



# Proton Network

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The first public chain for digital marketing

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## **Abstract**

The world is stepping into the digital era. Marketing, like all industries, has the opportunity to transform itself by effectively engaging with the huge flows of data generated by billions of smart devices.

Whilst the technology used by marketers is highly advanced, marketing methods themselves are still stuck in the stone age. Theoretically, all activities in the digital world leave a trace. Advertisers dream of being able to track consumers throughout the journey from first impression to final purchase, however this currently isn't possible because consumer's digital traces are locked in 'data silos'. This is due to a lack of cooperation between websites and poor data interoperability.

Data is a valuable resource, so we are using the blockchain to facilitate trustless data sharing so advertisers are able to track individual users across devices and platforms. What's more, for the first time consumers will actually be paid for the usage of their data.

Proton Network is a public chain for the digital marketing industry dedicated to achieving the two most desired goals in the field:

1. Cross application unified identity (UID).
2. A Blockchain digital marketing ecosystem.

# Industry Situation and Major Challenges

Five years ago, the SSP+DMP+DSP system started trying to further improve the accuracy of digital marketing by using a series of analytical models based on cookies to define effective user flow patterns. Sadly, the system was affected by fatal issues such as the short lifecycle of cookies and the inaccessibility of data between websites and applications. The ultimate results of digital marketing were not satisfactory. The original goal of bringing digital marketing to an attributional analysis level eventually failed, Proton will not.

## Notes:

- SSP = Supply Side Platform
  - DMP = Data Management Platform
  - DSP = Demand Side Platform

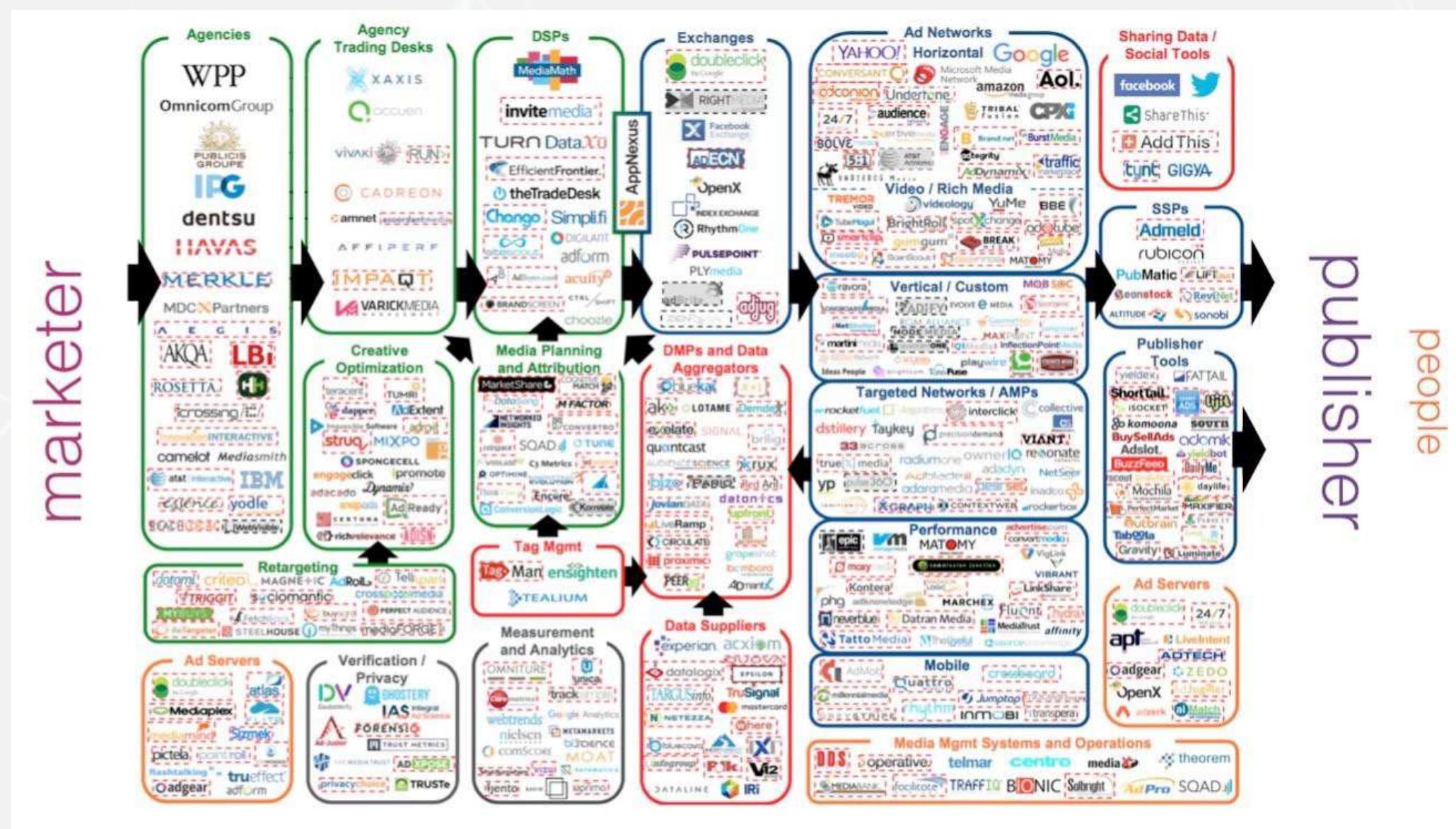


Figure 1: Advertising Industry landscape by Lumar Partners

## **UID System Consensus and Achievement**

Years of wasted marketing budgets have led advertisers to the realisation that they need unified identifies for their customers. Alibaba, Tencent and other giants have consolidated a large number of sites and applications into their ecosystems via acquisitions. By doing so, the tech giants are able to connect data silos among members of their ecosystem and create a UID system. This strategy achieved effective precision digital marketing in two years.

Lets take Alimama's Uni-Marketing as an example. Alibaba integrates Taobao, Tmall, Alipay and other start-ups within the Alibaba Group in order to connect the data across Alibaba's whole ecosystem. They can then achieve highly precise digital marketing capabilities. Alimama has helped Friso, Dyson, Estee Lauder and other brands instantly improve marketing results by 1.2 to 3.8 times. Therefore, effective UID will fundamentally change the whole industry dynamics.

But what do you do if you don't want to pay for the quasi-monopolies of Alibaba and Tencent?

*"In two-week period since product launch, Friso acquired 3.8 times more consumers and 1.5 times larger the coverage of target population through Uni Desk by Carat "* - Case Study from *Marketing, an Industry Vertical Media*

## **UID Walled Gardens**

Unfortunately, the success of the data giant also represents their monopoly in the market. This phenomenon is also called a "Walled Garden" by industry experts.

Many advertisers cannot afford the high costs charged by these data giants, and most independent applications and media cannot exchange data with each other due to mistrust. Furthermore, a number of unique and efficient user analysis and rendering models have failed to achieve business value due to a lack of common standards for formatting data. Worst of all, customers have been totally neglected and have never really benefited from the whole process.

## **Huge Market Potentials and Opportunities**

According to the Internet marketing report released by the IAB United States, the online advertising market reached 280 billion yuan in the first half of 2017 in the United States alone, and the global Internet advertising market has exceeded 1 trillion yuan. According to Global Digital Marketing Spending Report issued by Statista in 2018, global internet market size will surge to over 2 trillion yuan starting from 2019. This represents a huge growth market for new UID based advertising methods outside of the giants. One which could assist and empower all involved parties to jointly accomplish an industry upgrade for such a huge and thriving market. This is the mission of Proton Network.

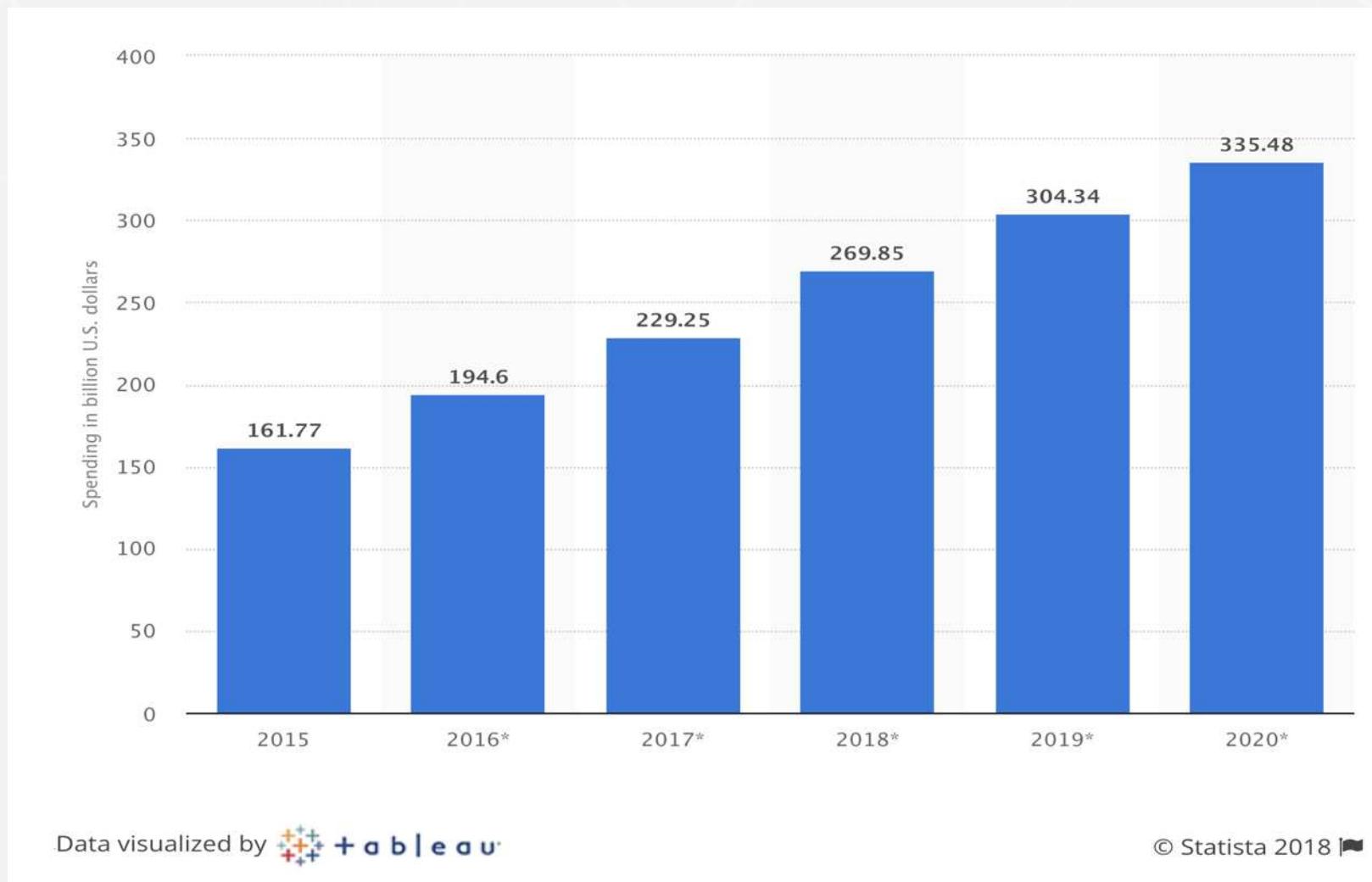


Figure 2- Global Digital Marketing Spending 2015 - 2020 - Statista Reports

## **Proton Network**

The first public chain for digital marketing. The Proton network will be the eco-system consists of service providers in advertising industry, advertisers and end users who use Proton's API or products, and will utilize the Proton Token as a medium of exchange to facilitate all transactions for services in the Proton network, so that all users of the Proton network can deal efficiently with each other by means of a unified form of exchange

## **Value Definition & Vision**

Proton provides a low-cost UID system solution and an effective incentive mechanism to website operators and applications developers through blockchain technology. All parties can share data, confident it will be managed in a trustworthy way. Everyone will realize more gains from the precision targeting, sites will be properly credited for bringing users, users will be paid for their data and advertisers will get superb information.

