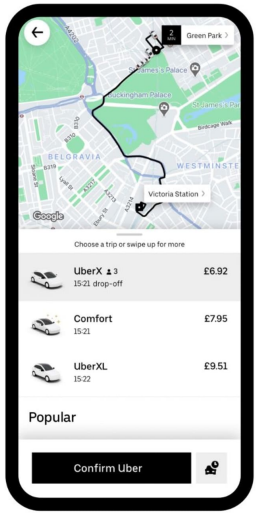
API licensing Business Model

API licensing Business Model

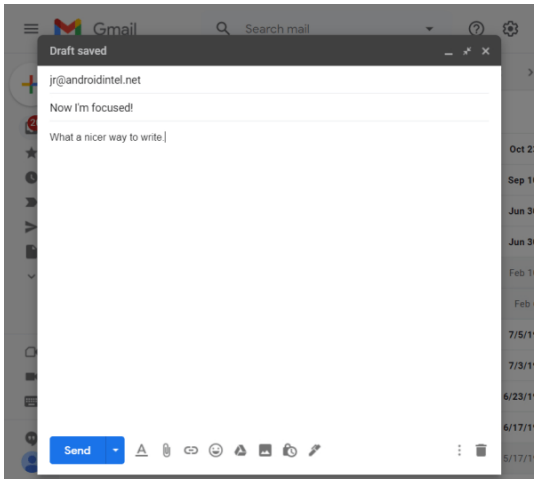
Google Maps and WhatsApp are used by billions of people. But how do they make money?

API licensing Business Model

Whether you book a cab or pay for a product or send an email you will be using some form of API.



Google Map APIs in Uber



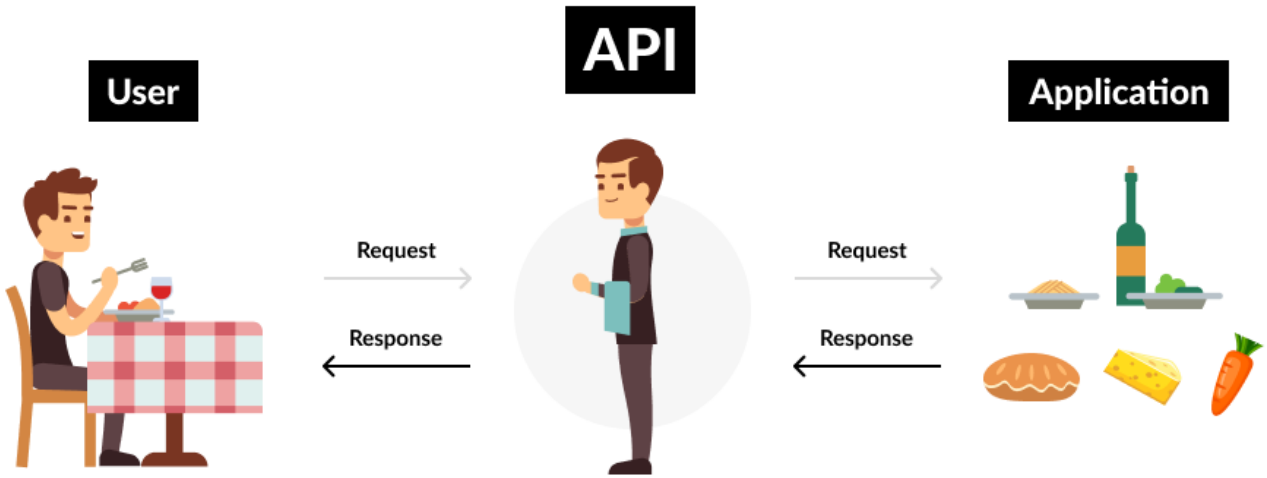
Auth APIs in Email

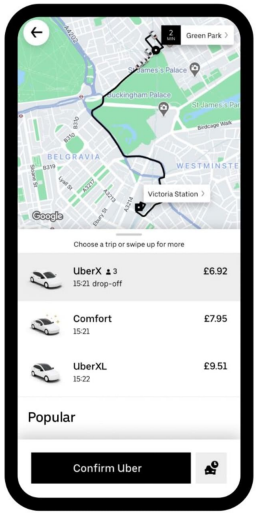
Payment Gateway APIs

API (Application Programming Interface) is a software intermediary that allows two applications to talk to each other.

API licensing Business Model

Imagine you go to a Pizza place. You check the menu and order through a waiter, who will take your order to the kitchen and brings back your pizza.





So, every time you enter your drop location in uber, it will hit the Google map APIs and get a response to calculate the fair of your ride.

API licensing Business Model

These APIs are the building blocks of complex programs which define an independent set of functionalities with a reusable piece of code.

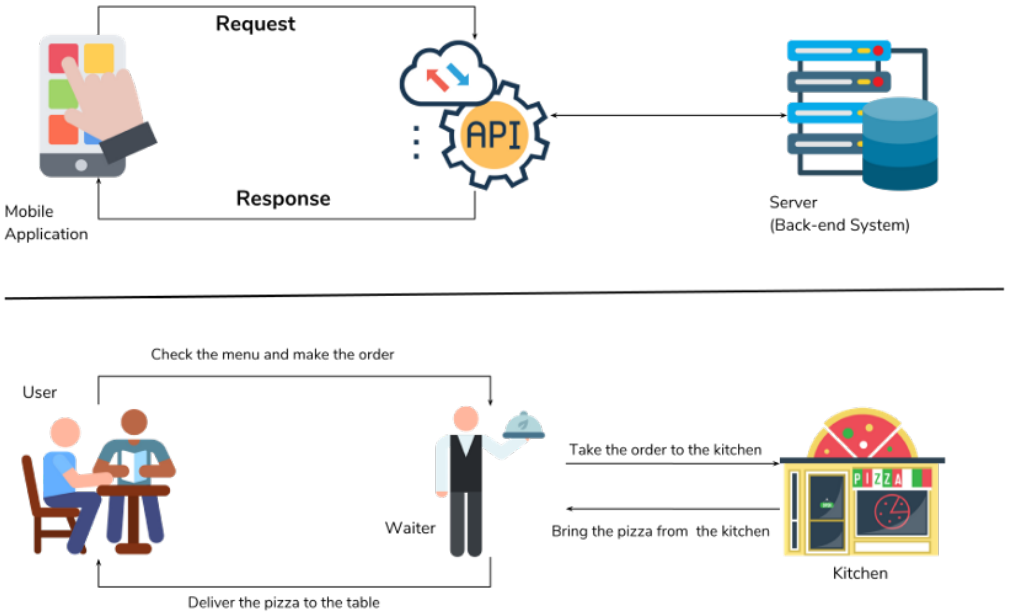
So instead of starting from scratch developers can use these available APIs and save time writing new programs again and again.

twilio SendGrid stripe

SMS - Twilio
Email – Mailchimp, SendGrid etc.
Payment – PayPal, Stripe etc.

How does API work (From a techy mind)

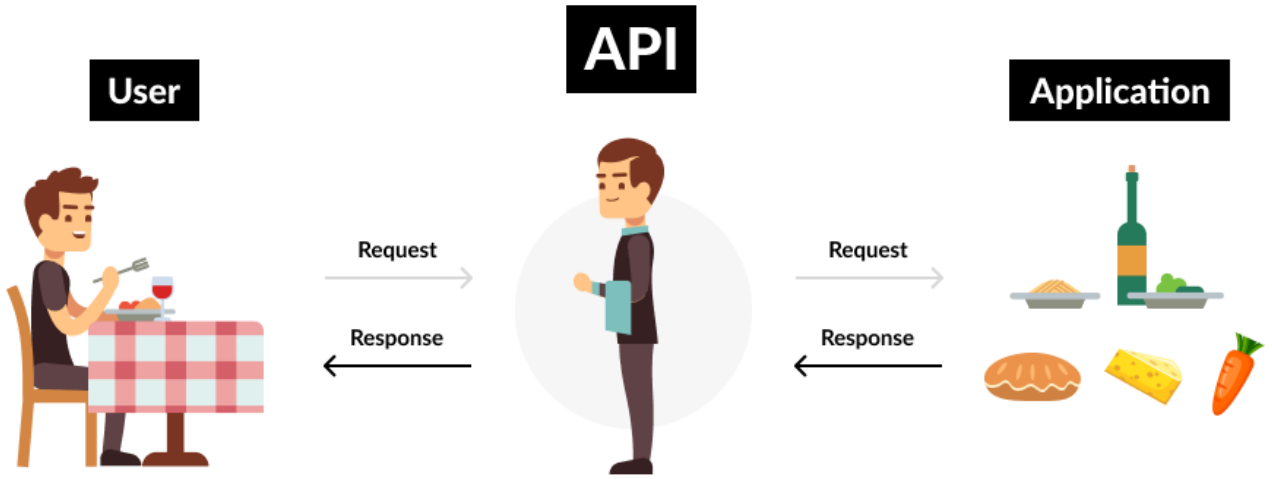
Our mobile connects to the internet and sends our request to the remote server. This server then **collects the data** from the database from your request, **processes** them, and **sends** them back as a response to your mobile phone.



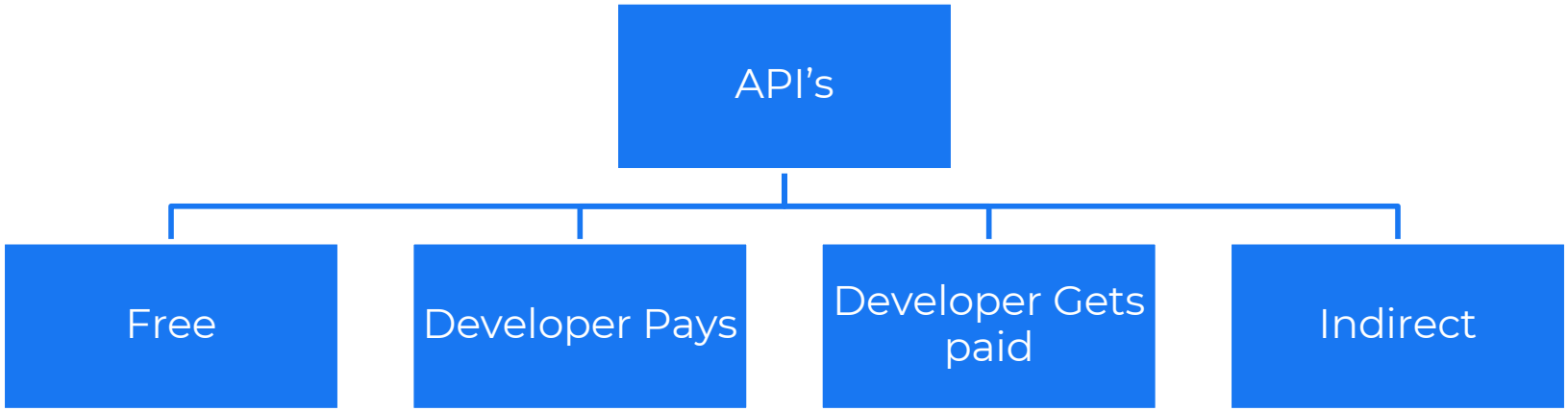
The application will convert that data into a readable response and display that through the user interface.

