Noah's Ark

<I, Game, Robot> Monetization Model Design



Acknowlegement

This monetization model design is based on the the game design planned by zhoumo-creator and the game feature design planned by HopeLighting.

Thanks for their creative game design planning and game feature design.

Here is their PRs:

https://github.com/zhoumo-creator/-I-Game-Robot-game_design_plan https://github.com/HopeLightning/I-Game-Robot-Game-Feature-Design



Background Story

World Background

- In 2252
- Efficient modular city, key prop called "mobile space"
- The world will be destroyed in 50 years unless living cities are made
- People organized a New City creation team and established a New City--Noah's Ark

Main Character Background

- Name: P
- 25-year-old automotive engineer with driving excellence
- Loves cars and was poor when he was young
- Developed a prototype robot system, which was rejected by his boss

Narrative framework

Target

- Complete the construction of Noah's Ark before the end of the world

Antagonism

- The car is not just a tool, but also a moving space, whose cells make up New City

- The industrial giants of Old City want to prevent the construction of the new city
 Settle
- The resources of Old City plummeted many times, and Old Cityists wanted to control New City
- Players need to speed up their pace, strengthen their components and build higher hash power

Storyline

Call of Duty

- P, let go of your worries and go to New City Meet a mentor

- Sage of the Freedom Alliance Through obstruction

- In New City, the car is not considered as a tool, but a combat partner

Tests, partners, enemies

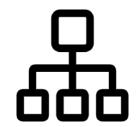
- In different communities of riders, P met many friends





Monetization Model Design







Dual-Token Economic Model

Numerical Design

Evaluation Mechanism

Distribution
Model of **NAC**

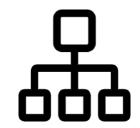
Distribution
Model of **NAT**

NAC Cycle Mechanism We designed a dual-token economy and there are two types of tokens which can be circulated in Noah's Ark system, NAC(Noah's Ark Coin) and NAT(Noah's Ark Token).

NAC: Utility Token, the basic currency for transactions in Noah's Ark system. Players acquire DATA CHIPs directly after clearing the stages of maps and the unit of DATA CHIPs is NAC.

NAT: Governance Token, the measurement index of the contribution and achievements every player makes. There are several methods to acquire an NAT an we will introduce it in the Evaluation Mechanism part.







Numerical Design——NAC Total Supplies

Numerical Design

Evaluation Mechanism

Distribution
Model of **NAC**

Distribution Model of **NAT**

NAC Cycle Mechanism The initial total quantity of NACs in Noah's Ark system is

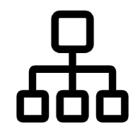
$$X_0 = 10,000,000,000$$

And the quantity of NACs issued additionally every week is denoted as Y(n), therefore the quantity of FMC in the nth week is

$$X(n) = X_0 + \sum_{i}^{n} Y(i)$$

Y(n) is used for preventing the inflation of our system and the formula will be introduced in the Inflation part.









Evaluation Mechanism

Distribution
Model of **NAC**

Distribution
Model of **NAT**

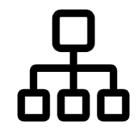
NAC Cycle Mechanism

Numerical Design——NAC Tokenomics Model

There are five main subpools of NAC total supplies. 10% of all, i.e. 1,000,000,000 NACs will be kept for Noah's Ark Team.

- 10% of all, i.e. 1,000,000,000 NACs will be pre-mined for the return of staking.
- 10% of all, i.e. 1,000,000,000 NACs will be used for venture, including seeds and private ones.
- 1% of all, i.e. 100,000,000 NACs will be used for IDO.
- 69% of all, i.e. 6,900,000,000 NACs will be circulated in Noah's Ark Ecosystem.









Evaluation Mechanism

Distribution
Model of **NAC**

Distribution
Model of **NAT**

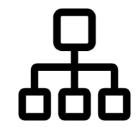
NAC Cycle Mechanism

Numerical Design——NAC Tokenomics Model

The Ecosystem Pool of NAC will be divided into several smaller parts.