In addition, the Proton network aims to create a blockchain digital marketing eco-system. Besides the advertisement market, we also hope that all players in the digital marketing value chain can use our UID-based solutions for their own area of focus:

**Service Providers:**

A wide range of companies: agents, DSP / SSP / DMP platforms, Ad exchanges, BI teams etc. They can upgrade existing systems via Proton's API to access all-round authorized user profile data with support of the ecosystem. The more accuracy during the campaign, the more income for the service provider.

**Publishers:**

Publishers can easily tap into Proton network via an SDK, API or the Proton-empowered SSP network. Publishers are able to use the authorized profile data providing more customised service for their users.

**Advertiser:**

Advertisers can access the entire ad campaign process via a Proton-empowered DSP portal. They can trace and measure the campaign's result in real-time across the network, and reward publishers and end users automatically.

**End User:**

Users will for the first time ever, have full control of their data and can make a profit off of it. They enrich information, give consent to brands and advertising service providers, and receive rewards and discounts through Proton Client Dapp. Thus fully protecting their personal data privacy and gaining a fair return from brands.

## Core Concepts

### **UID (Unified Identity)**

The unique ID of each user throughout the entire network. Proton uses this ID for cross-product, cross-platform user tracking and profile cross-matching, preventing the formation of "Information Silos". UID can be treated as a unified identity in the whole ecosystem, or as a key to link the unified profiles (UP). Proton network, the UID is the key concept, it is also the key for data exchanging across different areas. In order to build a complete UID data system across the whole network, the Proton classifies UIDs into three different levels:

- **Top level:** The user is verified and authorised through Proton client side Dapp.
- **Second level:** The user is registered from the publishers/media in the ecosystem. These IDs are generated from matching the encrypted standardised identity information.
- **Third level:** IDs Generated through matching of collected multi-dimensional data. For example: Mac address, cookies, etc. This is the current industry standard.

Publishers and the advertisers will no longer have to lead users to follow their pre-set process to complete a transaction, nor encourage users to click on the corresponding ads. They can even trace back VIP consumers' behaviour to optimise and modify the advertising strategy accordingly.

## Case Study

Ticket App[C] conducts a campaign in order to acquire customers. It advertises on travel content App [A], expecting users to click on the ads at the end of the article to jump to App[C] for submitting orders.

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In most cases, the actual situation is that the user browses the travel articles about Singapore in [A] , then closes [A] , opens a browser [B] and searches for tourist routes in Singapore for more information. They then close browser [B], and reopen the ticket App [C] for booking. An order is eventually submitted, but wouldn't be traceable to a non-UID-backed system. Media [A] does not receive the advertising revenue it deserves. Advertiser [C] is unable to understand and trace the source channel of the users.

If Ticket App [C] campaign comes under Proton network, it could've clearly tracked the source of users and their footprint to adjust the campaign at any time. Media [A] can therefore quantitatively measure previously unrecognised value. On top of that, the user gets paid in Tokens for the usage of their data!

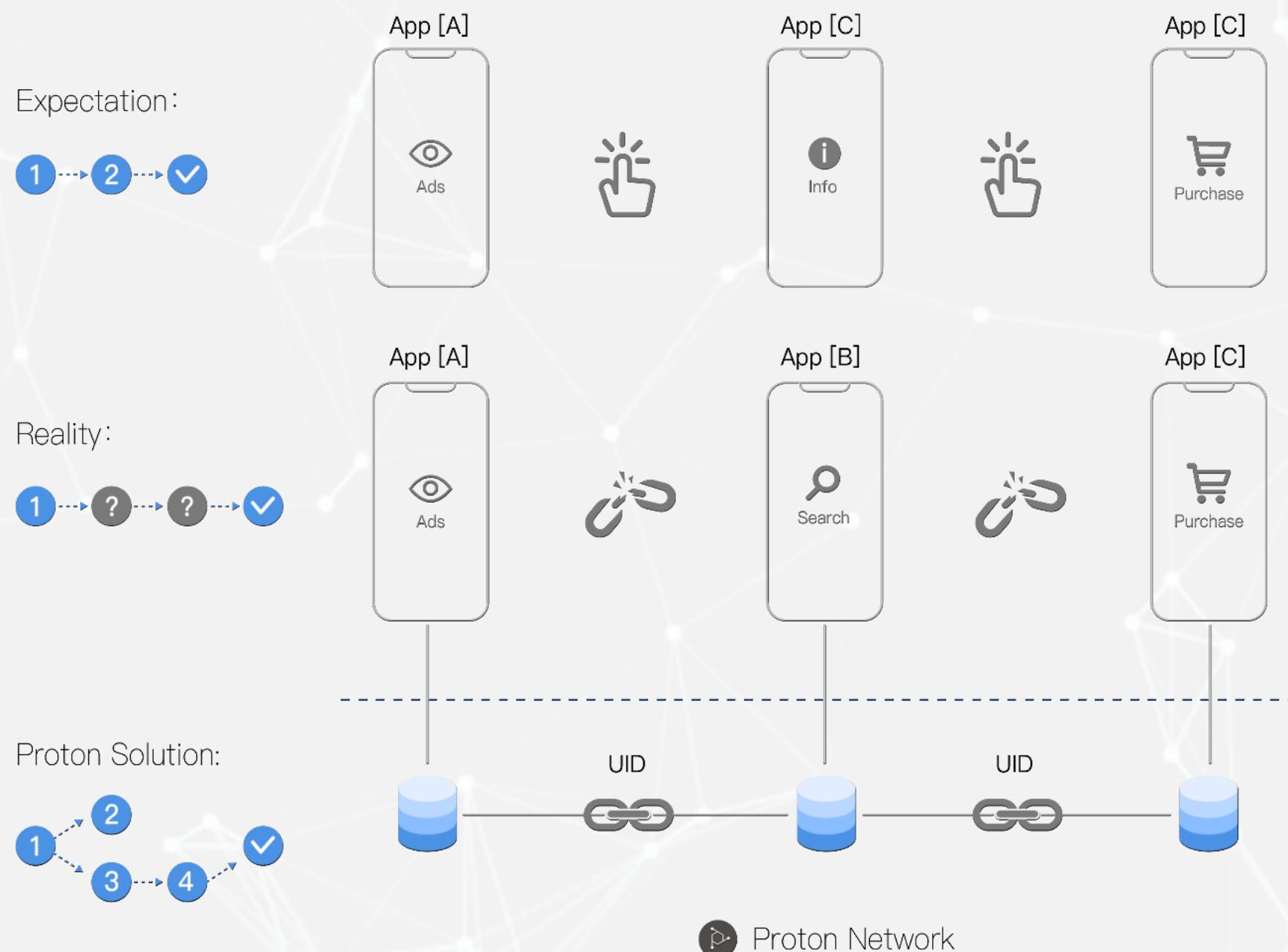


Figure 3- Example of how UID works

## UP (Unified Profile)

The profile contains basic information and behavioural data, Tagged data generated from the analysis process. Based on UID system, Proton can easily identify the most valuable customers for their advertisers.

Within Proton network every user will have their independent UP in each application. Their UP stores user's basic information (gender, etc.), key behaviour defined by products, and existing labels produced by publishers etc. Third-party companies can obtain encrypted data for analysis once its authorised by the user.

Publishers can easily tap into the Proton network via an API and automatically collect data, or they can enrich a users profile by using the Proton API with another publisher. Each UP of the user has an independent Key, which is stored as a Proton UID. So in the Proton network, a user's global profile means the data set of all connected UPs.

Example:

App [A] is a news App. User [B] will generate huge amount of actions in [A] such as browsing, favoriting, forwarding, liking and commenting. [A] also has a personal page function for collecting [B]'s information. When [A] is connected to the Proton by SDK, [B]'s actions, basic information, will be automatically recorded and encrypted. Proton will generate an independent Key for that as a [B]'s UP on [A]. "