How does API work (From a techy mind)

In Short API act as a communication bridge between the User's front-end and the back-end system in a app.

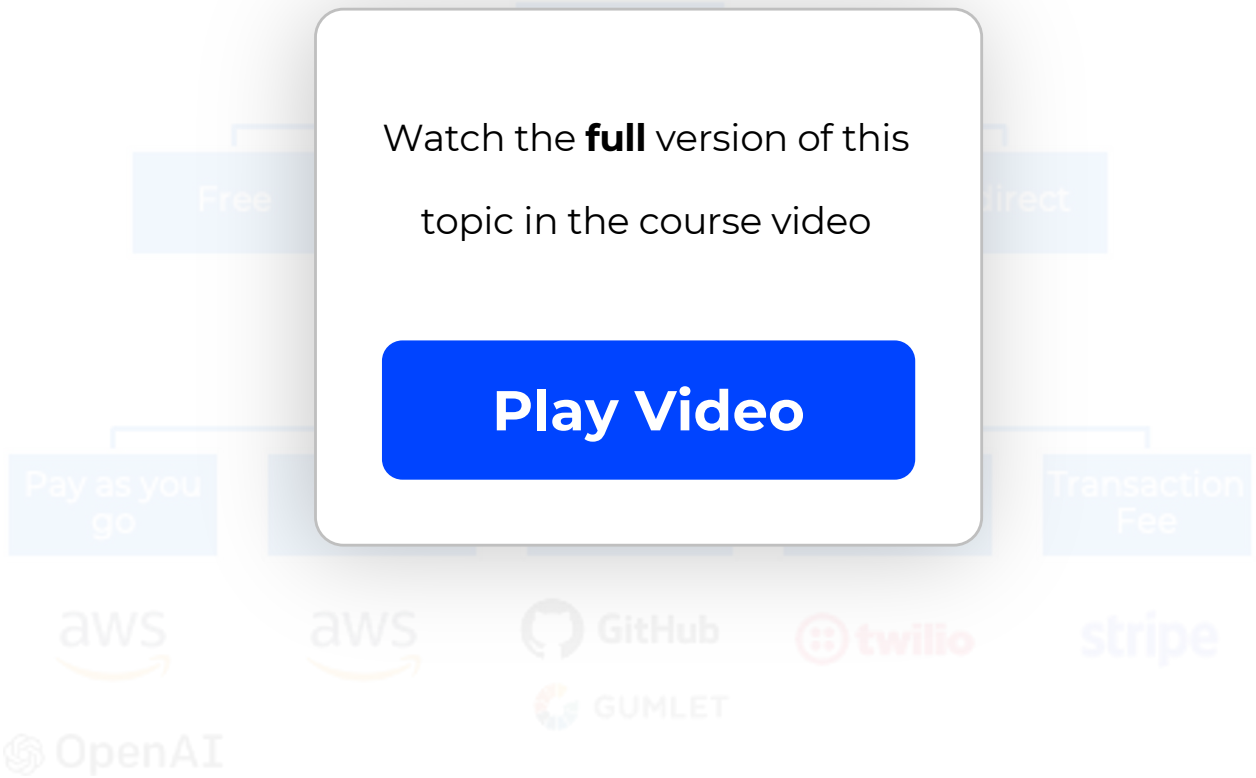


Types of APIs



Free:
Simplest API-driven business model which allows app developers to access APIs freely.
Example, Facebook, Google Translate and government and public sector

API licensing Business Model



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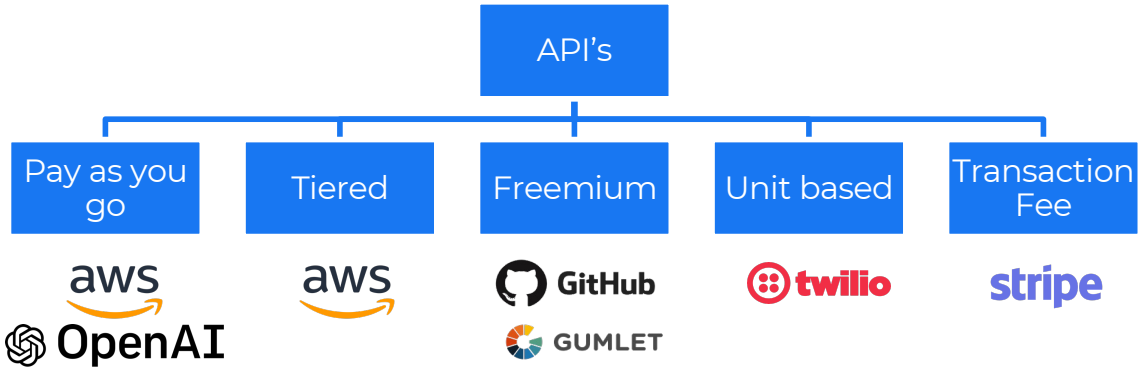
Types of APIs

1. **Pay as you go** — You only pay for the no. of APIs request with no minimum price defined. **Ex:** AWS charges you based on fetch requests from their s3 container.

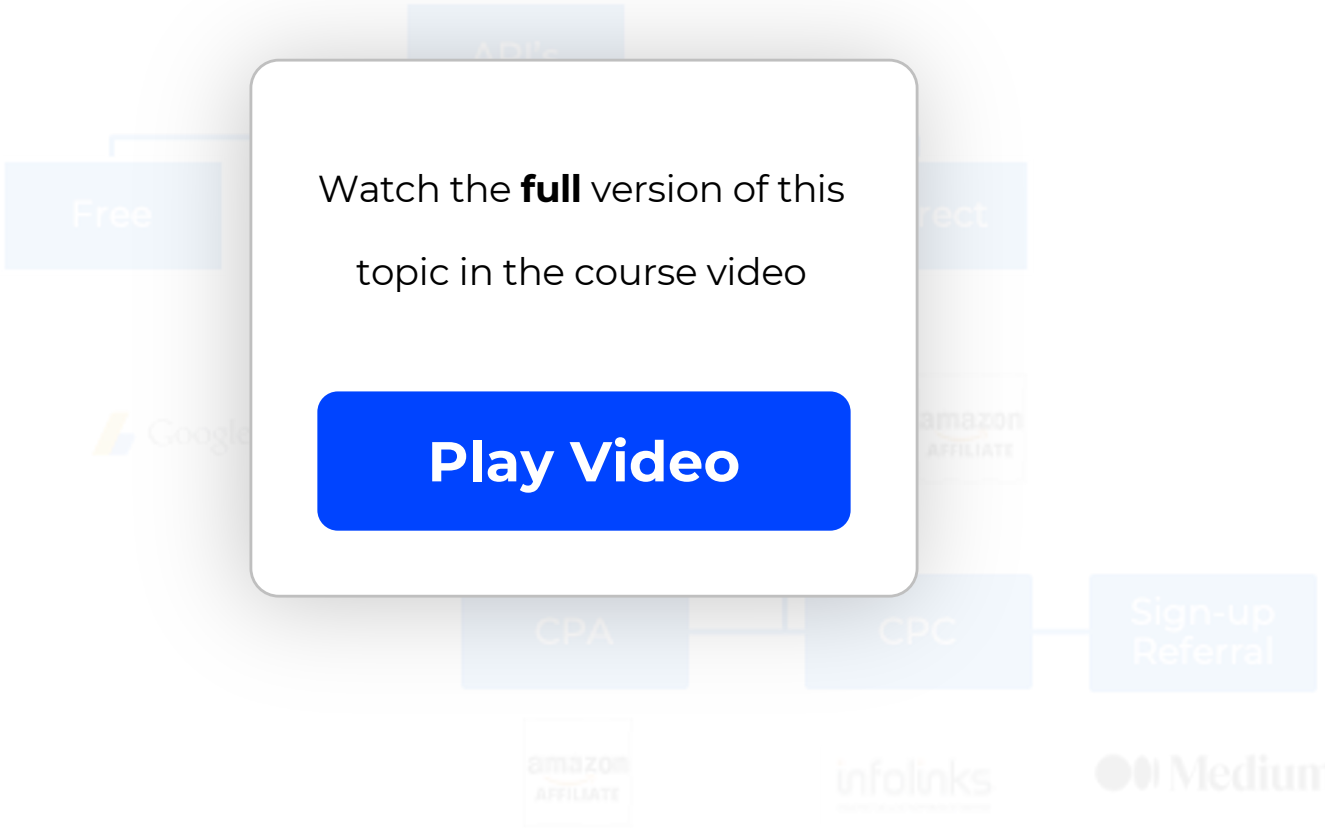
2. **Tired** — Just selected your suitable plan based on your consumption like API calls, subscription applications, etc. **Ex** Gitlab

3. **Freemium** — Developers can use the services for free with basic features but require a premium version to use additional features. **Ex** GitHub, HubSpot
4. **Unit-based** — This offers different features(units) at different prices **Ex** Twilio, Mailchimp

5. **Transaction Fee** — This model is mostly used by payment APIs where developers have to pay a percentage of the transaction amount happens through the API.



API licensing Business Model



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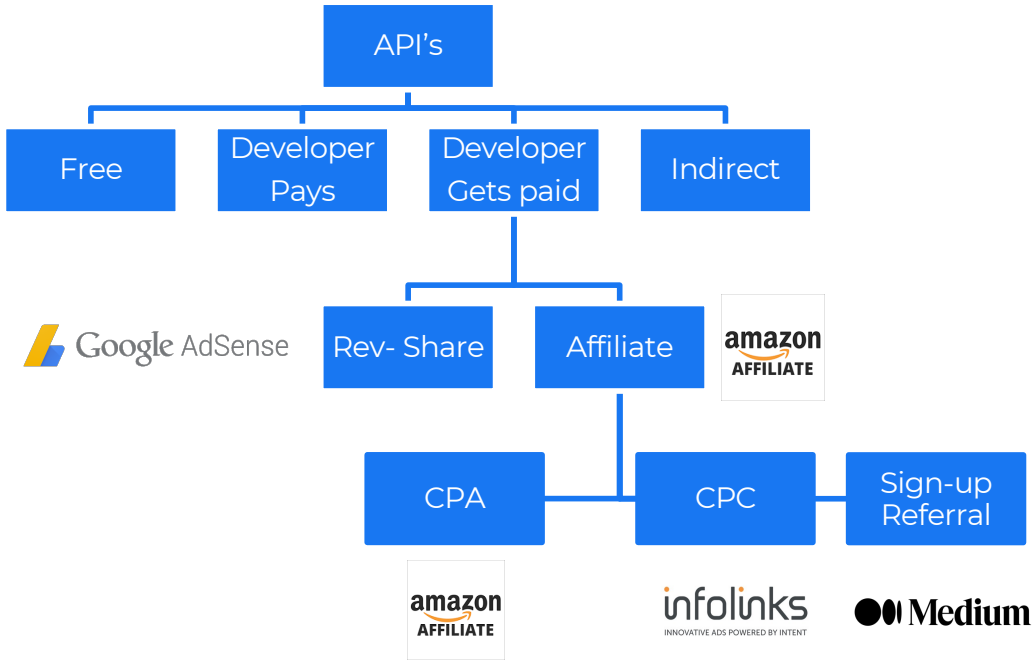
API licensing Business Model

