PARAMI

# Parami Protocol Light Paper

Building Ad3.0 For Web3.0

Version: 0.9.0
2021-01-20

# Definition & Motivation

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**“AD3.0 is a human-centric and privacy preserving network powered by blockchain where users are smart-rewarded for attention and data with their sovereign identity being protected on a trust-free basis.”**

## AD 1.0: Time of Slavery

The AD mechanism is none transparent and inefficient. Advertisers are confronted with opacity and fraud while users are being monetized without any reward. Users are DATA SLAVES when they have no right over their data and cannot benefit from their engagement.

## AD 2.0: Time of Feudalism

Incentive ADs return parts of profits back to users but users are still not in charge of their own identity and data.

Data are dispersed and isolated in various apps and websites where they can not be aggregated and utilized.

## AD 3.0: Time of Democracy

Users have absolute sovereignty over their own identity and data. They will be smartly rewarded based on their attention devoted and relevance score.

The AD network is democratic and governed by all the token holders.

# Protocol Overview

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**Parami Protocol proposed an AD 3.0 paradigm powered by blockchain for Web 3.0. It is a parachain built on Substrate and serves for all the other parachains in Polkadot/Kusama through relaychain. Furthermore, it connects to the social media in Web2.0 to rebuild more complete decentralized identity.**

DID AD Runtime De-Oracle

- **DID**: self-owned, independent, and using blockchain to protect privacy and secure transactions.
- **AD Runtime**: A runtime for advertisers to deploy their AD contracts to smart-reward users based on their attention and relevance score.
- **De-Oracle**: Decentralized Oracle is specially designed for AD 3.0 to aggregate multiple data source and minimize costs while avoiding single point of failure.

# Protocol: DID

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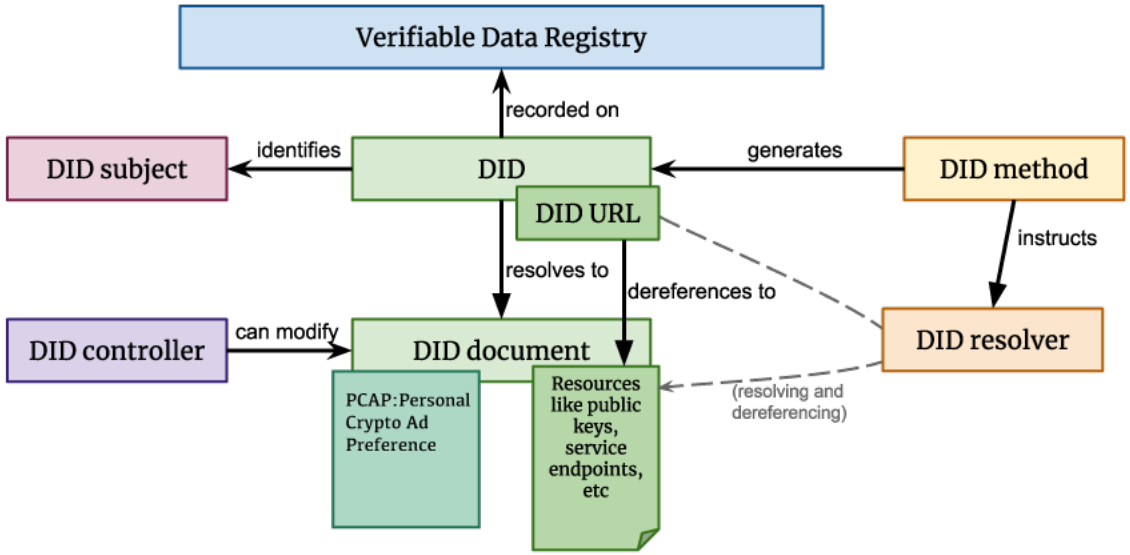
**Parami Protocol provides a complete set of PDID (Parami DID) solutions compatible with W3C DID standard on Parami Node, and expands its business on the basis of DID standard. Parami Protocol will also provide other DID aggregators for other DID standards if necessary.**




- **Web2.0 Compatible**: Parami DID also provides a verification method connected to Web 2.0 social identity.
- **NO KYC**: PDID allows users to verify DID uniqueness by building social graphs without any KYC process.
- **PCAP**: Personal Crypto Advertising Preference(PCAP) is designed for smart advertising and Zero-knowledge proof algorithm is adopted to protect user privacy.