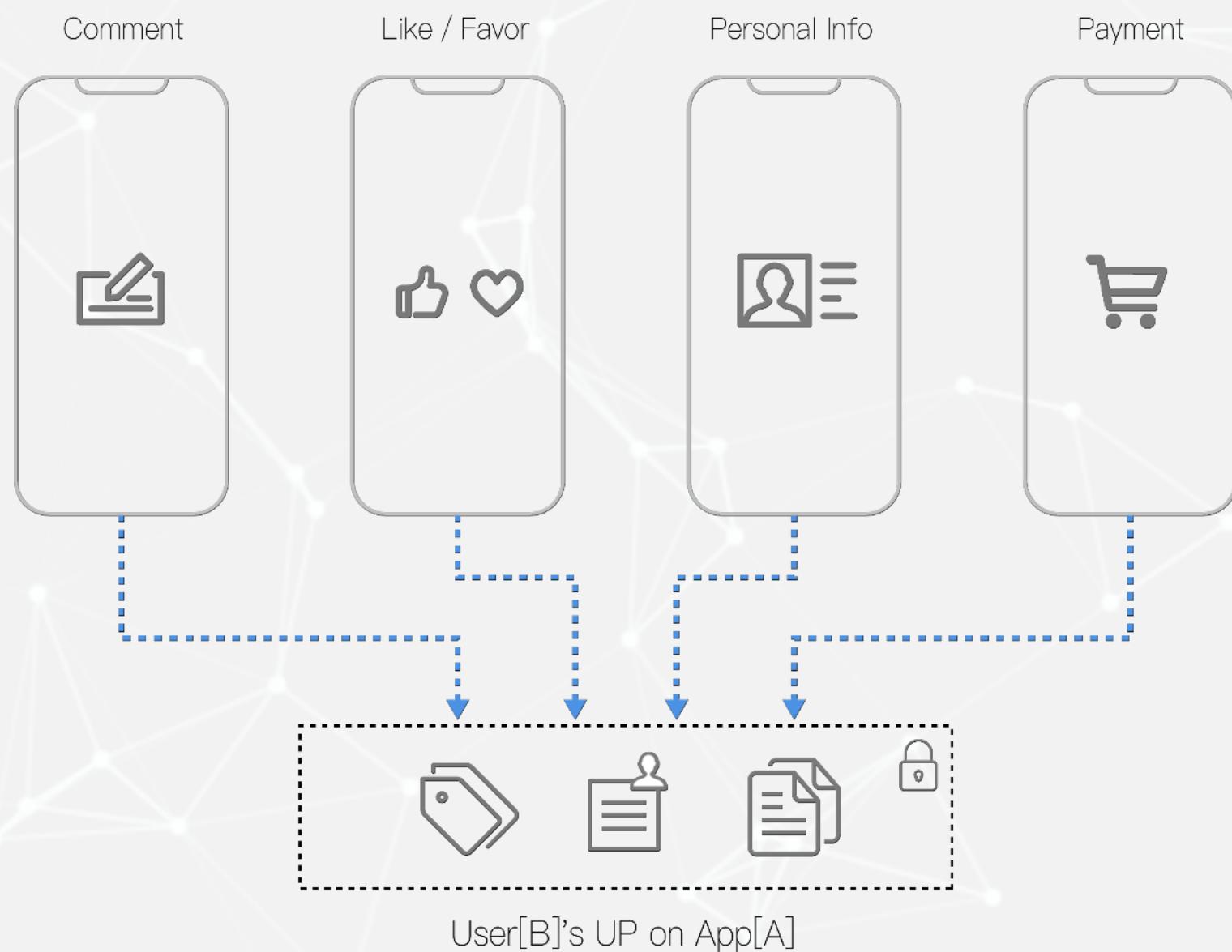


Figure 4- Example of how UP works

### UA (Unified Attention)

UA is a comprehensive measurement system to evaluate user attention based on their UP, the advertising content and user behavior (click and duration, etc.). UA is used to quantify how long a user spends on certain content. Based on the measurement, a fair and reasonable value distribution system can be designed to balance the interests of advertisers, publishers and consumers.

UA serves as a basic unit of measure in the Proton, giving advertisers and service providers a quantitative measurement of the user's interest. UA version iterations are continuously updated based on different smart contracts. Depending on the industry and its standards, service providers or advertisers can also join the ecosystem to develop their own UA standard smart contracts.

### Case Study:

"User [A] Browses advertising content [C] in app [B], then the UA is generated through the industry-specific UA smart contracts by entering the following data:

- [A]'s UID
- [A]'s UP (which can also be considered [A]'s UP in another App)
- [C]'s Corresponding tags and data
- The user's current browsing behaviour on [B]

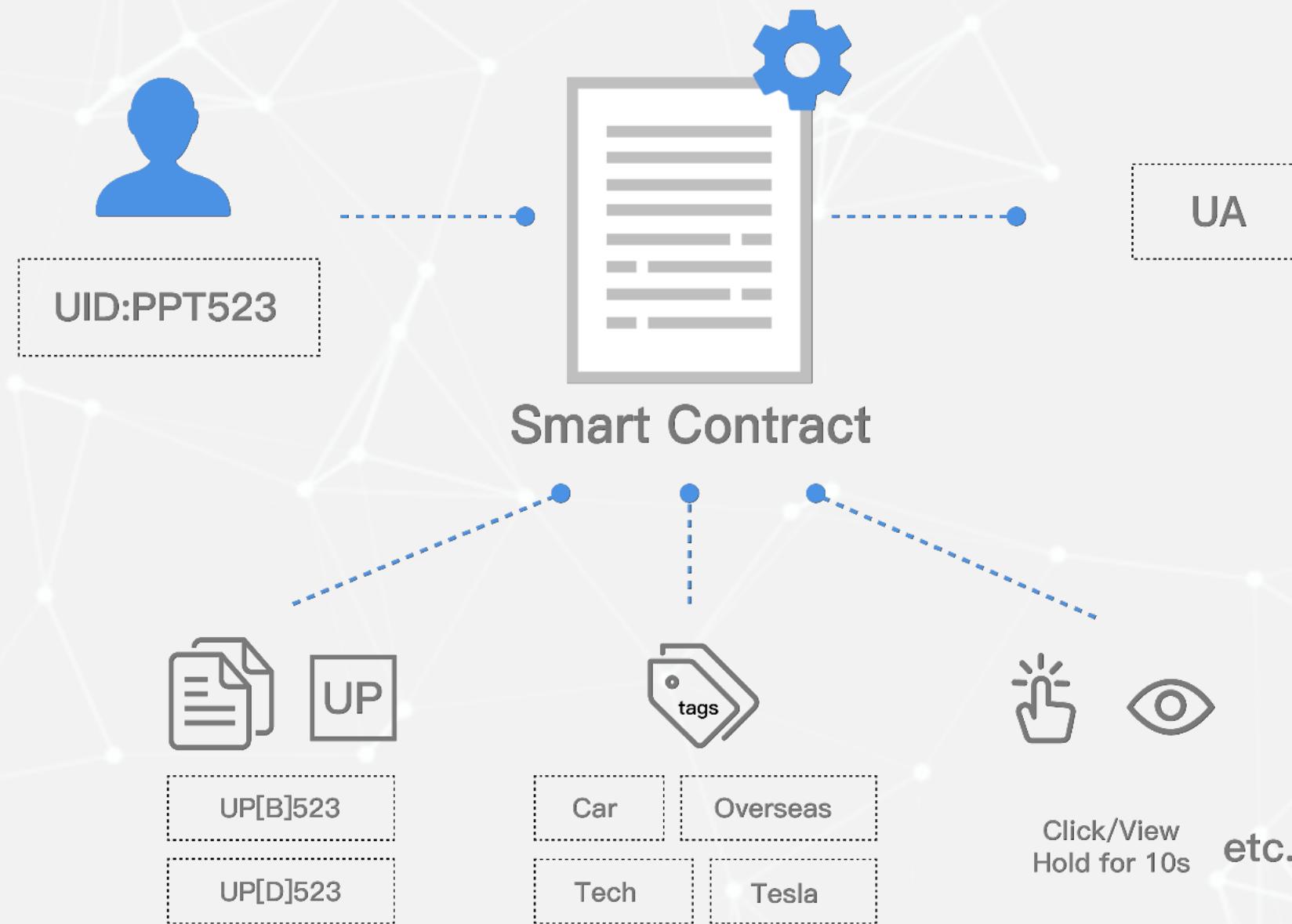


Figure 5- Example of how UA works

## Industry Upgrade via UID Solution

As the infrastructure of digital marketing, the Proton network will integrate data from existing players on the market. Through a simple plugin API, publishers and end users can join the ecosystem. They'll share data, and thus forming a unified user profile. At the same time, insights generated from data analysis can empower publishers and provide value to the advertisers.

Through Smart contracts, enterprises will not need to worry about mistrust. Publishers and data management platform can exchange data seamlessly within the ecosystem. The introduction of a token provides a useful medium of exchange between parties. It also encourages more enterprises and users to join the system and speeds up the construction of the entire ecosystem.

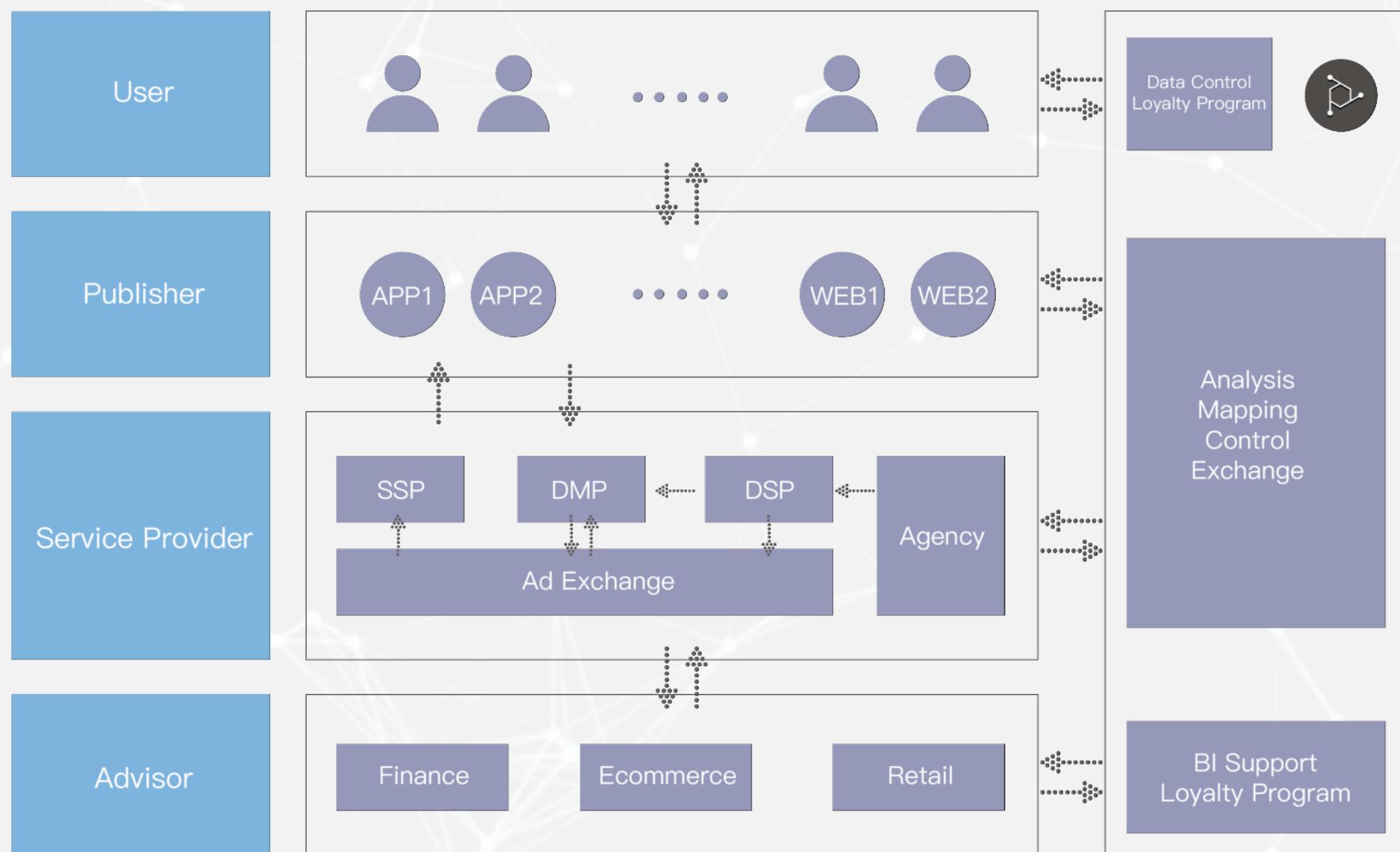


Figure 6- The upgrade of existing Ads ecosystem with Proton network

## Exchanging Data on Proton Network

Business-sensitive data leakage, unfair data exchanging, no unified data format. These things lead to high communication and software development costs. Mistrust is the major obstacle for publishers to exchange data with each other. However, with the Proton network architecture, each publisher can conduct fast, secure, low-cost data exchange.

