share execution rules?”, but neither has a universally identical schema:

- in the Google-like model, an ad group usually bundles closely related ads and triggering criteria, such as related keywords;
- in the Meta-like model, an ad set usually holds the audience, [213](#), optimization, [214](#), budget, and schedule.

So statements like “targeting always lives in the ad group” or “budget is always set at the campaign” are wrong without naming the platform and campaign type.

In a [215](#) and an ad [216](#), the same levels are often called insertion order and line item (chapters 11 and 16): the functions match, the names do not.

An **ad** is the executable delivery unit. It binds the parent group, advertiser identity, [217](#), [218](#), tracking, and status. The **creative** carries the message and the assets — text, image, video, audio, CTA (call to action), and metadata. A creative may be an inline part of the ad or a separate reusable object. Even if the UI shows them as one card, logically these are different responsibilities:

creative: what the user will see
ad: where and under which parent rules this creative runs,
where it leads, and what state it is in

Level	Portable function	Google-like example	Meta-like example
Campaign	Shared intent and delivery scope	Campaign settings, channel/type, and budget link	Objective and, when that model is selected, a campaign-level budget
Middle layer	A group of ads with shared execution rules	Ad group: related ads and keywords/criteria	Ad set: audience, placements, optimization, bid, budget/schedule
Ad	Delivery unit	Ad inside an ad group	Ad with a parent adset_id and creative reference
Creative	Content and assets	Assets/ad content	A separate creative_id can be reused

Below is an illustrative tree, not the payload of a real API:

```
{
  "account_id": "acct_eu_1",
  "campaign": {
    "id": "cmp_subscriptions_42",
    "objective": "APP_PROMOTION",
    "groups": [
      {
        "id": "grp_us_1",
        "label": "US",
        "ads": [
          { "id": "ad_7", "creative_id": "cr_video_a", "status": "active" },
          { "id": "ad_8", "creative_id": "cr_video_b", "status": "active" }
        ]
      }
    ]
  },
  {
    "id": "grp_de_1",
```

```

    "label": "DE",
    "ads": [
      { "id": "ad_9", "creative_id": "cr_video_a", "status": "active"
    }
  ]
}

```

The labels US and DE here are arbitrary names of execution scopes within one account: a label by itself does not set targeting and does not mean the region has to match the account boundary. The rules for building audiences belong to the next chapter. cr_video_a is used by two ads: the content is shared, but the ads have different parents, IDs, statuses, and may lead to different destinations.

The hierarchy also explains effective behavior. If ad_7 is set to active but the parent campaign is paused, impressions will not start. If the campaign defines a shared URL setting, the ad may inherit it or override it where the product allows. Reading the tree top-down shows the shared constraints; reading it bottom-up shows the full set of settings actually in effect for a specific ad.

From business intent to delivery selection rules

The tree tells you where settings live. The causal chain explains why they are needed:

```

business objective
  → optimization event / performance goal
  → eligible audience and placements
  → bid strategy
  → budget + schedule
  → delivery
  → tracking signals and the transition to the destination

```

For the subscription app, this chain may look like this:

growth in paid subscriptions	# business outcome
→ App promotion or Sales	# campaign objective
→ install, then paid subscription	# optimization event
→ geo/device/audience rules and exclusions	# targeting
→ feed, video, or in-app inventory	# placements
→ maximize conversions with a target/control	# bid strategy

The names App promotion and Sales and the available combinations are product-specific and change over time. What matters is not the label but the transition from the desired business outcome to an observable signal and to delivery rules.

Objective and optimization event

The **campaign objective** is the high-level business intent or setup guidance: awareness, traffic, leads, app promotion, sales. Based on it, the platform may suggest campaign types, features, and defaults. The objective does not have to be the event that the optimizer directly predicts.

The **optimization event**²¹⁹, or **performance goal**, is the observable result, probability, or value that the delivery system tries to increase. It may be an ²²⁰, a ²²¹, a landing-page view, an install, a purchase, or ²²² value. A specific **conversion action** defines which tracking event counts as the selected input for bidding and/or reporting; some products group several actions into a conversion goal and distinguish primary and secondary events.

A deep event such as a paid subscription is closer to business value but not automatically better for optimization. It may be rare, delayed, or unreliably transmitted from the event source. An install occurs earlier and more often but is only a proxy for the subscription. The choice requires sufficient signal volume and correct [223](#); the algorithmic trade-off is discussed in chapter 7.

Configuration layer	Question	Subscription-app example
Business outcome	What should the business get?	More new paid subscriptions
Campaign objective	What overall intent is communicated to the platform?	App promotion or Sales, depending on the product
Optimization event	Which signal drives delivery decisions?	install first, paid_subscription later
Tracked events	Which events are observed at all?	Install, trial, purchase, renewal
Bid 224	How does the policy translate the goal and constraints into bids?	Maximize conversions with a given control
Billing/pricing 225	Which qualifying event triggers a charge?	For example 226 or 227 ; the basis is known from the contract and need not match the optimization

The billing basis, as shown in the previous chapter, is set separately. So the label subscription campaign proves nothing about the billable [228](#).

Targeting and placement

Targeting defines the eligibility rules and inputs of the delivery model: which [229](#), users, or contexts are allowed or preferred. At an overview level these may be geo, device, context, audience/keyword criteria, and exclusions. The sources of audience data, identity, and privacy are discussed in chapter 6.

Placement answers a different question: in which media environment and slot the ad may appear. Examples are feed, stories, search results, video pre-roll, an in-app banner, or a rewarded slot. The term is overloaded: on the [230](#) side a placement is a specific slot (chapters 1 and 10); on the buy side, in Google-like products it means the selected sites/apps (chapter 6), and in Meta-like products positions such as feed/stories; here it means the buy-side configuration field. Placement is tied to creative format eligibility, but the formats, assets, and compatibility themselves are covered in detail in chapter 8.

Axis	Main question	Example constraint
Targeting	For which opportunities/users/contexts is delivery possible?	Geo DE, mobile devices, keyword category, audience 231
Placement	Where exactly is delivery possible?	Feed, search results, in-app rewarded slot

An API may store placements inside an object named targeting; that is the nesting of a specific product, not proof that audience and placement are one concept. An opportunity must pass the constraints of both axes.

Bid strategy

A **bid strategy** is the policy that translates the optimization goal and constraints into [232](#) bids. The strategy may seek to maximize conversions, value, or another result, and it may take a target or a cap into account. Here it is important to separate four entities:

bid strategy = the decision-making rule
strategy target/cap = a parameter or constraint of the policy
actual bid = the decision for a specific auction opportunity
price/charge = the outcome of the auction and the billing contract

A numeric target CPA [233](#) is not an actual bid, and an actual bid does not by itself determine the billable amount. How bids are computed, how budget is distributed, and how [234](#) works is covered in chapter 7.

These three distinctions — objective $\neq$ optimization event, placement $\neq$ audience, strategy $\neq$ bid amount — let you read a campaign configuration without assuming that one UI label simultaneously describes the business goal, the delivery signal, and the money.

Resources and time: budget and schedule

Even a correctly chosen decision policy acts only within resource and time constraints. The **budget** caps the available spend on a given scope and time basis. It guarantees neither [235](#), nor conversions, nor an even rate of spend, nor an exact invoice amount.

Two temporal semantics are common:

- A **daily budget** sets a daily basis. The specific product determines whether the value is a hard calendar cap, an average daily target, or another form of constraint.
- A **lifetime, campaign-total**, or flight budget caps the spend over the whole interval.

Scope also varies. A budget may belong to a campaign, be shared between campaigns, or be set on an individual group (ad group/ad set). With campaign-level allocation the system distributes the shared resource among children; with group-level budgets each group has its own limit.

Setting	Possible scope	Unit/basis	What it limits	What it does not guarantee
Daily budget	Campaign or group	Currency per day	Available spend on a daily basis	The same spend every hour or day across all products
Lifetime budget	Campaign or group	Currency per flight	Cumulative spend until the end condition	Even distribution across days
Shared budget	Several campaigns	Currency on a shared pool	The shared resource of the group	A fixed share for each child
Bid target/cap	Strategy scope	Currency per predicted/result unit	The decision policy or a bid constraint	Total spend and the number of results

In the running example the campaign gets an **illustrative** lifetime budget of €700 for a seven-day flight and contains two groups (in a Meta-like setup, two ad sets). You cannot automatically write

down €100/day: the available opportunities and allocation may change, and pacing may distribute spend unevenly. Nor can you conclude, without the product configuration, that each group will get €350.

The **schedule**, or **flight**, defines temporal eligibility:

- start and end;
- the account time zone in which the dates are interpreted;
- where the product supports it — dayparting, that is, the allowed weekdays and hours.

```
configured status = enabled
start = 2026-09-07 00:00 Europe/Berlin
end   = 2026-09-14 00:00 Europe/Berlin
```

Before the start, the campaign may be enabled but have the effective status pending and not deliver ads. After the end it becomes ended/completed, even if part of the €700 was not spent. Dayparting can make the campaign temporarily ineligible inside an active flight. Budget, schedule, and status work together: the operator's permission is necessary but not sufficient for showing ads.

Where the user lands and where the system gets its signals

A campaign ties together two different routes: the user must reach the destination, and the measurement systems must receive identifiers and events. These routes may intersect but need not coincide.

The **landing page**, **destination**, or **final URL** is the first target surface after the interaction: a web page, an App Store/Google Play listing, or a deep link into an app. It is part of the user experience and the product path, not a tracking record.

Tracking settings²³⁶ are the configuration of observability. They may include:

- campaign, group, and ad IDs;
- URL parameters, macros, tracking templates, and the final URL suffix;
- a pixel, app SDK, server-to-server integration, or ²³⁷ as the event source;
- the selected conversion actions;
- the ²³⁸ configuration boundary, for example the platform rule/window in use.

Attribution mechanics, mobile privacy, postbacks, and discrepancy analysis are not covered here; what matters is seeing where the campaign connects to them.

```
user path:
  ad click → final URL / store listing / deep link
```

```
measurement path:
  click ID + campaign/group/ad IDs → platform and/or MMP
  install → trial → paid_subscription events → reporting/optimization
```

An illustrative URL may pass internal identifiers:

```
https://example.com/app?campaign_id=cmp_subscriptions_42&ad_id=ad_7
```

The parameter names are not an industry standard. Platform macros can substitute the actual IDs at click time; the destination or analytics then stores them for mapping. A tracking template governs the measurement path but is not a landing page.

Google Ads provides a product-specific example of separating the paths: with parallel tracking, the user is directed to the final URL while click measurement happens in the background. This is Google's implementation, not a guarantee for every platform, browser, or MMP link.

For the subscription app, the ad with `creative_id=cr_video_a` promises premium features and leads a new user to the store listing. After the install, the SDK or MMP registers the install; the backend may later pass the trial and the paid subscription. For the platform to use the subscription for optimization, it is not enough to see this event in analytics: the right conversion action must be correctly mapped and selected in the campaign configuration.

Creative promise	Destination	Observable event	Consistency check
“Try premium for 7 days”	Store listing for new users	Install, then trial	The listing describes the same product and offer
“Continue setting up your subscription”	Deep link for the installed app	Subscription-start screen view	The deep link opens the expected state
“Compare plans”	Web pricing page	Landing-page view, purchase	The URL leads to the right locale/currency version

Landing-page optimization and CRO (conversion rate optimization) are separate topics.

An MMP also does not receive the campaign hierarchy magically. The platform, the tracking link, and the MMP must agree on the mapping of IDs and event names. Having an `ad_id` without parent mapping does not automatically restore account/campaign/group relationships. Conversely, a correct hierarchy in the platform does not prove that the downstream event source passes the required identifiers.

Lifecycle without false linearity

For a first acquaintance, it is convenient to memorize the lifecycle as:

draft → learning → active → paused → completed

But this is a mnemonic, not a universal linear state machine. It mixes the state of the configuration, the permission to deliver, the schedule, and the state of the optimizer. The real object is better described as a **vector of states**.

- **Draft:** the configuration has not been published yet. In some systems the draft exists only in the UI or the client and is not yet a server-side campaign.
- **Learning²³⁹:** the delivery/bidding model gathers performance data after launch or a material configuration change. Impressions and spend may already be happening during this time.
- **Active/enabled:** the operator has permitted delivery. Actual impressions additionally depend on the parent, review (the platform's policy and technical check of ads), schedule, budget, errors, and the availability of eligible opportunities.
- **Paused:** the operator has stopped delivery. This is usually a reversible transition; resuming does not create a new campaign.
- **Completed/ended:** the end condition has occurred, most often the schedule end. The object, reporting, and history are usually preserved; this is not a synonym for deleted.

```

draft → publish → pending/review → eligible delivery
                                     ↘ learning → stable delivery
active/learning ↔ paused
active or paused → end condition → completed/ended
material edit → learning again

```

The arrow learning → active is misleading: learning can be a sub-state of active delivery rather than a prohibition on impressions that precedes it.

Axis	Who or what defines it	Possible states	Example of one moment
Configured status	Operator/API	Draft, enabled, paused, removed	Campaign enabled
Effective delivery status	Platform after all constraints	Pending, eligible, not delivering, ended	Ad set eligible
Review/issues	Policy and technical checks	Pending review, approved, limited, rejected/error	Ad approved
Learning status	Optimization subsystem	Learning, stable, limited data	Strategy/ad set learning

In the Google-specific view, a campaign may have the status **Eligible** while the bidding strategy is simultaneously **Learning**. In the Meta-specific view, an active ad set may be in the learning phase. The labels and exact rules differ, but the portable conclusion is the same: a single status column does not describe the whole operational state.

Changing the campaign and re-learning

Before the change, the running group is optimized on installs:

```
configured: active
schedule:   eligible
review:     approved
optimizer:  stable on install event
```

The advertiser changes the optimization event to `paid_subscription` and updates the creative for the subscription offer. Historical installs and reactions to the old message no longer fully describe the new configuration. The platform may return the optimizer to learning while continuing active delivery:

```
configured: active
schedule:   eligible
review:     approved or pending for the new creative
optimizer:  learning on paid_subscription event
```

Meta, for example, counts changes to targeting, creative, optimization event, the composition of ads, the bid strategy, and a prolonged pause of the ad set among possible significant edits; the effect of a budget change depends on the product rules and magnitude. This list cannot be transferred to Google Ads, a DSP, or an ad [240](#), and the thresholds and duration must not be assumed constant. The general causal link is only this:

```
material configuration change
  → prior data describe the new decisions less well
  → the optimizer gathers data again
```

Pause does not have to precede completion: a campaign can end on the end date straight from active delivery, and a paused campaign can remain paused until a manual resume or transition to ended when the end condition occurs.

How to read any campaign

1. Who owns the ad account, who has access, and which currency/time zone are in effect?
2. At which object level does each setting live, and who inherits it?
3. Which business objective is declared, and which optimization event is actually selected?
4. Which targeting rules and placements define eligibility?
5. Which bid strategy is selected, and which target/cap applies to it?
6. Where are the budget and schedule set, and what are their scope and basis?
7. Which IDs, URL settings, and event sources form the tracking path?
8. Where does the user land after the interaction?
9. What are the configured, effective, review, and learning states right now?

Common Confusions

- **An account is not the advertiser company.** It is a product/access/billing boundary; a manager account grants access, it does not add a delivery level.
- **A campaign is not just a folder.** Parent settings and limits change the behavior of children.
- **Objective, optimization event, tracked conversion, and billing basis need not coincide.** They are different configuration and contract layers.
- **Enabled does not mean delivering right now, and learning does not mean inactive.** Parent status, schedule, review, budget, errors, and eligibility can stop delivery; the optimizer can adapt during active delivery.
- **Pause does not mean completed.** Pause is reversible, although on some platforms a prolonged pause itself counts as a significant edit; completion usually follows the end condition.
- **A tracking URL is not a landing page.** The measurement path and the user path solve different problems.

What to Remember

1. Campaign hierarchy is a model of scope and inheritance, not a single cross-platform schema; every setting has a source: account default, campaign value, or ad-level override.
2. The ad account sets the administrative boundary; the campaign translates one intent/flight into shared delivery rules; an ad group/ad set groups ads with shared execution rules, and the exact placement of fields depends on the product.
3. The ad is the delivery binding, the creative is the content; one creative can be used by several ads.
4. The objective describes the overall intent, the optimization event the observable signal for decisions; bid strategy, strategy target, actual bid, and billable price are different objects.
5. Targeting limits the allowed opportunities; placement limits the media environment and slot.
6. Budget and schedule constrain resources and time but guarantee neither even spend nor results.
7. The destination leads the user; tracking settings tie IDs and event sources to measurement/optimization.
8. The operational lifecycle must be read as several axes: configured, effective, review, and learning status.

Check Yourself

1. A campaign has the objective App promotion, is optimized on paid_subscription, tracks install, trial, and subscription, and its billing basis is CPM. Why do these values not contradict one another?

2. An ad is set to active but receives no impressions. Which parent, schedule, review, budget, and eligibility states should you check?
3. Why can changing the optimization event from install to subscription return the optimizer to learning without changing the configured status active?
4. Which settings would you expect to share between two ads and which to keep separate, if they use one creative but lead to different regions and destinations?

Sources and Further Reading

1. [Google Ads Help — Account, campaign, and ad group performance](#) and [Google Ads API — Campaigns overview](#) — the Google-specific hierarchy and campaign resources; the placement of fields depends on the campaign type and API version.
2. [Meta Marketing API — Basic Ad Creation](#) — separate campaign, ad set, creative, and ad in the Meta Graph API; this is a vendor schema, not an industry standard.
3. [Google Ads Help — About campaign objectives](#) and [About conversion goals](#) — the distinction between the high-level objective, conversion goals/actions, and their use in bidding.
4. [Meta Business Help Center — About performance goals](#) — the product-specific link between objective, performance goal, and the required signals.
5. [Google Ads Help — About tracking in Google Ads](#) — tracking-template inheritance, final URL settings, and parallel tracking as a Google-specific implementation.
6. [Google Ads Help — About campaign statuses](#) and [Google Ads API — Bidding Strategy Status](#) — separate operational and learning statuses in Google Ads.
7. [Meta Business Help Center — About the learning phase](#), [Significant edits and learning phase](#) and [Meta Marketing API — Budgets](#) — Meta-specific learning, significant edits, daily/lifetime budgets, and scheduling behavior.

Targeting and Audiences

The Core Idea: First the Eligible Set, Then the Ranking

[241](#) does not answer the question “who is certain to buy,” but an earlier question: **which advertising opportunities the system must reject, admit, or consider preferable**. From the entire stream of ad [242](#), the [243](#) first forms an eligible set, then the delivery system ranks it for the chosen outcome.

```
business intent
→ hard eligibility constraints
→ audience/context signals
→ eligible opportunity set
→ optimization ranks eligible opportunities
→ delivery outcomes become new signals
```

This chain is the chapter’s main mental model. It separates eligibility rules from relevance hypotheses and from optimization. Without this distinction, it is easy to mistake the Audience field in a vendor UI for a strict filter, even though a particular product may use it only as a model hint.

Why Targeting Matters: From the Whole Set of Opportunities to the Eligible Set

A [244](#) creates a set of opportunities to show ads: in different countries, apps, browsers, contexts, and moments. Buying the entire set is irrational. A subscription app that is available only in Germany and only on supported mobile OSs should not pay for a desktop opportunity in France. But within Germany, it is impossible to know in advance which eligible user will subscribe. The configuration therefore has three semantic categories:

Semantics	Meaning	Example
Control / constraint	The opportunity must pass the rule; otherwise delivery is prohibited	geo = DE, device = mobile, supported OS
Signal / hint	The attribute helps the model prioritize, but does not always restrict the set	Interest fitness, a 245 (a sample of valuable subscribers from which the model looks for similar people)
Audience exclusion / suppression 246	A negative rule filters out the matching entity	Do not show ads to current paid subscribers

The word targeting in a product can cover all three rows. The semantics define the setting's contract, not its position on the screen. It is especially important to determine whether the product can go beyond the positive input and which exclusions remain strict.

A set model for learning, not a production bidder formula:

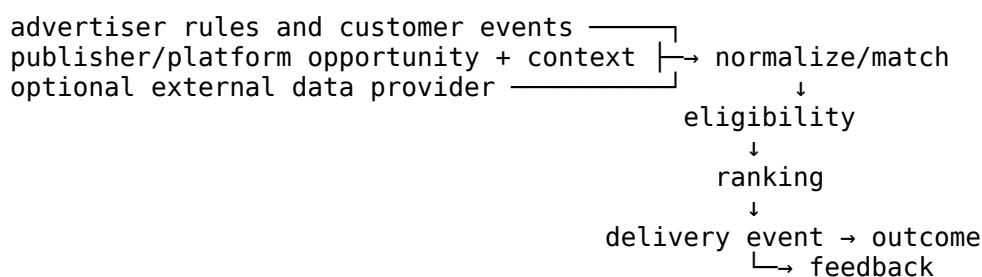
```
eligible(o) = geo(o)
             ^ device(o)
             ^ context_or_placement(o)
             ^ audience_control(o)
             ^ ¬suppression(o)
```

```
delivery_score(o) = model(features(o), targeting_signals, optimization_event)
```

`eligible(o)` is a boolean predicate for opportunity `o`. `delivery_score(o)` is meaningful only after the opportunity passes the mandatory rules: it sets relative priority within the eligible set. The optimization [247](#) indicates which outcome guides the ranking, for example `paid_subscription`; targeting itself does not guarantee this outcome.