# Protocol: Ad Runtime

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**The Ad Smart Runtime is the core business procedure for Ad advertising. It provides a standard template for advertisers to deploy various settings including Ad metadata and reward parameters. The runtime will distribute the reward according to user interaction and PCAP. It is also responsible for updating the PCAP of user for future Ad activity.**

## DID based

The Ad process is based on DID for all participants. The verified DID helps to reduce fraud.

Each time the user interacts with Ad runtime, his or her DID PCAP will be updated dynamicly, which makes it difficult for bonus hunters to take any advantage.

## Cross-Chain based

The Ad process is tokenized and Cross-Chain supported. The Ad Runtime will generate the shadow token when it receives the deposited asset (original token) from the relaychain.

The shadow token distribution process will also generate data for PCAP update. Users can exchange the shadow token back to the original token.

## ZKP based

The Zero-Knowledge Proof algorithm (e.g. Bulletproof) is adopted to determine distribution mechanism.

The proof is generated from PCAP and verified on chain for reward distribution. The advertiser is able to add encrypted tags and score according to user interaction with Ad while the user privacy is well protected.

# Protocol: De-Oracle

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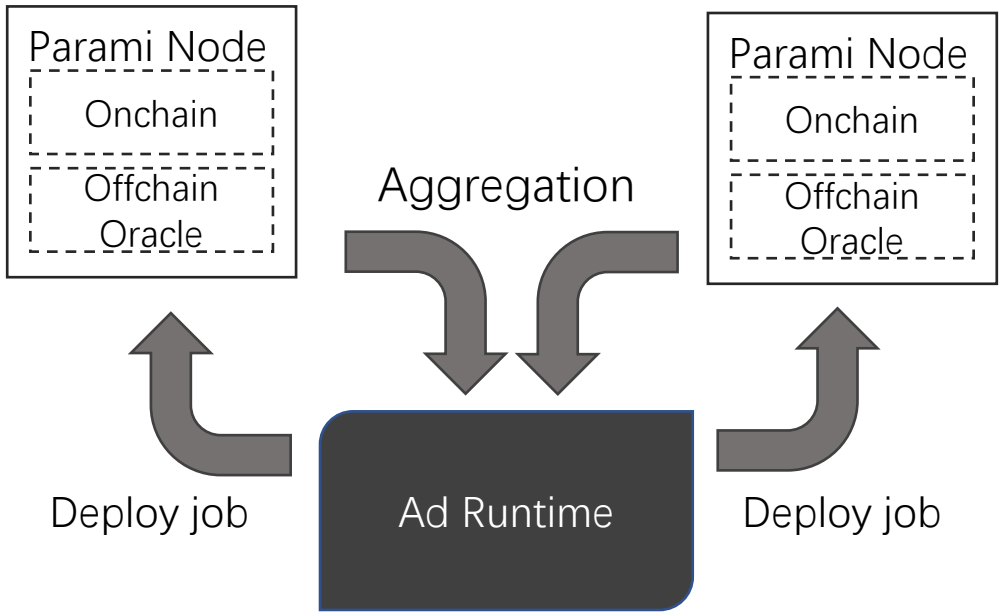
**The decentralized oracle is designed for collecting data from conventional Internet. It is built as part of Substrate Offchain Worker(OCW) and particularly works for Ad verification.**




- **Offchain data**: Offchain data can be fetched through HTTP request from other websites or API, it may be a tweet or a comment. Cross validating these two parts will minimize the cost of oracle.
- **Other onchain data**: This kind of data can be fetched from RPC. It may be price or exchange ratio of tokens and requires for data aggregation.

# More Highlights

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### IM support

Parami is designed for IM apps. The Parami SDK will support users to participate in Ad  interaction in IM explorer or MiniApps.

### DAO support

Parami will support other DAOs as seed groups to expand DID ecosystem. Other DAOs can register on Parami and manage their DAOs on it for extra incentive.