### Proton Solutions:

- Through setting up rules in the smart contracts, the network can simultaneously solve the problems of data leakage and high development and communication costs.
- Achieve the optimal balance between data offering and return via smart contract and token mechanism.
- Standardize data format to eliminate additional development costs.

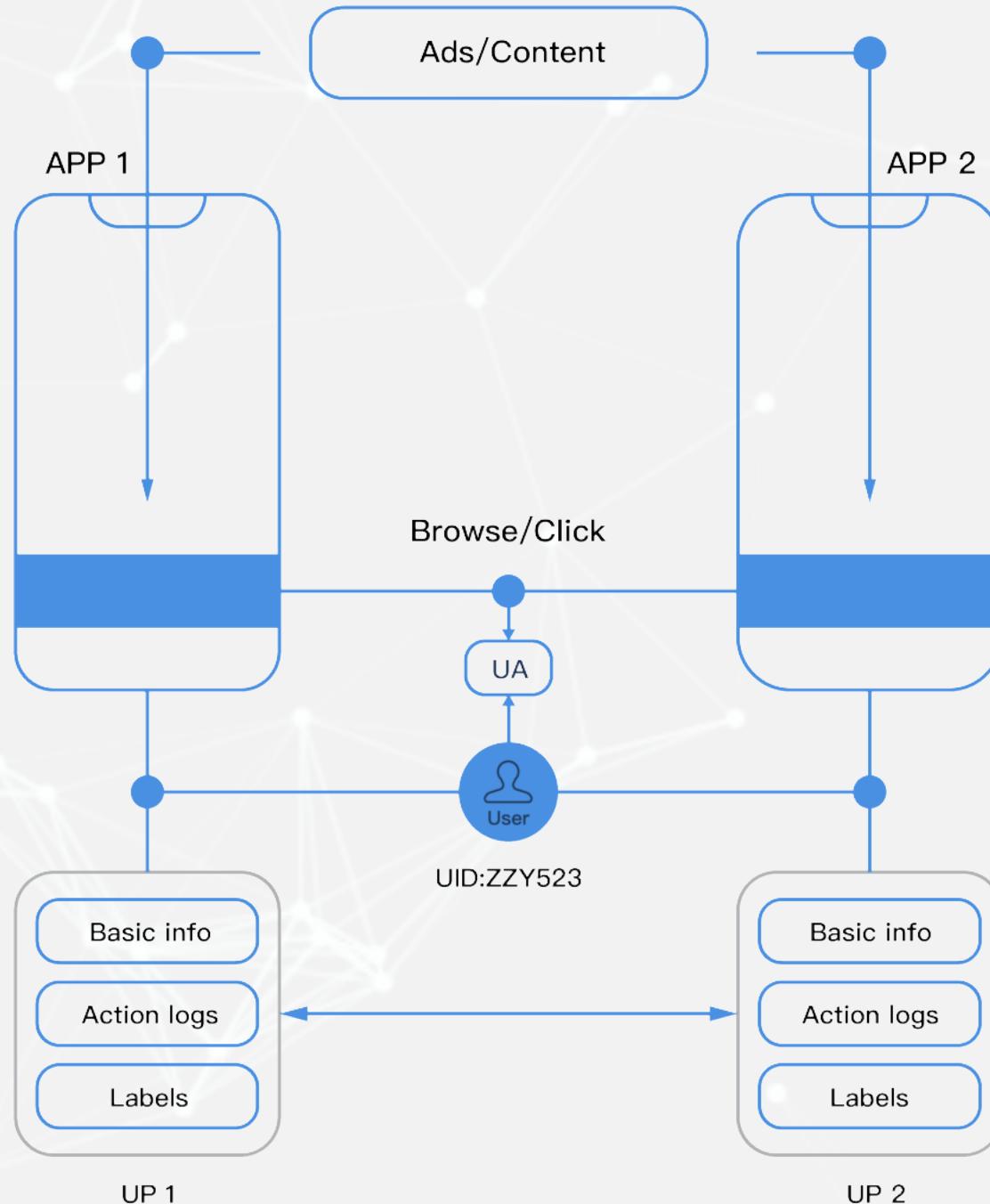


Figure 7- Example of data exchanging on Proton network

Example.

1. User register APP1 and APP2 respectively, user is recognized and labeled with UID:ZZY523
2. APP1 and APP2 stores user profile for this particular user respectively.
3. APP1 and APP2 exchange encrypted user profile via smart contract on Proton network
4. The user's advertisement and content viewing behavior will be processed to a UA after analyzing their user profile (UP1+UP2) and the corresponding viewed advertisement.
5. Based on calculated UA and preset smart contract, the advertiser will pay the publisher and reward end user automatically.

## **Structure Layouts of Proton Network**

Proton network is designed with five layers.

### **Application Layer**

- Proton SDK or API will be embedded into Apps and Websites to create a unified user profile
- Proton Dapp for unified user information management, users can adjust at any time through the App
- Vertical industry App are encouraged to be developed based on the Proton network

### **Service Layer**

This layer mainly provides interfaces for small payments, querying, data exchanging and attention measurement data, etc.

## Data Analysis Layer

Provide fundamental data interface, support data query for service layer and raw data query for data analysis partners.

## Foundation Layer

The foundation layer of the proton network is an independent public chain to support smart contracts and the consensus engine.

## Storage Layer

Peer-to-peer data storage layer for decentralized storage of user basic information, behavior trajectories and profile data etc.

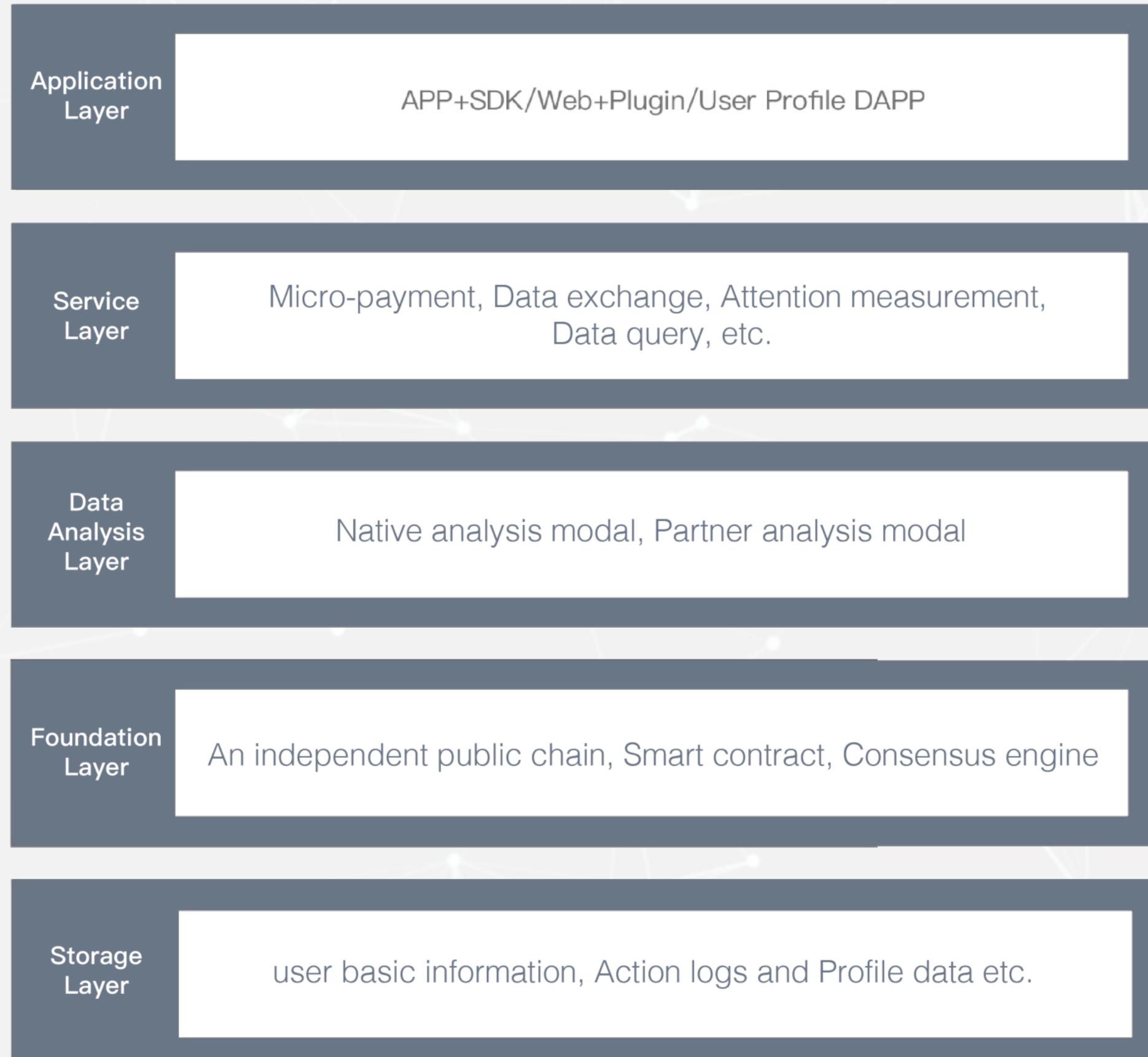


Figure 8- Structure layout of Proton network

## **Proton-empowered Ecosystem**

With fundamental support from the Proton network, the existing ecosystem is empowered to evolve into a brand new one. We can encourage all stakeholders in the current digital marketing landscape to contribute without undermining the existing interests. The Proton network, which works in tandem with large service providers and mobile apps can quickly reach and dominate the marketplace, resulting in a huge eco-network effect.

## **Proton Token Circulation**

Proton Token, also known as PTT, is going to be used as the medium of exchange for the circulation of value between various parties of the entire eco-chain within the proton network, and acts as the medium of settlement of value transfer and circulation internally. The use of PTT will encourage the healthy development and growth of the internal economy and ecosystem of the Proton network, and will improve the efficiency of ecological operation. Various examples of the use of the PTT is provided below.