Where exactly the product stores the rule—at the [248](#), ad group, or ad [249](#) level—depends on the platform and campaign type. To carry the mental model across vendors, it is more useful to classify each field as a constraint, signal, or exclusion than to memorize a screen.

The data flow looks like this:



The publisher or platform describes the opportunity; the advertiser supplies controls, seeds, and exclusions; an external data [250](#) may add an audience [251](#); and the [252](#) or closed platform performs

matching, eligibility checks, and ranking. Outcomes return later and become inputs to subsequent decisions.

Targeting does not change the pricing model that governs the money flow. It changes the composition of available [253](#) and the distribution of media [254](#), but it does not determine the [255](#), [256](#), or [257](#). External provider data may carry a separate fee; bidding and spending mechanics are covered in Chapter 7.

Available Attributes: Geography, Device, OS/Browser, and Demographics

The simplest targeting dimensions describe the opportunity's environment or probable properties of an entity. Their presence in a request does not make them error-free facts.

Dimension	What it describes	Possible sources	Typical uncertainty	Possible semantics
Geography	Likely presence, regular presence, or interest in a location	IP, device settings, account data, search/content behavior	VPN, travel, stale or inferred location	Control or a product-specific broad option
Device	Device class and sometimes family/model	Request/device metadata, app/platform	Coarsening, spoofing, unknown	Often a criterion/control
OS/browser	Software environment: family and version when available	User agent, app SDK, platform metadata	Reduced version, missing field, unsupported criterion	Channel- and product-specific
Demographics	Profile category	Declared, partner-supplied, or inferred data	unknown, misclassification, stale inference	Control or suggestion

Geography

A geography criterion may specify a country, region, city, postal area, or radius around a point. But the value DE does not yet prove a person's physical location. A product may interpret it as likely presence, regular presence, or interest in Germany. The source almost always provides a best-effort inference, not a certified coordinate.

Google Ads provides a product-specific example of this distinction: advanced location options distinguish between Presence or Interest and Presence, and the documentation explicitly warns that location is inferred from several signals and is not 100% accurate. This is not a universal industry default; in every product, the exact semantics of positive and negative geo rules must be checked.

Device, OS, and Browser

Mobile describes a device class, Android an OS family, Android 15 an OS version, and Chrome a browser family. These axes are related but not interchangeable. An opportunity from an Android tablet may pass the OS rule and fail the phone-only device-class rule. In-app inventory may supply an OS but have no useful browser attribute at all.

Granularity depends on the channel and platform. Some platforms expose the device model, while others expose only mobile/desktop/tablet; explicit browser targeting may be unavailable even though the browser remains a model feature or reporting dimension. Reduced version in the table is a consequence of UA reduction: modern browsers truncate the OS and browser version in the User-Agent, so the exact version is often unavailable. Unknown and coarsened values are normal, so the advertiser must find out whether the product exposes unknown as a separate category and explicitly decide whether to include or exclude it, rather than relying on the platform's silent behavior.

Demographics

Demographics are categories such as age range, gender, parental status, or household income, if supported by the product and policy. Membership may be:

- **declared** — the user provided the value;
- **observed/supplied** — the value came from a permitted account or partner source;
- **inferred/modeled** — the platform estimated the category from behavior and other features.

Consequently, age=25–34 is a classification signal with a source, confidence, and recency, not a verified passport fact. Unknown cannot be treated as a rare error: by excluding the unknown population, an advertiser may substantially reduce the eligible set. Available categories, the use of sensitive characteristics, and the handling of unknown values depend on the country, channel, and policy; legal and consent mechanisms are covered later in the course.

For a subscription app, hard controls might be DE + mobile + supported OS. Demographics should be added only after answering two questions: is this a strict boundary or a suggestion, and what will happen to Unknown?

A User Hypothesis and the Ad Context Are Different Types of Data

Interests and behavior describe a presumed user or their history. Context, keyword, and [258](#) describe the current media opportunity or a way to find it. These attributes may correlate, but they answer different questions.

Input	Main question	Outdoor store example
Interest	What is the entity presumed to have a lasting affinity for?	interest: hiking
Behavior	What named action or pattern was observed, and when?	viewed_boots within 14d
Contextual targeting 259	What is the current page, app screen, or video about?	An article about winter hiking
Search keyword	What query/intent does the product match the ad to?	winter boots in search
Context keyword	What term or semantic concept describes the content?	winter boots in the review text
Placement	In which explicitly selected property/channel/site/app/video/slot is the ad eligible to appear?	outdoor-news app/article_feed

Interest is usually a relatively persistent hypothesis about a preference or affinity. It may be declared, inferred from content consumption, or supplied by a partner. An interest in hiking is not the same as a current intent to buy boots: source, recency, and confidence matter as much as the label.

Behavior is built from past actions or patterns: viewing a product page, searching, adding to cart, installing, making frequent purchases. A useful behavioral rule always names the event and observation [260](#): viewed_boots within 14 days is more informative than active shopper. An observed action does not guarantee a future purchase and does not by itself define a re-engagement tactic.

Contextual targeting selects opportunities based on the current media context: topic, semantics, page/app/video category, and related signals. It can work without claiming that the platform knows the user's persistent cross-site identity: classifying the environment in which the opportunity arose is enough. This distinguishes reading an article about hiking now from the audience hypothesis interested in hiking in general.

Keyword targeting has two common semantics. In Search, a keyword is associated with a user query and presumed intent according to the product's match rules. In display/video, a keyword may describe content and aid contextual selection. In neither case does a keyword necessarily imply a universal exact string match: stemming, semantic expansion, negative rules, and combinations of criteria depend on the product contract.

Placement is a more explicit answer to "where": a specific publisher property, app, site, channel, video, section, or slot-level scope. A contextual system may dynamically find thousands of hiking pages; a placement rule may allow only the named outdoor-news app. Formats, ad units, and [261](#) compatibility are covered in Chapter 8.

Placement is an overloaded product term. On the publisher side, it is a specific ad slot or a rule for ad appearance; on the buy side, the same word may refer to a selectable media scope—an entire site, app, channel, video, section, or individual slot. When reading a configuration, clarify the level rather than treating them as a single entity.

A minimal opportunity description could look like this; this is illustrative JSON, not a vendor API:

```
{
  "geo": "DE",
  "device": "mobile",
  "os": "Android",
  "context_topic": "outdoor/hiking",
  "placement": "publisher_app:article_feed"
}
```

Boolean semantics cannot be inferred from fields being adjacent. One product will apply topic OR placement, another topic AND placement, and a third will use topic as a signal within selected placements. The product contract must explicitly define composition and precedence.

How Data Becomes an Audience Segment

An audience segment is not necessarily a list of known people. It is a set of [262](#) entities—ones the platform can recognize by an available identifier and deliver an impression to—for which the following are defined:

1. **Entity:** user, account, device, browser, household, or modeled profile.

2. **Membership rule:** what condition includes and excludes the entity.
3. **Provenance:** who obtained the source data and how.
4. **Observation window:** the interval over which events are considered.
5. **Activation contract**²⁶³: how the platform matches membership to its addressable entities.

Here, the observation window defines which events, and over what period, determine membership, for example, “trial started at least 7 days ago, and no payment since.” This is not an attribution window: the segment determines whom to consider for delivery, while ²⁶⁴ later allocates credit for a ²⁶⁵.

First-Party Audiences

A first-party ²⁶⁶ is built from data obtained by an advertiser or publisher through a direct relationship: CRM records, customer lists, site/app events, subscriptions, and purchases. For a subscription app, the pipeline might be:

```
CRM + app events + subscription status
→ normalize + deduplicate
→ rule: trial_started ≥ 7d ago AND no paid_subscription since trial_started
→ platform match (onboarding)
→ addressable audience
```

A ²⁶⁷ or an in-house data pipeline may calculate membership, but an uploaded record is not yet the same as an activatable entity. The platform must perform a match—compare the advertiser’s identifiers (hashed email, device ID, its own account ID) with the identifiers the platform itself knows; vendors often call the upload and match step onboarding. Some records will remain unmatched, may be updated after a delay, or may be unavailable in a particular channel/region. First-party describes provenance, not automatic consent, a legal basis, exclusive ownership, or a 100% match.

It is useful here to distinguish first-party data from first-party identity. First-party data is data obtained through a direct relationship with the user. First-party identity is an identifier that the party itself issues and controls: a login, its own account ID. The advertiser has both, but the impression happens on a platform with its own identity, so the advertiser’s first-party audience is activated only after a match with the identity of the platform where the ad is shown.

Google Customer Match is a vendor example: an advertiser supplies its own online/offline customer data, and Google matches it for activation; certain activation options on partner inventory are restricted in the EEA, UK, and Switzerland, while owned-and-operated properties are supported under their own terms. The basic concept of a first-party audience has not changed, but availability changed due to product policy.

Third-Party Audiences

A third-party ²⁶⁸ is supplied by an external provider that is not a party to the advertiser’s direct relationship with the entity. The classic container for such segments is a ²⁶⁹: the provider or buyer stores and segments the data there and then activates it in a DSP; the buyer usually pays for third-party segments as a data fee on top of the media cost. A typical flow:

```
data originators
→ provider aggregation / classification / modeling
→ labeled segment
→ DSP/platform match
→ activation
```

The label likely subscription buyers does not disclose the segment’s composition. At a minimum, the following are needed before use:

- provenance and collection method;
- observation period and recency;
- membership criteria;
- the proportions of observed and modeled members;
- permissions and permitted use cases;
- activation coverage and match boundary.

The IAB Tech Lab Audience Taxonomy provides a common nomenclature for labels such as demographic, interest-based, and purchase-intent because vendor taxonomies have historically been incompatible. The Data Transparency Standard adds disclosures about provenance, recency, segmentation, and modeling. Neither the taxonomy nor a Data Label is a quality score: identical labels do not guarantee the same set, accuracy, or performance.

For any segment—first-party or third-party—activation runs into addressability: the platform delivers an impression only to entities it can recognize by an identifier available to it. Which identifiers are available depends on the environment: in browsers and in mobile OSs availability is restricted in different ways and has changed in recent years, so the same segment may be activatable on one platform and nearly empty on another. The mechanics of identifiers and matching are covered in Chapter 24; the consequences of addressability limits for targeting and [270](#) are covered in Chapters 40–42.

Criterion	First-party audience	Third-party audience
Who collects the data	The advertiser or publisher itself	An external provider, often aggregating several sources
Relationship with the entity	Direct: customer, user, subscriber	Indirect or absent
Visibility of composition	Membership rule and events are fully known	The label and the provider’s disclosure are visible; the composition only partially
Typical quality questions	Completeness of events, instrumentation, freshness	Share of modeled membership, recency, permissions
Activation limits	Match with the platform’s identity	Match, availability of the segment on a given platform/region, a separate data fee

The party number does not determine quality: sparse or poorly instrumented first-party events produce a weak segment, while a provider may have a relevant source that the advertiser lacks. The comparison should focus on the rule, provenance, freshness, and match.

Retargeting and Lookalikes: Past Contact Versus New Prospects

[271](#) addresses entities again after they performed a named interaction within a specified window; some vendors call the same tactic remarketing. It is re-engagement—bringing back users who are already known, not finding new ones. For a subscription app, this might be the segment `trial_started ≥ 7d ago AND no paid_subscription since trial_started`; those entities are

shown a message about premium features. Recency and the event definition are part of the tactic: a visitor to the pricing page yesterday and a visitor from a year ago are not the same audience.

```
past interaction + window
  → retargeting membership
  → match at new opportunity
  → re-engagement
```

Retargeting determines whom to show an ad to again. It neither assigns attribution credit nor proves incrementality: a high conversion [272](#) may reflect pre-existing intent.

A lookalike [273](#) solves the opposite [274](#): it finds **new prospects**, who have had no interaction with the advertiser yet, from a seed audience. The platform extracts or uses features of seed entities and ranks other addressable entities by similarity or predicted relevance.

```
seed: paid subscribers with 90-day value > €50
  → platform model/features
  → new similar prospects
  → prospecting delivery
```

The quality of the seed defines the model’s task: a mixed seed of random trials does not teach the same thing as stable high-value subscribers. There is usually a trade-off between similarity and size: a narrower threshold yields a smaller set, while a broader one provides more [275](#) but weaker similarity. A lookalike audience does not have to include the seed, does not guarantee a conversion, and does not prove a causal effect.

Inclusion semantics also change by product mode. At the time of writing, Google is transitioning Lookalike segments in Demand Gen (one of the Google Ads campaign types), in phases, from a similarity-threshold constraint to suggestion mode: the seed and reach level guide the model, but delivery may go beyond the threshold; a separate opt-out path preserves the previous constraint semantics. This is not a rule for all campaign types or vendors.

Meta Lookalike retains a seed-based model, but in Advantage+ audience, an included custom/lookalike audience may be a suggestion rather than a boundary. Thus, the word Lookalike describes how the prospect signal is built, but not, by itself, the strictness of delivery.

Exclusions and Overlap: Negative Rules and Set Logic

Suppression is needed when “do not show” matters more than a positive preference. An acquisition campaign usually excludes current customers; a re-engagement campaign excludes users who have already performed the desired action; a population subject to regulation or incompatible with the product may have its own hard control. A negative predicate should have clear precedence over a positive signal:

```
eligible(entity) = positive_rules(entity)
                  AND NOT excluded(entity)
```

But the actual completeness of an exclusion is limited by observability. If a subscription event arrives late, membership is stale, identity is not matched, or the platform interprets the field as a suggestion, the already-paying customer may still receive an impression. Therefore, an exclusion expresses an intention and is a contract rule, not a promise of zero leakage.

Audience [276](#) is the intersection of memberships in multiple segments within the same set of a platform’s addressable entities. Before launch, a subscription app might inspect:

```
A = trial_no_purchase
B = existing_paid
C = high_value_seed_lookalike
```

```
inspect: A ∩ B, A ∩ C, B ∩ C
```

$A \cap B$ often indicates stale events, inconsistent windows, or an error in the rules: the same account is simultaneously considered an unpaid trial and a paid subscriber. $B \cap C$ may be valid if the lookalike product includes the seed; for prospecting, it is still sensible to remove it through an exclusion if the goal is new customers.

An illustrative Jaccard-like ratio can be used to compare two sets:

```
overlap(A, B) = |A ∩ B| / |A ∪ B|
```

The numerator and denominator must refer to the same entity definition, the same set of addressable entities, and the same snapshot time. Platform estimates may differ due to matching and identity coverage. Overlap means that the sum of segment sizes overstates distinct reach; it fragments the setup and complicates segment-level interpretation, but by itself it does not prove duplicate billing or that campaigns “bid against themselves”²⁷⁷ and deduplication semantics depend on the platform.

Broad and Algorithmic Delivery: The Boundary Between Targeting and Optimization

Broad targeting is a setup with few positive audience restrictions. This does not mean an absence of rules: geo, policy, technical compatibility, placements, brand-safety controls (Chapter 37), and exclusions remain. Algorithmic²⁷⁸ uses the optimization goal, seeds, context, creative/landing signals, and outcome feedback to find likely useful opportunities; it goes beyond the selected audience only where the input is declared a suggestion rather than a hard control.

Setup	Hard controls	Positive audience input	Can it go beyond the input?	What the optimizer does
Manual / narrow	Geo, device, context, and audience boundaries	Selected segment as a constraint	Usually not, if the contract is truly hard	Ranks within a narrow eligible set
Broad	Basic geo/policy/inventory guardrails and exclusions	Few or no positive restrictions	The set is broad from the outset	Finds likely outcomes in a broad set
Algorithmic with signals	Hard controls and exclusions	Seed, interest, keyword, creative/landing signals	Yes, if the input is a suggestion	Expands or reallocates delivery toward the goal

Two vendor examples demonstrate the portable distinction $\text{control} \neq \text{signal}$:

- In Google Ads, optimized targeting for supported campaign types may seek conversions beyond manually selected inputs. The specific signals differ: for Display, the documentation names audience segments, keywords, and topics; for Video and Demand Gen, it names audience, custom, and customer-data segments, while selected Video placements remain boundaries. Customer-data exclusions and separate brand-safety controls have different semantics.

- In Meta Advantage+ audience, Locations, minimum age, languages, and excluded custom audiences may serve as controls, while suggested age, gender, detailed targeting, and included custom audiences guide AI that may deliver to other users within those controls. Availability depends on the campaign and policy category.

This is not a performance comparison or a universal recommendation to enable automation. The conclusion is narrower: audience inputs that look the same may have different contracts.

Subscription App: End-to-End Flow

An advertiser wants new paid subscriptions in Germany. Configuration and data pass through the following stages:

1. **Hard eligibility:** DE, mobile, supported OS, permitted placements, and policy rules. The geo option has been checked to determine whether it means presence or interest.
2. **Suppression:** current paid subscribers are excluded from acquisition. A match delay is acknowledged as a possible source of leakage.
3. **Retargeting branch:** the first-party rule `trial_started ≥ 7d ago AND no paid_subscription` since `trial_started` creates a separate audience for re-engagement.
4. **Prospecting branch:** high-value paid subscribers form the seed; the lookalike is used as a constraint or hint according to the selected product mode.
5. **Broad/algorithmic branch:** positive audience restrictions are minimal, but hard controls and exclusions remain. The model ranks eligible opportunities to optimize for the `paid_subscription` event.
6. **Feedback:** [279](#), [280](#), installs, trials, and subscription events update reporting, segment membership, and model inputs. A significant targeting change at this step may send the optimizer back into the learning [281](#) (Chapter 5).

In this flow, targeting establishes eligibility and preferences; optimization directs delivery toward the event. Bid calculation, budget allocation, and pacing are not needed to draw this boundary and are covered in the next chapter.

Six questions are enough when evaluating any targeting product:

1. What entity belongs to the audience, and what constitutes an opportunity?
2. Which criteria are hard, which are suggested, and which are negative?
3. Who created the signal, and what are its provenance, window, and freshness?
4. Can the model go beyond the selected audience or seed?
5. What optimization [282](#) guides the ranking?
6. What limits remain around unknown values, matching, permissions, and policy?

Common Confusions

- **Targeting ≠ optimization.** The former sets constraints and preferences; the latter ranks eligible opportunities toward an outcome.
- **Audience ≠ context.** An audience describes a matched entity or history; context is the current media environment.
- **Interest ≠ intent ≠ behavior.** Affinity, a current query, and a past action are different kinds of evidence.
- **Placement ≠ contextual selection.** A placement explicitly names “where”; a contextual system selects environments based on content signals.

- **First-party data $\neq$ first-party identity.** Data from a direct relationship and an identifier the party itself controls are different things; the advertiser’s audience is activated only after a match with the identity of the platform where the ad is shown, and data provenance replaces neither permission nor that match.
- **Retargeting $\neq$ attribution.** A delivery tactic does not determine who receives conversion credit.
- **Lookalike $\neq$ a copy of the seed.** It is a modeled prospect set; inclusion and expansion semantics are product-specific.
- **Overlap $\neq$ double charge.** It is a set intersection; billing consequences require separate contract evidence.

What to Remember

1. Targeting narrows or guides the set of opportunities, but does not promise an outcome; optimization begins after eligibility and uses outcomes as feedback.
2. Every setting should be classified as a hard control, signal/hint, or exclusion; algorithmic expansion goes beyond the input only where the input is declared a suggestion.
3. Geo, demographics, interests, and behavior are often inferred and may be unknown or stale; device, OS, and browser are different axes with different availability.
4. A segment is defined not by its label, but by its entity, membership rule, provenance, observation window, and activation contract.
5. First-party and third-party describe the origin of data, not quality; activation of any segment is limited by the platform’s addressability.
6. Retargeting again targets entities in a known interaction set; a lookalike finds new prospects from a seed.

Check Yourself

1. Why might geo = DE mean something other than “the user is physically in Germany”?
2. How do interest: hiking, viewed_boots in 14d, and an article about hiking differ as targeting inputs?
3. What five characteristics are needed to meaningfully describe an audience segment?
4. Why is an included audience in an algorithmic product not always a strict delivery boundary?

Sources and Further Reading

1. [IAB Tech Lab — Audience Taxonomy](#) — a common nomenclature for audience categories; updated 11 December 2024, accessed 2 September 2026.
2. [IAB Tech Lab — Data Transparency Standard](#) — disclosure of provenance, recency, segmentation, and modeling without a quality grade; updated 23 April 2024, accessed 2 September 2026.
3. [Google Ads Help — About advanced location options](#) — Presence or Interest, Presence, and best-effort geo inference; accessed 2 September 2026.
4. [Google Ads API — Targeting criteria](#) — product-specific criteria and scopes; accessed 2 September 2026.
5. [Google Ads Help — About Customer Match](#) — first-party customer-data matching and current availability limits; accessed 2 September 2026.
6. [Google Ads Help — About optimized targeting](#) — manually selected segments as signals and separate controls; accessed 2 September 2026.
7. [Google Ads Help — Use Lookalike segments to grow your audience](#) — phased Demand Gen transition to suggestion mode during 2026; accessed 2 September 2026.

8. [Meta Business Help Center — Audience controls and Audience suggestions in Advantage+ audience](#) — product-specific distinction between controls and suggestions; accessed 2 September 2026.