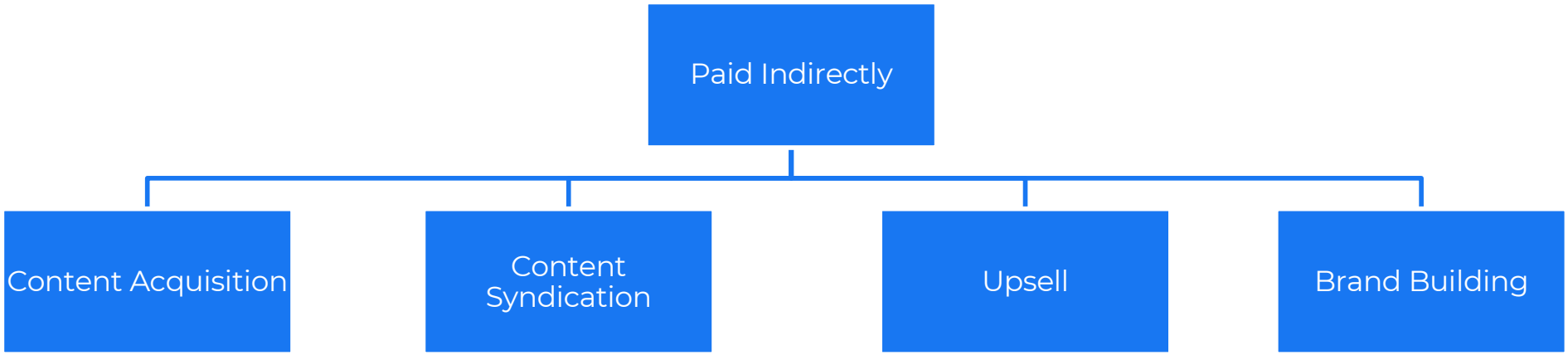
Revenue Share — Developers get paid a share of the total revenue generated from the purchases coming through customer referrals **Ex**-Google AdSense Ads on the website.

Affiliate —Here people get paid from the Affiliate commission either from the sale or driving the traffic. Ex CPA(Amazon Affiliate Program) and CPC(Infolink's) Sign-up Referral (Skillshare for One-time and Medium for Recurring).



API licensing Business Model

The free use of your API will lead to increased revenue because third-party developers will implement it on top of your API.



Google business review APIs

-Product comparison apps
-Classifieds; and
-Vertical search platforms (flights or car rentals).

Upselling a premium service or maintaining the product

API licensing Business Model

Content Acquisition — Motivates users to write more quality content that will result in more sales/values to the platform **Examples :**

- Google Maps or Any website that allows users to write reviews.

Content Syndication – Here the goal is to spread the content to as many users as possible to drive content syndication by making it easy for third-party apps to consume and distribute it.

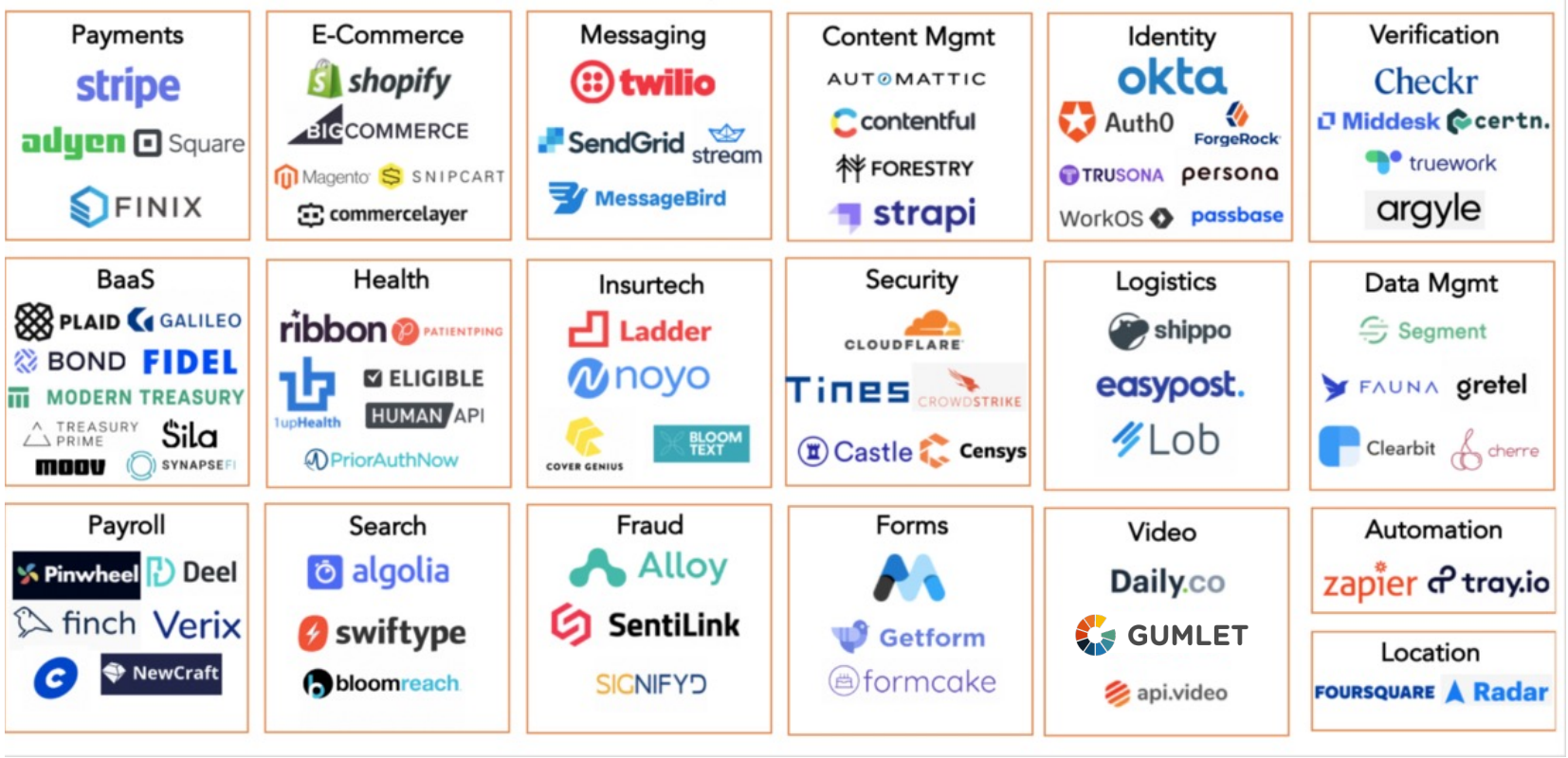
- Product comparison apps
- Classifieds (RSS feed)
- Vertical search platforms (such as flights or car rentals).

They use the affiliate model to compensate third-party developers to use their product.

API licensing Business Model

SaaS — This model allows companies to pay for enterprise licenses and access specific APIs available on a platform.
Salesforce only offers API access to the enterprise edition.

Third party API Economy

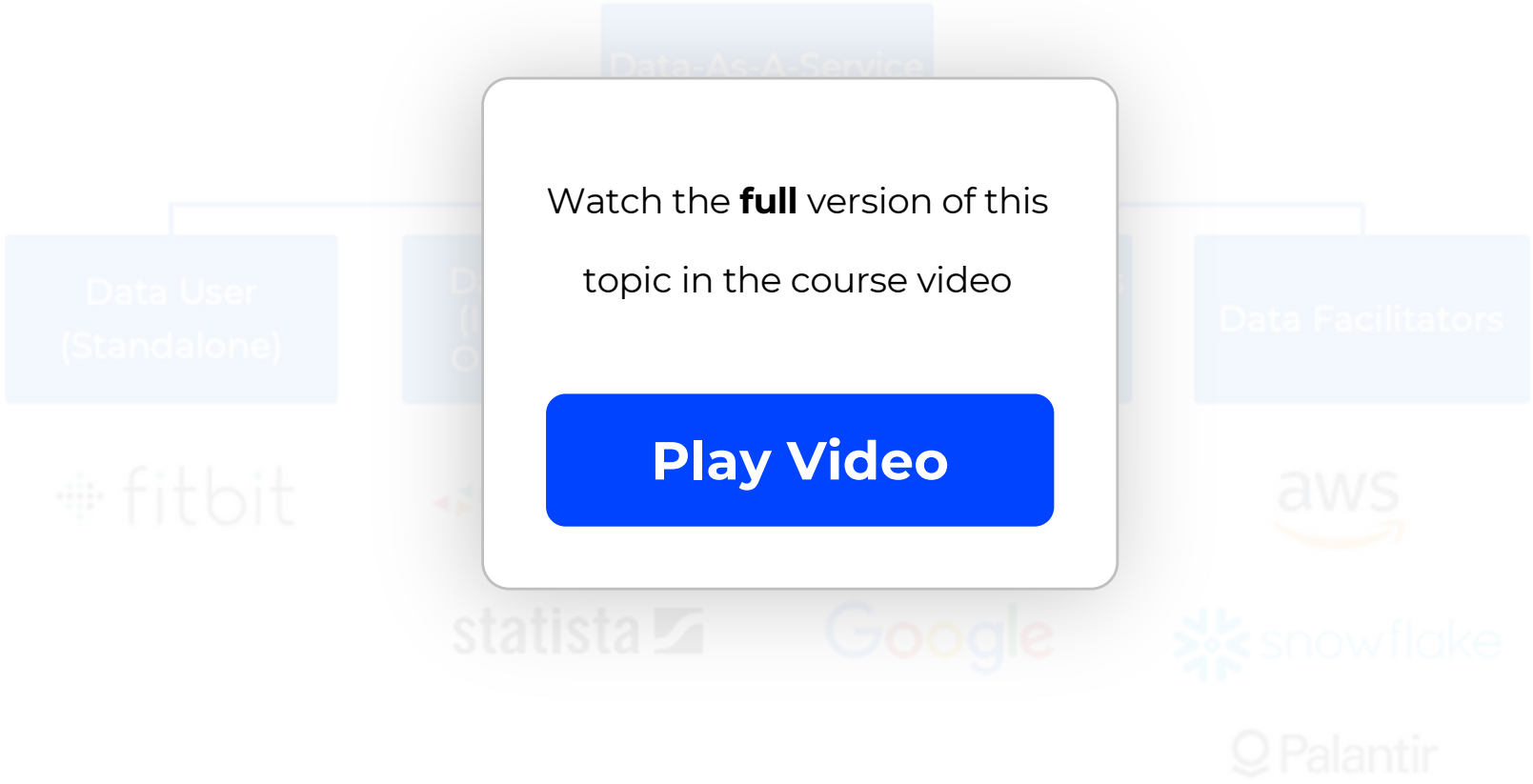


Data-As-A-Service Business model

Data-As-A-Service Business model

If you read online than I am sure you have heard of these two brands. So how do they make money

Data-As-A-Service Business model



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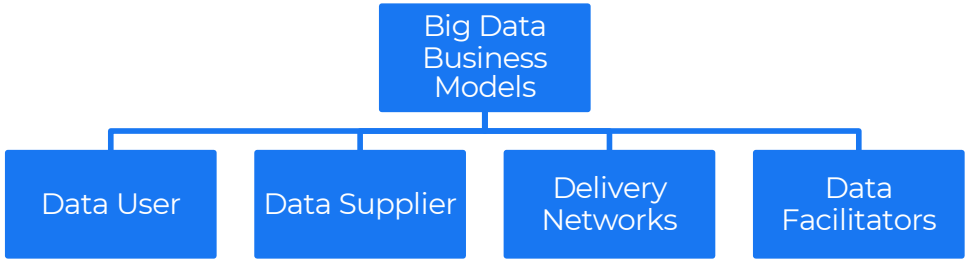
Data-As-A-Service Business model

1. Data Users: Businesses that use data to form strategies and build better products.
Example Fitbit



Data Suppliers: Businesses that are primarily involved in the trading of data.