### **PTT use case:**

- Advertisers can quickly settle with Publishers and Users through smart contracts
- Settlement amongst Publisher / Advertiser /Service Provider during data exchange
- Brands distribute incentives to reward user loyalty
- Settlement of product transactions within future eco-system
- Encourage and incentivize more users outside of the ecosystem to join in
- Can be used to pay for and stimulate the computing power and storage contribution

### Value of Token:

- Reduce cumbersome transaction calculations
- Establish the standard for advertisement payment within the ecosystem, this establishes value because advertisers will buy PTT to pay for advertisements.
- Basic exchange document for future Dapp developed based on proton chain, i.e, Token, which is based on the Proton Chain brand, is specially issued for its loyal customers

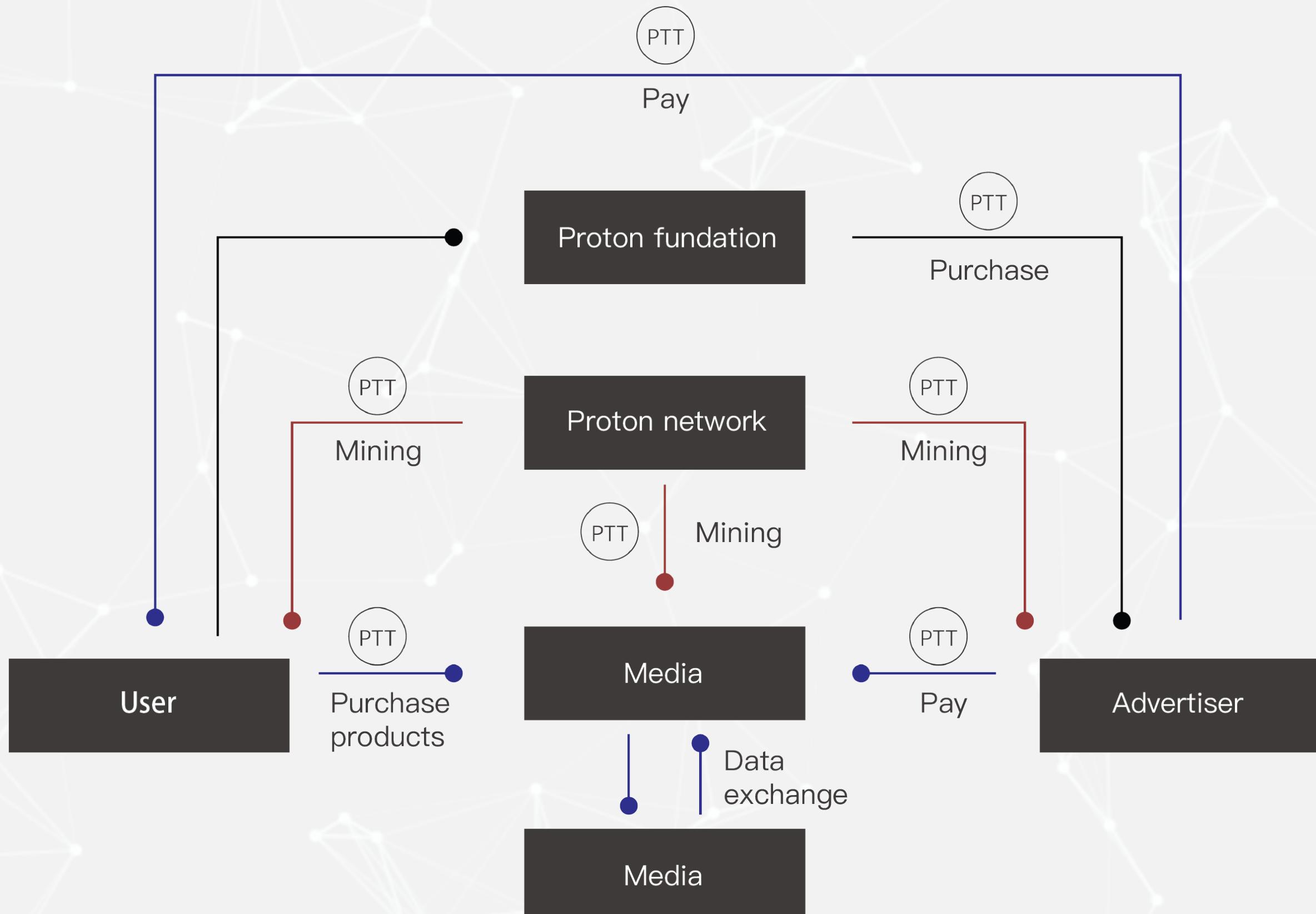


Figure 9- Proton token circulation

Gray: Purchase PTT (In) | Blue: Pay PTT (out) | Red: Mine to obtain PTT (into)

## **Ways to obtain PTT:**

Following the establishment of the Proton network, participants are compensated with PTT for contributing various resources to the Proton network. This is done in two ways:

### **1. Provision of Computing Power**

Each time a smart contract is submitted on the Proton network, the one who initiates the contract will have to pay a small amount of PTT. Other users in the Proton network are rewarded for contributing computing power used for analytics and accounting in the settlement of such smart contracts (since these are settled by means of a consensus mechanism). For example, if Enterprise A invokes a smart contract for settlement with Enterprise B. Participant C will act as the settlor of the smart contract based on the consensus mechanism, and then Participant C receives a small amount of PTT paid by the Proton network as a reward.

### **2. Provision of Storage Space**

The Proton network will require relatively large data storage capacity for the purpose of its operation, and will therefore allow users to contribute data storage space and be compensated relatively. Users will also be compensated with a small amount of PTT each time if any data stored is requested .

## **PTT's case studies (without consideration of computing power and storage payment.**

### **Case Study I**

One example is how enterprises can pay data providers for requesting their data for advertisements . During a campaign, specific individual data is generated and stored when an individual interacts with the advertisement. This data will be marked with a corresponding right to related parties. Take "income right" as example, if it is marked as an "income right" , then each time such user data is been used, the owner of such data will be reward with PTT as a form of payment as settled in the smart contract. For example, if User A owns 30% and Company A owns 70% of such data's income right, then Company B wishes to use then data and is a charged 10PTT. Company A will receive 7 PTT and User A will receive 3 PTT.

### **Case Study II**

PTT is also used in advertising transactions between two or more parties. For example, Company A may set a total advertising budget of 100PTT, where every single click of its advertisements will pay out 1PTT. If Company B and Company C is nominated as the service providers within the smart contract, where Company B achieves 80 clicks and Company C achieves 20 clicks, Company B will receive 80PTT and Company C will receive 20PTT

## Technology & Deployment Overview

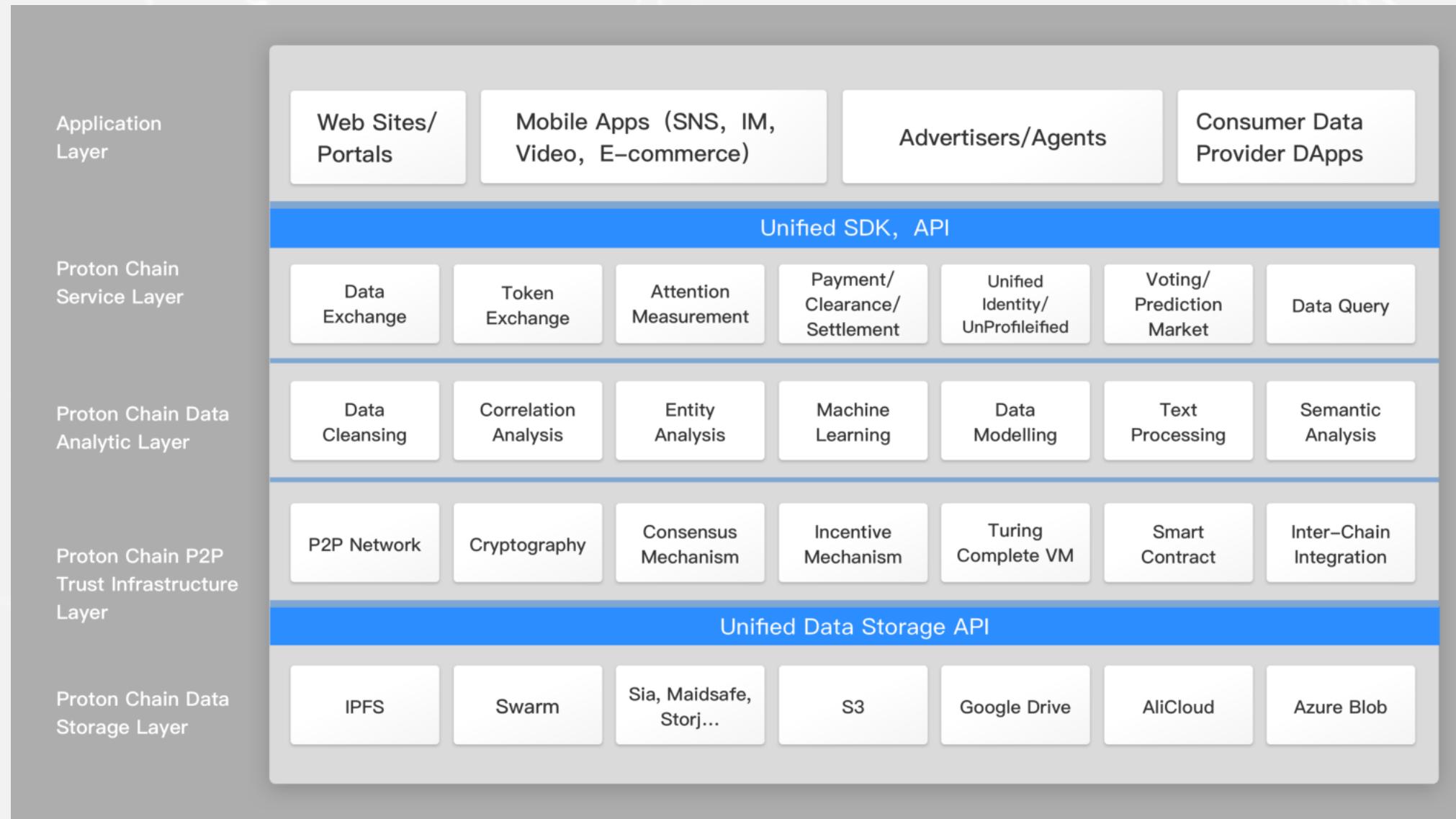


Figure 10 - Proton Network Technology Structure

### Application Layer

This layer includes three major categories of products:

- Apps, websites and other products connected to Proton Network;
- Advertisers, service providers, publishers and client-side products powered by Proton Network;
- Relevant D-Apps developed on Proton Networks.

### Service layer

Service layer provides a unified SDK and API for data exchange, token exchange, attention measurement, payment/settlement, the entire network unified identity/unified profile, voting/market forecasting, data query, etc.