Glossary

Definitions of the course's key terms. In the chapters, these terms are marked with a footnote; here they are described in full, with an example.

RTB (real-time bidding)

RTB (real-time bidding) — a programmatic buying mechanism in which an individual advertising opportunity (opportunity) is put up for an automated auction and sold in a fraction of a second — before the page or app has even shown the ad. Buyers submit bids, usually through a DSP; trading happens on an ad exchange or inside an SSP with an auction function. RTB is not a synonym for programmatic, let alone AdTech: it is one of the automated buying mechanisms within the broader stack.

Example: a user opens a news app. The publisher puts the impression up for auction through an SSP; several DSPs, bidding on behalf of different advertisers, return bids within ~100 ms; the winning ad is delivered to the app before the user sees the content.

Bid

Bid — a buyer's offer to pay a certain price for a specific ad opportunity, usually expressed as a CPM. A bid is a pre-event decision: it is neither the final price (clearing price) nor the billable amount; in programmatic, the DSP forms a bid for each bid request separately.

Example: the DSP evaluates a request from a gaming app and responds with a bid of \$12 CPM; the auction may clear at \$10, and the advertiser pays for qualifying impressions under the contract.

Auction

Auction — the mechanism for choosing a winner among several bids for one ad opportunity and for determining the price (clearing price) under the auction's rules — first-price, second-price, and their variants. An auction win is the event of choosing a winner; it is not an impression and does not by itself make the impression billable.

Example: bids of \$12, \$10, and \$7 arrive for one impression; under first-price the winner pays \$12, under second-price the second bid's price (or the floor), and only after the creative is delivered can the event become billable.

Agency

Agency — a contractor company that plans and executes marketing and media work on behalf of an advertiser: develops strategy, prepares creative, selects channels, launches a campaign, and reports on results. An advertiser can keep media buying in-house, hand it to an agency in full, or split the responsibility. An agency is an organization and a contractual role, as opposed to a media buyer — an operational function that can also work inside an advertiser.

Example: a sneaker manufacturer enters the German market. The agency receives a brief and a budget, plans the channels, sets up the campaign in a DSP, and reports on results. The advertiser sees one consolidated invoice from the agency, although internally the money is distributed across several contracts — media, platforms, fees.

Ad network

Ad network — an intermediary that aggregates advertising opportunities (inventory) from many publishers and sells them to advertisers as a single packaged product: the network takes over supply selection, pricing, and delivery, while the buyer gets one manageable offering instead of a dozen separate contracts. Prices inside the network are usually opaque to the buyer. Historically, many ad networks added auction mechanics and rebuilt themselves as ad exchanges, so both functions are often combined under one brand.

Example: it is easier for a small advertiser to buy “100,000 impressions in gaming apps at a CPM of \$X” from a single network than to negotiate with each publisher separately. The network itself decides which apps to take impressions from and at what price it bought them from the publishers.

Ad exchange

Ad exchange — the transaction layer that connects buyers and sellers in an automated deal, usually through a real-time auction (RTB). The difference from an ad network is transparency: the buyer sees the description of an individual opportunity and decides for themselves how much to pay for it, and the price is set by the auction rather than by the network’s price list. An exchange is not necessarily a separate company between the DSP and SSP: exchange and SSP functions are often combined in a single product.

Example: a DSP on behalf of an advertiser sees from the exchange the description of an impression: the app, the format, the approximate context — and decides within milliseconds whether to bid and how much to pay. The loser pays nothing; the winner gets the impression at the auction price.

AdTech

AdTech (advertising technology) — the set of technologies that coordinate the buying, selling, selection, delivery, measurement, and payment for advertising between advertisers, publishers, and intermediaries: from the ad server and DSP/SSP to measurement and verification systems. Programmatic is only part of AdTech: direct deals, reserved buying, and closed platforms also run on AdTech. The boundary with MarTech is drawn by primary purpose: AdTech coordinates paid media, MarTech the customer lifecycle.

Example: an app with a subscription buys installs through a DSP, a publisher sells impressions through an SSP, the deal goes through an exchange, an ad server delivers the creative, and an MMP measures installs — all five systems belong to AdTech.

Digital advertising

Digital advertising — paid communication by which an advertiser tries to influence the audience’s knowledge, attitude, or action in a digital environment. It is a market of coordination between advertisers (demand), publishers (supply), and users, not just banner delivery: the parties’ values and goals conflict, and a significant part of AdTech exists to manage those conflicts.

Example: a content app shows ads between articles; a subscription service pays for the chance to reach its audience, and the user receives content “in exchange” for attention to the ads.

Advertiser

Advertiser — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.

Example: a streaming service allocates a budget to acquire subscribers: its DSP looks for impressions in the target audience’s apps and pays for each opportunity to show an ad.

Publisher

Publisher — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.

Example: a news app allocates a banner and a full-screen block after an article and opens them to programmatic buyers through an SSP, keeping a cap on impression frequency.

Demand

Demand — the budgets and intent of advertisers to buy suitable advertising opportunities; the market side around which the buy side / demand side groups — the people and systems that help plan and buy media (agencies, DSPs). Demand is a market side, not a specific technology: platforms must not be confused with sides.

Example: an advertiser allocates \$500,000 to acquire users in three countries — that is demand; the DSP through which it buys media belongs to the demand side.

Supply

Supply — the advertising opportunities available from publishers; the market side around which the sell side / supply side groups — the people and systems that help describe, sell, and deliver advertising (SSPs, publisher ad servers). Supply is the set of inventory for sale, not the name of a platform. An ad network aggregates both supply and demand, so it sits between the sides rather than inside one of them.

Example: a game app with twenty ad slots and rules for showing them — that is supply; the SSP through which it opens access to buyers is the supply side.

Advertising inventory

Advertising inventory — the set of available or forecast opportunities to show advertising, bounded by the environment, the slot, the format, the time, the publisher’s rules, and the permissible audience context. Inventory is not a list of users and not a warehouse of pre-produced impressions: an opportunity arises and disappears at the moment the product is used.

Example: a game forecasts 10 million full-screen impressions for the next month — that is inventory; a specific opportunity arises only when a player finishes a level.

Placement

Placement (ad slot or selectable media scope) — an overloaded product term. On the publisher side, it is a predefined ad slot or rule for ad appearance that generates ad opportunities as the product is used. On the buy side, placement can mean an explicitly selected delivery environment — a site, app, channel, video, section, or individual slot. The entity level must be clarified from the product contract.

Example: “a full-screen block after a level” is a publisher-side placement; the campaign setting “show only in the outdoor-news app” is a buy-side selectable placement.

Ad opportunity

Ad opportunity — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.

Example: a player finished a level — the app sends a request with a description of the context, and before the screen is rendered the systems manage to select and return an ad.

Impression

Impression — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.

Example: an ad server counted 100,000 impressions under the rule “banner loaded,” while the measurement provider counted 82,000 under the rule “at least one second of visible area”; both are right under their own rules.

DSP (Demand-Side Platform)

DSP (Demand-Side Platform) — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.

Example: an advertiser loads a budget, a goal, and audiences into a DSP; the DSP participates in auctions on dozens of exchanges and SSPs and buys impressions while staying within the target cost per install.

SSP (Supply-Side Platform)

SSP (Supply-Side Platform) — a platform that helps publishers manage the sale of inventory: it sets buyer access rules, connects programmatic demand (DSPs, exchanges), and runs or forwards the auction. SSP and exchange functions are often combined in a single product.

Example: a news website sets minimum prices and a ban on certain ad categories in its SSP; the SSP opens the impressions to hundreds of DSPs and picks the best offer.

Ad server

Ad server — a system that selects, delivers, and logs advertising under given rules. There are publisher-side ad servers (matching direct campaigns, networks, and programmatic demand, managing delivery) and advertiser-side ones (storing creatives, counting impressions and clicks); the term denotes a function, not a market side.

Example: a publisher ad server receives a decision from an SSP, a direct campaign, and a network reservation — and decides whose ad to return in this request; meanwhile an advertiser ad server serves the creative and logs the impression.

Programmatic

Programmatic — automated buying and selling of advertising; decisions about each opportunity are made by systems, not people. RTB is only one of its mechanisms; programmatic also includes automated reserved and direct mechanics without an auction. Programmatic is part of AdTech, but not all of AdTech.

Example: a guaranteed deal — “impressions from the sports section at a fixed price via an automated agreement” — is programmatic without a real-time auction.

Creative

Creative — the advertising material that is delivered and shown to the user: a banner, a video, a native format, a playable. Along with targeting rules it is an object of delivery and must match the format and rules of the publisher’s environment; for a campaign, several creatives are usually prepared.

Example: for a campaign, a 15-second vertical video and a playable version are prepared and uploaded to the DSP with format and size metadata.

Campaign

Campaign — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.

Example: the subscription service’s autumn campaign: the goal is installs, the budget is \$200,000, three creatives, a frequency cap — everything is set up in the DSP before the first impression.

Measurement

Measurement — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.

Example: an advertiser cross-checks impressions between its own records, the ad server, and the measurement provider — the counters diverge due to different observation points and rules.

MMP (Mobile Measurement Partner)

MMP (Mobile Measurement Partner) — a specialized category of measurement providers for mobile: it measures installs and in-app events, performs attribution, and provides independent data to the parties in the deal. Not a synonym for just any measurement system.

Example: an app connects an MMP to link a click from an ad with the install from the app store and the subsequent subscription purchase.

Verification

Verification — an independent assessment of the quality and conditions of delivery: viewability, environment, fraud, compliance with the rules. Verification providers plug in across the chain and take no part in the commercial decision about the deal.

Example: a verification provider marks 4% of impressions as non-viewable and 1% as fraud — the advertiser deducts them from payment.

Intermediary

Intermediary — a participant that connects market sides or performs a specialized function: agencies, DSPs, ad networks, exchanges, SSPs, ad servers, measurement, verification, and data providers. It is justified when the value of its function (reach, aggregation, interoperability, speed, measurement, risk control) exceeds the cost and complexity; it need not be present in every deal and does not necessarily retain a share of the media money — some intermediaries receive a separate service or SaaS fee.

Example: a small advertiser buys impressions from an ad network because it is not ready to maintain dozens of integrations with publishers directly — the aggregation function justifies the fee.

Media spend

Media spend — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.

Example: of \$100 in media spend, the network retains \$20 and the SSP \$12, and the publisher receives \$68; the MMP and the ad server receive separate SaaS fees outside the media money.

Publisher revenue

Publisher revenue — the amount the publisher recognizes as revenue under its own accounting rules from media payments for its inventory; in the simple case it equals the publisher payout, but recognition (accrued / billed / settled) follows the publisher's policy, not the moment of payment. It differs from advertiser spend by the sum of all fees in the chain; participants' service and SaaS fees outside the media money do not count toward it.

Example: the advertiser spent \$100; the network retained \$20 and the SSP \$12; the publisher received a payout of \$68 and recognized it as its revenue for the period in which the impressions occurred.

Settlement (accrued / billed / settled)

Settlement — the actual movement of money between participants for a period, as distinct from the invoice (the issued claim) and from accrual. One amount passes through three states: **accrued** — recorded from events, **billed** — issued in an invoice or statement, **settled** — paid; at each step the amount may change because of adjustments, fraud filtering, credits, and FX. For one side it is a receivable (expected inflow), for the other a payable.

Example: the publisher sees \$68 accrued for September in the dashboard; the SSP's statement arrives in October for \$66 after invalid traffic is deducted; the payment (settlement) comes 60 days later.

Publisher payout

Publisher payout — the amount that, under the seller's contract, must be transferred to the publisher after revenue share, fees, and adjustments; for the SSP or the network it is a payable, for the publisher a receivable. The payout is a contractual and payment quantity; which part of it, and in which period, the publisher recognizes as revenue is determined by its accounting policy (see publisher revenue).

Example: of the \$80 the SSP received from the network, after retaining 15%, the publisher is owed a payout of \$68.

MarTech

MarTech (marketing technology) — technologies for the broader management of marketing and the customer lifecycle: customer data, communications, and the advertiser's own channels (CRM, marketing automation, CDP, email/push platforms). It overlaps with AdTech in measurement, attribution, identity, and activation, so the boundary is drawn by the system's primary purpose, not by the vendor's label.

Example: a subscription purchase is an outcome signal for AdTech measurement and, at the same time, a trigger for a retention email chain in MarTech.

Data provider

Data provider — a provider that sells or supplies datasets, attributes, or ready-made audience segments for targeting, measurement, and enrichment. It works in parallel to the buying chain, not "between" two mandatory neighbors; third-party segments are usually paid for by the buyer — often as a data CPM charged through the buying platform on top of the media cost. Not to be confused with an identity provider, which does not supply data but establishes correspondence between identifiers.

Example: a DSP attaches a "fitness interest" segment from an external data provider; for every thousand impressions against that segment, the provider's data fee is added to the media CPM.

Media buyer

Media buyer — a person, team, or function that selects media, platforms, and buying terms, allocates spend, and sets up campaigns. It is an operational role, not an organization: a media buyer can work inside an advertiser, inside an agency, or at another buying organization. Not a synonym for an agency (a contractor organization) and not a synonym for a DSP: the person formulates and configures decisions, while the platform executes part of the buying workflow at scale.

Example: a media buyer at an agency receives a channel plan and a budget, creates the campaign in a DSP, sets audiences and bids, and redistributes spend between platforms over the month based on report results.

Vertical integration

Vertical integration — the situation in which one company occupies several roles in the chain (for example, DSP, exchange, and SSP, or ad network and MMP) and combines them in one product or brand. It gives the customer convenience and a single invoice but creates conflicts of interest: the company represents the buyer and the seller at once, measures itself, or runs the auction it takes part in. The industry term for what the course also calls role bundling.

Example: a platform sells managed media to the advertiser while owning the exchange through which it sells its own inventory and reporting results through its own measurement — three roles on one ecosystem map.

Brand advertising

Brand advertising — an orientation of advertising that primarily changes the audience’s awareness, consideration, or perception: knowledge, consideration, and attitude toward the product. It is evaluated on lagging metrics, not on immediate action. This is an orientation, not a company type: one advertiser can combine brand and performance activity.

Example: a streaming service runs a video campaign to introduce the brand and evaluates it by the lift in awareness and intention, not by installs over a week.

Performance advertising

Performance advertising — an orientation of advertising built around a measurable action and the cost of obtaining it: registrations, trials, installs, purchases. It is evaluated through attribution and the cost of the outcome. This is an orientation, not a company type and not a synonym for “measurable advertising”: the goal, the evaluation horizon, and the expected evidence of the result differ from brand advertising.

Example: an app’s acquisition campaign is optimized in a DSP for cost per install: the bid is adjusted for each source to stay within the target CPI.

Attribution

Attribution — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.

Example: a user saw a video in a game, clicked a banner the next day, and subscribed; under the “last click” rule the MMP assigns credit to the banner, and the other sources get no credit, even if they played a part.

DMP (Data Management Platform)

DMP (Data Management Platform) — an advertising-oriented system for managing, segmenting, and activating audience data: it collects campaign signals and external datasets, builds audience profiles and segments, and activates them through advertising integrations. It does not have to be the system of record for the full customer lifecycle. The historical rule “a DMP is only cookies and anonymous data” is unreliable; the working boundary with the CDP runs along the primary task — advertising audience activation versus a durable customer record.

Example: a media team builds in a DMP the segment “played casual games, saw the ad, but did not install the app” and activates it in a DSP for an acquisition campaign.

CDP (Customer Data Platform)

CDP (Customer Data Platform) — a system that collects first-party events and customer data from the product, CRM, and other systems into a persistent unified customer record and makes profiles, events, and segments available to downstream systems. It does not buy media and does not assign attribution credit; it belongs to customer lifecycle management, which makes it part of MarTech.

Example: a subscription app sends trial and subscription events to the CDP; the CDP assembles a unified profile and passes the segment “completed the trial, did not pay” to the advertising and email systems.

Identity provider

Identity provider — a provider that links or translates identifiers from permitted sources for activation, measurement, and related use cases: for example, matching an advertiser’s customer ID with a platform-specific ID. It does not create consent and does not prove the identity of a real person: matching within one solution is not legal permission. It differs from a data provider in its task — it does not supply datasets but establishes correspondence between identifiers.

Example: an advertiser and a publisher use different identifiers for the same user; the identity provider translates them into a common identifier so that impression frequency is counted per person rather than twice.

Activation

Activation — handing data or an audience segment to a system that can use it for targeting, suppression, personalization, or measurement: from a CDP/DMP to a DSP, from the advertiser’s CRM to a walled garden, from an identity graph to an SSP. Before activation, data is a record in storage; after it, a rule that affects real impressions. Activation requires matching identifiers between the source and the receiving platform and a permitted legal basis.

Example: a list of trial users without a purchase is uploaded to the buying platform and, after matching, becomes a retargeting audience — that is activating the segment.

Metric contract

Metric contract — the complete definition of a metric by which its number can be reproduced and interpreted: the event definition, measurement point, filters and deduplication, numerator/denominator, dimensions, period and windows, currency, perspective, and ledger boundary. A metric’s name without a contract does not fix its meaning: the same formula on different contracts answers different questions.

Example: CTR = 2% from an ad server over rendered impressions and filtered clicks is not the same number as CTR = 2% from a platform over served impressions and all clicks: the names match, the contracts differ.

Click

Click — a qualifying user-initiated interaction with an ad, recorded under a specific system's rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.

Example: the user clicked a banner, but the connection dropped on a redirect: the click tracker counted a measured click while the destination received no request — the counters diverge, and both are honest under their own rules.

Conversion

Conversion — a valuable action or outcome that the advertiser has defined as significant (install, trial, first payment, renewal, purchase) and that a system has counted under its measurement and attribution rules. Conversions cannot be summed without an explicit counting rule: one click can lead to several conversions. An observed conversion is a recorded event; an attributed conversion is an event to which an attribution rule assigned credit; neither proves causality.

Example: a click led to an install, then to a trial and a subscription payment — under the reporting rules these are three conversions of one interaction, and the total depends on the counting mode (one or each conversion per interaction).

Served impression

Served impression — an impression counted on the fact that the ad server or selling platform returned the creative (or a reference to it) in response to a request; it proves sending, but not loading, rendering, or visibility. The earliest and largest number in the served → rendered → viewable ladder.

Example: the ad server returned 100,000 responses with a creative — 100,000 served impressions, even though some users closed the screen before the banner loaded.

Rendered impression

Rendered impression — an impression counted after the creative has loaded and been rendered on the user's device (usually on a signal from client-side code: a pixel or an SDK event after render). It proves rendering, but not that the creative entered the visible area of the screen or was noticed; the MRC standard for display counts an impression precisely on client-side load/render.

Example: of 100,000 served impressions, 92,000 fired the render pixel — 92,000 rendered impressions; a separate measurement shows how many of them turned out viewable.

Viewable impression

Viewable impression — an impression that met the applicable geometry/time criteria of viewability (the classic MRC benchmark: at least 50% of the creative's pixels on screen for one continuous second for display and two for video). Viewable means a standardized opportunity to see, not a person's attention; non-viewable (the measurement took place, the criteria were not met) is not the same as non-measurable (the status could not be determined).

Example: the banner loaded and rendered, but half of its area stayed outside the viewport beyond the threshold — the measurement marks it non-viewable, even though the rendered impression took place.

Reach

Reach — the de-duplicated number of unique entities (persons, devices, households, accounts, or a modeled audience) that received at least one qualifying exposure in a period, or the share of such entities in an explicitly defined population: $\text{reach rate} = \text{reached unique entities} / \text{declared universe} \times 100\%$. Comparable only with identical entity definition, exposure rule, population, de-duplication scope, and period.

Example: a campaign reached 20,000 de-duplicated persons out of a universe of 200,000 — a reach count of 20,000 and a reach rate of 10%; the same impressions counted by device IDs would give different numbers.

Frequency

Frequency — the average number of qualifying exposures per reached unique entity over the same period: $\text{frequency} = \text{qualifying impressions} / \text{reached unique entities}$. It is an average, not a distribution: it does not mean that every person saw the ad the same number of times.

Example: 60,000 qualifying viewable impressions on 20,000 de-duplicated persons — an average frequency of 3, although some users had one impression and others fifteen.

CTR (Click-Through Rate)

CTR (Click-Through Rate) — the share of selected impressions after which the selected clicks were recorded: $\text{CTR} = \text{qualifying clicks} / \text{counted impressions} \times 100\%$. The number depends on the click/impression basis (served or rendered, filtered or all) and the population; a high CTR by itself does not indicate quality traffic, conversions, or causal lift.

Example: 160 clicks on 8,000 counted impressions — a CTR of 2%; replacing served impressions with rendered changes the denominator and the result.

CVR (Conversion Rate)

CVR (Conversion Rate) — the share of qualifying conversions among the declared eligible precursor events: $\text{CVR} = \text{qualifying conversions} / \text{declared eligible precursor events} \times 100\%$. A bare CVR hides the transition: only named transitions such as click-to-install or install-to-trial are comparable; a value above 100% is possible with several conversion actions on one interaction.

Example: 24 attributed subscriptions on 160 eligible clicks — a click-to-subscription CVR of 15%; the same campaign has a different click-to-install CVR, and the two cannot be compared directly.

