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# UNI-ARTS CHAIN ECONOMIC MODEL LIGHT PAPER

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Enhance Credibility & Encourage Original



Uni-Arts Committee

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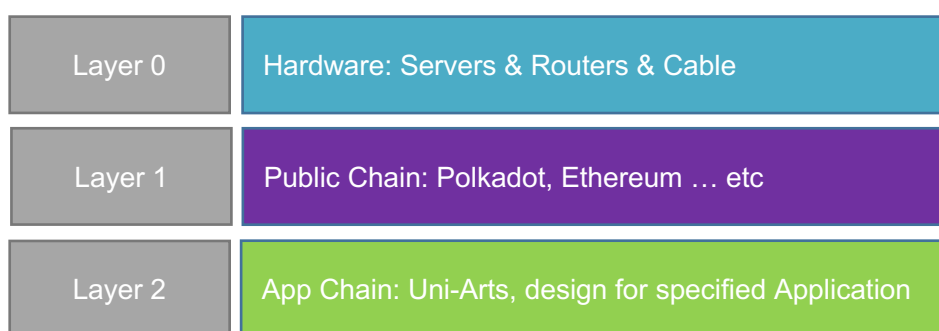
## 1. About Uni-Arts

Uni-Arts is an application chain, and it aims to provide a one-stop platform for artwork creation, appreciation, trading, traceability, and auction. At the same time, it supports blockchain assets and NFTs from other blockchain networks through Polkadot's cross-chain network. Uni-Arts provides support for the above functions through blockchain infrastructure and Dapp.

Uni-Arts is inspired by established content/art creation and sharing platforms such as DeviantArt, Pixiv, Quora, and Medium, and aim to develop a similar blockchain based services to fully leverage its advantages of fairness, traceability, value transaction and economic incentives.

## 2. About Appchain

2.1 The Appchain (application chain) is a blockchain network which focuses on a certain scope of application that differs from public chain whose main goal is to build a protocol-level infrastructure. According to the current lamination, hardware is Layer 0, public chains are Layer 1, and the parachains should be Layer 2.



There are many types of parachains. Some provide asset or data cross-chain services, and some focus on specific applications in a certain area. The application chain can directly being a layer 2 parachain or an application chain based on a certain Layer 2 network (Layer 2.5 in this way). Polkadot's market value and network scale can provide better security, asset protection, and decentralized support, which allow parachains to



focus on their design objectives in a more specific micro-level. By becoming a parachain, Uni-Arts may full utilize the advantages of Polkadot network and focus on its own Appchain business such as blockchain based art creation and trading...etc.

**2.2** Uni-Arts aims to provide a one-stop platform for artwork creation, appreciation, trading, traceability and on chain auction. It also provides fast adaptation solutions to application service providers in the same industry. The Uni-Arts development team will make full use of successfully developed on-chain tools to operate the artwork creation and sharing platform. Meanwhile, any other third parties can also use the Uni-Arts' infrastructure to combine their own business and resource to carry out similar activities.

### 3. Economic model design goals

The Uni-Arts network wield a dual-token economy system, with U-Art and U-Ink, to achieve different purposes.

#### **Participants in the Uni-Arts Chain Ecology include:**

- **Validators:** nodes responsible for packaging blocks in the network and maintaining the blockchain network.

Based on the NPoS (Nominated Proof of Stake) consensus of the Uni-Arts network, validator nodes need to pledge U-Arts as collateral before they can stake the corresponding U-Art token (the original token in the network), and they need to stay online. The validator nodes participating in the network can obtain the rewards for packaging blocks and the rewards of each cycle of the blockchain, on the other hand also bear the risk of being slashed. Meantime, the validators can also obtain other rewards (U-Ink). The entire network can accommodate up to 100 validators, and at least 5 validators are required. Each validator needs at least 0.5% of the total circulation of U-Art votes, and no more than 5%.

- **Candidate:** Become a validator through U-Art staking vote competition.