### Governance support

Parami Protocol is fully governed by all the token holders. They can vote for the council and all the proposals to optimize the network.

### NFT support

Parami Protocol supports NFT as ticket, badge or collector for advertising campaign.

### Yield Farming support

Parami supports liquidity mining (Yield Farming) so that users are able to exchange rewarded token to stable coins and advertisers can easily to build an advertising fund.

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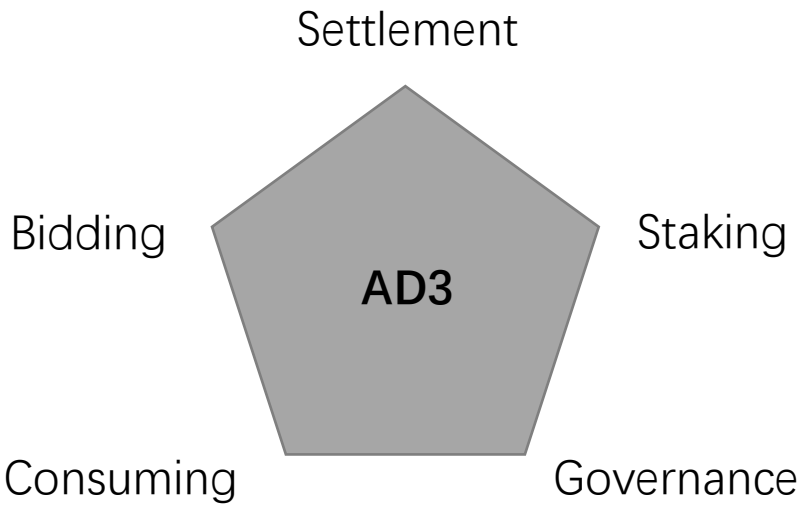
# Token Economic Model