CPM (Cost per Mille)

CPM (Cost per Mille) — the cost of a thousand counted impressions for the buyer: $\text{CPM} = \text{advertiser cost or spend} / \text{counted impressions} \times 1,000$. The term is ambiguous without a contract: it can mean a pricing basis, a rate, a bid, or a post-fact observed average CPM; the observed CPM answers the question “how much did the buyer spend per thousand counted impressions.”

Example: \$96 of spend on 8,000 counted impressions — an observed CPM of \$12, even if the bids in the auction were different.

eCPM (effective CPM)

eCPM (effective CPM) — the seller's recognized revenue per thousand counted impressions: $\text{eCPM} = \text{recognized revenue} / \text{counted impressions} \times 1,000$. Usually the publisher's perspective; it makes it possible to compare demand paid on CPM, CPC, or CPA on a common realized-revenue basis. Not a synonym for CPM: the numerators belong to different ledger boundaries.

Example: a seller received \$800 of recognized revenue for 80,000 counted impressions — an eCPM of \$10, even though buyers paid on different models: one on CPM, another on CPC, a third on CPA.

CPC (Cost per Click)

CPC (Cost per Click) — the cost or spend per qualifying clicks under a disclosed rule: $\text{CPC} = \text{cost} / \text{qualifying clicks}$. A bid/target CPC is not the actual average CPC: the former is a bid or an optimization target, the latter is a post-fact average.

Example: \$96 on 160 qualifying clicks — an average CPC of \$0.60, regardless of what bids were placed during the period.

CPA (Cost per Action)

CPA (Cost per Action) — the cost per advertiser-defined qualifying actions: $\text{CPA} = \text{cost} / \text{qualifying actions}$. The action is defined by the campaign contract — a trial, an order, a lead, or a subscription, not necessarily a new customer — so a CPA cannot be read without the name of the action or compared between campaigns directly.

Example: \$96 for 24 attributed subscriptions — a CPA of \$4 with action = attributed subscription; for a neighboring campaign the action is a lead, and its CPA is not comparable with this number.

CPI (Cost per Install)

CPI (Cost per Install) — the cost of mobile acquisition per qualifying installs: $\text{CPI} = \text{cost} / \text{qualifying installs}$. The install count depends on the measurement and attribution rules, so a CPI is comparable only under named install-counting rules.

Example: \$5,000 of spend on 2,500 attributed installs — a CPI of \$2 under the chosen MMP's rules; a different attribution window gives a different install count and a different CPI.

CPL (Cost per Lead)

CPL (Cost per Lead) — the cost per business-defined qualifying leads: $\text{CPL} = \text{cost} / \text{qualifying leads}$. Lead definitions and quality differ between businesses, and a lead is not yet a customer, so a low CPL is useless without qualification.

Example: \$2,000 for 100 submitted forms — a CPL of \$20; if a quarter of the leads fail qualification, the effective cost is noticeably higher.

CAC (Customer Acquisition Cost)

CAC (Customer Acquisition Cost) — the business's allocated acquisition costs per new customer: $\text{CAC} = \text{allocated acquisition costs} / \text{new customers}$. Broader than the platform CPA: the

numerator can include media, agency, sales, and onboarding costs, and a new customer is defined by a business rule (for example, the first confirmed payment). A platform CPA cannot be renamed a CAC until the customer event, period, cost allocation, and refunds are agreed.

Example: the platform report shows a \$4 CPA per subscription, but the business included media, agency, and onboarding in its acquisition costs and recognizes a customer from the first payment — its CAC turned out to be \$7.

Revenue

Revenue — the amount recognized by the chosen entity under its accounting rules on its ledger boundary. Estimated dashboard value, invoiced amount, settled amount, and recognized revenue can be different states of one chain; for comparison, the period, timezone, currency conversion, taxes/refunds, and participant must be agreed. How much of the money passing through a platform it recognizes as revenue depends on its principal or agent role (gross/net presentation), not on the size of the invoice.

Example: \$100 from the advertiser passed through the network and the publisher received \$68. Under gross presentation the network recognizes \$100 of revenue, under net only its own \$20; both entries are correct for their own boundary and accounting conclusion.

Cost

Cost — the expenses of the entity whose economics are being analyzed, in the chosen scope: for an advertiser, the media cost; for a platform, the downstream cost; for a business, a broader set of expenses. Not a synonym for spend: spend is the buyer's outlay on media, while cost can include non-payment and out-of-media components and is always tied to a perspective.

Example: an advertiser spent \$96 in media spend, but its full cost including product delivery, agency, and operations is \$600; ROI is calculated on the second amount.

ROAS (Return on Ad Spend)

ROAS (Return on Ad Spend) — media efficiency: attributed conversion value or revenue per ad spend: $ROAS = \text{attributed conversion value or revenue} / \text{ad spend}$; written as 5.0x or 500%. Attribution-dependent: it depends on the attribution rules and the chosen value field, and without a causal design it does not prove incremental return. A high ROAS is compatible with a negative ROI.

Example: \$480 of attributed conversion value on \$96 of ad spend — an ROAS of 5.0x; but at a full cost of \$600 the same campaign loses money.

ROI (Return on Investment)

ROI (Return on Investment) — the profitability of a broader investment scope: $ROI = \text{net profit} / \text{total relevant investment cost} = (\text{return} - \text{total relevant cost}) / \text{total relevant cost}$. Unlike ROAS, it uses the full chosen cost scope, not just ad spend.

Example: a return of \$480 at a full cost of \$600 — a net profit of -\$120 and an ROI of -20%, although the ROAS on media spend is 5.0x.

ARPU (Average Revenue per User)

ARPU (Average Revenue per User) — the selected revenue across all eligible users of the chosen population or cohort for a period: $\text{ARPU} = \text{selected revenue} / \text{all eligible users}$. It requires a user definition, revenue categories (purchase, subscription, ad), a period, and a cohort/population; it includes non-paying users.

Example: 1,000 active users brought \$1,000 of recognized revenue in a month — an ARPU of \$1; this number says nothing about lifetime without a cohort and a horizon.

ARPPU (Average Revenue per Paying User)

ARPPU (Average Revenue per Paying User) — revenue per paying user: $\text{ARPPU} = \text{selected revenue from payers} / \text{paying users}$. It divides only by payers and requires a payer event, the composition of revenue (purchase, subscription), refund rules, and a period. It is usually higher than the ARPU of the same population, but not always: if ARPU includes ad revenue from non-paying users while ARPPU counts only purchase revenue, the ratio can flip; which revenue enters the numerator is part of the metric's contract.

Example: the same \$1,000 of purchase revenue from 100 payers out of 1,000 users — an ARPPU of \$10 with an ARPU of \$1.

LTV (Lifetime Value)

LTV (Lifetime Value) — the cumulative observed or predicted value of a cohort's members: $\text{LTV} = \text{cumulative observed or predicted value} / \text{cohort members}$. It requires a cohort, a horizon, an identity rule, a value basis (revenue or contribution), and an observed/predicted status; revenue LTV does not subtract costs, and contribution LTV is calculated on the agreed marginal basis. Without these definitions, "a user's LTV" is not a defined scalar.

Example: the observed 30-day revenue LTV of an install cohort is \$4.20; the predicted 12-month contribution LTV from a model is \$6.80: these are different metrics, not one number with different precision.

Fill rate

Fill rate — the share of eligible ad requests that received an ad response (a fill), for example $\text{filled responses} / \text{eligible ad requests}$. A publisher/ad server metric of the request → fill transition; there is no safe vendor-neutral denominator — a product may divide filled responses, matched bids, or counted impressions by requests, opportunities, or ad units, and these are different metrics. A fill is not a final outcome: a filled response may not render and may not become a counted impression, so a response-based fill rate is higher than the share of impressions actually delivered. Not a synonym for match, response, or delivery rate.

Example: 80,000 filled responses on 100,000 eligible ad requests — a fill rate of 80%; if 78,000 of them became counted impressions, the delivered share is 78%, and a product may label either figure "fill rate."

Win rate

Win rate — the share of submitted eligible bids that won the auction: $\text{winning bids} / \text{submitted eligible bids}$. A buyer/deal metric of the bid → auction win transition; it requires the population to be disclosed. A win notice is not yet delivery and not a billing event: the auction can select a bid as the winner, but the creative may not be delivered or the impression may not become billable.

Example: 9,000 wins on 45,000 bids — a win rate of 20%, while the counted/billable impressions are 8,000: win and billing are different event points, and the discrepancy is not an error.

Ledger boundary

Ledger boundary — the boundary within which an entity recognizes and records amounts and events under its own rules: the same amount is revenue on one boundary and a downstream media/traffic cost on another. Because of different ledger boundaries, the reports of the advertiser, the platform, and the publisher about the same deal naturally do not match and do not have to match.

Example: the advertiser spent \$100; on its boundary the network recorded \$100 billed and \$80 payable (recognizing \$100 or \$20 of revenue depending on gross/net presentation); the publisher saw \$68 receivable — the numbers differ because each entry lives in its own ledger.

Pricing basis

Pricing basis — the contractual rule for calculating a price: the object for which the buyer pays — an impression, click, action, install, lead, a share of proceeds, a period of access to software, or another agreed result. A metric's name in an interface (CPM, CPC, CPA) does not by itself fix the basis: the same name can be a contractual price, a bid, or the actual average after the events, so only the basis named in the contract creates a monetary obligation.

Example: a contract of “\$10 CPM, billable event — rendered impression” and a contract of “\$10 CPA, billable event — subscription” give the same price figure but a different distribution of risk along the funnel.

Billable event

Billable event — a qualifying event defined by the contract, after which the payee is entitled to accrue the billable amount — the sum under the pricing basis after counts, rates, validation, and contractual adjustments; it is not necessarily invoiced, recognized as revenue, or paid. The event is set by contract policy, not automatically by the protocol: an auction win, a win notice, and a billing notice are different points, and a win does not guarantee delivery or a charge.

Example: in OpenRTB the win notice (`nurl`) and the billing notice (`burl`) are separate — the auction picked a bid as the winner, but the accrual arises only after the contractual event, for example a rendered impression.

Payee / payer

Payee / payer — the two sides of one payment obligation: the payer pays for the billable event, the payee receives the payment. Risk allocation in a pricing model is described through them: under CPM the payee earns the right to charge early in the funnel and the post-impression risk sits with the payer; under CPA the payee takes on all the risk up to the conversion. One company can be the payee in one contract and the payer in another.

Example: in the deal advertiser → network → SSP → publisher, the network is the payee under its contract with the advertiser and the payer under its contract with the SSP.

Revenue share

Revenue share — the contractual distribution of a named revenue or proceeds base between the parties in a specified share. Without disclosure of the base it is undefined: you need to know whose proceeds, on which ledger boundary, for which period, before or after which agreed adjustments, and who performs the calculation; a share of one boundary does not equal a share of the original advertiser spend.

Example: the SSP retains 15% of \$80 of proceeds on its boundary — \$12; relative to the original \$100 of advertiser spend, the same \$12 is 12%.

Fixed fee

Fixed fee — an amount agreed in advance for a period, a scope, or a deliverable that does not depend on the volume of media transactions: an agency retainer, a setup or managed-service fee, a minimum monthly commitment, a flat sponsorship fee. It is usually a flow separate from media money: it is not deducted from the media dollar and does not become a publisher payout or a take rate — unless a specific contract bundles software and media charges into one invoice. It is chosen for predictability and to remove the “fee grows with spend” conflict; the provider bears the risk that the agreed scope will require more work.

Example: \$2,000/month for access to an ad server is a service charge under a separate contract; if a usage tier based on processed impressions applies on top, that part is usage pricing, not a fixed fee.

SaaS pricing

SaaS pricing — the payment model for a software platform: subscription, seats, usage tiers, or processed volume for access to the product. It forms a separate software/service flow: the platform’s usage event does not automatically become a media event, and a SaaS charge does not turn the relationship into a purchase of inventory.

Example: the platform charges \$2,000/month plus a tier by the number of processed impressions; growth in volume changes the tier but does not make this payment a media cost.

Markup

Markup — a surcharge on the base cost expressed as a share of the cost denominator: $\text{markup} = (\text{selling amount} - \text{acquisition cost}) / \text{acquisition cost}$. It is not the spread (the absolute difference) and not the gross margin (which uses the reporting entity’s accounting revenue and cost of revenue); comparable only when the buy/sell amounts are named.

Example: a network buys media for \$80 and sells it to the advertiser for \$100: the spread of \$20 is a 25% markup on the acquisition cost and, at the same time, a 20% take rate relative to the spend.

Take rate

Take rate — the retained amount relative to a named transaction flow on the chosen boundary: $\text{take rate} = \text{retained amount} / \text{named transaction flow}$. Comparable only when the numerator, denominator, and included fees are disclosed: the same amount yields different rates relative to the boundary proceeds and the original advertiser spend.

Example: the SSP retains \$12 out of \$80 of proceeds — a take rate of 15% on its boundary, but 12% relative to the original \$100 of spend.

Spread

Spread — the absolute difference between the selling amount and the acquisition/downstream amount on a named boundary. The economic core of an intermediary's resale and arbitrage models; the markup and the take rate are computed from the same spread with different denominators and are not comparable without the named boundary.

Example: buying media for \$80 and selling for \$100 — a spread of \$20; this is a 25% markup on the cost and a 20% take rate on the spend at the same time.

Proceeds

Proceeds — the amount of the transaction inflow before the agreed distribution on the chosen boundary. The word gross next to proceeds describes the base before the split, not automatically gross revenue in financial reporting: for calculating shares, the boundary, the period, and the permitted deductions matter.

Example: SSP-boundary proceeds of \$80 are split into \$12 retained and \$68 publisher share; relative to the original \$100 of advertiser spend, these are different percentages.

Retained amount

Retained amount — the part of the transaction flow remaining with a participant on its boundary before its own costs. It characterizes transaction economics but is not recognized revenue or profit: the accounting presentation and the expenses are determined by the entity's separate policy.

Example: in the decomposition $\$100 \rightarrow \$80 \rightarrow \$68$, the network retained \$20 and the SSP retained \$12 — both amounts are flow residuals, not accounting profit.

Gross/net revenue presentation

Gross/net revenue (presentation) — a variant of how the reporting entity presents revenue: gross shows the agreed payment in full, net only the fee or commission. The choice follows the contract-specific principal-agent assessment for the specific specified good/service, not the logic of “money before/after expenses”: the product's label, the invoice, or gross billings do not by themselves determine the conclusion.

Example: a network with \$100 sold and an \$80 supplier component shows, under a principal conclusion, revenue of \$100 and cost of revenue of \$80; under an agent conclusion, only the net fee of \$20.

Gross billings

Gross billings — the amount invoiced to clients or passed through collection before excluding supplier components; a broader quantity than recognized revenue and not its synonym. Billings describe billing, not the principal/agent accounting conclusion.

Example: under an agent conclusion the platform shows gross billings of \$100 with receivables/payables, while the recognized revenue is only the net fee of \$20.

Cost of revenue

Cost of revenue (CoR) — the expenses that the reporting entity classifies as directly connected with earning the recognized revenue under its policy. Not just any cash outflow: the composition is determined by the company's policy, and operating expenses, interest, and taxes sit below gross profit.

Example: under gross presentation, the supplier component of \$80 is shown as cost of revenue next to the recognized revenue of \$100.

Gross margin

Gross margin — the share of recognized revenue remaining after the cost of revenue of the same reporting entity on the same accounting basis: $\text{gross margin} = (\text{recognized revenue} - \text{cost of revenue}) / \text{recognized revenue}$; gross profit is the numerator of this formula. Not the same as the take rate, which divides the retained amount by a named transaction flow.

Example: gross presentation: revenue of \$100, CoR of \$80 — gross profit of \$20, a margin of 20%; the same business in net presentation shows a margin of 100% on the same \$20 economics — the margin depends on the presentation.

Principal / agent

Principal / agent — the accounting assessment of the reporting entity's role with respect to a specific promised specified good/service: the principal controls it before transferring it to the customer and presents the payment gross; the agent arranges for its provision by another party and presents the net fee/commission. Control is the ability to direct the use and obtain significant benefits before transfer; primary responsibility, inventory risk, and pricing discretion are evidence, not a mechanical score; one company can be a principal in one flow and an agent in another.

Example: an AdTech platform, under an agent conclusion, recognizes the net fee on platform transactions, but may be a principal on individual insertion-order campaigns where it itself commits to the delivery.

Arbitrage

Arbitrage — an intermediary model that buys media/traffic cheaper and sells it dearer, or buys on one pricing basis and sells on another. The economics rest on the spread in exchange for accepted risk: volume/fulfillment, basis mismatch, and reconciliation risk can turn the spread into a loss. Not every intermediary fee is arbitrage, and arbitrage is not automatically abuse; the problem is the opacity of the buy/sell basis and the spread to the customer.

Example: a network committed to buying a batch of media for \$80 but sold the advertiser only part of the agreed scope — the cost of the unsold remainder falls on it, and the spread shrinks or becomes a loss.

Basis mismatch

Basis mismatch — buying and selling the same media on different pricing bases, for example buying impressions on a CPM and selling clicks or actions on a CPC/CPA. It adds performance risk to arbitrage: the intermediary's revenue depends on the realized CTR/CVR and validation, while the original media cost remains if the downstream billable amount does not cover it.

Example: an intermediary bought impressions for \$80 expecting 100 clicks, but 60 were recorded — the CPC revenue does not cover the media cost.

Optimization event

Optimization event — the observable event that the delivery system learns from and optimizes impressions toward: install, trial start, paid subscription, purchase. The advertiser selects it in the campaign settings (different platforms call it a conversion action, conversion goal, or performance goal). It is not the campaign objective (the business intent), not the billable event (what is paid for), and not a strategy parameter such as `target CPA`. A deeper event yields fewer signals and a longer learning phase.

Example: the objective is “grow paid subscriptions”; the optimization event is first `install` (many signals), then switched to `paid_subscription`; billing stays CPM throughout.

Optimization target

Optimization target — the outcome toward which a bidding system tunes its future decisions: most often an optimization event (install, paid subscription) plus a goal for it. Not to be confused with a strategy parameter: `target CPA $4` is a bid-strategy constraint, not the event the system predicts. It does not turn the contract into CPA billing: the payment model establishes the contract, the realized metrics describe what happened post-fact, and the optimization target influences only decisions before the event.

Example: the advertiser pays CPC for qualifying clicks while the system optimizes toward paid subscriptions under a `target CPA $4` constraint — the billing basis, the optimization event, and the strategy parameter coexist in one campaign.

Ad account (advertiser account)

Ad account (advertiser account) — a tenant on an advertising platform within which campaigns and related settings exist; it forms several boundaries at once: ownership and access (the operators’ roles and permissions), the billing identity, the currency and time zone, the namespace of identifiers, and the shared configuration (data sources, brand assets, defaults). The advertiser’s legal company and the ad account are not the same thing: one company may have several accounts across regions, brands, and currencies, and one account may serve several initiatives of the same legal entity.

Example: Subscription App Ltd. runs an EU ad account (EUR, time zone Europe/Berlin) and a separate US ad account (USD); the agency gets delegated access to both, but the owner and the billing identity remain with the advertiser.

Manager account

Manager account — the platform’s administrative layer that gives an agency or an internal group centralized delegated access to several ad accounts. This is administrative access, not an additional delivery layer: a manager account does not participate in the delivery hierarchy of each campaign.

Example: an agency gets manager access to the ad accounts of ten clients — operators sign in through a single login, but each account’s budget, targeting, and reporting remain separate.

Ad

Ad — the executable delivery unit of a campaign: it links the parent group (ad group or ad set), the advertiser identity, the creative, the destination, tracking, and the status. An ad is not the same as a creative: one creative can run in several ads with different parent rules, destinations, and states.

Example: a video creative is reused by two ads: one leads to the store listing for new users, the other deep-links into the app for those who have installed it; each ad has its own ID, status, and tracking settings.

Ad group / ad set

Ad group / ad set — the intermediate level of the campaign hierarchy between the campaign and the ad, grouping ads with shared execution rules. The names and the set of fields are vendor-specific, and there is no universal schema: in the Google-like model, the ad group groups closely related ads and triggering criteria (for example, related keywords); in the Meta-like model, the ad set holds the audience, placements, optimization, bid, budget, and schedule.

Example: in a Meta campaign, the ad set “US” contains the audience, placements, and budget, and inside it — three ads with different creatives; in Google Ads, the ad group with keywords plays the same middle-layer role.

Campaign objective

Campaign objective — the high-level business intent or setup guidance communicated to the platform when the campaign is created: awareness, traffic, leads, app promotion, sales. The objective suggests campaign types, features, and defaults, but need not match the event that the optimizer directly predicts: the optimization event is chosen separately.

Example: the subscription service selects the objective App promotion and the optimization event `paid_subscription`: the objective describes the intent, while the signal observed for delivery is determined separately.

Targeting

Targeting — the campaign’s rules about to whom and where an ad may be shown: hard controls (eligibility rules — geo, device, context, audience/keyword criteria, exclusions) that restrict the set of permitted opportunities, and signals/hints that in algorithmic products only steer delivery without narrowing the eligible set. Targeting answers the question “for which opportunities/users/contexts is showing possible,” as opposed to placement (“where exactly”) and optimization (“which of the permitted impressions to choose”); even if the API stores them in one object, these are different axes.