The candidate is a node in the Uni-Arts network that has participated in the competition to become a validator, but has not obtained the qualification. Like validator nodes,



candidate nodes also need at least 0.1% of the total staking circulation to be eligible to be voted.

- Nominator: Staking U-Art nominates a candidate
- User: All on-chain users

### **The participants of the Uni-Arts Chain application include:**

- On-chain NFT auction house: DAH, decentralized auction house. It is the core of the Uni-Arts ecology. It provides NFT art creation, appreciation, auction and some other functions. There will be a dedicated team operating DAH in the early stage and will be replaced by community governance later.
- NFT creators: artists, create crypto arts or register physical artworks on-chain
- NFT Connoisseur: Users who appreciate NFT, potential buyers
- NFT buyers: Users who buy art on DAH

### **3.1 U-Art:**

**The main design purpose of U-Art is to allocate rewards reasonably to each participant under the premise of ensuring the security of the network protocol. The economic model can encourage all participants to join the network, and make the system stronger, safer, and more valuable. Using U-Art tokens as value carrier could maintain sustainable development of ecological system.**

The Uni-Arts network adopts the NPOS consensus mechanism. The network needs asset value to provide security and reward block generation to the network. This is also the design purpose of U-Art. According to the roadmap of the Uni-Arts Chain, during the initial state, most of the U-Arts are allocated to investors as a parachain chain slot reward. If the bid fails, this part of the U-Arts will be frozen until the bid is successful. After the auction is successful, Polkadot validators will be responsible for the actual network security, and the block reward will be reduced to 10%. Based on the Polkadot economic model, users who win the slot auction cannot receive their staking rewards during the valid time of the slot. This potential loss will become the value basis of U-Art. Since



Polkadot's market value is high as billions of dollars, its validator provides security for the Uni-Arts Chain network to ensure the security of the artwork NFT and the credibility (decentralization) of the information on the chain.

**U-Art focuses on the development of ecology.**

### **3.2 U-Ink:**

It is the main token of the Uni-Arts Appchain ecology. Its essential purpose is to incentivize creators to create encrypted art (Crypto Arts) NFT or issue ownership certificate on Uni-Arts, to link physical artwork warrants and other Ecological usage.

**U-Ink focuses on application development.**

**3.2.1** U-Ink is obtained through staking U-Art normally or through long-term staking commitments.

**3.2.2** The setting of the U-Ink economic model refers to established content/art creation and sharing platforms. U-Ink build direct connections between creators, appreciators, and buyers, and encourages creators to produce high quality contents (works), while encouraging viewers to share works, and to introduce more potential buyers to the platform and realize the overall virtuous circle. The specific methods are as follows:

**3.2.2.1 U-Ink creator voting:** Users can pledge their U-Ink to a certain artist to vote, get 10% dividend of the artwork sales, and also have the priority right to purchase. U-Ink voting is valid for 28 days, during which the voting cannot be changed, and the U-Ink used is in a pledge state and cannot be transferred. Uni-Arts Chain ranks artists according to the number of pledges, and different levels of artists have different levels of privileges:

1. Artists with high rankings will have more exposure rate on the platform;
2. Artists can open an independent display shop;
3. Artists can open Artwork exhibitions, etc.;

#### **3.2.2.2 U-Ink IBA (Initial Blockchain Auction):**

The purpose of IBA is to turn the community's voting cost into a basis for the initial



auction price of new art works, so that every participant will have the opportunity to benefit from voting. IBA is carried out in the decentralized auction house provided by Uni-Arts. The IBA process is as follows:

- a. After the creator releases the artwork NFT, it will be displayed on the Uni-Arts blockchain auction house for 7 days, and the user can consume U-ink to like or dislike it, dislikes or Likes to consume at least 1 U-ink;
- b. The artwork needs to get a certain number of likes within 7 days before applying to enter IBA. The entry threshold is related to the number of active addresses within 7 days. 10% of U-ink consumed by users like and dislike will be transferred to the creator address. If the artwork fails to get enough votes, the creator can pay at least 10 U-inks to apply for extension, and maximum extended twice.
- c. For a NFT signed from an address that has never signed any NFT entered IBA , the initial auction price is  $100 \text{ USD} * \text{Like U-ink} / \text{Dislike U-ink}$ .
- d. If the auction is successful, the U-ink consumed by the likes will be returned, and 10% of the stable currency paid by the buyer will be paid to the users who like the artwork based on the amount of ink consumed. In the next artwork NFT auction created by this same address, the starting auction price is adjusted to  $[(100\text{USD} + \text{last starting price}) / 2] * (\text{Like U-ink} / \text{Dislike U-ink})$
- e. If the auction fails, 90% of dislike U-ink and 45% of the like U-ink will be paid to the Dislike users. NFT creator get 10% from Likes and Dislike U-ink. If fail to enter the auction, 45% of Like U-ink will be paid to the Dislike users and all Dislike U-ink will be returned to Dislike users
- f. 50% of the surplus ink during the entire auction process will be allocated to the auction house operation team, and 50% will be burnt.
- h. When the auction house has matured, the governance will be given to the community, and various economic parameters will be set by voting.

### 3.3 Summary of U-Ink economic model

The U-ink economic model has incentives to all participants.

For creators:



- 1) Creators will get rewards as long as the artwork is displayed on shelves and enters into the auction regardless the auction results.
- 2) Encourage creators to campaign for their artworks and create personal IP through social media
- 3) Likers are motivated to find high-price bidders

For Likers:

- 1) Likes can get rewards, although it may not recover the cost under some circumstance.
- 2) Likers are motivated to find high-price bidders.
- 3) When Dislikers prevail, Likers could acquire huge profit if the artwork get sold

For Dislikers:

- 1) Dislike could also get rewards.
- 2) When the percentage of Dislike is low ( $< 16\%$ ), it is easy to be profitable.

For Buyers:

- 1) Hold the NFT for exhibitions to get the same level of reward as the creators, which is: there will be rewards as long as artworks are on the shelves
- 2) For buyers with community influence, they could get higher rewards if there are more likes.

## 4. Appchain Economic Model

**4.1 U-Art:** Mainly used to maintain network security, decentralization, and block rewards.

There are two ways to generate U-Art tokens: one-time generation during the main network launch or generated with the generation of blocks.

U-Art token distribution is as follows:

Total Hard Cap	cap 250,000,000	
Initial Total	100,000,000	40%
IPO Reward	20,000,000	8%
Team	25,000,000	10%
Private Sale	30,000,000	10%



U-Art Treasury	25,000,000	12%
Year 1 Inflation	42,857,142.86	17%
Year 2 Inflation	35,714,285.71	14%
Year 3 Inflation	28,571,428.57	11%
Year 4 Inflation	21,428,571.43	9%
Year 5 Inflation	14,285,714.29	6%
Year 6 Inflation	7,142,857.14	3%
Transfer Fees	refer to Polkadot	
NFT Packaging Fee	10 times the transfer fee.	

## Additional Notes:

Private Sale tokens will be linearly unlocked within 180 days.

70% of the tokens obtained after a successful IPO will be linearly unlocked within 180 days, and the remaining 30% will be linearly unlocked during the runtime of the Polkadot parachain slot

If the first IPO fails, the IPO rewards will be frozen, and the Uni-Arts Chain will operate as an independent POS and bid for the next parachain slot; if the first IPO fails, the community can vote to decide whether to migrate to other Polkadot Parachain and indirectly connect to the Polkadot network