Delivery Networks: Businesses with the advertisement business model.
Example Meta and Google

Data Facilitators: Businesses involved in providing data infrastructure, analytics, and consultancy. Example: AWS, Snowflake, etc.

Data-As-A-Service Business model

2. Data Supplier (Information Orchestrator)

Company A

Data Points collected

- Customer's location
- Pulse
- blood pressure
- Medication
- Sleep cycle
- Temperature

>

Company B

Data Points collected

- Customer's location
- Gender

Company A can offer more personalized products

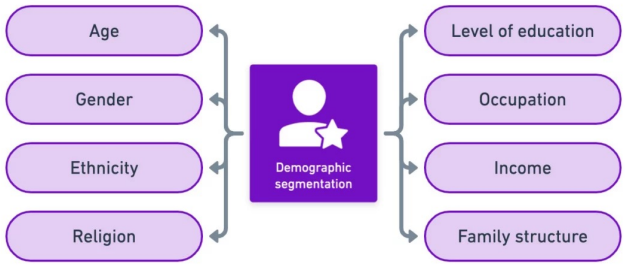
Data-As-A-Service Business model

3. Delivery Networks (Service Orchestrator)

To make better shoes you need to know customer demographics like Age, Gender, Lifestyle, Sports, Calories burned etc.

This will help them get the data beneficial for their business-like product usage, interests and preferences etc

Examples: Fitbit, Apple Watch, Nike Shoes etc.



Apple Watch OS 9 is powerful

- Sleep tracking allows users to detect when users are in REM, Core, or Deep sleep i.e., showing healthy sleep.
- Medications app manages and tracks medications, sends reminders and shows drug interactions
- Workout app that shows Heart Rate Zones, calorie burnt and Identifies sports with strokes types, etc
- ECG app, HER, and other things

Data-As-A-Service Business model

4. Data Brokerage (Data Suppliers)

Data brokerage treats data like any other product and companies like Nielsen, Statista, etc. are in the business of collecting and selling primary and secondary data.

How data brokers are helpful

- They aggregate samples from rural to Urban data sets across age groups to have a complete picture.
- Help companies expand into a new product category or in international market expansion.

Data-As-A-Service Business model

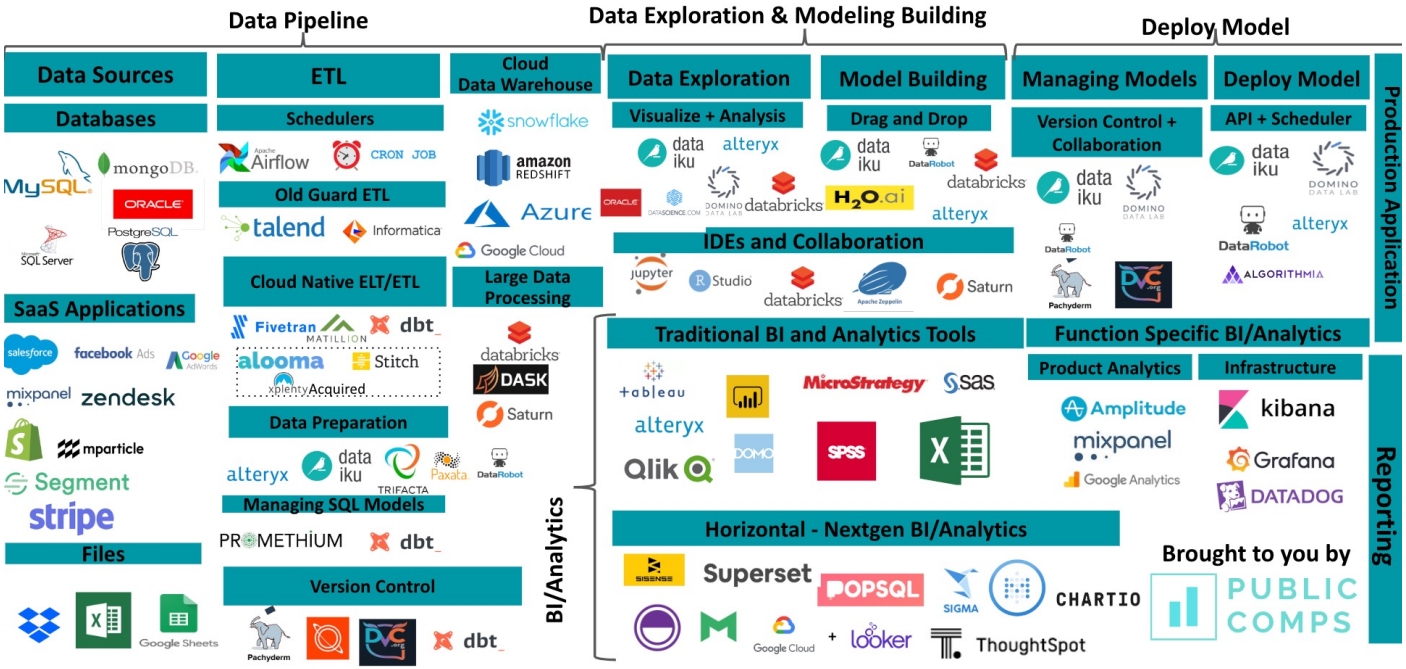
5. Advertisement Intermediaries (Delivery Networks)

Delivery network aggregates user data like interest, income and location to show more personalized ads to increase the purchase.

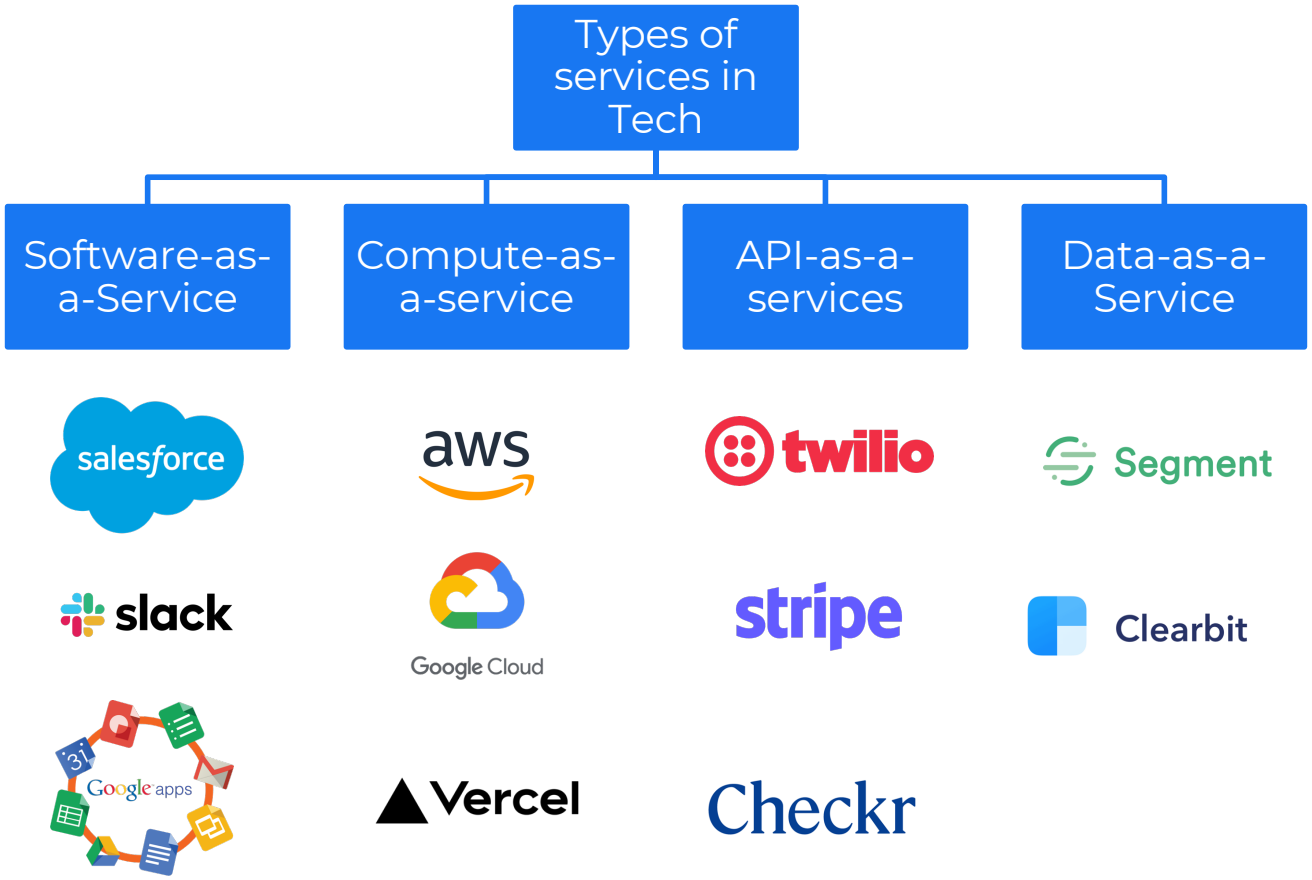
The more data an advertisement intermediary collects, the more paying clients it gets.

Data Tools (Data Facilitators)

Businesses that focus on providing data collection and handling tools like storage media, servers and workstations, scanners, data collection, analysis and visualization software etc.
Examples: AWS, Databricks, Snowflakes etc.



Everything in tech today is a service



Data-As-A-Service Business model

Companies with data-driven business models base their core business on data.
Examples: Open AI, Facebook Ads, Bolt, etc.

OpenAI facebook Ads Bolt

This is done in three simple step

Step 1
First Collect the data

Step 2
Make data a key resource in business model

Step 3
Find a new way to add value

Step 1 First Collect the data

Either Platform collects the data manually (Open AI) or allows the user to use the product for free(Facebook).