Example: an ad set is limited to the geo DE, mobile devices, and the exclusion “already installed the app” (hard controls); a seed audience of valuable subscribers is passed as a signal — the system may deliver outside it, but within DE + mobile.

Bid strategy

Bid strategy — a policy that translates the optimization goal and constraints (a target or a cap) into auction bids. The strategy, its target/cap, the actual bid for a specific opportunity, and the billable price are four different entities: a single numeric target CPA is not the actual bid, and the actual bid does not by itself determine the billable amount.

Example: the strategy “maximize conversions with a target CPA of \$4” decides for itself how much to offer for each impression; the actual bid may be \$1 or \$9, and the pricing basis of the contract determines the charge.

Budget

Budget — a constraint on the available spend over a given scope (a campaign, an ad set, a shared pool of several campaigns) and time basis. Common are the daily budget (a hard calendar cap, an average daily target, or another form — the product defines this) and the lifetime/flight budget for the whole interval. A budget constrains spending but does not guarantee inventory, conversions, even pacing, or an exact invoice amount.

Example: a campaign received a lifetime budget of €700 for a seven-day flight with two ad sets — you cannot conclude either €100 per day or €350 for each ad set: the allocation depends on the opportunities and the product configuration.

Pacing

Pacing — the policy of distributing spend over time within budget constraints: whether to spend evenly, accelerate on cheap or high-quality opportunities, or hold back the budget. Pacing allocates the resource but does not promise even spending: the available opportunities and the allocation change.

Example: with a lifetime budget of €700 for a week, the system may spend €180 on the first day on cheap inventory and less on the rest — pacing optimizes the result, not calendar evenness.

Schedule (flight)

Schedule (flight) — the campaign’s temporal eligibility: the start and end, the account time zone in which the dates are interpreted, and, where the product supports it, dayparting (the permitted days of the week and hours). Before the start, the campaign can be enabled but have the effective status pending; after the end it finishes, even if part of the budget was not spent.

Example: a campaign is enabled with a start of 2026-09-07 00:00 Europe/Berlin — before that date there are no impressions, and the dayparting “working hours only” makes it temporarily ineligible within the active flight.

Destination (landing page)

Destination (landing page, final URL) — the first target surface after an interaction with the ad: a web page, an App Store/Google Play listing, or a deep link into an app. It is part of the user path, not a tracking record: the tracking template and URL parameters control the measurement path, but not the landing page.

Example: the ad promises premium features and leads to a store listing — the destination must describe the same product and offer, otherwise the creative’s promise and what the user sees diverge.

Tracking settings

Tracking settings — the campaign’s observability configuration: the transmitted identifiers (campaign/group/ad IDs), URL parameters, macros, the tracking template and final URL suffix, the event sources (pixel, app SDK, server-to-server integration, MMP), the selected conversion actions,

and the attribution configuration boundary. Tracking settings govern the measurement path and do not replace the destination; URL parameter names are not an industry standard.

Example: the tracking template routes the click through a measurement domain with the macros {campaignid} and {creative}; the platform substitutes the actual IDs at the moment of the click, and the user goes to the destination their own way.

Conversion action

Conversion action — a platform-configured definition of an event that counts as a conversion for reporting and optimization: the source (pixel, SDK, S2S, import), the event name, counting rules (one or every per interaction), the value, and the window. A platform may have several conversion actions per account; which are primary (used for optimization) and which secondary (reporting only) is part of the campaign configuration.

Example: the account has conversion actions `install`, `trial_started`, and `paid_subscription`; the campaign optimizes toward the primary `paid_subscription`, while the others appear in reports as secondary.

Learning phase

Learning phase (learning status) — the state of the optimizer in which the delivery/bidding model gathers evidence after launch or a material configuration change: earlier data describe the new decisions less accurately. Learning is one of the axes of the operational state alongside the configured, effective, and review statuses, not the opposite of active: impressions and spend continue, and vendor-specific significant edits (targeting, creative, optimization event, the set of ads, the bid strategy) can return the optimizer to learning without changing the configured status.

Example: an ad set with stable delivery on installs is switched to the optimization event `paid_subscription` — the configured status remains active, but the optimizer is back in learning until it has gathered enough data on the new event.

Audience segment

Audience segment — an addressable set of entities whose membership is defined by a named rule, data source/provenance, observation window, and platform matching/activation contract; an entity can be a user, account, device, browser, household, or modeled profile, so a segment is not necessarily a list of known people.

Example: the segment `trial_started AND no paid_subscription within 7d` contains only those platform-addressable entities that could be matched to the relevant product events.

Observation window

Observation window — the period over which an event counts toward forming an audience segment: “trial started in the last 7 days,” “visited the pricing page within 30 days.” It determines the freshness of membership and the size of the segment. Not to be confused with the attribution/lookback window (how far before a conversion a touchpoint counts) or the conversion window (how long to wait for a conversion after a click): these are windows of different mechanisms.

Example: the segment `trial_started ≥ 7d ago AND no paid_subscription` — the observation window selects users whose trial started at least a week ago.

Addressable

Addressable — a user, device, or household that a platform can recognize by an available identifier and deliver a specific impression to; addressability is the share of inventory or audience for which this is possible. It depends on the environment (browser, iOS, Android, CTV), consent, and available identifiers, so the same segment can be activatable on one platform and empty on another.

Example: a list of 100,000 email addresses yielded 40,000 addressable users on one platform after matching and 25,000 on another: the platforms could not recognize the rest.

First-party audience

First-party audience — an audience segment built from data collected by an advertiser or publisher in a direct relationship: CRM/customer records, site/app events, subscriptions, and purchases. First-party describes provenance but does not guarantee consent, legal basis, ownership, accuracy, or completeness of the platform match.

Example: a subscription app sends a platform its own segment of users who started a trial but have not yet purchased a paid subscription.

Third-party audience

Third-party audience — an audience segment supplied by an external data provider independently of an advertiser's direct relationship with the entity; evaluating the segment requires provenance, collection method, recency, membership criteria, modeling metadata, permissions, and activation coverage, because the label alone does not prove its composition or accuracy.

Example: a provider sells the segment likely subscription buyers; the advertiser checks its origin, observation window, and share of modeled membership before activation in a DSP.

Contextual targeting

Contextual targeting — selecting ad opportunities based on the current content or media context: topic, semantics, page/app/video category, and related signals. It describes the delivery environment and does not require asserting that a persistent cross-site identity is known for the user.

Example: an ad for hiking boots is eligible in articles about winter hikes regardless of whether the platform knows the history of the specific reader.

Retargeting

Retargeting — targeting entities that previously performed a named interaction or event within a specified observation window in order to address them again; it is a delivery tactic, not an attribution rule or proof of causal effect.

Example: a user started a trial but did not purchase a subscription within seven days, so they are included in a segment to be shown the premium-offer again.

Seed audience

Seed audience — a set of known entities (for example, high-value paying subscribers) that the advertiser hands to a platform as a sample for building a lookalike or as a signal for algorithmic

delivery. The quality and size of the seed determine the quality of the model: too small a seed yields noise, too broad a seed dilutes the features. The seed itself is not the target audience for delivery; many platforms exclude it from the lookalike by default.

Example: the seed is paid subscribers with 90-day value > €50; the platform builds a lookalike of new users with similar features from it.

Prospecting

Prospecting — directing a campaign at users who have not yet interacted with the advertiser: lookalike, interest, contextual, or broad targeting. The opposite of retargeting and re-engagement, which address already-known users. Prospecting typically shows lower conversion rates and a higher value of the incremental result, since the user would not have come on their own.

Example: a campaign with a lookalike built on a seed of paying subscribers and an exclusion of all current app users is prospecting; a campaign aimed at trial users without a purchase is retargeting.

Lookalike audience

Lookalike audience — a modeled audience of new prospects found by similarity or predicted relevance to a seed audience; the result depends on seed quality and the platform model, and the use of a lookalike in delivery can be a hard constraint or a suggestion according to the product contract.

Example: high-value subscribers form a seed from which the platform looks for new prospects who need not belong to the original segment.

Audience exclusion / suppression

Audience exclusion / suppression — a negative targeting rule designed to exclude entities with a named membership or status; the actual completeness of the exclusion is limited by identity match, freshness, propagation latency, and the semantics of the specific platform.

Example: an acquisition campaign excludes current paid subscribers, but a late-arriving subscription event can temporarily leave a new customer outside the suppression segment.

Audience overlap

Audience overlap — the intersection of memberships in multiple audience segments within a single activation universe and at the same snapshot; it affects distinct reach, reporting, and segmentation design, but does not by itself prove duplicate billing or self-competition.

Example: some entities belong to both `trial_no_purchase` and `existing_paid`, indicating that event freshness and membership rules should be checked.

Algorithmic / broad targeting

Algorithmic targeting — a delivery mode in which a model uses an optimization goal, context, audience seeds, and other signals to find and rank opportunities, potentially beyond suggested segments but within the stated hard controls and exclusions. **Broad targeting** is a setup with minimal positive audience restrictions, not an absence of constraints.

Example: the system looks for likely subscribers outside the lookalike seed while retaining the hard controls `DE + mobile` and the exclusion of current paid subscribers.

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1. **Digital advertising** — paid communication by which an advertiser tries to influence the audience's knowledge, attitude, or action in a digital environment. It is a market of coordination between advertisers (demand), publishers (supply), and users, not just banner delivery: the parties' values and goals conflict, and a significant part of AdTech exists to manage those conflicts.[↵](#)
 2. **AdTech (advertising technology)** — the set of technologies that coordinate the buying, selling, selection, delivery, measurement, and payment for advertising between advertisers, publishers, and intermediaries: from the ad server and DSP/SSP to measurement and verification systems. Programmatic is only part of AdTech: direct deals, reserved buying, and closed platforms also run on AdTech. The boundary with MarTech is drawn by primary purpose: AdTech coordinates paid media, MarTech the customer lifecycle.[↵](#)
 3. **Creative** — the advertising material that is delivered and shown to the user: a banner, a video, a native format, a playable. Along with targeting rules it is an object of delivery and must match the format and rules of the publisher's environment; for a campaign, several creatives are usually prepared.[↵](#)
 4. **Measurement** — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.[↵](#)
 5. **Advertiser** — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.[↵](#)
 6. **Publisher** — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.[↵](#)
 7. **Advertising inventory** — the set of available or forecast opportunities to show advertising, bounded by the environment, the slot, the format, the time, the publisher's rules, and the permissible audience context. Inventory is not a list of users and not a warehouse of pre-produced impressions: an opportunity arises and disappears at the moment the product is used.[↵](#)
 8. **Revenue** — the amount recognized by the chosen entity under its accounting rules on its ledger boundary. Estimated dashboard value, invoiced amount, settled amount, and recognized revenue can be different states of one chain; for comparison, the period, timezone, currency conversion, taxes/refunds, and participant must be agreed. How much of the money passing through a platform it recognizes as revenue depends on its principal or agent role (gross/net presentation), not on the size of the invoice.[↵](#)
 9. **Demand** — the budgets and intent of advertisers to buy suitable advertising opportunities; the market side around which the buy side / demand side groups — the people and systems that help plan and buy media (agencies, DSPs). Demand is a market side, not a specific technology: platforms must not be confused with sides.[↵](#)
 10. **Supply** — the advertising opportunities available from publishers; the market side around which the sell side / supply side groups — the people and systems that help describe,

sell, and deliver advertising (SSPs, publisher ad servers). Supply is the set of inventory for sale, not the name of a platform. An ad network aggregates both supply and demand, so it sits between the sides rather than inside one of them.↵

11. **DSP (Demand-Side Platform)** — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.↵
12. **SSP (Supply-Side Platform)** — a platform that helps publishers manage the sale of inventory: it sets buyer access rules, connects programmatic demand (DSPs, exchanges), and runs or forwards the auction. SSP and exchange functions are often combined in a single product.↵
13. **Placement (ad slot or selectable media scope)** — an overloaded product term. On the publisher side, it is a predefined ad slot or rule for ad appearance that generates ad opportunities as the product is used. On the buy side, placement can mean an explicitly selected delivery environment — a site, app, channel, video, section, or individual slot. The entity level must be clarified from the product contract.↵
14. **Ad opportunity** — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.↵
15. **Impression** — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.↵
16. **Served impression** — an impression counted on the fact that the ad server or selling platform returned the creative (or a reference to it) in response to a request; it proves sending, but not loading, rendering, or visibility. The earliest and largest number in the served → rendered → viewable ladder.↵
17. **Rendered impression** — an impression counted after the creative has loaded and been rendered on the user’s device (usually on a signal from client-side code: a pixel or an SDK event after render). It proves rendering, but not that the creative entered the visible area of the screen or was noticed; the MRC standard for display counts an impression precisely on client-side load/render.↵
18. **Viewable impression** — an impression that met the applicable geometry/time criteria of viewability (the classic MRC benchmark: at least 50% of the creative’s pixels on screen for one continuous second for display and two for video). Viewable means a standardized opportunity to see, not a person’s attention; non-viewable (the measurement took place, the criteria were not met) is not the same as non-measurable (the status could not be determined).↵
19. **Ad network** — an intermediary that aggregates advertising opportunities (inventory) from many publishers and sells them to advertisers as a single packaged product: the network takes over supply selection, pricing, and delivery, while the buyer gets one manageable offering instead of a dozen separate contracts. Prices inside the network are usually opaque to the buyer. Historically, many ad networks added auction mechanics and rebuilt themselves as ad exchanges, so both functions are often combined under one brand.↵

20. **Ad server** — a system that selects, delivers, and logs advertising under given rules. There are publisher-side ad servers (matching direct campaigns, networks, and programmatic demand, managing delivery) and advertiser-side ones (storing creatives, counting impressions and clicks); the term denotes a function, not a market side.↵
21. **Ad exchange** — the transaction layer that connects buyers and sellers in an automated deal, usually through a real-time auction (RTB). The difference from an ad network is transparency: the buyer sees the description of an individual opportunity and decides for themselves how much to pay for it, and the price is set by the auction rather than by the network's price list. An exchange is not necessarily a separate company between the DSP and SSP: exchange and SSP functions are often combined in a single product.↵
22. **MMP (Mobile Measurement Partner)** — a specialized category of measurement providers for mobile: it measures installs and in-app events, performs attribution, and provides independent data to the parties in the deal. Not a synonym for just any measurement system.↵
23. **Verification** — an independent assessment of the quality and conditions of delivery: viewability, environment, fraud, compliance with the rules. Verification providers plug in across the chain and take no part in the commercial decision about the deal.↵
24. **RTB (real-time bidding)** — a programmatic buying mechanism in which an individual advertising opportunity (opportunity) is put up for an automated auction and sold in a fraction of a second — before the page or app has even shown the ad. Buyers submit bids, usually through a DSP; trading happens on an ad exchange or inside an SSP with an auction function. RTB is not a synonym for programmatic, let alone AdTech: it is one of the automated buying mechanisms within the broader stack.↵
25. **Programmatic** — automated buying and selling of advertising: decisions about each opportunity are made by systems, not people. RTB is only one of its mechanisms; programmatic also includes automated reserved and direct mechanics without an auction. Programmatic is part of AdTech, but not all of AdTech.↵
26. **Intermediary** — a participant that connects market sides or performs a specialized function: agencies, DSPs, ad networks, exchanges, SSPs, ad servers, measurement, verification, and data providers. It is justified when the value of its function (reach, aggregation, interoperability, speed, measurement, risk control) exceeds the cost and complexity; it need not be present in every deal and does not necessarily retain a share of the media money — some intermediaries receive a separate service or SaaS fee.↵
27. **Agency** — a contractor company that plans and executes marketing and media work on behalf of an advertiser: develops strategy, prepares creative, selects channels, launches a campaign, and reports on results. An advertiser can keep media buying in-house, hand it to an agency in full, or split the responsibility. An agency is an organization and a contractual role, as opposed to a media buyer — an operational function that can also work inside an advertiser.↵
28. **Data provider** — a provider that sells or supplies datasets, attributes, or ready-made audience segments for targeting, measurement, and enrichment. It works in parallel to the buying chain, not “between” two mandatory neighbors; third-party segments are usually paid for by the buyer — often as a data CPM charged through the buying platform on top of the media cost. Not to be confused with an identity provider, which does not supply data but establishes correspondence between identifiers.↵

29. **Identity provider** — a provider that links or translates identifiers from permitted sources for activation, measurement, and related use cases: for example, matching an advertiser’s customer ID with a platform-specific ID. It does not create consent and does not prove the identity of a real person: matching within one solution is not legal permission. It differs from a data provider in its task — it does not supply datasets but establishes correspondence between identifiers.[↩](#)
30. **Reach** — the de-duplicated number of unique entities (persons, devices, households, accounts, or a modeled audience) that received at least one qualifying exposure in a period, or the share of such entities in an explicitly defined population: $\text{reach rate} = \text{reached unique entities} / \text{declared universe} \times 100\%$. Comparable only with identical entity definition, exposure rule, population, de-duplication scope, and period.[↩](#)
31. **Attribution** — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.[↩](#)
32. **Activation** — handing data or an audience segment to a system that can use it for targeting, suppression, personalization, or measurement: from a CDP/DMP to a DSP, from the advertiser’s CRM to a walled garden, from an identity graph to an SSP. Before activation, data is a record in storage; after it, a rule that affects real impressions. Activation requires matching identifiers between the source and the receiving platform and a permitted legal basis.[↩](#)
33. **Campaign** — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.[↩](#)
34. **Click** — a qualifying user-initiated interaction with an ad, recorded under a specific system’s rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.[↩](#)
35. **Media spend** — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.[↩](#)
36. **Publisher revenue** — the amount the publisher recognizes as revenue under its own accounting rules from media payments for its inventory; in the simple case it equals the publisher payout, but recognition (accrued / billed / settled) follows the publisher’s policy, not the moment of payment. It differs from advertiser spend by the sum of all fees in the chain; participants’ service and SaaS fees outside the media money do not count toward it.[↩](#)
37. **Fixed fee** — an amount agreed in advance for a period, a scope, or a deliverable that does not depend on the volume of media transactions: an agency retainer, a setup or managed-service fee, a minimum monthly commitment, a flat sponsorship fee. It is usually a flow separate from media money: it is not deducted from the media dollar and does not become a publisher payout or a take rate — unless a specific contract bundles software and media charges into one invoice. It is chosen for predictability and to remove the “fee grows with spend” conflict; the provider bears the risk that the agreed scope will require more work.[↩](#)

38. **Targeting** — the campaign’s rules about to whom and where an ad may be shown: hard controls (eligibility rules — geo, device, context, audience/keyword criteria, exclusions) that restrict the set of permitted opportunities, and signals/hints that in algorithmic products only steer delivery without narrowing the eligible set. Targeting answers the question “for which opportunities/users/contexts is showing possible,” as opposed to placement (“where exactly”) and optimization (“which of the permitted impressions to choose”); even if the API stores them in one object, these are different axes.[↩](#)
39. **Pacing** — the policy of distributing spend over time within budget constraints: whether to spend evenly, accelerate on cheap or high-quality opportunities, or hold back the budget. Pacing allocates the resource but does not promise even spending: the available opportunities and the allocation change.[↩](#)
40. **MarTech (marketing technology)** — technologies for the broader management of marketing and the customer lifecycle: customer data, communications, and the advertiser’s own channels (CRM, marketing automation, CDP, email/push platforms). It overlaps with AdTech in measurement, attribution, identity, and activation, so the boundary is drawn by the system’s primary purpose, not by the vendor’s label.[↩](#)
41. **CDP (Customer Data Platform)** — a system that collects first-party events and customer data from the product, CRM, and other systems into a persistent unified customer record and makes profiles, events, and segments available to downstream systems. It does not buy media and does not assign attribution credit; it belongs to customer lifecycle management, which makes it part of MarTech.[↩](#)
42. **Advertiser** — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.[↩](#)
43. **Demand** — the budgets and intent of advertisers to buy suitable advertising opportunities; the market side around which the buy side / demand side groups — the people and systems that help plan and buy media (agencies, DSPs). Demand is a market side, not a specific technology: platforms must not be confused with sides.[↩](#)
44. **Publisher** — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.[↩](#)
45. **Supply** — the advertising opportunities available from publishers; the market side around which the sell side / supply side groups — the people and systems that help describe, sell, and deliver advertising (SSPs, publisher ad servers). Supply is the set of inventory for sale, not the name of a platform. An ad network aggregates both supply and demand, so it sits between the sides rather than inside one of them.[↩](#)
46. **AdTech (advertising technology)** — the set of technologies that coordinate the buying, selling, selection, delivery, measurement, and payment for advertising between advertisers, publishers, and intermediaries: from the ad server and DSP/SSP to measurement and verification systems. Programmatic is only part of AdTech: direct deals, reserved buying, and closed platforms also run on AdTech. The boundary with MarTech is drawn by primary purpose: AdTech coordinates paid media, MarTech the customer lifecycle.[↩](#)