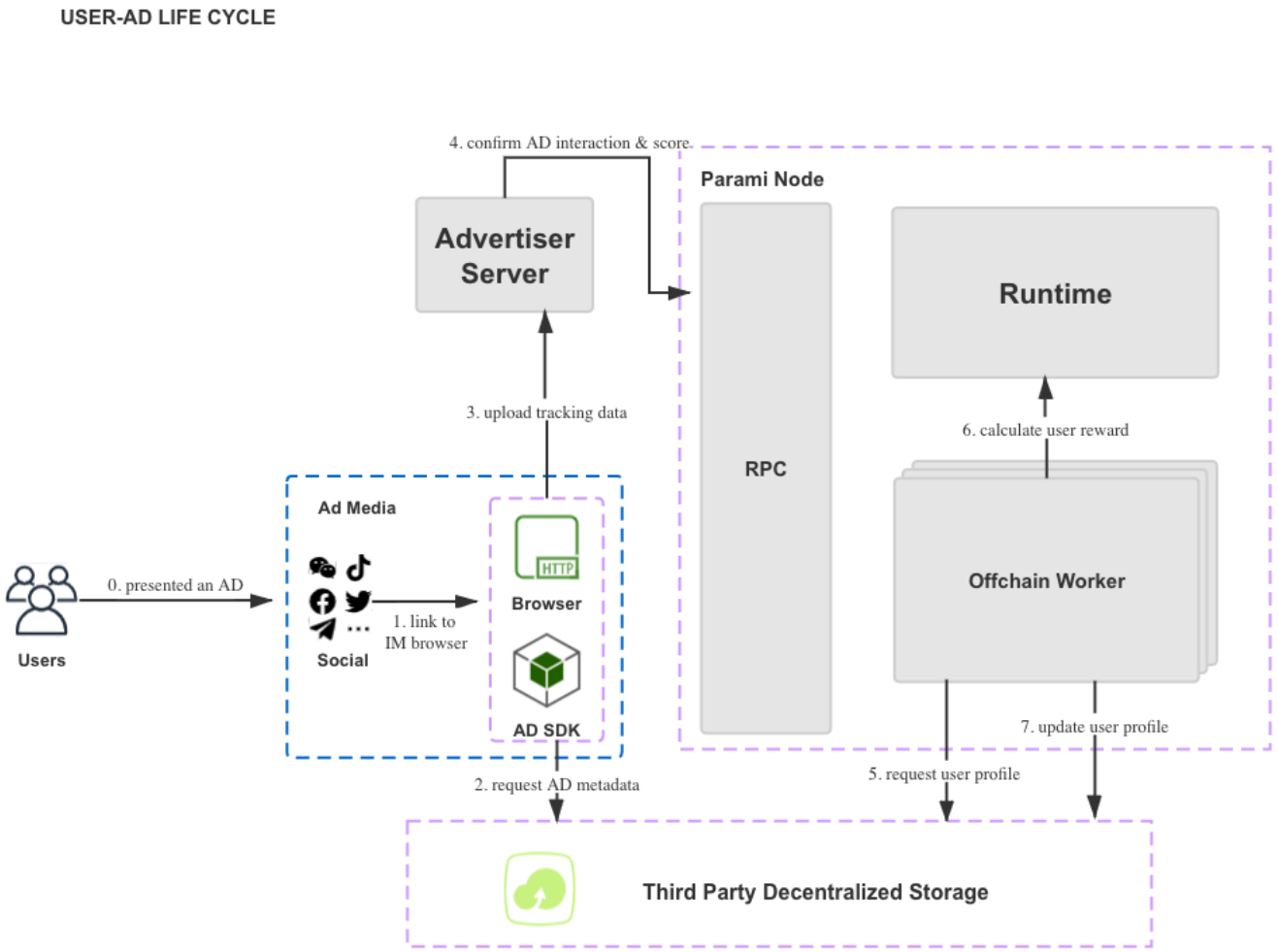



AD3 usage scene

The native token on Parami Protocol is **AD3**. It is an UTILITY TOKEN used in 5 aspects:

- Settlement: The price of the Ad and the price of the token will jointly determine the number of rewards the user will receive for this advertising campaign.
- Bidding: Use tokens to bid for advertising opportunity.
- Consuming: AD3 will be used as operation fee.
- Governance: Vote and adjust the chain parameter.
- Staking: Stake tokens for mining and community development.

# Use Case




0. Users are shown an Ad which is published by other user’ s community through IM apps.

1. The advertiser gets user’ s DID according to platform ID hash.

2. The SDK requests AD content from Decentralized Storage.

3. The SDK tracks user Ad action data.

4. The advertiser tags and scores the DID with encrypted data after evaluating user’ s action.

5. OCW requests PCAP from Decentralized Storage.

6. Ad Runtime calculates the reward of user.

7. OCW updates PCAP

# Team

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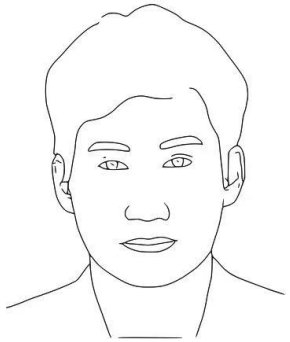
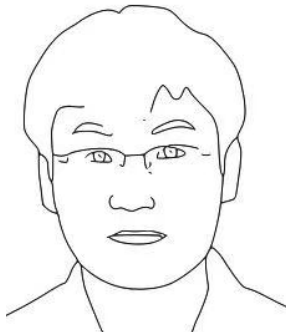


**Dorian Wu**
Core Architect

Former senior architect of DCEP of the PRC. Leader of the anonymous transaction layer of TRON. Deep research on consensus algorithms and privacy computation.



**Mono Wang**
Core Dev

Full-stack engineer, senior rust engineer with 6 years experience, Core Rust Chinese community evangelist, Open Tron independent developer, former Core dev of Ledge.

**Edison Wu**
Core Dev

Former core Dev of TRON, Baidu T4 level engineer and risk control data platform expert of Meituan. Competent and compound technical experts with rich experience in big data processing risk control and anti-fraud.