- **Open AI-** The more someone uses the APIs the better the ML model becomes.
- **Facebook Ads** – The more you use Instagram the more personalized ads you will get.
- **Bolt** – One-click checkout experience by fetching your past data.

Step 2 Data as a key resource for business models

The Value is generated by making data the company's key resource.

- **Open AI-** The more you use the API to fetch data the more you pay(Token based)
- **Facebook Ads** – The more the customer data point, the better the ads targeting, and the more the revenue.
- **Bolt** – More the websites use a bolt, the faster the checkout experience.

Step 3 A new way to add value

Companies are building their product on the top of Open AI

OpenAI

copy.ai

Copy AI uses GPT3 a machine learning library from Open AI which builds by reading trillions of words from the internet.

copysmith

AI content creation

Replier.ai

Respond all your customer reviews

testing.ai

AI A/B testing landing page

Data-As-A-Service Business model

Great data companies look like the ugly child of a SaaS company.

Data-as-a-Service

The Data Lifecycle- There are five common steps that characterize the data lifecycle:

1. Acquisition: The first step is to capture data from both internal and external sources.

2. Processing: Include transformation of data into a usable format.

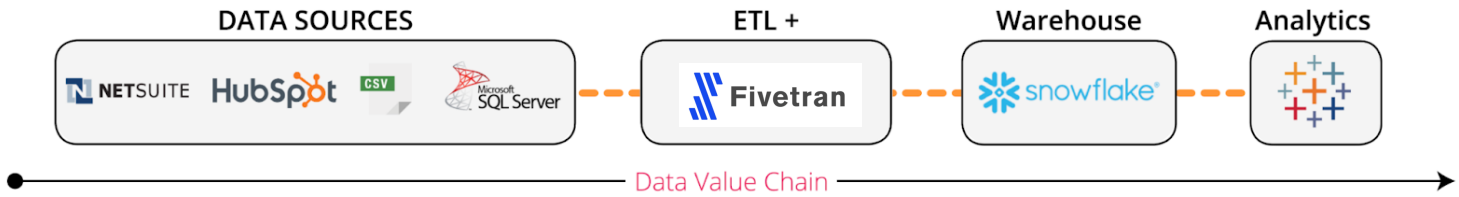
3. Storage and Enrichment: Storing data from multiple sources to form a cohesive dataset. In this step, metadata is added to improve discoverability and democratization.

4. Analysis: It means you generate insights that help in decision-making. So, charts, dashboards, reports, etc.

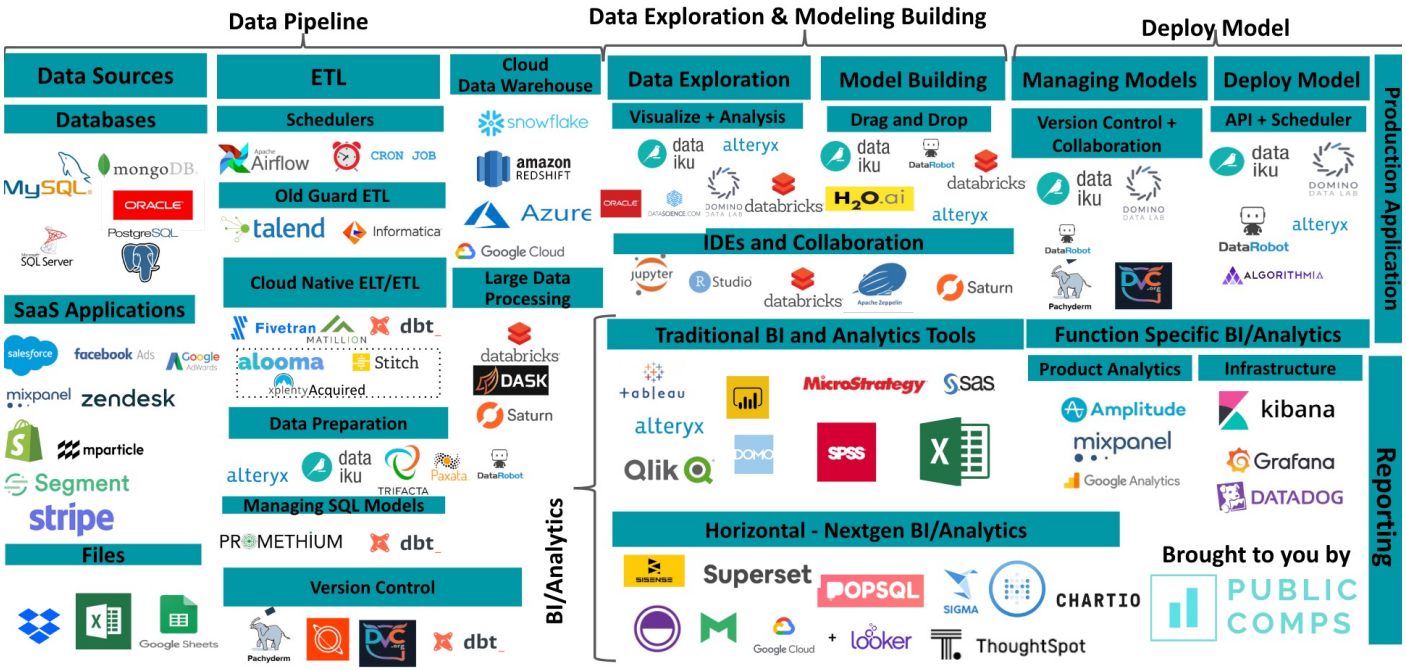
5. Exchange: Apply outputs in a business context, like optimizing some processes and identifying new revenue streams.

The Data Lifecycle

Basic

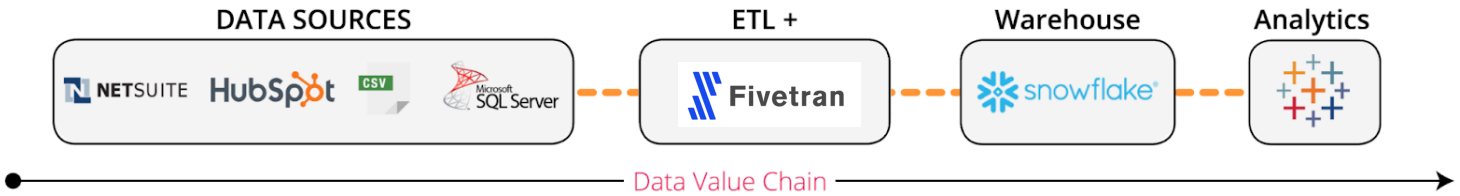


Advance



The Data Lifecycle

There are five common steps that characterize the data lifecycle:



1. **Acquisition:** Pulling data from sources like Salesforce, HubSpot, QuickBooks, and others to make the acquisition a breeze.

2. **Processing:** clean data and mutate it into consistent, usable formats.

3. **Storage and Enrichment:** Adding metadata on cloud-based storage or warehouse

4. **Analysis:** Preparing charts, dashboards, reports etc.

Morphological box for the classification of data marketplaces

Attribute	Characteristic			
Value proposition	Transaction-centric	Data-centric		
Market positioning	Data supplier	Neutral		
Market access	Closed	Hybrid	Open	
Integration	Domain-specific	Domain-unspecific		
Transformation	Raw data	Normalisation	Aggregation	Quality assurance
Architecture	Central	Hybrid	Decentral	
Price model	Free	Fixed price/ subscription	Package	Pay-per-use	Progressive price
Revenue model	Free	Freemium	Flat rate	Fee
	Listing fee	Transaction fee /commission	Service fee	Storage fee

Intereconomics

OpenAI

Transactional centric

Neutral

Hybrid

Domain Unspecific

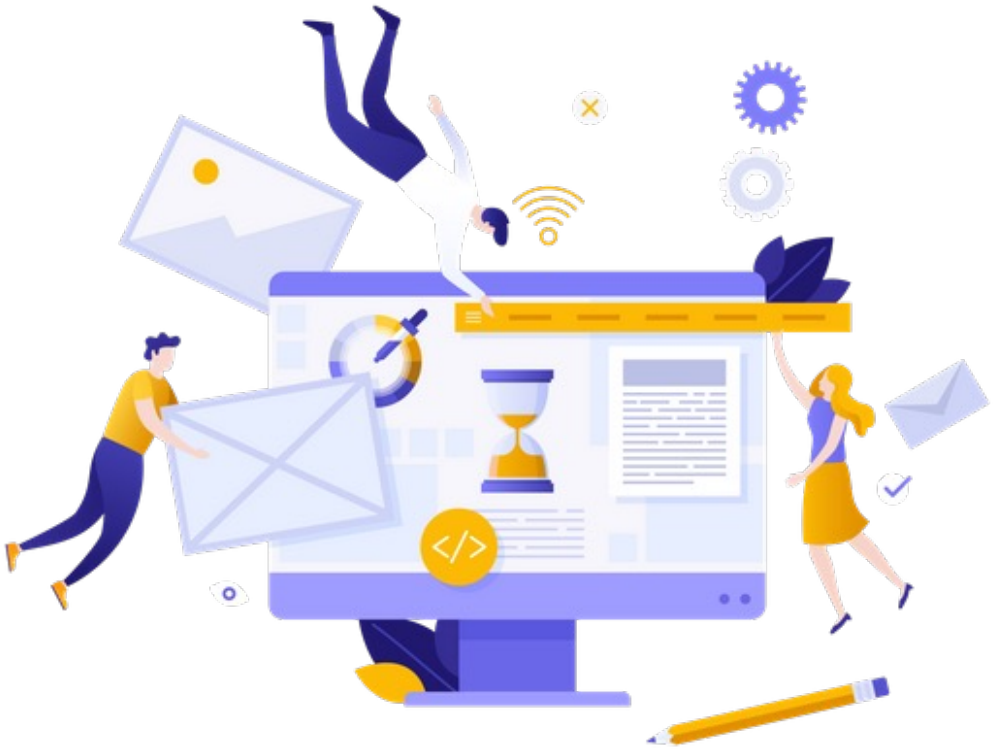
Aggregation

Decentral

Pay-per-use

Transaction fee

Open source business model

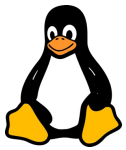


Open source business model

Open-source software is software with source code that anyone can inspect, modify, and enhance

1. Open Source code
2. Proprietary/Closed source




Let’s understand this with WordPress

WordPress

SaaS **Self Host**

Let’s understand this with WordPress

Worpress.com is developed and run by the private company Automattic.

Worpress.com

WordPress.com let you buy a domain, and host it without worrying about performance

Makes money from hosting and other services

Worpress.org

WordPress.org is the open-source version installed using Cpanel by the user.