47. **Advertising inventory** — the set of available or forecast opportunities to show advertising, bounded by the environment, the slot, the format, the time, the publisher’s rules, and the permissible audience context. Inventory is not a list of users and not a warehouse of pre-produced impressions: an opportunity arises and disappears at the moment the product is used.↵
48. **Payee / payer** — the two sides of one payment obligation: the payer pays for the billable event, the payee receives the payment. Risk allocation in a pricing model is described through them: under CPM the payee earns the right to charge early in the funnel and the post-impression risk sits with the payer; under CPA the payee takes on all the risk up to the conversion. One company can be the payee in one contract and the payer in another.↵
49. **Media buyer** — a person, team, or function that selects media, platforms, and buying terms, allocates spend, and sets up campaigns. It is an operational role, not an organization: a media buyer can work inside an advertiser, inside an agency, or at another buying organization. Not a synonym for an agency (a contractor organization) and not a synonym for a DSP: the person formulates and configures decisions, while the platform executes part of the buying workflow at scale.↵
50. **Agency** — a contractor company that plans and executes marketing and media work on behalf of an advertiser: develops strategy, prepares creative, selects channels, launches a campaign, and reports on results. An advertiser can keep media buying in-house, hand it to an agency in full, or split the responsibility. An agency is an organization and a contractual role, as opposed to a media buyer — an operational function that can also work inside an advertiser.↵
51. **Campaign** — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.↵
52. **Creative** — the advertising material that is delivered and shown to the user: a banner, a video, a native format, a playable. Along with targeting rules it is an object of delivery and must match the format and rules of the publisher’s environment; for a campaign, several creatives are usually prepared.↵
53. **Brand advertising** — an orientation of advertising that primarily changes the audience’s awareness, consideration, or perception: knowledge, consideration, and attitude toward the product. It is evaluated on lagging metrics, not on immediate action. This is an orientation, not a company type: one advertiser can combine brand and performance activity.↵
54. **Performance advertising** — an orientation of advertising built around a measurable action and the cost of obtaining it: registrations, trials, installs, purchases. It is evaluated through attribution and the cost of the outcome. This is an orientation, not a company type and not a synonym for “measurable advertising”: the goal, the evaluation horizon, and the expected evidence of the result differ from brand advertising.↵
55. **Ad opportunity** — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.↵
56. **Placement (ad slot or selectable media scope)** — an overloaded product term. On the publisher side, it is a predefined ad slot or rule for ad appearance that generates ad opportunities as the product is used. On the buy side, placement can mean an explicitly

selected delivery environment — a site, app, channel, video, section, or individual slot. The entity level must be clarified from the product contract.↵

57. **Publisher revenue** — the amount the publisher recognizes as revenue under its own accounting rules from media payments for its inventory; in the simple case it equals the publisher payout, but recognition (accrued / billed / settled) follows the publisher’s policy, not the moment of payment. It differs from advertiser spend by the sum of all fees in the chain; participants’ service and SaaS fees outside the media money do not count toward it.↵
58. **DSP (Demand-Side Platform)** — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.↵
59. **Media spend** — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.↵
60. **Ad network** — an intermediary that aggregates advertising opportunities (inventory) from many publishers and sells them to advertisers as a single packaged product: the network takes over supply selection, pricing, and delivery, while the buyer gets one manageable offering instead of a dozen separate contracts. Prices inside the network are usually opaque to the buyer. Historically, many ad networks added auction mechanics and rebuilt themselves as ad exchanges, so both functions are often combined under one brand.↵
61. **Programmatic** — automated buying and selling of advertising: decisions about each opportunity are made by systems, not people. RTB is only one of its mechanisms; programmatic also includes automated reserved and direct mechanics without an auction. Programmatic is part of AdTech, but not all of AdTech.↵
62. **Bid** — a buyer’s offer to pay a certain price for a specific ad opportunity, usually expressed as a CPM. A bid is a pre-event decision: it is neither the final price (clearing price) nor the billable amount; in programmatic, the DSP forms a bid for each bid request separately.↵
63. **Auction** — the mechanism for choosing a winner among several bids for one ad opportunity and for determining the price (clearing price) under the auction’s rules — first-price, second-price, and their variants. An auction win is the event of choosing a winner; it is not an impression and does not by itself make the impression billable.↵
64. **SSP (Supply-Side Platform)** — a platform that helps publishers manage the sale of inventory: it sets buyer access rules, connects programmatic demand (DSPs, exchanges), and runs or forwards the auction. SSP and exchange functions are often combined in a single product.↵
65. **Settlement** — the actual movement of money between participants for a period, as distinct from the invoice (the issued claim) and from accrual. One amount passes through three states: accrued — recorded from events, billed — issued in an invoice or statement, settled — paid; at each step the amount may change because of adjustments, fraud filtering, credits, and FX. For one side it is a receivable (expected inflow), for the other a payable.↵
66. **Ad exchange** — the transaction layer that connects buyers and sellers in an automated deal, usually through a real-time auction (RTB). The difference from an ad network is transparency: the buyer sees the description of an individual opportunity and decides for

themselves how much to pay for it, and the price is set by the auction rather than by the network's price list. An exchange is not necessarily a separate company between the DSP and SSP: exchange and SSP functions are often combined in a single product.↵

67. **Ad server** — a system that selects, delivers, and logs advertising under given rules. There are publisher-side ad servers (matching direct campaigns, networks, and programmatic demand, managing delivery) and advertiser-side ones (storing creatives, counting impressions and clicks); the term denotes a function, not a market side.↵
68. **Principal / agent** — the accounting assessment of the reporting entity's role with respect to a specific promised specified good/service: the principal controls it before transferring it to the customer and presents the payment gross; the agent arranges for its provision by another party and presents the net fee/commission. Control is the ability to direct the use and obtain significant benefits before transfer; primary responsibility, inventory risk, and pricing discretion are evidence, not a mechanical score; one company can be a principal in one flow and an agent in another.↵
69. **Revenue share** — the contractual distribution of a named revenue or proceeds base between the parties in a specified share. Without disclosure of the base it is undefined: you need to know whose proceeds, on which ledger boundary, for which period, before or after which agreed adjustments, and who performs the calculation; a share of one boundary does not equal a share of the original advertiser spend.↵
70. **Measurement** — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.↵
71. **Attribution** — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.↵
72. **Impression** — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.↵
73. **Click** — a qualifying user-initiated interaction with an ad, recorded under a specific system's rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.↵
74. **Conversion** — a valuable action or outcome that the advertiser has defined as significant (install, trial, first payment, renewal, purchase) and that a system has counted under its measurement and attribution rules. Conversions cannot be summed without an explicit counting rule: one click can lead to several conversions. An observed conversion is a recorded event; an attributed conversion is an event to which an attribution rule assigned credit; neither proves causality.↵
75. **MMP (Mobile Measurement Partner)** — a specialized category of measurement providers for mobile: it measures installs and in-app events, performs attribution, and provides

independent data to the parties in the deal. Not a synonym for just any measurement system.↵

76. **Verification** — an independent assessment of the quality and conditions of delivery: viewability, environment, fraud, compliance with the rules. Verification providers plug in across the chain and take no part in the commercial decision about the deal.↵
77. **Audience segment** — an addressable set of entities whose membership is defined by a named rule, data source/provenance, observation window, and platform matching/activation contract; an entity can be a user, account, device, browser, household, or modeled profile, so a segment is not necessarily a list of known people.↵
78. **Activation** — handing data or an audience segment to a system that can use it for targeting, suppression, personalization, or measurement: from a CDP/DMP to a DSP, from the advertiser’s CRM to a walled garden, from an identity graph to an SSP. Before activation, data is a record in storage; after it, a rule that affects real impressions. Activation requires matching identifiers between the source and the receiving platform and a permitted legal basis.↵
79. **Targeting** — the campaign’s rules about to whom and where an ad may be shown: hard controls (eligibility rules — geo, device, context, audience/keyword criteria, exclusions) that restrict the set of permitted opportunities, and signals/hints that in algorithmic products only steer delivery without narrowing the eligible set. Targeting answers the question “for which opportunities/users/contexts is showing possible,” as opposed to placement (“where exactly”) and optimization (“which of the permitted impressions to choose”); even if the API stores them in one object, these are different axes.↵
80. **Data provider** — a provider that sells or supplies datasets, attributes, or ready-made audience segments for targeting, measurement, and enrichment. It works in parallel to the buying chain, not “between” two mandatory neighbors; third-party segments are usually paid for by the buyer — often as a data CPM charged through the buying platform on top of the media cost. Not to be confused with an identity provider, which does not supply data but establishes correspondence between identifiers.↵
81. **DMP (Data Management Platform)** — an advertising-oriented system for managing, segmenting, and activating audience data: it collects campaign signals and external datasets, builds audience profiles and segments, and activates them through advertising integrations. It does not have to be the system of record for the full customer lifecycle. The historical rule “a DMP is only cookies and anonymous data” is unreliable; the working boundary with the CDP runs along the primary task — advertising audience activation versus a durable customer record.↵
82. **CDP (Customer Data Platform)** — a system that collects first-party events and customer data from the product, CRM, and other systems into a persistent unified customer record and makes profiles, events, and segments available to downstream systems. It does not buy media and does not assign attribution credit; it belongs to customer lifecycle management, which makes it part of MarTech.↵
83. **Identity provider** — a provider that links or translates identifiers from permitted sources for activation, measurement, and related use cases: for example, matching an advertiser’s customer ID with a platform-specific ID. It does not create consent and does not prove the identity of a real person: matching within one solution is not legal permission. It differs from a data provider in its task — it does not supply datasets but establishes correspondence between identifiers.↵

84. **Publisher payout** — the amount that, under the seller’s contract, must be transferred to the publisher after revenue share, fees, and adjustments; for the SSP or the network it is a payable, for the publisher a receivable. The payout is a contractual and payment quantity; which part of it, and in which period, the publisher recognizes as revenue is determined by its accounting policy (see publisher revenue).↵
85. **SaaS pricing** — the payment model for a software platform: subscription, seats, usage tiers, or processed volume for access to the product. It forms a separate software/service flow: the platform’s usage event does not automatically become a media event, and a SaaS charge does not turn the relationship into a purchase of inventory.↵
86. **CPM (Cost per Mille)** — the cost of a thousand counted impressions for the buyer: $CPM = \text{advertiser cost or spend} / \text{counted impressions} \times 1,000$. The term is ambiguous without a contract: it can mean a pricing basis, a rate, a bid, or a post-fact observed average CPM; the observed CPM answers the question “how much did the buyer spend per thousand counted impressions.”↵
87. **Intermediary** — a participant that connects market sides or performs a specialized function: agencies, DSPs, ad networks, exchanges, SSPs, ad servers, measurement, verification, and data providers. It is justified when the value of its function (reach, aggregation, interoperability, speed, measurement, risk control) exceeds the cost and complexity; it need not be present in every deal and does not necessarily retain a share of the media money — some intermediaries receive a separate service or SaaS fee.↵
88. **Vertical integration** — the situation in which one company occupies several roles in the chain (for example, DSP, exchange, and SSP, or ad network and MMP) and combines them in one product or brand. It gives the customer convenience and a single invoice but creates conflicts of interest: the company represents the buyer and the seller at once, measures itself, or runs the auction it takes part in. The industry term for what the course also calls role bundling.↵
89. **Impression** — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.↵
90. **Click** — a qualifying user-initiated interaction with an ad, recorded under a specific system’s rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.↵
91. **Campaign** — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.↵
92. **Advertiser** — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.↵
93. **Publisher** — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.↵

94. **Metric contract** — the complete definition of a metric by which its number can be reproduced and interpreted: the event definition, measurement point, filters and deduplication, numerator/denominator, dimensions, period and windows, currency, perspective, and ledger boundary. A metric's name without a contract does not fix its meaning: the same formula on different contracts answers different questions.↵
95. **CTR (Click-Through Rate)** — the share of selected impressions after which the selected clicks were recorded: $CTR = \text{qualifying clicks} / \text{counted impressions} \times 100\%$. The number depends on the click/impression basis (served or rendered, filtered or all) and the population; a high CTR by itself does not indicate quality traffic, conversions, or causal lift.↵
96. **Cost** — the expenses of the entity whose economics are being analyzed, in the chosen scope: for an advertiser, the media cost; for a platform, the downstream cost; for a business, a broader set of expenses. Not a synonym for spend: spend is the buyer's outlay on media, while cost can include non-payment and out-of-media components and is always tied to a perspective.↵
97. **Revenue** — the amount recognized by the chosen entity under its accounting rules on its ledger boundary. Estimated dashboard value, invoiced amount, settled amount, and recognized revenue can be different states of one chain; for comparison, the period, timezone, currency conversion, taxes/refunds, and participant must be agreed. How much of the money passing through a platform it recognizes as revenue depends on its principal or agent role (gross/net presentation), not on the size of the invoice.↵
98. **CPC (Cost per Click)** — the cost or spend per qualifying clicks under a disclosed rule: $CPC = \text{cost} / \text{qualifying clicks}$. A bid/target CPC is not the actual average CPC: the former is a bid or an optimization target, the latter is a post-fact average.↵
99. **ROAS (Return on Ad Spend)** — media efficiency: attributed conversion value or revenue per ad spend: $ROAS = \text{attributed conversion value or revenue} / \text{ad spend}$; written as 5.0x or 500%. Attribution-dependent: it depends on the attribution rules and the chosen value field, and without a causal design it does not prove incremental return. A high ROAS is compatible with a negative ROI.↵
100. **Rendered impression** — an impression counted after the creative has loaded and been rendered on the user's device (usually on a signal from client-side code: a pixel or an SDK event after render). It proves rendering, but not that the creative entered the visible area of the screen or was noticed; the MRC standard for display counts an impression precisely on client-side load/render.↵
101. **Served impression** — an impression counted on the fact that the ad server or selling platform returned the creative (or a reference to it) in response to a request; it proves sending, but not loading, rendering, or visibility. The earliest and largest number in the served → rendered → viewable ladder.↵
102. **Media spend** — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.↵
103. **Publisher revenue** — the amount the publisher recognizes as revenue under its own accounting rules from media payments for its inventory; in the simple case it equals the publisher payout, but recognition (accrued / billed / settled) follows the publisher's policy, not

the moment of payment. It differs from advertiser spend by the sum of all fees in the chain; participants' service and SaaS fees outside the media money do not count toward it.↵

104. **Ad opportunity** — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.↵
105. **Placement (ad slot or selectable media scope)** — an overloaded product term. On the publisher side, it is a predefined ad slot or rule for ad appearance that generates ad opportunities as the product is used. On the buy side, placement can mean an explicitly selected delivery environment — a site, app, channel, video, section, or individual slot. The entity level must be clarified from the product contract.↵
106. **Creative** — the advertising material that is delivered and shown to the user: a banner, a video, a native format, a playable. Along with targeting rules it is an object of delivery and must match the format and rules of the publisher's environment; for a campaign, several creatives are usually prepared.↵
107. **Auction** — the mechanism for choosing a winner among several bids for one ad opportunity and for determining the price (clearing price) under the auction's rules — first-price, second-price, and their variants. An auction win is the event of choosing a winner; it is not an impression and does not by itself make the impression billable.↵
108. **Measurement** — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.↵
109. **Conversion** — a valuable action or outcome that the advertiser has defined as significant (install, trial, first payment, renewal, purchase) and that a system has counted under its measurement and attribution rules. Conversions cannot be summed without an explicit counting rule: one click can lead to several conversions. An observed conversion is a recorded event; an attributed conversion is an event to which an attribution rule assigned credit; neither proves causality.↵
110. **Viewable impression** — an impression that met the applicable geometry/time criteria of viewability (the classic MRC benchmark: at least 50% of the creative's pixels on screen for one continuous second for display and two for video). Viewable means a standardized opportunity to see, not a person's attention; non-viewable (the measurement took place, the criteria were not met) is not the same as non-measurable (the status could not be determined).↵
111. **Reach** — the de-duplicated number of unique entities (persons, devices, households, accounts, or a modeled audience) that received at least one qualifying exposure in a period, or the share of such entities in an explicitly defined population: $\text{reach rate} = \text{reached unique entities} / \text{declared universe} \times 100\%$. Comparable only with identical entity definition, exposure rule, population, de-duplication scope, and period.↵
112. **Frequency** — the average number of qualifying exposures per reached unique entity over the same period: $\text{frequency} = \text{qualifying impressions} / \text{reached unique entities}$. It is an average, not a distribution: it does not mean that every person saw the ad the same number of times.↵

113. **Attribution** — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.[↩](#)
114. **CVR (Conversion Rate)** — the share of qualifying conversions among the declared eligible precursor events: $\text{CVR} = \text{qualifying conversions} / \text{declared eligible precursor events} \times 100\%$. A bare CVR hides the transition: only named transitions such as click-to-install or install-to-trial are comparable; a value above 100% is possible with several conversion actions on one interaction.[↩](#)
115. **Bid** — a buyer’s offer to pay a certain price for a specific ad opportunity, usually expressed as a CPM. A bid is a pre-event decision: it is neither the final price (clearing price) nor the billable amount; in programmatic, the DSP forms a bid for each bid request separately.[↩](#)
116. **Optimization target** — the outcome toward which a bidding system tunes its future decisions: most often an optimization event (install, paid subscription) plus a goal for it. Not to be confused with a strategy parameter: target CPA \$4 is a bid-strategy constraint, not the event the system predicts. It does not turn the contract into CPA billing: the payment model establishes the contract, the realized metrics describe what happened post-fact, and the optimization target influences only decisions before the event.[↩](#)
117. **CPM (Cost per Mille)** — the cost of a thousand counted impressions for the buyer: $\text{CPM} = \text{advertiser cost or spend} / \text{counted impressions} \times 1,000$. The term is ambiguous without a contract: it can mean a pricing basis, a rate, a bid, or a post-fact observed average CPM; the observed CPM answers the question “how much did the buyer spend per thousand counted impressions.”[↩](#)
118. **Pricing basis** — the contractual rule for calculating a price: the object for which the buyer pays — an impression, click, action, install, lead, a share of proceeds, a period of access to software, or another agreed result. A metric’s name in an interface (CPM, CPC, CPA) does not by itself fix the basis: the same name can be a contractual price, a bid, or the actual average after the events, so only the basis named in the contract creates a monetary obligation.[↩](#)
119. **eCPM (effective CPM)** — the seller’s recognized revenue per thousand counted impressions: $\text{eCPM} = \text{recognized revenue} / \text{counted impressions} \times 1,000$. Usually the publisher’s perspective; it makes it possible to compare demand paid on CPM, CPC, or CPA on a common realized-revenue basis. Not a synonym for CPM: the numerators belong to different ledger boundaries.[↩](#)
120. **CPA (Cost per Action)** — the cost per advertiser-defined qualifying actions: $\text{CPA} = \text{cost} / \text{qualifying actions}$. The action is defined by the campaign contract — a trial, an order, a lead, or a subscription, not necessarily a new customer — so a CPA cannot be read without the name of the action or compared between campaigns directly.[↩](#)
121. **CPI (Cost per Install)** — the cost of mobile acquisition per qualifying installs: $\text{CPI} = \text{cost} / \text{qualifying installs}$. The install count depends on the measurement and attribution rules, so a CPI is comparable only under named install-counting rules.[↩](#)
122. **CPL (Cost per Lead)** — the cost per business-defined qualifying leads: $\text{CPL} = \text{cost} / \text{qualifying leads}$. Lead definitions and quality differ between businesses, and a lead is not yet a customer, so a low CPL is useless without qualification.[↩](#)

123. **CAC (Customer Acquisition Cost)** — the business’s allocated acquisition costs per new customer: $CAC = \text{allocated acquisition costs} / \text{new customers}$. Broader than the platform CPA: the numerator can include media, agency, sales, and onboarding costs, and a new customer is defined by a business rule (for example, the first confirmed payment). A platform CPA cannot be renamed a CAC until the customer event, period, cost allocation, and refunds are agreed.↵
124. **Agency** — a contractor company that plans and executes marketing and media work on behalf of an advertiser: develops strategy, prepares creative, selects channels, launches a campaign, and reports on results. An advertiser can keep media buying in-house, hand it to an agency in full, or split the responsibility. An agency is an organization and a contractual role, as opposed to a media buyer — an operational function that can also work inside an advertiser.↵
125. **Ledger boundary** — the boundary within which an entity recognizes and records amounts and events under its own rules: the same amount is revenue on one boundary and a downstream media/traffic cost on another. Because of different ledger boundaries, the reports of the advertiser, the platform, and the publisher about the same deal naturally do not match and do not have to match.↵
126. **Demand** — the budgets and intent of advertisers to buy suitable advertising opportunities; the market side around which the buy side / demand side groups — the people and systems that help plan and buy media (agencies, DSPs). Demand is a market side, not a specific technology: platforms must not be confused with sides.↵
127. **DSP (Demand-Side Platform)** — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.↵
128. **Gross/net revenue (presentation)** — a variant of how the reporting entity presents revenue: gross shows the agreed payment in full, net only the fee or commission. The choice follows the contract-specific principal-agent assessment for the specific specified good/service, not the logic of “money before/after expenses”: the product’s label, the invoice, or gross billings do not by themselves determine the conclusion.↵
129. **Take rate** — the retained amount relative to a named transaction flow on the chosen boundary: $\text{take rate} = \text{retained amount} / \text{named transaction flow}$. Comparable only when the numerator, denominator, and included fees are disclosed: the same amount yields different rates relative to the boundary proceeds and the original advertiser spend.↵
130. **Settlement** — the actual movement of money between participants for a period, as distinct from the invoice (the issued claim) and from accrual. One amount passes through three states: accrued — recorded from events, billed — issued in an invoice or statement, settled — paid; at each step the amount may change because of adjustments, fraud filtering, credits, and FX. For one side it is a receivable (expected inflow), for the other a payable.↵
131. **ROI (Return on Investment)** — the profitability of a broader investment scope: $ROI = \text{net profit} / \text{total relevant investment cost} = (\text{return} - \text{total relevant cost}) / \text{total relevant cost}$. Unlike ROAS, it uses the full chosen cost scope, not just ad spend.↵
132. **ARPU (Average Revenue per User)** — the selected revenue across all eligible users of the chosen population or cohort for a period: $ARPU = \text{selected revenue} / \text{all eligible}$

users. It requires a user definition, revenue categories (purchase, subscription, ad), a period, and a cohort/population; it includes non-paying users.↵