# Roadmap

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2021 Q1

**TestNet: Dāna**

- PoC and code security audit
- WeChat wallet
- Web SDK

2021 Q2

**MainNet V1: śīla**

- NPOS mining
- AD platform
- Mobile wallet

2021 Q3

**MainNet V2: Vīrya**

- Governance
- Decentralized oracles
- NFT support

2021 Q4

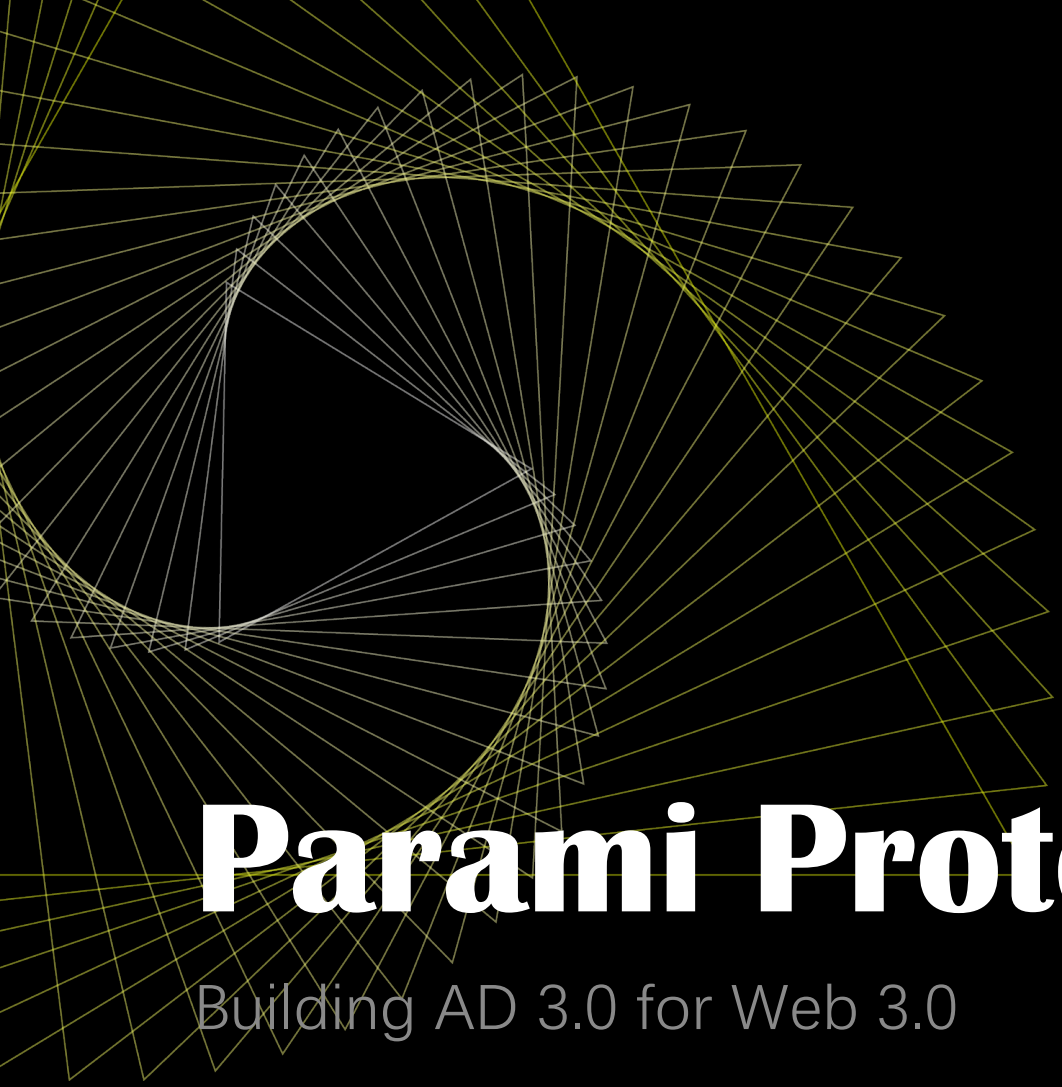
**MainNet V3: dhyāna**

- Privacy Computing(ZKP)
- Monetization
- On chain analyzer

2022 Q1

**MainNet V4: Prajñā**

- Parachain to plug in
- Cross chain AD



# Parami Protocol

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