Makes money from Marketplace whenever you purchase an add-on or a theme

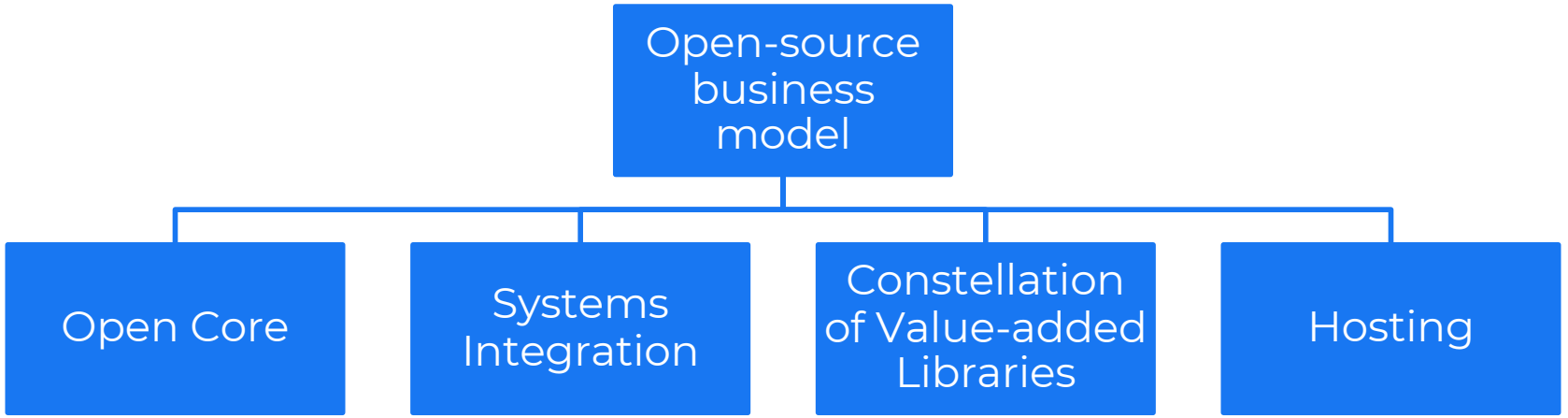
Run majorly through donation

Hosting bluehost HOSTINGER

Plug-ins elementor

Open source business model

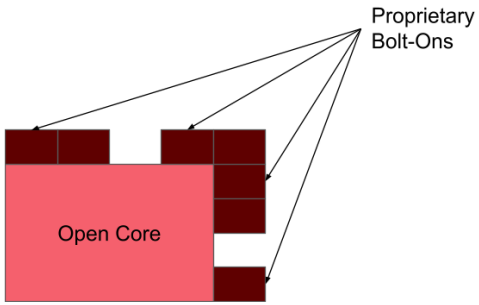
The business model is a company's strategy for both **creating** and **capturing** value, then free and open-source software only covers the first half of that mysterious equation.

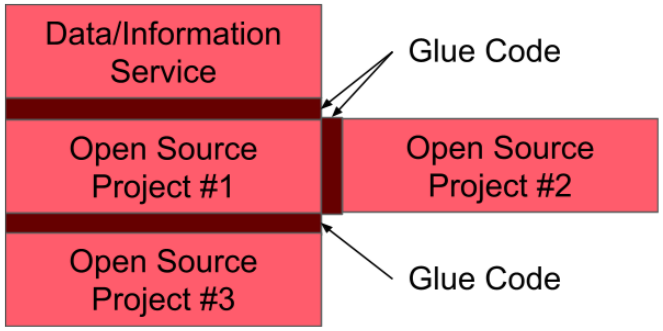


Open source business model

1. Open Core - It's a business strategy where a company offers a "core" version of a product with limited features as free and an add-on commercial version as proprietary software.

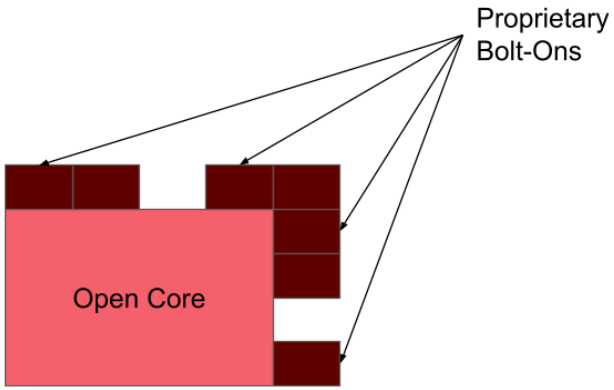
The free version acts as a growth channel and builds a base of users that can add to the source code. The company will then develop an enterprise version.

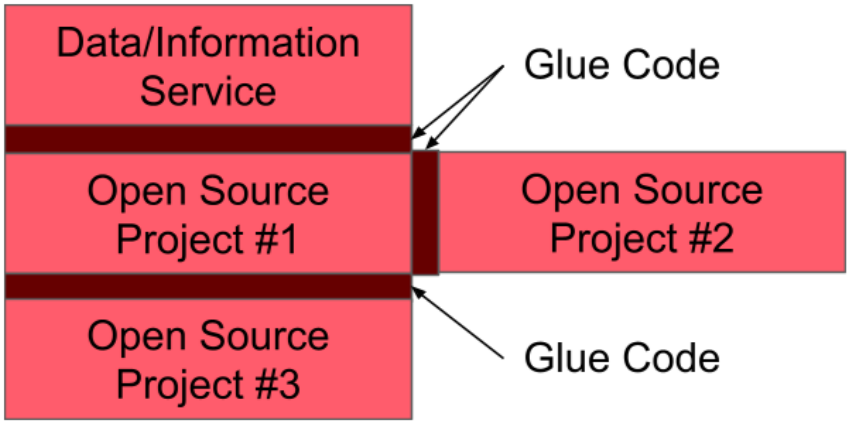




docker elastic GitLab redis

Open Core business model





docker

elastic

GitLab

redis

Depth in the Open source business model

The mix of how much functionality is open and how much is a paid add-on can vary a lot across tools.

Model:	Skinny	Thin	Lean	Thick
Visualization:				
Definition:	~90% OSS core ~10% closed "crust"	~70% OSS core ~30% closed "crust"	~50% OSS core ~50% closed "crust"	~10% OSS core ~90% closed "crust"
Productization:	Light commercial (closed) add-ons / plugins that slot on top of core without disruption	Medium commercial bits that extend/embed the core usually requiring clean install paths	Heavy commercial bits (closed) wrapped around core that almost always entail time-bound/limited trial versions and license management (disruptive upgrade paths)	Almost always 100% closed products fundamentally based on an OSS project and commonly materializing as a SaaS service
Delivery model:	Usually on-prem (DC/metal/VPC)	Mostly on-prem but sometimes also hosted	Both on-prem and hosted	Usually *aaS / hosted
Commercial fixes upstreamed?	Always	Sometimes	Seldom	Never/Rarely
User control:	Maximum	Medium	Low	Minimum
Code base(s):	Usually single	Dual, but single sometimes works	Dual / coordinated	Dual / totally distinct
Examples:	HashiCorp, Databricks, SUSE	Talend, Elastic, MongoDB	Cloudera, Datastax, JetBrains	GitHub, Fastly, MuleSoft

Whether these add-ons are targeted at high-volume use cases or at low volume decides the earning potential of open-core

Open source business model

2. System integration or Services model - When a customer pays for technical support, consulting services or additional add-ons.

But the Services revenue is unpredictable and requires a significant headcount with thinner margins.

Example Although Red Hat makes 3x the revenue from consulting, their margin is 31% compared to 93% on their subscriptions.

Open source business model

3. Hosting – It enables small companies that don't have sophisticated in-house DevOps teams.to use companies own infrastructure without having to be concerned with the operational overhead of managing the infrastructure.

Example: Mongo Atlas , Sanity CMS

MongoDB's cloud business operates at ~65% and Elastic's at ~40%.

Open source business model

4. Marketplaces
The core product is open source, and they make revenue from marketplace/addons/plugin

Example: WordPress, Android

- Android makes money from play store fees
- WordPress makes money from marketplace fee
- Mozilla generated $500m in annual revenue by making google a default search engine.

Open source business model

Here are six methods you can employ:

Paid support - Project maintainer, you have a lot of knowledge about the codebase.

Software as a Service (MongoDB) - Offer a complete Solution, Monitoring tool for optimization

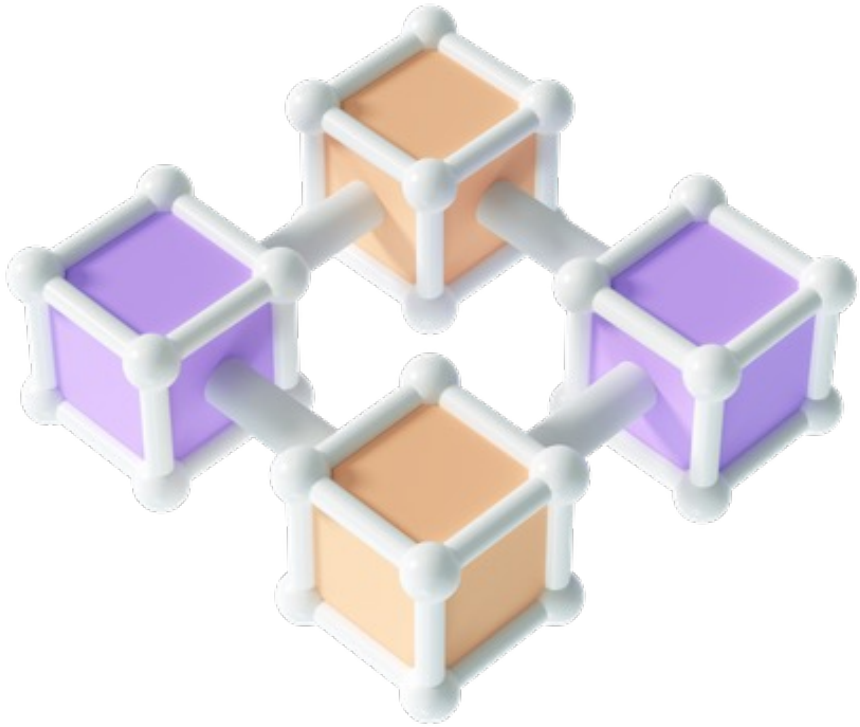
Open-core model - Alternative for open source projects to monetize their code request

GitHub sponsors - 100% of sponsorships go to the developers.