133. **ARPPU (Average Revenue per Paying User)** — revenue per paying user: $\text{ARPPU} = \text{selected revenue from payers} / \text{paying users}$. It divides only by payers and requires a payer event, the composition of revenue (purchase, subscription), refund rules, and a period. It is usually higher than the ARPU of the same population, but not always: if ARPU includes ad revenue from non-paying users while ARPPU counts only purchase revenue, the ratio can flip; which revenue enters the numerator is part of the metric's contract.↵
134. **LTV (Lifetime Value)** — the cumulative observed or predicted value of a cohort's members: $\text{LTV} = \text{cumulative observed or predicted value} / \text{cohort members}$. It requires a cohort, a horizon, an identity rule, a value basis (revenue or contribution), and an observed/predicted status; revenue LTV does not subtract costs, and contribution LTV is calculated on the agreed marginal basis. Without these definitions, "a user's LTV" is not a defined scalar.↵
135. **Fill rate** — the share of eligible ad requests that received an ad response (a fill), for example $\text{filled responses} / \text{eligible ad requests}$. A publisher/ad server metric of the request → fill transition; there is no safe vendor-neutral denominator — a product may divide filled responses, matched bids, or counted impressions by requests, opportunities, or ad units, and these are different metrics. A fill is not a final outcome: a filled response may not render and may not become a counted impression, so a response-based fill rate is higher than the share of impressions actually delivered. Not a synonym for match, response, or delivery rate.↵
136. **Ad server** — a system that selects, delivers, and logs advertising under given rules. There are publisher-side ad servers (matching direct campaigns, networks, and programmatic demand, managing delivery) and advertiser-side ones (storing creatives, counting impressions and clicks); the term denotes a function, not a market side.↵
137. **Win rate** — the share of submitted eligible bids that won the auction: $\text{winning bids} / \text{submitted eligible bids}$. A buyer/deal metric of the bid → auction win transition; it requires the population to be disclosed. A win notice is not yet delivery and not a billing event: the auction can select a bid as the winner, but the creative may not be delivered or the impression may not become billable.↵
138. **Billable event** — a qualifying event defined by the contract, after which the payee is entitled to accrue the billable amount — the sum under the pricing basis after counts, rates, validation, and contractual adjustments; it is not necessarily invoiced, recognized as revenue, or paid. The event is set by contract policy, not automatically by the protocol: an auction win, a win notice, and a billing notice are different points, and a win does not guarantee delivery or a charge.↵
139. **CPM (Cost per Mille)** — the cost of a thousand counted impressions for the buyer: $\text{CPM} = \text{advertiser cost or spend} / \text{counted impressions} \times 1,000$. The term is ambiguous without a contract: it can mean a pricing basis, a rate, a bid, or a post-fact observed average CPM; the observed CPM answers the question "how much did the buyer spend per thousand counted impressions."↵
140. **CPC (Cost per Click)** — the cost or spend per qualifying clicks under a disclosed rule: $\text{CPC} = \text{cost} / \text{qualifying clicks}$. A bid/target CPC is not the actual average CPC: the former is a bid or an optimization target, the latter is a post-fact average.↵

141. **CPA (Cost per Action)** — the cost per advertiser-defined qualifying actions: $CPA = \text{cost} / \text{qualifying actions}$. The action is defined by the campaign contract — a trial, an order, a lead, or a subscription, not necessarily a new customer — so a CPA cannot be read without the name of the action or compared between campaigns directly.↵
142. **Bid** — a buyer's offer to pay a certain price for a specific ad opportunity, usually expressed as a CPM. A bid is a pre-event decision: it is neither the final price (clearing price) nor the billable amount; in programmatic, the DSP forms a bid for each bid request separately.↵
143. **Optimization target** — the outcome toward which a bidding system tunes its future decisions: most often an optimization event (install, paid subscription) plus a goal for it. Not to be confused with a strategy parameter: target CPA \$4 is a bid-strategy constraint, not the event the system predicts. It does not turn the contract into CPA billing: the payment model establishes the contract, the realized metrics describe what happened post-fact, and the optimization target influences only decisions before the event.↵
144. **Pricing basis** — the contractual rule for calculating a price: the object for which the buyer pays — an impression, click, action, install, lead, a share of proceeds, a period of access to software, or another agreed result. A metric's name in an interface (CPM, CPC, CPA) does not by itself fix the basis: the same name can be a contractual price, a bid, or the actual average after the events, so only the basis named in the contract creates a monetary obligation.↵
145. **Billable event** — a qualifying event defined by the contract, after which the payee is entitled to accrue the billable amount — the sum under the pricing basis after counts, rates, validation, and contractual adjustments; it is not necessarily invoiced, recognized as revenue, or paid. The event is set by contract policy, not automatically by the protocol: an auction win, a win notice, and a billing notice are different points, and a win does not guarantee delivery or a charge.↵
146. **Auction** — the mechanism for choosing a winner among several bids for one ad opportunity and for determining the price (clearing price) under the auction's rules — first-price, second-price, and their variants. An auction win is the event of choosing a winner; it is not an impression and does not by itself make the impression billable.↵
147. **Programmatic** — automated buying and selling of advertising: decisions about each opportunity are made by systems, not people. RTB is only one of its mechanisms; programmatic also includes automated reserved and direct mechanics without an auction. Programmatic is part of AdTech, but not all of AdTech.↵
148. **Impression** — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.↵
149. **Ledger boundary** — the boundary within which an entity recognizes and records amounts and events under its own rules: the same amount is revenue on one boundary and a downstream media/traffic cost on another. Because of different ledger boundaries, the reports of the advertiser, the platform, and the publisher about the same deal naturally do not match and do not have to match.↵
150. **Media spend** — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.↵

151. **Retained amount** — the part of the transaction flow remaining with a participant on its boundary before its own costs. It characterizes transaction economics but is not recognized revenue or profit: the accounting presentation and the expenses are determined by the entity's separate policy.↵
152. **Advertiser** — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.↵
153. **Cost** — the expenses of the entity whose economics are being analyzed, in the chosen scope: for an advertiser, the media cost; for a platform, the downstream cost; for a business, a broader set of expenses. Not a synonym for spend: spend is the buyer's outlay on media, while cost can include non-payment and out-of-media components and is always tied to a perspective.↵
154. **Intermediary** — a participant that connects market sides or performs a specialized function: agencies, DSPs, ad networks, exchanges, SSPs, ad servers, measurement, verification, and data providers. It is justified when the value of its function (reach, aggregation, interoperability, speed, measurement, risk control) exceeds the cost and complexity; it need not be present in every deal and does not necessarily retain a share of the media money — some intermediaries receive a separate service or SaaS fee.↵
155. **Revenue** — the amount recognized by the chosen entity under its accounting rules on its ledger boundary. Estimated dashboard value, invoiced amount, settled amount, and recognized revenue can be different states of one chain; for comparison, the period, timezone, currency conversion, taxes/refunds, and participant must be agreed. How much of the money passing through a platform it recognizes as revenue depends on its principal or agent role (gross/net presentation), not on the size of the invoice.↵
156. **Settlement** — the actual movement of money between participants for a period, as distinct from the invoice (the issued claim) and from accrual. One amount passes through three states: accrued — recorded from events, billed — issued in an invoice or statement, settled — paid; at each step the amount may change because of adjustments, fraud filtering, credits, and FX. For one side it is a receivable (expected inflow), for the other a payable.↵
157. **Ad network** — an intermediary that aggregates advertising opportunities (inventory) from many publishers and sells them to advertisers as a single packaged product: the network takes over supply selection, pricing, and delivery, while the buyer gets one manageable offering instead of a dozen separate contracts. Prices inside the network are usually opaque to the buyer. Historically, many ad networks added auction mechanics and rebuilt themselves as ad exchanges, so both functions are often combined under one brand.↵
158. **Click** — a qualifying user-initiated interaction with an ad, recorded under a specific system's rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.↵
159. **Proceeds** — the amount of the transaction inflow before the agreed distribution on the chosen boundary. The word gross next to proceeds describes the base before the split, not automatically gross revenue in financial reporting: for calculating shares, the boundary, the period, and the permitted deductions matter.↵

160. **Ad opportunity** — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.↵
161. **Payee / payer** — the two sides of one payment obligation: the payer pays for the billable event, the payee receives the payment. Risk allocation in a pricing model is described through them: under CPM the payee earns the right to charge early in the funnel and the post-impression risk sits with the payer; under CPA the payee takes on all the risk up to the conversion. One company can be the payee in one contract and the payer in another.↵
162. **Conversion** — a valuable action or outcome that the advertiser has defined as significant (install, trial, first payment, renewal, purchase) and that a system has counted under its measurement and attribution rules. Conversions cannot be summed without an explicit counting rule: one click can lead to several conversions. An observed conversion is a recorded event; an attributed conversion is an event to which an attribution rule assigned credit; neither proves causality.↵
163. **Served impression** — an impression counted on the fact that the ad server or selling platform returned the creative (or a reference to it) in response to a request; it proves sending, but not loading, rendering, or visibility. The earliest and largest number in the served → rendered → viewable ladder.↵
164. **Rendered impression** — an impression counted after the creative has loaded and been rendered on the user's device (usually on a signal from client-side code: a pixel or an SDK event after render). It proves rendering, but not that the creative entered the visible area of the screen or was noticed; the MRC standard for display counts an impression precisely on client-side load/render.↵
165. **Viewable impression** — an impression that met the applicable geometry/time criteria of viewability (the classic MRC benchmark: at least 50% of the creative's pixels on screen for one continuous second for display and two for video). Viewable means a standardized opportunity to see, not a person's attention; non-viewable (the measurement took place, the criteria were not met) is not the same as non-measurable (the status could not be determined).↵
166. **Attribution** — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.↵
167. **LTV (Lifetime Value)** — the cumulative observed or predicted value of a cohort's members: $LTV = \text{cumulative observed or predicted value} / \text{cohort members}$. It requires a cohort, a horizon, an identity rule, a value basis (revenue or contribution), and an observed/predicted status; revenue LTV does not subtract costs, and contribution LTV is calculated on the agreed marginal basis. Without these definitions, “a user's LTV” is not a defined scalar.↵
168. **CPI (Cost per Install)** — the cost of mobile acquisition per qualifying installs: $CPI = \text{cost} / \text{qualifying installs}$. The install count depends on the measurement and attribution rules, so a CPI is comparable only under named install-counting rules.↵

169. **CPL (Cost per Lead)** — the cost per business-defined qualifying leads: $\text{CPL} = \text{cost} / \text{qualifying leads}$. Lead definitions and quality differ between businesses, and a lead is not yet a customer, so a low CPL is useless without qualification.↵
170. **Measurement** — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.↵
171. **Publisher** — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.↵
172. **Ad exchange** — the transaction layer that connects buyers and sellers in an automated deal, usually through a real-time auction (RTB). The difference from an ad network is transparency: the buyer sees the description of an individual opportunity and decides for themselves how much to pay for it, and the price is set by the auction rather than by the network's price list. An exchange is not necessarily a separate company between the DSP and SSP: exchange and SSP functions are often combined in a single product.↵
173. **SSP (Supply-Side Platform)** — a platform that helps publishers manage the sale of inventory: it sets buyer access rules, connects programmatic demand (DSPs, exchanges), and runs or forwards the auction. SSP and exchange functions are often combined in a single product.↵
174. **Markup** — a surcharge on the base cost expressed as a share of the cost denominator: $\text{markup} = (\text{selling amount} - \text{acquisition cost}) / \text{acquisition cost}$. It is not the spread (the absolute difference) and not the gross margin (which uses the reporting entity's accounting revenue and cost of revenue); comparable only when the buy/sell amounts are named.↵
175. **Revenue share** — the contractual distribution of a named revenue or proceeds base between the parties in a specified share. Without disclosure of the base it is undefined: you need to know whose proceeds, on which ledger boundary, for which period, before or after which agreed adjustments, and who performs the calculation; a share of one boundary does not equal a share of the original advertiser spend.↵
176. **Fixed fee** — an amount agreed in advance for a period, a scope, or a deliverable that does not depend on the volume of media transactions: an agency retainer, a setup or managed-service fee, a minimum monthly commitment, a flat sponsorship fee. It is usually a flow separate from media money: it is not deducted from the media dollar and does not become a publisher payout or a take rate — unless a specific contract bundles software and media charges into one invoice. It is chosen for predictability and to remove the “fee grows with spend” conflict; the provider bears the risk that the agreed scope will require more work.↵
177. **SaaS pricing** — the payment model for a software platform: subscription, seats, usage tiers, or processed volume for access to the product. It forms a separate software/service flow: the platform's usage event does not automatically become a media event, and a SaaS charge does not turn the relationship into a purchase of inventory.↵
178. **Spread** — the absolute difference between the selling amount and the acquisition/downstream amount on a named boundary. The economic core of an intermediary's resale and arbitrage models; the markup and the take rate are computed from

the same spread with different denominators and are not comparable without the named boundary.[↵](#)

179. **Take rate** — the retained amount relative to a named transaction flow on the chosen boundary: $\text{take rate} = \text{retained amount} / \text{named transaction flow}$. Comparable only when the numerator, denominator, and included fees are disclosed: the same amount yields different rates relative to the boundary proceeds and the original advertiser spend.[↵](#)
180. **Gross/net revenue (presentation)** — a variant of how the reporting entity presents revenue: gross shows the agreed payment in full, net only the fee or commission. The choice follows the contract-specific principal-agent assessment for the specific specified good/service, not the logic of “money before/after expenses”: the product’s label, the invoice, or gross billings do not by themselves determine the conclusion.[↵](#)
181. **Gross margin** — the share of recognized revenue remaining after the cost of revenue of the same reporting entity on the same accounting basis: $\text{gross margin} = (\text{recognized revenue} - \text{cost of revenue}) / \text{recognized revenue}$; gross profit is the numerator of this formula. Not the same as the take rate, which divides the retained amount by a named transaction flow.[↵](#)
182. **Cost of revenue (CoR)** — the expenses that the reporting entity classifies as directly connected with earning the recognized revenue under its policy. Not just any cash outflow: the composition is determined by the company’s policy, and operating expenses, interest, and taxes sit below gross profit.[↵](#)
183. **Agency** — a contractor company that plans and executes marketing and media work on behalf of an advertiser: develops strategy, prepares creative, selects channels, launches a campaign, and reports on results. An advertiser can keep media buying in-house, hand it to an agency in full, or split the responsibility. An agency is an organization and a contractual role, as opposed to a media buyer — an operational function that can also work inside an advertiser.[↵](#)
184. **Campaign** — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.[↵](#)
185. **Ad server** — a system that selects, delivers, and logs advertising under given rules. There are publisher-side ad servers (matching direct campaigns, networks, and programmatic demand, managing delivery) and advertiser-side ones (storing creatives, counting impressions and clicks); the term denotes a function, not a market side.[↵](#)
186. **Advertising inventory** — the set of available or forecast opportunities to show advertising, bounded by the environment, the slot, the format, the time, the publisher’s rules, and the permissible audience context. Inventory is not a list of users and not a warehouse of pre-produced impressions: an opportunity arises and disappears at the moment the product is used.[↵](#)
187. **Publisher payout** — the amount that, under the seller’s contract, must be transferred to the publisher after revenue share, fees, and adjustments; for the SSP or the network it is a payable, for the publisher a receivable. The payout is a contractual and payment quantity; which part of it, and in which period, the publisher recognizes as revenue is determined by its accounting policy (see publisher revenue).[↵](#)

188. **Publisher revenue** — the amount the publisher recognizes as revenue under its own accounting rules from media payments for its inventory; in the simple case it equals the publisher payout, but recognition (accrued / billed / settled) follows the publisher’s policy, not the moment of payment. It differs from advertiser spend by the sum of all fees in the chain; participants’ service and SaaS fees outside the media money do not count toward it.↵
189. **Gross billings** — the amount invoiced to clients or passed through collection before excluding supplier components; a broader quantity than recognized revenue and not its synonym. Billings describe billing, not the principal/agent accounting conclusion.↵
190. **Principal / agent** — the accounting assessment of the reporting entity’s role with respect to a specific promised specified good/service: the principal controls it before transferring it to the customer and presents the payment gross; the agent arranges for its provision by another party and presents the net fee/commission. Control is the ability to direct the use and obtain significant benefits before transfer; primary responsibility, inventory risk, and pricing discretion are evidence, not a mechanical score; one company can be a principal in one flow and an agent in another.↵
191. **Supply** — the advertising opportunities available from publishers; the market side around which the sell side / supply side groups — the people and systems that help describe, sell, and deliver advertising (SSPs, publisher ad servers). Supply is the set of inventory for sale, not the name of a platform. An ad network aggregates both supply and demand, so it sits between the sides rather than inside one of them.↵
192. **AdTech (advertising technology)** — the set of technologies that coordinate the buying, selling, selection, delivery, measurement, and payment for advertising between advertisers, publishers, and intermediaries: from the ad server and DSP/SSP to measurement and verification systems. Programmatic is only part of AdTech: direct deals, reserved buying, and closed platforms also run on AdTech. The boundary with MarTech is drawn by primary purpose: AdTech coordinates paid media, MarTech the customer lifecycle.↵
193. **DSP (Demand-Side Platform)** — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.↵
194. **Arbitrage** — an intermediary model that buys media/traffic cheaper and sells it dearer, or buys on one pricing basis and sells on another. The economics rest on the spread in exchange for accepted risk: volume/fulfillment, basis mismatch, and reconciliation risk can turn the spread into a loss. Not every intermediary fee is arbitrage, and arbitrage is not automatically abuse; the problem is the opacity of the buy/sell basis and the spread to the customer.↵
195. **Basis mismatch** — buying and selling the same media on different pricing bases, for example buying impressions on a CPM and selling clicks or actions on a CPC/CPA. It adds performance risk to arbitrage: the intermediary’s revenue depends on the realized CTR/CVR and validation, while the original media cost remains if the downstream billable amount does not cover it.↵
196. **CTR (Click-Through Rate)** — the share of selected impressions after which the selected clicks were recorded: $CTR = \text{qualifying clicks} / \text{counted impressions} \times 100\%$. The number depends on the click/impression basis (served or rendered, filtered or all) and the population; a high CTR by itself does not indicate quality traffic, conversions, or causal lift.↵

197. **CVR (Conversion Rate)** — the share of qualifying conversions among the declared eligible precursor events: $\text{CVR} = \text{qualifying conversions} / \text{declared eligible precursor events} \times 100\%$. A bare CVR hides the transition: only named transitions such as click-to-install or install-to-trial are comparable; a value above 100% is possible with several conversion actions on one interaction.↵
198. **Reach** — the de-duplicated number of unique entities (persons, devices, households, accounts, or a modeled audience) that received at least one qualifying exposure in a period, or the share of such entities in an explicitly defined population: $\text{reach rate} = \text{reached unique entities} / \text{declared universe} \times 100\%$. Comparable only with identical entity definition, exposure rule, population, de-duplication scope, and period.↵
199. **Campaign** — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.↵
200. **Advertiser** — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.↵
201. **Budget** — a constraint on the available spend over a given scope (a campaign, an ad set, a shared pool of several campaigns) and time basis. Common are the daily budget (a hard calendar cap, an average daily target, or another form — the product defines this) and the lifetime/flight budget for the whole interval. A budget constrains spending but does not guarantee inventory, conversions, even pacing, or an exact invoice amount.↵
202. **Targeting** — the campaign’s rules about to whom and where an ad may be shown: hard controls (eligibility rules — geo, device, context, audience/keyword criteria, exclusions) that restrict the set of permitted opportunities, and signals/hints that in algorithmic products only steer delivery without narrowing the eligible set. Targeting answers the question “for which opportunities/users/contexts is showing possible,” as opposed to placement (“where exactly”) and optimization (“which of the permitted impressions to choose”); even if the API stores them in one object, these are different axes.↵
203. **Schedule (flight)** — the campaign’s temporal eligibility: the start and end, the account time zone in which the dates are interpreted, and, where the product supports it, dayparting (the permitted days of the week and hours). Before the start, the campaign can be enabled but have the effective status pending; after the end it finishes, even if part of the budget was not spent.↵
204. **Ad** — the executable delivery unit of a campaign: it links the parent group (ad group or ad set), the advertiser identity, the creative, the destination, tracking, and the status. An ad is not the same as a creative: one creative can run in several ads with different parent rules, destinations, and states.↵
205. **Media spend** — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.↵
206. **Ad account (advertiser account)** — a tenant on an advertising platform within which campaigns and related settings exist; it forms several boundaries at once: ownership and access (the operators’ roles and permissions), the billing identity, the currency and time zone,

the namespace of identifiers, and the shared configuration (data sources, brand assets, defaults). The advertiser's legal company and the ad account are not the same thing: one company may have several accounts across regions, brands, and currencies, and one account may serve several initiatives of the same legal entity.↵