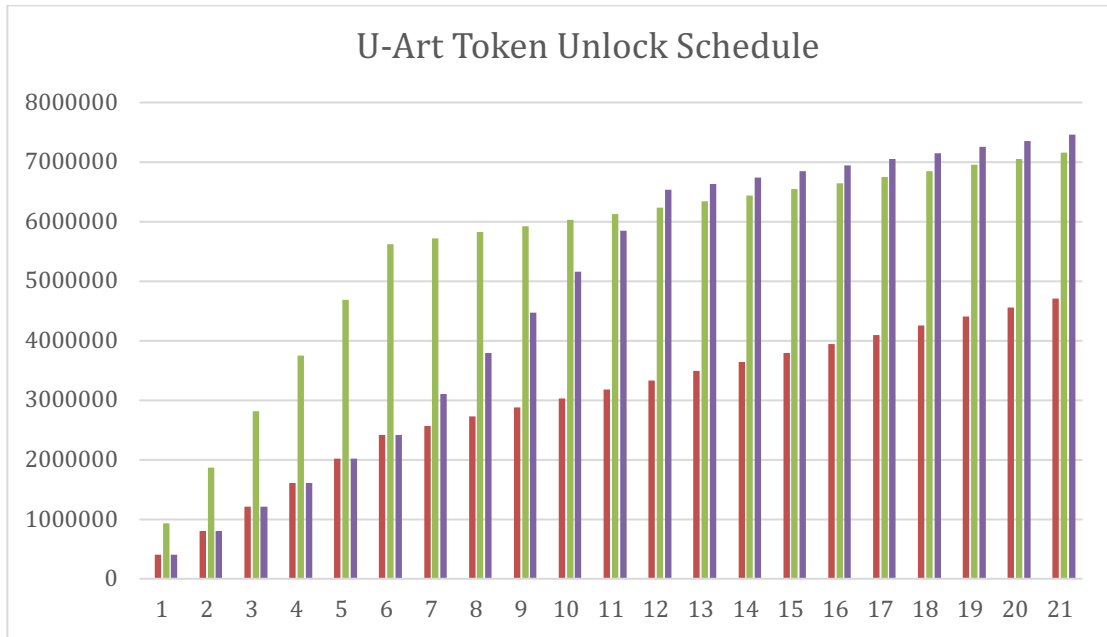
All team tokens will be linearly released within 3 years;

30% of the transfer fee and NFT packaging fee are used as node block rewards, and 70% return to the Treasury. After the first Parachain slot expires, part of U-Art balance in the Treasury will be used as rewards for the next renewal slot voting.

Staking rewards will be distributed based on the amount of U-Art participating in staking.

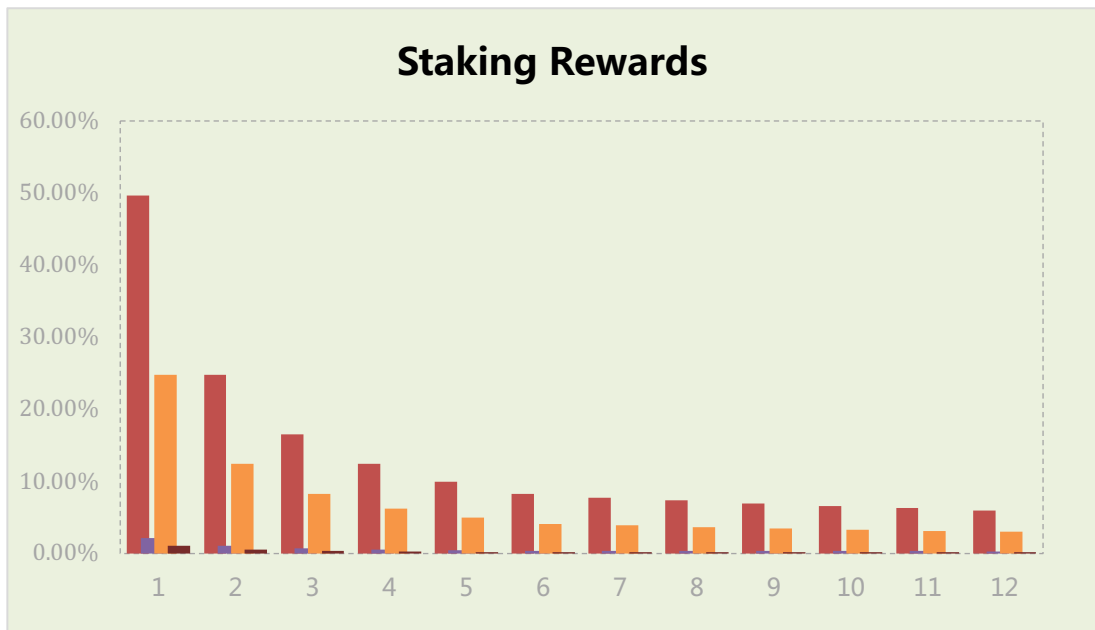
The 2<sup>nd</sup> IPO rewards are 90% block rewards (standalone mode) during 2<sup>nd</sup> parachain slot validity period and will be released within days.