Paid feature requests - Get Paid To Build Open Source Extensions for Existing Products

Get paid to build open-source extensions for existing products

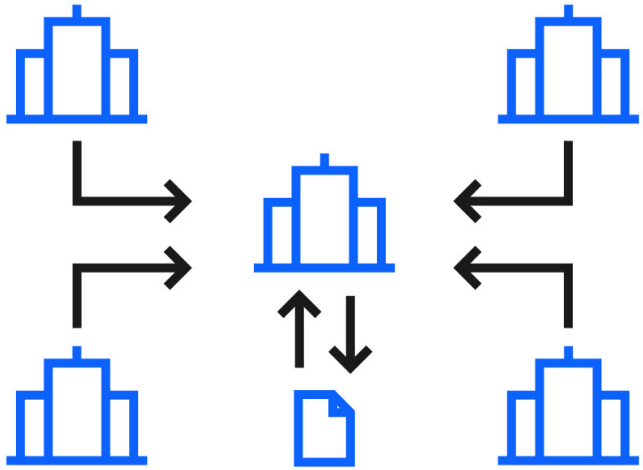
Block chain as a business model



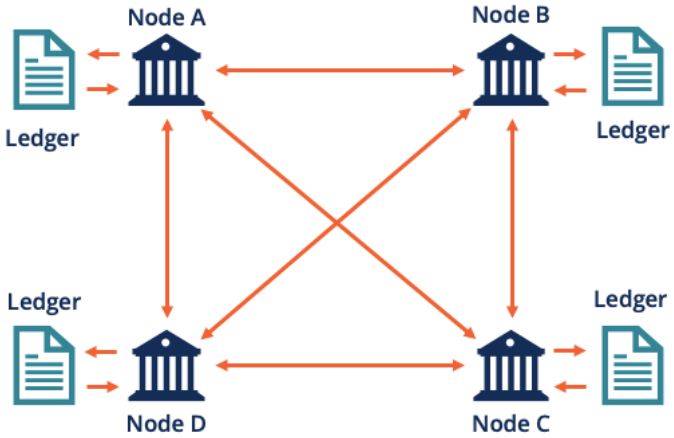
What is Blockchain?

Blockchain is the technology of distributed ledger that give control to people instead of an Authority.

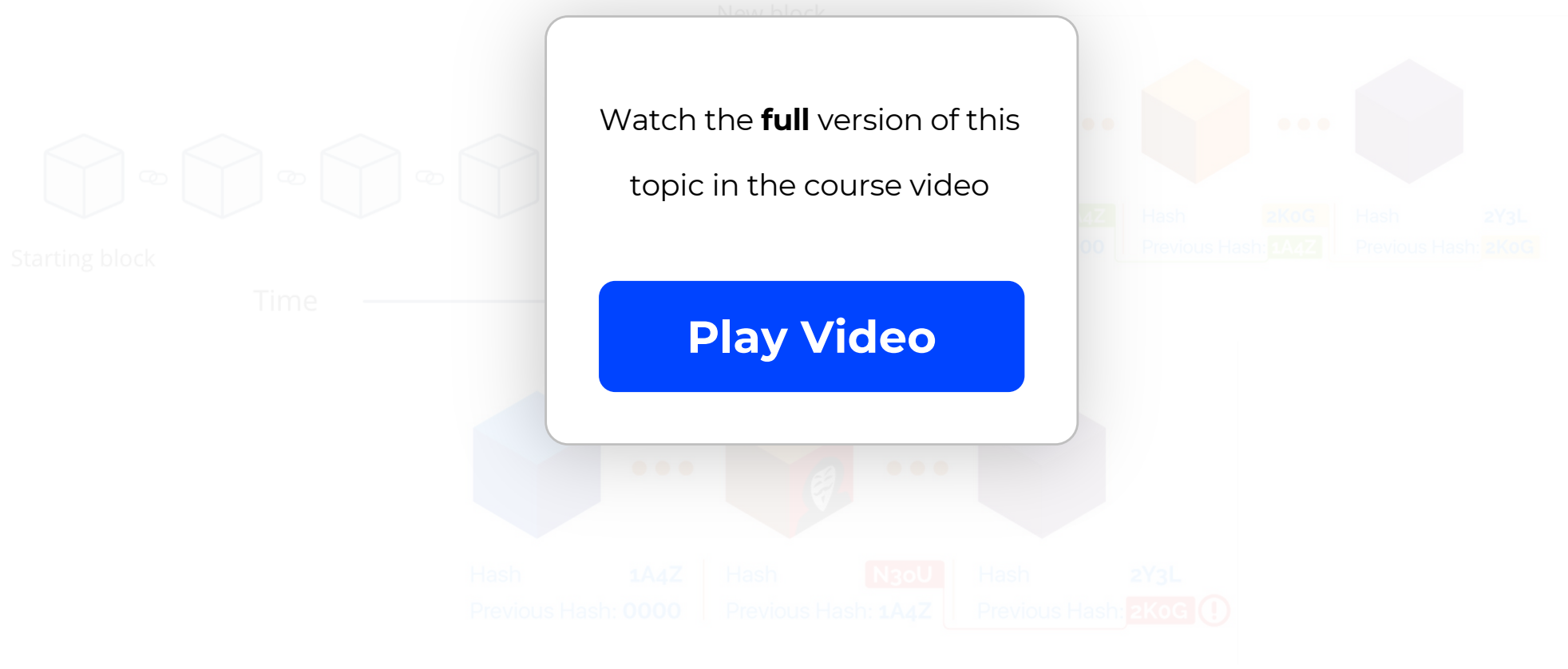
Centralize ledger



Distributed ledger



What makes blockchain so unique



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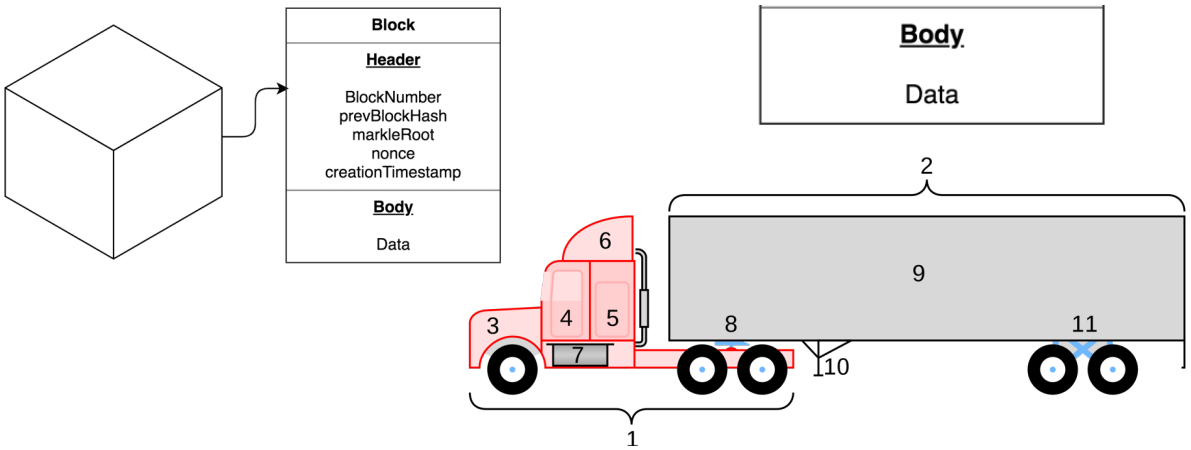
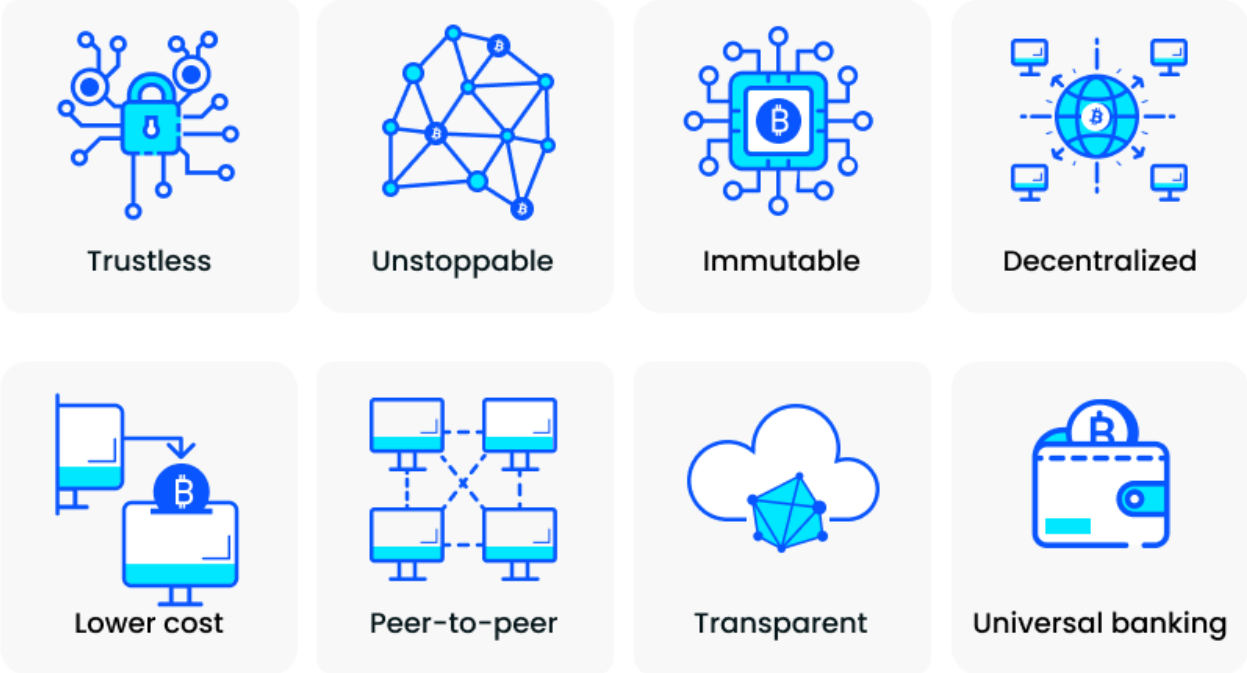
Block in a blockchain