- 207. **Payee / payer** — the two sides of one payment obligation: the payer pays for the billable event, the payee receives the payment. Risk allocation in a pricing model is described through them: under CPM the payee earns the right to charge early in the funnel and the post-impression risk sits with the payer; under CPA the payee takes on all the risk up to the conversion. One company can be the payee in one contract and the payer in another.↵
- 208. **Conversion action** — a platform-configured definition of an event that counts as a conversion for reporting and optimization: the source (pixel, SDK, S2S, import), the event name, counting rules (one or every per interaction), the value, and the window. A platform may have several conversion actions per account; which are primary (used for optimization) and which secondary (reporting only) is part of the campaign configuration.↵
- 209. **Manager account** — the platform's administrative layer that gives an agency or an internal group centralized delegated access to several ad accounts. This is administrative access, not an additional delivery layer: a manager account does not participate in the delivery hierarchy of each campaign.↵
- 210. **Agency** — a contractor company that plans and executes marketing and media work on behalf of an advertiser: develops strategy, prepares creative, selects channels, launches a campaign, and reports on results. An advertiser can keep media buying in-house, hand it to an agency in full, or split the responsibility. An agency is an organization and a contractual role, as opposed to a media buyer — an operational function that can also work inside an advertiser.↵
- 211. **Campaign objective** — the high-level business intent or setup guidance communicated to the platform when the campaign is created: awareness, traffic, leads, app promotion, sales. The objective suggests campaign types, features, and defaults, but need not match the event that the optimizer directly predicts: the optimization event is chosen separately.↵
- 212. **Ad group / ad set** — the intermediate level of the campaign hierarchy between the campaign and the ad, grouping ads with shared execution rules. The names and the set of fields are vendor-specific, and there is no universal schema: in the Google-like model, the ad group groups closely related ads and triggering criteria (for example, related keywords); in the Meta-like model, the ad set holds the audience, placements, optimization, bid, budget, and schedule.↵
- 213. **Placement (ad slot or selectable media scope)** — an overloaded product term. On the publisher side, it is a predefined ad slot or rule for ad appearance that generates ad opportunities as the product is used. On the buy side, placement can mean an explicitly selected delivery environment — a site, app, channel, video, section, or individual slot. The entity level must be clarified from the product contract.↵
- 214. **Bid** — a buyer's offer to pay a certain price for a specific ad opportunity, usually expressed as a CPM. A bid is a pre-event decision: it is neither the final price (clearing price) nor the billable amount; in programmatic, the DSP forms a bid for each bid request separately.↵
- 215. **DSP (Demand-Side Platform)** — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each

opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.↵

- 216. **Ad server** — a system that selects, delivers, and logs advertising under given rules. There are publisher-side ad servers (matching direct campaigns, networks, and programmatic demand, managing delivery) and advertiser-side ones (storing creatives, counting impressions and clicks); the term denotes a function, not a market side.↵
- 217. **Creative** — the advertising material that is delivered and shown to the user: a banner, a video, a native format, a playable. Along with targeting rules it is an object of delivery and must match the format and rules of the publisher’s environment; for a campaign, several creatives are usually prepared.↵
- 218. **Destination (landing page, final URL)** — the first target surface after an interaction with the ad: a web page, an App Store/Google Play listing, or a deep link into an app. It is part of the user path, not a tracking record: the tracking template and URL parameters control the measurement path, but not the landing page.↵
- 219. **Optimization event** — the observable event that the delivery system learns from and optimizes impressions toward: install, trial start, paid subscription, purchase. The advertiser selects it in the campaign settings (different platforms call it a conversion action, conversion goal, or performance goal). It is not the campaign objective (the business intent), not the billable event (what is paid for), and not a strategy parameter such as target CPA. A deeper event yields fewer signals and a longer learning phase.↵
- 220. **Impression** — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.↵
- 221. **Click** — a qualifying user-initiated interaction with an ad, recorded under a specific system’s rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.↵
- 222. **Conversion** — a valuable action or outcome that the advertiser has defined as significant (install, trial, first payment, renewal, purchase) and that a system has counted under its measurement and attribution rules. Conversions cannot be summed without an explicit counting rule: one click can lead to several conversions. An observed conversion is a recorded event; an attributed conversion is an event to which an attribution rule assigned credit; neither proves causality.↵
- 223. **Measurement** — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.↵
- 224. **Bid strategy** — a policy that translates the optimization goal and constraints (a target or a cap) into auction bids. The strategy, its target/cap, the actual bid for a specific opportunity, and the billable price are four different entities: a single numeric target CPA is not the actual bid, and the actual bid does not by itself determine the billable amount.↵
- 225. **Pricing basis** — the contractual rule for calculating a price: the object for which the buyer pays — an impression, click, action, install, lead, a share of proceeds, a period of access to

software, or another agreed result. A metric's name in an interface (CPM, CPC, CPA) does not by itself fix the basis: the same name can be a contractual price, a bid, or the actual average after the events, so only the basis named in the contract creates a monetary obligation.↵

226. **CPM (Cost per Mille)** — the cost of a thousand counted impressions for the buyer: $\text{CPM} = \text{advertiser cost or spend} / \text{counted impressions} \times 1,000$. The term is ambiguous without a contract: it can mean a pricing basis, a rate, a bid, or a post-fact observed average CPM; the observed CPM answers the question “how much did the buyer spend per thousand counted impressions.”↵
227. **CPC (Cost per Click)** — the cost or spend per qualifying clicks under a disclosed rule: $\text{CPC} = \text{cost} / \text{qualifying clicks}$. A bid/target CPC is not the actual average CPC: the former is a bid or an optimization target, the latter is a post-fact average.↵
228. **Billable event** — a qualifying event defined by the contract, after which the payee is entitled to accrue the billable amount — the sum under the pricing basis after counts, rates, validation, and contractual adjustments; it is not necessarily invoiced, recognized as revenue, or paid. The event is set by contract policy, not automatically by the protocol: an auction win, a win notice, and a billing notice are different points, and a win does not guarantee delivery or a charge.↵
229. **Ad opportunity** — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.↵
230. **Publisher** — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.↵
231. **Audience exclusion / suppression** — a negative targeting rule designed to exclude entities with a named membership or status; the actual completeness of the exclusion is limited by identity match, freshness, propagation latency, and the semantics of the specific platform.↵
232. **Auction** — the mechanism for choosing a winner among several bids for one ad opportunity and for determining the price (clearing price) under the auction's rules — first-price, second-price, and their variants. An auction win is the event of choosing a winner; it is not an impression and does not by itself make the impression billable.↵
233. **CPA (Cost per Action)** — the cost per advertiser-defined qualifying actions: $\text{CPA} = \text{cost} / \text{qualifying actions}$. The action is defined by the campaign contract — a trial, an order, a lead, or a subscription, not necessarily a new customer — so a CPA cannot be read without the name of the action or compared between campaigns directly.↵
234. **Pacing** — the policy of distributing spend over time within budget constraints: whether to spend evenly, accelerate on cheap or high-quality opportunities, or hold back the budget. Pacing allocates the resource but does not promise even spending: the available opportunities and the allocation change.↵
235. **Advertising inventory** — the set of available or forecast opportunities to show advertising, bounded by the environment, the slot, the format, the time, the publisher's rules, and the permissible audience context. Inventory is not a list of users and not a warehouse of pre-

produced impressions: an opportunity arises and disappears at the moment the product is used.↵

236. **Tracking settings** — the campaign’s observability configuration: the transmitted identifiers (campaign/group/ad IDs), URL parameters, macros, the tracking template and final URL suffix, the event sources (pixel, app SDK, server-to-server integration, MMP), the selected conversion actions, and the attribution configuration boundary. Tracking settings govern the measurement path and do not replace the destination; URL parameter names are not an industry standard.↵
237. **MMP (Mobile Measurement Partner)** — a specialized category of measurement providers for mobile: it measures installs and in-app events, performs attribution, and provides independent data to the parties in the deal. Not a synonym for just any measurement system.↵
238. **Attribution** — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.↵
239. **Learning phase (learning status)** — the state of the optimizer in which the delivery/bidding model gathers evidence after launch or a material configuration change: earlier data describe the new decisions less accurately. Learning is one of the axes of the operational state alongside the configured, effective, and review statuses, not the opposite of active: impressions and spend continue, and vendor-specific significant edits (targeting, creative, optimization event, the set of ads, the bid strategy) can return the optimizer to learning without changing the configured status.↵
240. **Ad network** — an intermediary that aggregates advertising opportunities (inventory) from many publishers and sells them to advertisers as a single packaged product: the network takes over supply selection, pricing, and delivery, while the buyer gets one manageable offering instead of a dozen separate contracts. Prices inside the network are usually opaque to the buyer. Historically, many ad networks added auction mechanics and rebuilt themselves as ad exchanges, so both functions are often combined under one brand.↵
241. **Targeting** — the campaign’s rules about to whom and where an ad may be shown: hard controls (eligibility rules — geo, device, context, audience/keyword criteria, exclusions) that restrict the set of permitted opportunities, and signals/hints that in algorithmic products only steer delivery without narrowing the eligible set. Targeting answers the question “for which opportunities/users/contexts is showing possible,” as opposed to placement (“where exactly”) and optimization (“which of the permitted impressions to choose”); even if the API stores them in one object, these are different axes.↵
242. **Ad opportunity** — a specific opportunity to select and show an ad that arises when a user reaches a placement. A short-lived event: in a digital environment it can vanish faster than a person can make a decision, so systems process it in milliseconds, and in programmatic it is put up for bidding as a separate unit.↵
243. **Advertiser** — a market participant that funds advertising for a business result: installs, subscription purchases, growth in awareness. It buys not a person but the opportunity to address an audience in a specific context; it creates demand and sets goals, budget, and creative.↵

244. **Publisher** — the owner or operator of a media environment where advertising opportunities arise: a website, a mobile app, a video service, a game. It monetizes the environment with advertising, creates supply, and decides which placements, formats, and buyers to admit, balancing revenue against user experience.↵
245. **Seed audience** — a set of known entities (for example, high-value paying subscribers) that the advertiser hands to a platform as a sample for building a lookalike or as a signal for algorithmic delivery. The quality and size of the seed determine the quality of the model: too small a seed yields noise, too broad a seed dilutes the features. The seed itself is not the target audience for delivery; many platforms exclude it from the lookalike by default.↵
246. **Audience exclusion / suppression** — a negative targeting rule designed to exclude entities with a named membership or status; the actual completeness of the exclusion is limited by identity match, freshness, propagation latency, and the semantics of the specific platform.↵
247. **Optimization target** — the outcome toward which a bidding system tunes its future decisions: most often an optimization event (install, paid subscription) plus a goal for it. Not to be confused with a strategy parameter: target CPA \$4 is a bid-strategy constraint, not the event the system predicts. It does not turn the contract into CPA billing: the payment model establishes the contract, the realized metrics describe what happened post-fact, and the optimization target influences only decisions before the event.↵
248. **Campaign** — an organized set of an advertiser’s advertising activity with a goal, a budget, delivery rules, and creatives. Before delivery, its conditions are communicated to the buying systems; objects and events are linked by identifiers such as `campaign_id`.↵
249. **Ad group / ad set** — the intermediate level of the campaign hierarchy between the campaign and the ad, grouping ads with shared execution rules. The names and the set of fields are vendor-specific, and there is no universal schema: in the Google-like model, the ad group groups closely related ads and triggering criteria (for example, related keywords); in the Meta-like model, the ad set holds the audience, placements, optimization, bid, budget, and schedule.↵
250. **Data provider** — a provider that sells or supplies datasets, attributes, or ready-made audience segments for targeting, measurement, and enrichment. It works in parallel to the buying chain, not “between” two mandatory neighbors; third-party segments are usually paid for by the buyer — often as a data CPM charged through the buying platform on top of the media cost. Not to be confused with an identity provider, which does not supply data but establishes correspondence between identifiers.↵
251. **Audience segment** — an addressable set of entities whose membership is defined by a named rule, data source/provenance, observation window, and platform matching/activation contract; an entity can be a user, account, device, browser, household, or modeled profile, so a segment is not necessarily a list of known people.↵
252. **DSP (Demand-Side Platform)** — a platform that automates the purchase of advertising opportunities for an advertiser: it aggregates access to several supply sources, evaluates each opportunity, and decides whether to bid and how much to pay. It belongs to the demand side not because it “creates demand” but because it acts in the buyer’s interest.↵
253. **Advertising inventory** — the set of available or forecast opportunities to show advertising, bounded by the environment, the slot, the format, the time, the publisher’s rules, and the permissible audience context. Inventory is not a list of users and not a warehouse of pre-

produced impressions: an opportunity arises and disappears at the moment the product is used.↵

- 254. **Media spend** — the money an advertiser allocates and spends on buying advertising. It passes through the media sellers and ultimately forms publisher revenue, shrinking along the way by fees; it is not a synonym for publisher revenue, nor for intermediary fees — these are different amounts in one chain.↵
- 255. **Bid** — a buyer’s offer to pay a certain price for a specific ad opportunity, usually expressed as a CPM. A bid is a pre-event decision: it is neither the final price (clearing price) nor the billable amount; in programmatic, the DSP forms a bid for each bid request separately.↵
- 256. **Budget** — a constraint on the available spend over a given scope (a campaign, an ad set, a shared pool of several campaigns) and time basis. Common are the daily budget (a hard calendar cap, an average daily target, or another form — the product defines this) and the lifetime/flight budget for the whole interval. A budget constrains spending but does not guarantee inventory, conversions, even pacing, or an exact invoice amount.↵
- 257. **Pacing** — the policy of distributing spend over time within budget constraints: whether to spend evenly, accelerate on cheap or high-quality opportunities, or hold back the budget. Pacing allocates the resource but does not promise even spending: the available opportunities and the allocation change.↵
- 258. **Placement (ad slot or selectable media scope)** — an overloaded product term. On the publisher side, it is a predefined ad slot or rule for ad appearance that generates ad opportunities as the product is used. On the buy side, placement can mean an explicitly selected delivery environment — a site, app, channel, video, section, or individual slot. The entity level must be clarified from the product contract.↵
- 259. **Contextual targeting** — selecting ad opportunities based on the current content or media context: topic, semantics, page/app/video category, and related signals. It describes the delivery environment and does not require asserting that a persistent cross-site identity is known for the user.↵
- 260. **Observation window** — the period over which an event counts toward forming an audience segment: “trial started in the last 7 days,” “visited the pricing page within 30 days.” It determines the freshness of membership and the size of the segment. Not to be confused with the attribution/lookback window (how far before a conversion a touchpoint counts) or the conversion window (how long to wait for a conversion after a click); these are windows of different mechanisms.↵
- 261. **Creative** — the advertising material that is delivered and shown to the user: a banner, a video, a native format, a playable. Along with targeting rules it is an object of delivery and must match the format and rules of the publisher’s environment; for a campaign, several creatives are usually prepared.↵
- 262. **Addressable** — a user, device, or household that a platform can recognize by an available identifier and deliver a specific impression to; addressability is the share of inventory or audience for which this is possible. It depends on the environment (browser, iOS, Android, CTV), consent, and available identifiers, so the same segment can be activatable on one platform and empty on another.↵
- 263. **Activation** — handing data or an audience segment to a system that can use it for targeting, suppression, personalization, or measurement: from a CDP/DMP to a DSP, from the

advertiser's CRM to a walled garden, from an identity graph to an SSP. Before activation, data is a record in storage; after it, a rule that affects real impressions. Activation requires matching identifiers between the source and the receiving platform and a permitted legal basis.↵

- 264. **Attribution** — the rules by which the available advertising touchpoints (impression, click) are matched to outcomes (install, registration, purchase) and receive credit for the conversion. Attribution answers the question “which source was credited with the action under the chosen rules,” not “whether the ad was the true cause”: credit does not prove causality. Attribution providers are a separate cross-cutting category; in mobile, the MMP.↵
- 265. **Conversion** — a valuable action or outcome that the advertiser has defined as significant (install, trial, first payment, renewal, purchase) and that a system has counted under its measurement and attribution rules. Conversions cannot be summed without an explicit counting rule: one click can lead to several conversions. An observed conversion is a recorded event; an attributed conversion is an event to which an attribution rule assigned credit; neither proves causality.↵
- 266. **First-party audience** — an audience segment built from data collected by an advertiser or publisher in a direct relationship: CRM/customer records, site/app events, subscriptions, and purchases. First-party describes provenance but does not guarantee consent, legal basis, ownership, accuracy, or completeness of the platform match.↵
- 267. **CDP (Customer Data Platform)** — a system that collects first-party events and customer data from the product, CRM, and other systems into a persistent unified customer record and makes profiles, events, and segments available to downstream systems. It does not buy media and does not assign attribution credit; it belongs to customer lifecycle management, which makes it part of MarTech.↵
- 268. **Third-party audience** — an audience segment supplied by an external data provider independently of an advertiser's direct relationship with the entity; evaluating the segment requires provenance, collection method, recency, membership criteria, modeling metadata, permissions, and activation coverage, because the label alone does not prove its composition or accuracy.↵
- 269. **DMP (Data Management Platform)** — an advertising-oriented system for managing, segmenting, and activating audience data: it collects campaign signals and external datasets, builds audience profiles and segments, and activates them through advertising integrations. It does not have to be the system of record for the full customer lifecycle. The historical rule “a DMP is only cookies and anonymous data” is unreliable; the working boundary with the CDP runs along the primary task — advertising audience activation versus a durable customer record.↵
- 270. **Measurement** — the function of recording and aggregating advertising events (impressions, clicks, outcomes) for reporting and optimization. Measurement providers give an independent point of observation; different participants have different timestamps and counting rules, so reports do not have to match perfectly. In mobile, the dedicated category is the MMP.↵
- 271. **Retargeting** — targeting entities that previously performed a named interaction or event within a specified observation window in order to address them again; it is a delivery tactic, not an attribution rule or proof of causal effect.↵
- 272. **CVR (Conversion Rate)** — the share of qualifying conversions among the declared eligible precursor events: $CVR = \text{qualifying conversions} / \text{declared eligible precursor}$

events $\times 100\%$. A bare CVR hides the transition: only named transitions such as click-to-install or install-to-trial are comparable; a value above 100% is possible with several conversion actions on one interaction.↵

273. **Lookalike audience** — a modeled audience of new prospects found by similarity or predicted relevance to a seed audience; the result depends on seed quality and the platform model, and the use of a lookalike in delivery can be a hard constraint or a suggestion according to the product contract.↵
274. **Prospecting** — directing a campaign at users who have not yet interacted with the advertiser: lookalike, interest, contextual, or broad targeting. The opposite of retargeting and re-engagement, which address already-known users. Prospecting typically shows lower conversion rates and a higher value of the incremental result, since the user would not have come on their own.↵
275. **Reach** — the de-duplicated number of unique entities (persons, devices, households, accounts, or a modeled audience) that received at least one qualifying exposure in a period, or the share of such entities in an explicitly defined population: $\text{reach rate} = \text{reached unique entities} / \text{declared universe} \times 100\%$. Comparable only with identical entity definition, exposure rule, population, de-duplication scope, and period.↵
276. **Audience overlap** — the intersection of memberships in multiple audience segments within a single activation universe and at the same snapshot; it affects distinct reach, reporting, and segmentation design, but does not by itself prove duplicate billing or self-competition.↵
277. **Auction** — the mechanism for choosing a winner among several bids for one ad opportunity and for determining the price (clearing price) under the auction's rules — first-price, second-price, and their variants. An auction win is the event of choosing a winner; it is not an impression and does not by itself make the impression billable.↵
278. **Algorithmic targeting** — a delivery mode in which a model uses an optimization goal, context, audience seeds, and other signals to find and rank opportunities, potentially beyond suggested segments but within the stated hard controls and exclusions. **Broad targeting** is a setup with minimal positive audience restrictions, not an absence of constraints.↵
279. **Impression** — a delivery or display event for the selected ad, recorded by a system under a specific rule; a counting unit, not a fact of human perception. Served, rendered, and viewable are different delivery states, so the counters of different participants in the same deal may not match.↵
280. **Click** — a qualifying user-initiated interaction with an ad, recorded under a specific system's rule. Even a single action has several measurement points: initiated, measured (click tracker), received (destination), and resolved (landing page) clicks need not match due to dropped connections, redirect chains, and filters.↵
281. **Learning phase (learning status)** — the state of the optimizer in which the delivery/bidding model gathers evidence after launch or a material configuration change: earlier data describe the new decisions less accurately. Learning is one of the axes of the operational state alongside the configured, effective, and review statuses, not the opposite of active: impressions and spend continue, and vendor-specific significant edits (targeting, creative, optimization event, the set of ads, the bid strategy) can return the optimizer to learning without changing the configured status.↵

282. **Optimization event** — the observable event that the delivery system learns from and optimizes impressions toward: install, trial start, paid subscription, purchase. The advertiser selects it in the campaign settings (different platforms call it a conversion action, conversion goal, or performance goal). It is not the campaign objective (the business intent), not the billable event (what is paid for), and not a strategy parameter such as target CPA. A deeper event yields fewer signals and a longer learning phase. [↩](#)