## **Data Analysis Layer**

Unlike traditional analysis, the data analysis layer of the Proton Network introduces a modular data analysis service. In addition to the service modules provided by the Proton Network itself, third-party data analysis services may also be accepted into the ecosystem.

The Proton Network data analysis layer provides a series of data analysis services based on raw data. Since user authorization data is often complex, disorderly and can not provide valid information, and blockchain technology itself can not provide the ability to analyze complex data. This layer should introduce independent semantic data analysis services, and use smart contracts for the implementation of supervision, dispute mediation, service settlement, and distributed service evaluation for the two or more parties of the service.

Third-party data analysis service providers will provide customized data analysis services based on the encrypted data authorized by users and publishers (for encryption principles and hierarchical principles, please check details in the data storage layer). The data analysis service will use off-chain mode, which uses mature data analysis tools such as data cleaning, correlation analysis, entity analysis, machine learning, data modelling, text processing and semantic comprehension, and provide complete and accurate UA and UP combinations for service requesters. The publisher/advertiser will use the analysis results for accurate advertising and feedback objective results. The entire transaction and dispute handling are on blockchain, so the provider could improve the algorithm to form a closed-loop. The precise acquisition of User Profile (UP) is based on the user's authorization and hierarchical encryption of data usage, so providers improve algorithms and form closed loops to fully guarantee the privacy and data security of users. Efficient data analysis modules can take full advantage of effective high-quality data.

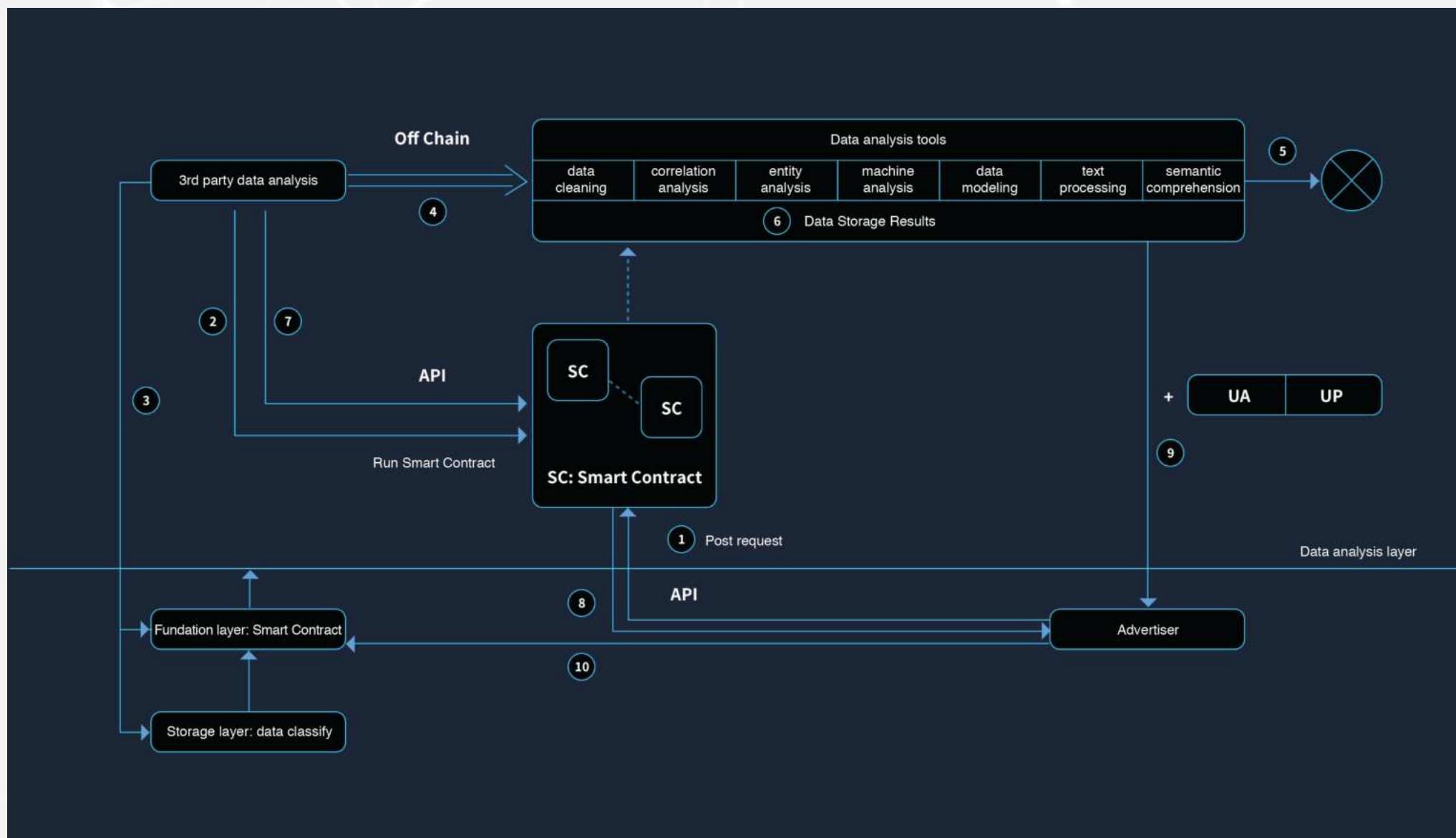


Figure 11 - Proton Data Analysis Layer

1. Demand-side contract deployment
2. The third-party data analysis service provider answers and the system automatically arranges the distributed arbiter
3. Third-party data analytics providers obtain data from storage layer through authorization verification
4. Off-chain analysis from Third-party data analysis service provider
5. The raw data is deleted
6. Analysis results are stored encrypted
7. Blockchain on-chain response from third-party data analysis service provider
8. Return the result to the requester and provide a data link
9. Publisher/Advertiser to get the result and apply.
10. Publisher/Advertiser distributes the distributed evaluation result to the foundation layer of blockchain or applies for arbitration, and closes the loop to improve the service quality

## **Trust Foundation Layer**

The trust foundation layer is a core layer that distinguishes Proton Network from all existing UID systems. This layer provides a P2P network based on blockchain technology, using cryptographic algorithms to ensure data security and confidentiality. The consensus mechanism will be different from the traditional POW (Proof of Work), to take more suitable approach for Proton Network applications, similar to the DPOP (Delegated Proof of Participation) or DPOS (Delegated Proof of Stake) approach.

The incentive module is the engine that drives the exchange of value between parties in the decentralised system. Proton Network provides token-based incentive modules. Though the foundation layer, Proton Network system service layer runs smart contract on the Turing complete virtual machine, with related integration of modules on analysis layer.

In the long-term, Proton Network hopes to reduce the threshold of cooperation between parties and realize the seamless connection of the industry ecosystem.

## **Data Storage Layer**

Proton data storage layer will be based on a unified data storage interface, also compatible with mainstream distributed storage services and cloud service storage. Existing cloud computing services also collapse to weight nodes in globally distributed network nodes. As shown in the following figure, each point can communicate with each other. CN means there are N nodes in the system.

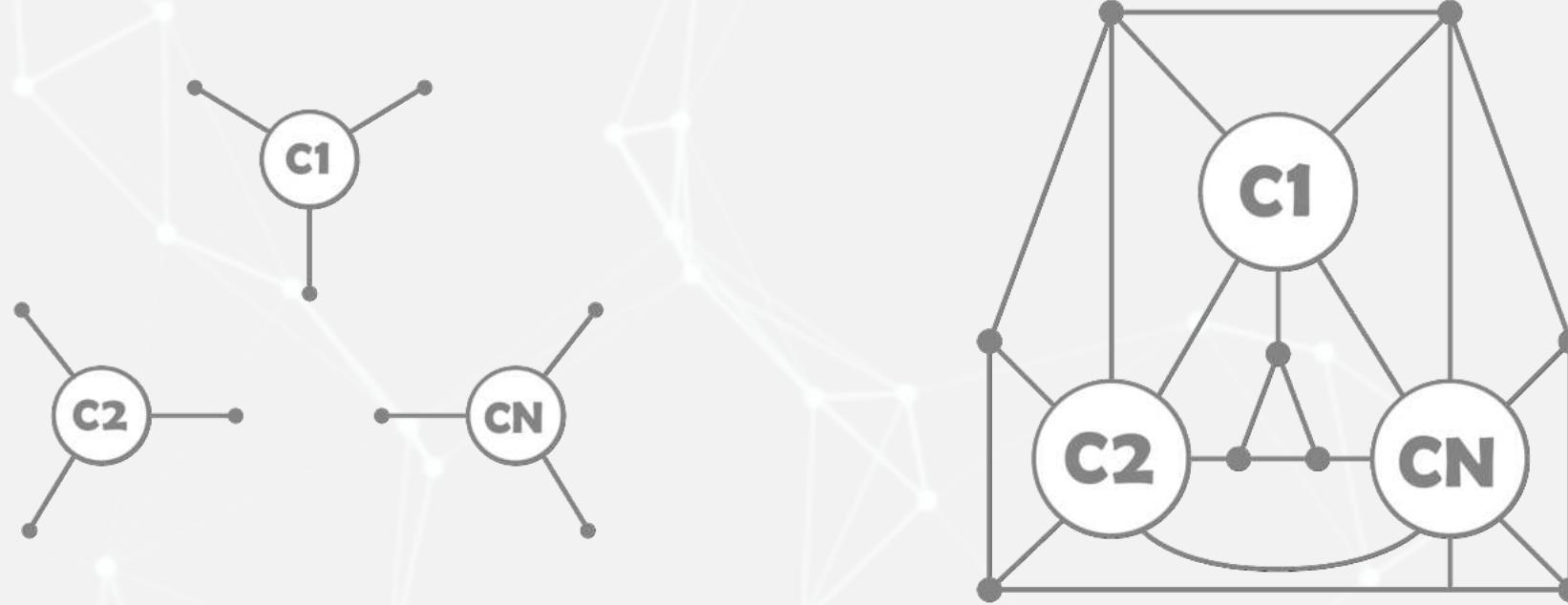


Figure 12 - Data Storage

User data stored in the Proton Network will be divided into two layers, one for the off-chain raw data, which is a large volume of data and can use the existing structure or non-structural database to store, then use on-chain pointer addressing call. Another part of the user data is called meta-data, or data about data, such as user identity, user raw data pointer, the original data usage records, authorization records that can be stored by on-chain. On-chain storage of data can be audited by stakeholders and cannot be tampered with.

## **Data Privacy**

Because on-chain data storage needs synchronization with the whole network, sensitive and private data such as users' original data pointer, users' original data call records which are stored encrypted online, this data and information can only be accessed by the user or user specified parties. The other part of the information such as identity information can be stored online without encryption because it is anonymous. User off-chain data is stored in a server provided by a different third party which is trusted by the user or user's own private cloud. The following possibilities exist for on-chain and off-chain data storage:

The on-chain data user keeps the private key, which can be updated synchronously by the Proton blockchain node after encrypted. It can be a strictly selected node provided by the user private cloud or Proton Network.