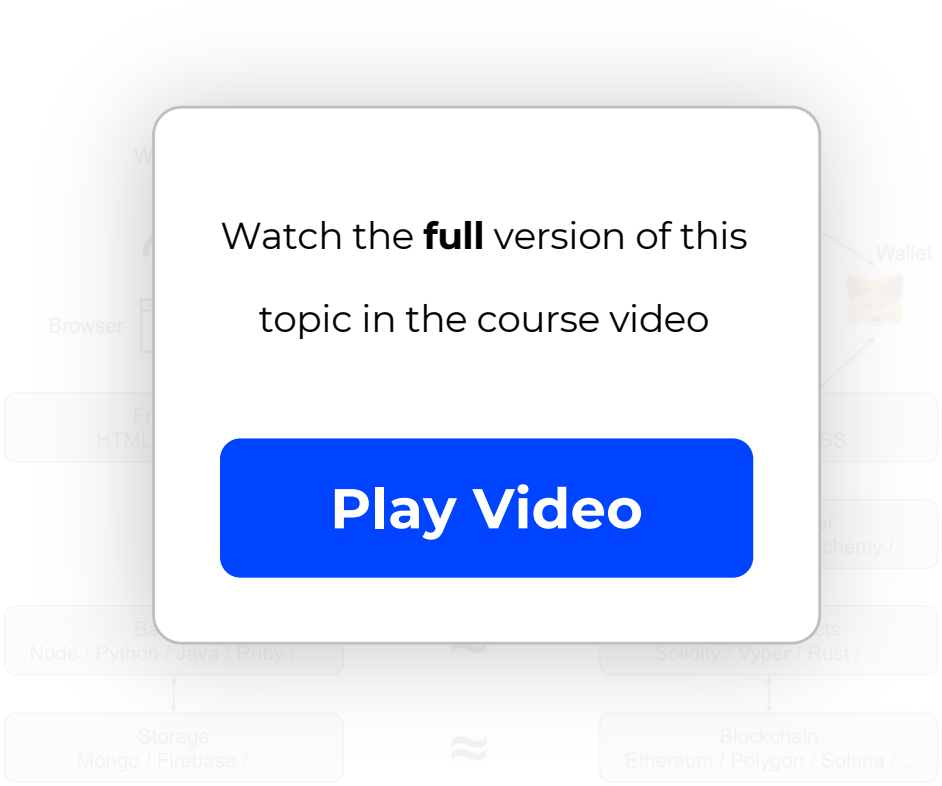


Block
Header
BlockNumber
prevBlockHash
markleRoot
nonce
creationTimestamp

What makes blockchain so unique



Web 2 Vs Web 3



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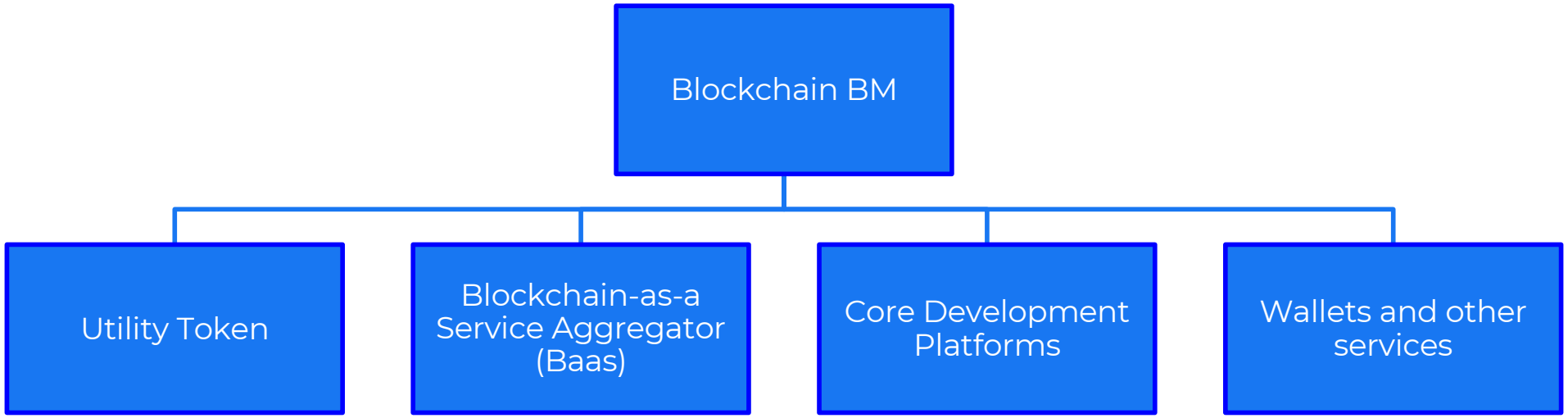
Block chain as a business model



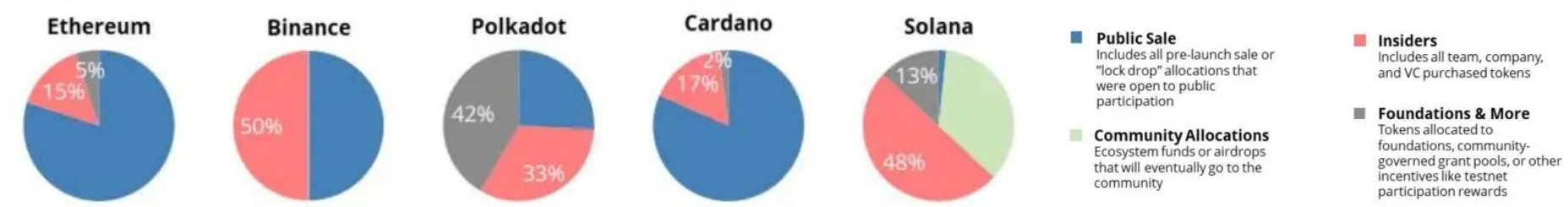
Token Economy – Utility Token Business Model

So, all Blockchain uses Distributed ledger technology (DLT) which requires consensus, and a token is one of the mechanisms to reward the token miner or token holder.

Example: Solana and Ethereum

These companies issue some tokens at their Initial coin offering (ICO) and make a profit by holding some tokens for further development.

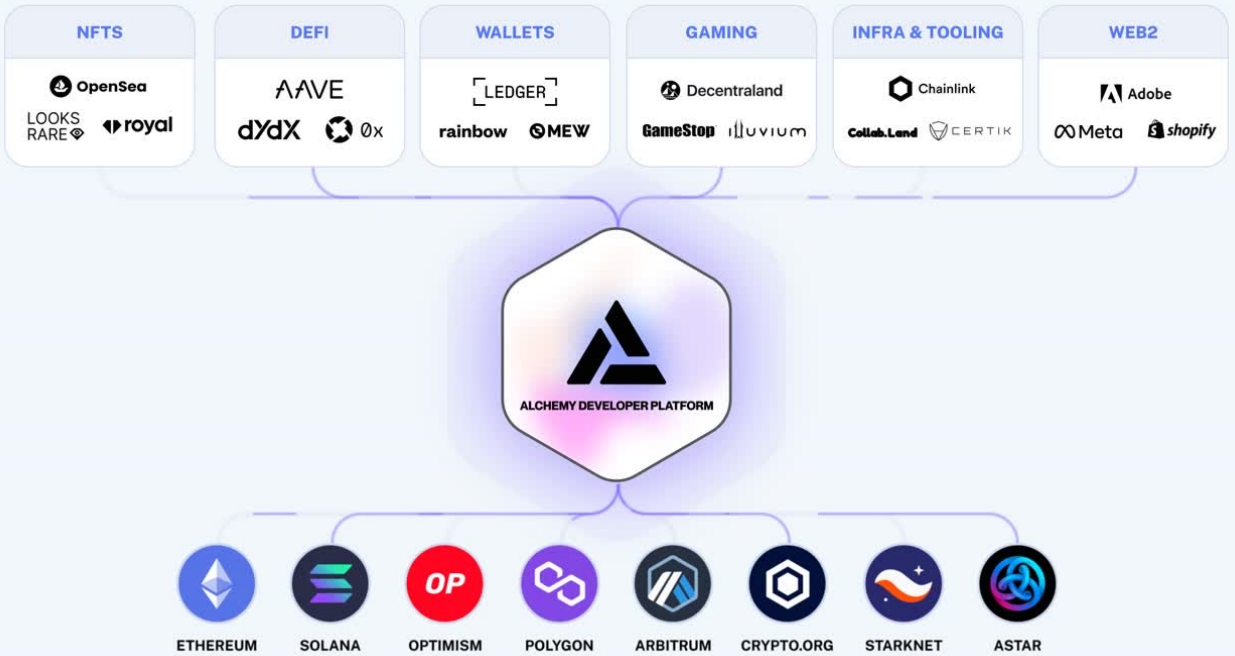
If you refer to their tokenomics you will realize that Solana still holds more than 60% of the token while Ethereum foundation holds 7-8%



Blockchain-as-a Service Aggregator (Baas)

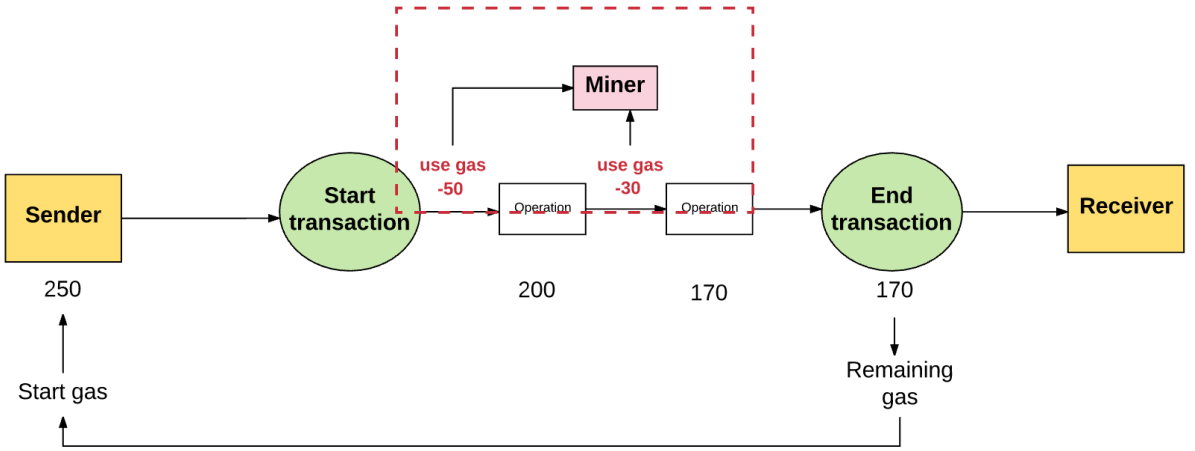
AWS for blockchain which means you will simply do an API call for your favorite blockchain, and you can use that service.

Example: Alchemy is a node provider for a variety of blockchain



Core Development Platforms

Example: Bitcoin and Ethereum i.e. Ethereum Blockchain as a Service (EBaaS).

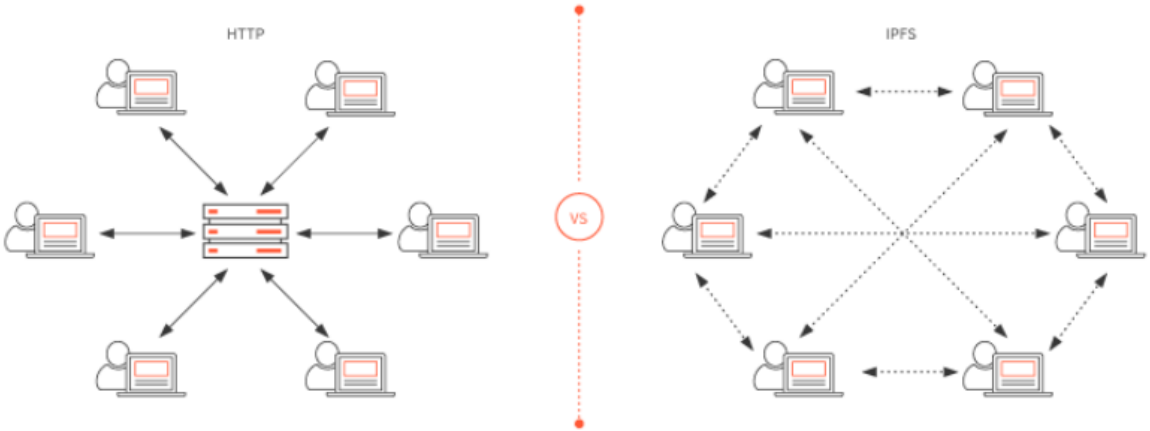


P2P Blockchain Business Model

The peer-to-peer (P2P) blockchain enables end-users to interact with each other directly.

Example – IPFS

IPFS, an interplanetary filesystem, takes advantage of the blockchain business model.
Also, there is mining software that will let users share their unused storage space.



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