The figure above shows the liquidity cap of U-Art token in three different scenarios:

- Always run in solo mode (not parachain)
- Run in parachain mode since Genesis Block
- Become a parachain 6 months after genesis block.



The figure above shows the estimated staking rewards in the 1<sup>st</sup> year under different pledge percentage:

- 25% pledge percentage in solo
- 50% pledge percentage in solo
- 25% pledge percentage in parachain
- 50% pledge percentage in parachain



#### **4.2 U-Ink: No hard cap on the total amount yet with token burn mechanism.**

How to Obtain:

- Staking U-Art, 1,000 per day during the first 90 days of the network's launch. U-Art will be distributed according to the proportion of staking U-Art. After 90 days, the total amount of staking released each day is based on 10% of the total amount of U-ink for Likes and Dislikes in the previous 24 hours.
- Commitment to long-term (6 months, 12 months, 24 months) lockup. During the lock-up period, the rewards will be 1.5 times of normal staking rewards. All U-ink will be fairly distributed to participants based on the amount of U-Art under the long-term lockup. In extreme cases, even if only one U-art is locked, the user can still get all U-ink rewards.

### **5. PNS Service**

Polkadot Name Service is a distributed, open and extensible naming system based on the Polkadot blockchain network. PNS domain names make life easier that people no longer need to copy or enter lengthy blockchain addresses, instead a Polkadot Name will do the job. PNS is the domain name system for Polkadot and its parachain networks.

Traceability, trading, and unified naming of art are inseparable from the PNS name service. Therefore, a complete domain name service system will be built for the Uni-Arts as well as Polkadot ecosystem.

#### **5.1 The utilization of PNS in Uni-arts**

In the process of art work transaction and circulation, artists and collectors play different but equally important roles. According to the current experience of art work trading, the previous collector has a significant influence on the transaction price of the next round of auction, therefore, we provide creators and collectors with the service of creating personal / institutional home pages on the Uni-Art blockchain network through PNS, to exhibit the history of creation and ownership to better promote the interest of potential buyers in investing in the art works on Uni-arts.



## **6. Trading Market**

### **6.1 Token Trading Market**

In order to serve all participants in the U-Arts network, a decentralized token trading market is provided in the network. In this token trading market, multiple types of tokens can be exchanged with U-Art. Since the Uni-Arts Chain is developed based on the Substrate framework of the Polkadot ecology, and will be connected to the Polkadot network as parachain, the exchange of various other tokens and U-Art in the ecology can be easily accepted. The token trading market can provide real-time token transactions with only small transaction fee applied.

### **6.2 NFT trading market**

In order to provide service to the NFT collectors in Uni-Arts, its network provides a decentralized NFT trading market to facilitate the exchange of NFT assets on chain. In this decentralized trading market, the user's assets are managed through smart contracts, which effectively guarantees the security of users' NFT asset exchange.

## **7. On-chain governance**

Uni-Arts uses Substrate technology to build an on-chain governance mechanism. The main function is for the processing of Treasury funds and possible future proposals for system improvements. When the network is running, the node is fined and confiscated for some reasons. It is possible that the operation may be misjudged due to the imperfectness of the network. This should be avoided and corrected through a channel. The voting function of on-chain governance allows U-Art holders to participate in the construction of the network and ecology.

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