Off-chain data encryption is stored in the storage layer, which is compatible with the mainstream distributed storage service. The existing cloud computing service will also collapse to a weight node in the global distributed network node. The benefits of doing so take full advantage of the existing storage architectures, improve their structural weaknesses, and provide possible ways for system evolution. Only the user has the right to access and control the private key.

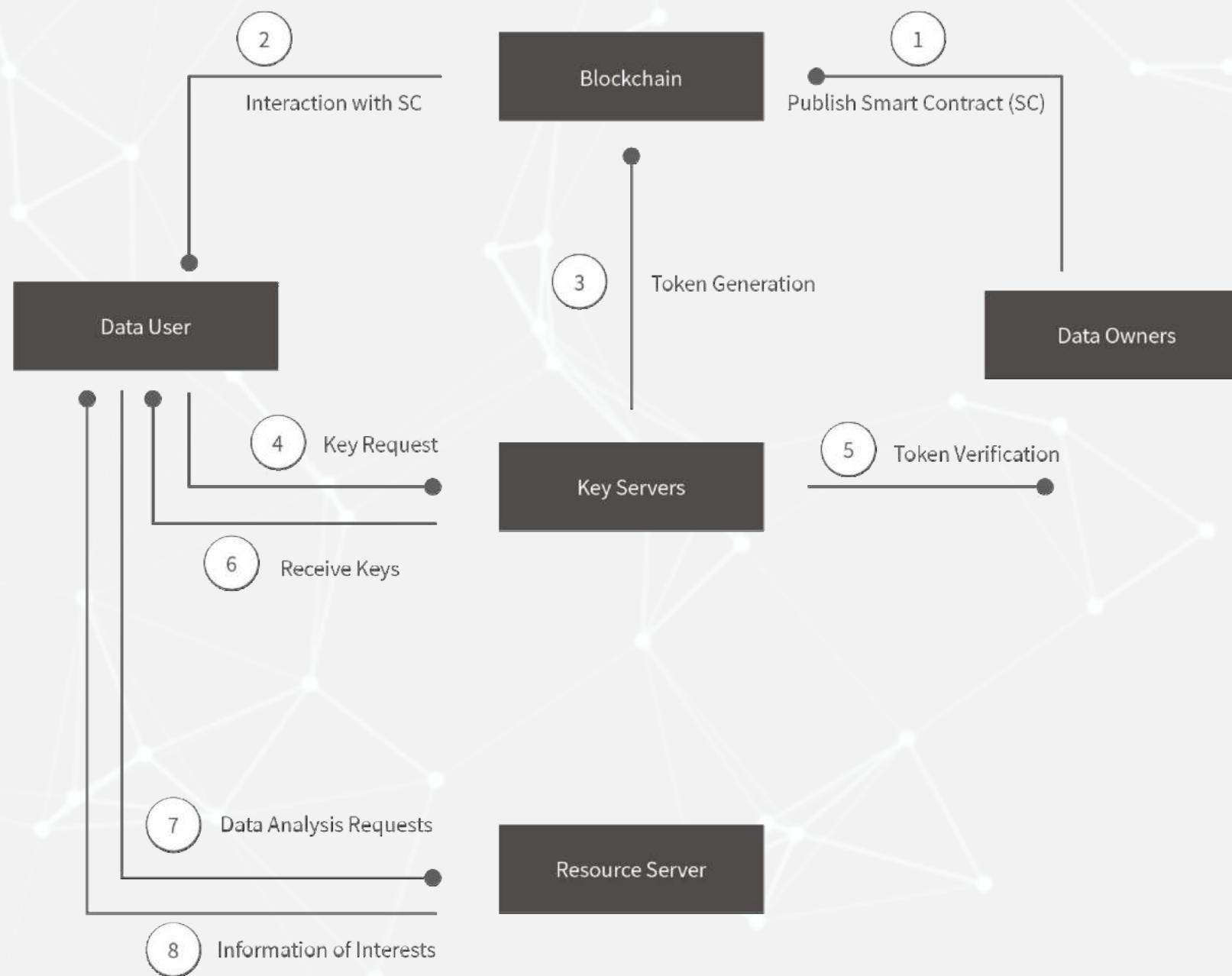


Figure 13 - Data Privacy Management

Different from the traditional C / S architecture and central node storage, the main advantages of a distributed storage structure supported by the blockchain are:

It is possible for user data stored by various third-party service providers to be uniformly called and processed under fully user control. For a certain user, the relationship between a third-party service provider and the user is C / S. A user may select multiple third-party service providers to complete different types of services, like shopping, travel, entertainment and so on.

## **Business Analysis**

### **Income Streams**

In order to maintain the day to day operations of Foundation, the business models of Proton Network are as follows:

**Transaction Fees:** Each transaction on the entire Proton Network is charged an extremely low transaction fee in PTT. The fees are managed by the Proton Network Foundation and sold to advertisers with predefined price.

**Certification and Authorization Fees:** Under the Uni-Marketing ecosystem built via blockchain technology on Proton Network, many service providers will emerge in many subdivision market to provide value-added services, such as User Data Analysis, Advertising Forecast, Brand Loyalty Degree Management, Brand Customer Data-bank Management. Proton Network Foundation will charge a fee for its annual audit.

## Competitive Analysis

The major issue in digital marketing industry, such as unidentifiable fake flow, data silos, unfair profit sharing, are well known and exist for a long time. Different teams propose their own solutions based on their own interests. This chapter mainly discusses and differences between Proton Network and other solution.

### **BAT (Basic Attention Token)**

BAT is proposed by Brendan Eich, JavaScript & Firefox founder, and his technical team. By developing a Brave browser, monitoring users' attention anonymously and motivating content providers using BAT token, BAT eliminates middlemen and reduce fraud, and content providers can get more income. At the same time, users can block junk advertisement and get fewer but more precise advertisements, while advertisers spend less achieve more.

However, BAT has the following limitations:

**Centralization:** BAT can only circulate via Brave browser, a centralized product developed by itself. Moreover importantly, it ONLY works when users, content providers and advertisers are online simultaneously. And they will face huge resistance during the promotion since their goal is to remove the middle layer of advertisement industry, so to make multilateral collaboration impossible.

**Limited market:** BAT use browser and browser plug-in, ignoring the usage habits of Internet products in many other countries overall the world. For example, Chinese people use Apps for much longer than browsers.

**Subject to fraud:** BAT does not have a compelling anti-cheat solution. Instead, it will motivate users to cheat as BAT token rewards based purely on user browsing and length of stay.

**Low scalability:** Brave browser is a Dapp based on ERC20 protocol. Richer application scenarios (such as high frequency advertising exchange center) will be limited to the speed of the Ethereum itself.

		BAT	Proton
Technology	Blockchain Technology	DAPP based on ERC20	Public Chain
	Layer	Application	Protocol
	Data Collection	Within Brave Browser	Whole Proton Eco-system
Business	Advertising Performance	Moderate	Good
	Relation with existing eco-system	Compete	Empower
	Scope of application	Limited	Whole Internet
Team	Team member	Tech Focused	Tech Focused + Industry Resources

Fig1 - Proton & BAT

Fig 1 - Proton & BAT

According to current data of Coinmarketcap.com, the total market cap for BAT is over 600 million USD(DATE) and listed as top 50 crypto digital currency in the world. With the advantages on technology, business model and team, We believe that Proton Network will attract more attention and get recognition from digital marketing professionals and capitals once it is released.

### **Comparison with existing data-driven digital marketing platform**

Apart from BAT team trying to quantify users' attention and build up self-developed product, a lot of other teams work on solutions that can improve advertising performance using data analysis techniques. Alibaba, Baidu and Tencent also have similar initiatives with themselves' eco-system.

	Single product Data-driven platform	Multi-product Data-driven platform	Proton Network
<b>Profile Dimension</b>	limited	Varied	Numerous
<b>Mapping Precision</b>	Low	Medium	High
<b>Cross-platform Tracking</b>	N/A	Limited	Complete
<b>Customer Participation(Data-control)</b>	No	No	Yes
<b>Data exchange mode</b>	N/A	Centralized	Decentralized
<b>Data Exchange Transparency</b>	Black box	Black box	White box
<b>Data Security</b>	Low	Low	High
<b>Pricing Power</b>	Platform side only	Platform side only	Market
<b>Advertising Performance</b>	Moderate	Good	Better
<b>Cost-performance</b>	Moderate	Moderate (Price is not friendly to most enterprises)	High
<b>Relation with other media system</b>	Participate or Competitor	Competitor	Partner
<b>Examples</b>	Weibo	Alimama Uni-Marketing	-

Fig2 - Proton & Existing data-driven marketing platform

## **Advantages**

In the field of building a blockchain uni-marketing data system base on UID, Proton Network has incomparable advantages in multiple aspects: business model, technology experience, industry resources and team members' expertise.

### **Unique vertical industry experience and resources**

Internet Advertising has a very complex landscape. In order to make a difference, you need not only strong tech power, but also to find the right direction which can unite others within the industry. Proton network is built upon on the recognized theory of Uni-marketing using blockchain technology. Our key to success is our core team leaders was fully involved in a project that built and commercialized a UID system.

Our chief strategy consultant, Shuaimin Wang, was the former general manager of Alimama media innovation department and was the head of Uni-Desk – a commercial product of Alibaba group using Uni-Marketing concept. He participated in both architectural design and the process of commercialization which enable brands transform from pure media buying to AIPL uni-marketing.

During his 15 years of front line work experience, he has accumulated enormous industry resources and experiences, which will lead Proton team move fast and keep on track.

### **Landed UID System Test Partner**

Bangtuike Technology Development Pty. Ltd is founded in 2015 and located in Zhongguancun, Beijing. It is an AI-powered precise marketing tech company that develops its own App, open platform with API/SDK and enterprise portal etc. By now, it has millions of App users and is able to reach out more than 100 million users via its API/SDK system.

On Bangtuike, content will be processed through NLP layer and analyzed by LDA model that developed by Bangtuike to obtain its topics. The system will also tell the ‘emotion’ of the content via D2V and then abstracts the content’s keywords and build up a keywords matrix for future mapping purpose.

Bangtuike App and its api-embedded Apps have already implement a basic UID system. Due to it’s experience in digital marketing industry, artificial intelligence and data mining tech power, Bangtuike will participate deeply in the development of native Proton network. Together with the first batch of partners in the industry, it will become the first Internet application tap into native Proton network.

## **Gene of Ecosystem and Network Effects**

The Proton Network takes full consideration of the existing challenges in this industry and the pain points of each participant, in order to design the right technical structure and find a good fit in the market place.

It perfectly uses the advantage of blockchain technology’s characteristics to solve the distrust between the parties. With a cooperative data analysis module and cross-chain interconnection mechanism, it has ability to fully empower the ecological service providers.

After launch, Proton Network will firstly seek cooperation with top tier DSP、SSP and Ad monitor companies in this industry. After the integration of APIs, a partner can bring in tens of thousands of App immediately, leading to a high speed of market coverage of end users.

The more users get into Proton Network, the more precise the results will be. This will attract more advertisers and publishers. End users can easily interact with advertisers, receive loyalty credit and find value in a closed loop.

## **Extension Potentials**

Proton Network will focus on construct a fundamentally protocol to unified user data and complete user profile, which will be a huge development in future. Once Proton Network reach a certain portion of coverage of online data, it will try to extend to offline data collection.

We also believe the data usage will not only be used on digital marketing, but also can be used on multiple areas as research on user profile, brand loyalty management, analysis prediction etc.

## Key Team Member



### **Hanson Lee – Project Initiator**

Series enteriser, founder and CEO of Bangtuike, an AI powered precise digital marketing App based on AI. Early member of world's largest crowdsourcing platform Freelancer.com. He has more than 10 years full-stack development experiences.Master degree of Artificial Intelligence and Data Mining from University of New South Wales.



### **Adam Zhao – Project Initiator**

Early blockchain investor and enthusiast, Co-Founder of Bangtuike, an AI powered precise digital marketing App. He worked in British Telecom, Global Support Centre as Operational Analyst to serve client such as NYSE, Goldman Sachs, Reuters and BOT. He is in charge of project operations and coordination.



### **Wang Shuai Min - Chief Strategy Consultant**

Former General Manager of Media Innovation of Alimama, He is Head of UniDesk (a commercialized Uni Marketing product of Alibaba Group), collaborate with publishers, media and Digital Marketing Agency. Before Alibaba, he was Vice President of Media Development Department and Senior Vice President of Innovative Business Department of AdChina. He has more than 15 years deep industry knowledge by using UID & Big data technology to upgrade advertising industry. He is in charge of product direction and development strategy.



### **Dr. Zou Jun – Chief Technology Advisor**

CTO of HainaCloud and Vice secretary of Zhongguancun blockchain industry alliance. He is an experienced IT veteran, especially in cloud computing and blockchain, he was Chief Architect in Financial Industry software department of IBM Australia. His research areas are blockchain supervision, blockchain consensus algorithm, and published more than 20 thesis at leading international conferences and journal. He is also member of Editorial Board of Software Definition and Storage, Chief Editor of book 《Guide of Blockchain Technology》 published in 2016 by Machinery Industry Press. He holds Phd of computer science from Macquarie University, Australia. He is in charge of the architect design for Proton Network.



### **Dr. Ben - Chief Blockchain Technology Officer**

PhD candidate, researcher Blockchain and IoT. He was senior adviser of whole network solution for an international Telecommunication company. He holds PhD of Data Analysis from University of New South Wales. He is in charge of constructing the blockchain platform for Proton Network.

**Nil Yang – Chief Data Technology Officer**

Expert in Big data, Blockchain technology and cryptography, participated in the big data statistical analysis of Sina Weibo gaming. The former tech leader of OkBuy and Oxygen APP, led the team develop the product that reached 10M level from 0. He mainly in charge of building the project data analysis framework and application development.

**Al Wang – Chief Marketing Officer**

He is an industry veteran with more than 18 years experience in the advertising and marketing industry, and serves clients in numerous Fortune 500 companies including Apple, China Mobile and Unilever. Former Allyes Group executive strategy director, platform product Deputy General Manager, Chief Strategy Office of WPP's VML Teein. He is in charge of Marketing and Business Development.

**Curt Shi – Chief Risk Officer**

Master of International Media from Macquarie University, Australia. Founding Managing Partner of three private equity funds, Imprint Capital Partners, Follow Seed and Welinder & Shi Capital, have successfully invested a number of projects in Australia, US and Israel. He has many years of investment and risk management experience.

**Xiaodong Du–Investor Relations**

Early followers in Blockchain, Partner of HeXin Capital, experienced Equity Financing advisor. Lead 27 fund raising for 23 companies from angel stage to Pre IPO stage. Specialist at business model analysis, financial analysis with rich investor resources.

**Allen Shao – Special Consultant: Information Security**

TOGAF certified solution architect, information security and risk management expert, result orientated technology leader, Internet of Things technology pioneer, blockchain technology pathfinder focusing on its commercial applications. Mr. Shao has served several Fortune 500 enterprises, with decades of experience in international financial services, covering investment, asset management, insurance and other fields, with rich experience in building and managing high performing teams for development and operations. He has a proven track record of leading and developing large complex projects across regions and business lines, who is also an active facilitator and contributor in open-source technology communities.



### **Mickey Zhang - Industry Consultant**

CEO Mickey Zhang. Since 2012 She has joined GroupM and been in charge of the Chinese Program Business. She led GroupM China attained the achievement of sustainable development with market competitive search team and helped GroupM establish a Chinese characteristic E-commerce department. The department provided E-commerce consulting services for GroupM' international and domestic customers. In 2014, Xiaojuan Zhang held the managing director of GroupM China and took responsibility of the overall operation, product planning and strategy in GroupM China. Since May 2016, Xiaojuan Zhang taken in charge of all of Chinese programmatic buy and assisted improvement and collection of inner resources to propel the further success in the realm of Programmatic buy. Before GroupM, Xiaojuan Zhang have worked in Google and Baidu's key account customer department, leading the vertical industry sales team to provide integrated search marketing solutions for the effect-oriented clients. She also offered the guidance in the direction of product and industry exploration.



### **Gang Ma – Brand Management Consultant**

HuoRong security Co-Founder, responsible for the safety of the brand, sales, BD,etc. With 18 years of working experience, he had manipulated the first brand in relative field and provided his service in two consecutive years at Ruixing(Market&BD director) , from 2010~2015, at Autohome as (NYSE:ATHM, Vice President). As for branding building and marketing, He has a rare and continuous successful experience in the industry.



### **Richard Wang - Investor / Project Consultant**

Partner of DraperDragon, Master of Electronic Engineering of NCTU. Mr. Wang has over 20 years of business development, technical marketing and sales management in high technology space experiences.



### **Eliav Alaluf – Investor / Project Consultant**

He has 13 years experience of PR and digital marketing and has served as senior executive and CEO of several well-known digital marketing companies including Comverse, AxisMobile and Rahav Social Media. Keeping track of and investing in digital marketing technology and user behavioral tracking and using own team developed system Raving Fans for APP user behaviour analysis and forecasting the next unicorn.



### **Andrey Shirben – Investor / Project Consultant**

Australia's leading investor, with main focus in Oceania and Israel. Founded two funds, one of which is the venture capital fund FTS. Over the past 12 years, He invested in more than 70 early projects and helped several companies to complete their IPO. Particularly, he is the seed investor of Kenshoo, one of the largest marketing technology in the world.



### **Charley Dong – Project Consultant**

Academician of the royal college of Marketing (FCIM), internet marketing expert, Angel Investor. Served at KFC、Playboy、Coca-Cola and other international top brands with more than 15 years of practical and consulting experience and expertise. He had witnessed and participated the first commercialization process of numerous domestic and overseas mainstream digital media. For instance, responsible for translating Facebook Advertising system、Google Adwords the first 100 test users、the participant of the first Advertising promotion at Wechat moments 、Wikipedia senior editor、Nouvelles d'Europe special writer.



### **GuangDong Yu – Project Consultant**

ALPHAX PARTNERS Founding Partner, life consultant of Qihoo360 company, President of alumni Internet society of CKGSB. As a senior vice President during the work at Qihoo360, taken on the responsibility of the development and marketing promotion of a couple of significant product lines, I led the commercializationl team, helped 360 revenue steady growth for 16 consecutive months and kept three digits' growth for several years. He helped 360 search market share catch up with over 30% within two years, ranked as second at domestic marke in China with a result of breaking the monopoly situation of the industry, effectively promoted the steady growth of 360 company in terms of revenue and profit, and fully laid the confidence of investors. He proposed big data real effect marketing system, which obtains deep recognition of marketing organizations and Advertisers. In may, 2016, he founded ALPHAX PARTNERS in a craftsman spirit of the aligned himself with investments and entrepreneurs at almost same pace and frequency. Investment cases includes Gaosiedu、PMCAFF、Joyrun、Global Joy Trip、Haodai、MediaV and so forth. Awards: ECI Festival "annual business innovation influencer"、Lieyunwang "The most intelligent Top 20 Investors"、"Weibo's most popular investor"、"Zhuo·Outstanding investor under the age of 40 in 2017."



### **George – Investor / Project Consultant**

Fuquan investment and management partner, Chocolate (Blockchain) accelerator founder. Gold investors of "looking for unicorn" at China Business News. The first lecturer of GaiYa program from baidu college. Once invested American famous accelerator called RocketSpace (Uber, SuperCell) and DaTa Technology (Robots Clouds Operator) and so forth. He's excellent in the field of AI, Robots, and Blockchain Fintech. Moreover, He established Chocolate(Blockchain) accelerator to help industry with exploring the new world of Blochchain economy.



### **Tian hua Li – Project Consultant**

Light Source Capital Partner. He worked at China's top three Internet companies, including 360, Alibaba, BaiDu and Tencent. The former chief product arcthitect at Baidu (P9 Level) . He also held the position as Technical Managers, Senior Manager and Director. The product arranges from Search, Information, Video, Finance, Social Network, Open Platform, Sports Apps, Medical Personalized Content Distribution, Multimode Interaction (Voice Search, Image Search), 2B Big Date Service, Recommendation and other multiple fields. Dominance contains 360 search,Recommendation System, Baidu Mobile Phone Voice Search, Baidu Feed Distribution, etc. He has a rich experience in terms of product strategic planning, traffic operation, commercialization and big data.

## Development Milestones

<b>2018.Q1</b>	Complete platform Proton Network . Native Proton Network (public chain) launch preparation.
<b>2018.Q2</b>	Complete Proton Service layer API and SDK. UP Storage and Collection Test. UID Matching Test. Launch Alpha version Native Proton Network (public chain).
<b>2018.Q3</b>	Proton Basic Analytical layer Interface. Complete UA Basic Analytical Test. Launch D-Application Products. Press release for Proton Network with partners globally.
<b>2018.Q4</b>	Optimization of Native Proton Network.
<b>2019.Q1</b>	Complete P2P Storage and Backbone Network.
<b>2019.Q2</b>	Release Native Proton Network to developers for public test.
<b>2019.Q3</b>	Switch Platform Proton Network to Native Proton Network.
<b>2019.Q4</b>	Improve and grow Proton Ecosystem.



# Proton Network

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The first public chain for digital marketing

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