- 30% of all, i.e. 3,000,000,000 NACs will be mined by PVE in the game.
- 20% of all, i.e. 2,000,000,000 NACs will be mined by PVP in the game.
- 10% of all, i.e. 1,000,000,000 NACs will be used for X2E, i.e. players finish tasks in reality to earn tokens in virtual world.
- 9% of all, i.e. 900,000,000 NACs will be mined by staking of players' NFT, i.e. their cars in the game.
- These four parts make up the ecosystem pool, i.e. 69% of total supplies.



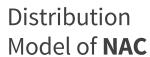






Numerical Design







NAC Cycle Mechanism

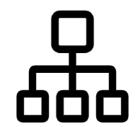
Numerical Design—NAT Total Supplies

The structure of NAT pool is very different from the NAC pool, since NAT denotes the contribution of each player and it cannot be mined by worthless behaviors.

In Noah's Ark system, the contribution is defined by two parts—the PVE part and the PVP part, the latter one of which is the main method to acquire NATs.

The total quantity of NATs in Noah's system is 100, 000, 000 with no additional offerings. We will introduce the details of NAT in Distribution Model part and note that NAT is the most important mechanism of Noah's Ark system.







Evaluation Mechanism—Element

Numerical Design

Evaluation Mechanism

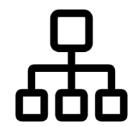
Distribution Model of **NAC**

Distribution Model of **NAT**

NAC Cycle Mechanism We introduce some basic concepts of Noah's Ark. Firstly, there are four categories of elements to make up a car in the GARAGE:

- Body, 4 levels in total, starts from Level 0, related to the Maximum Speed. The higher the maximum speed upgrade, the faster it will run.
- Wheel, 4 levels in total, starts from Level 0, related to the Durability. The durability refers to the distance a car can travel after repairing. The higher the durability of the car has, the larger area it can be explore in Old City Map.
- **Energy Core, 4 levels** in total, starts from **Level 0**, related to the **Acceleration**. Upgrading the energy core allows you reaching the maximum speed faster.
- **Control chip, 4 levels** in total, starts from **Level 0**, related to the ability of bending and cross-country. It is very practical for drifting and cross country.







Evaluation Mechanism—Data Chip

Numerical Design

We introduce some basic concepts of Noah's Ark.

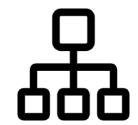


- There are four categories of elements to make up a car in the GARAGE:
 - Body, 4 levels in total, starts from Level 0.
 - Wheel, 4 levels in total, starts from Level 0.
 - Energy core, 4 levels in total, starts from Level 0.
 - Control chip, 4 levels in total, starts from Level 0.
- Data Chip—a blind box to unlock the above element slot and there are 16 kind of data chips in total.

Distribution Model of **NAC**

Distribution
Model of **NAT**







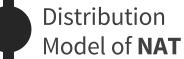
Evaluation Mechanism—Data Chip

Numerical Design

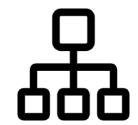
We introduce some basic concepts of Noah's Ark.



Distribution Model of **NAC**







Dual-Token Economic Model

Evaluation Mechanism—PVE

Numerical Design

We introduce some basic concepts of Noah's Ark.

Evaluation Mechanism

Distribution Model of **NAC**

Distribution Model of **NAT**



Dual-Token Economic Model

Evaluation Mechanism—PVP

Numerical Design

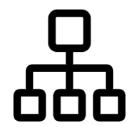
We introduce some basic concepts of Noah's Ark.



Distribution Model of **NAC**

Distribution Model of **NAT**







Evaluation Mechanism—Cars' Score in PVE

Numerical Design

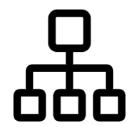
We introduce some basic concepts of Noah's Ark.



Distribution Model of **NAC**

Distribution
Model of **NAT**







Evaluation Mechanism—Cars' Score in PVP

Numerical Design

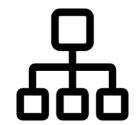
We introduce some basic concepts of Noah's Ark.



Distribution Model of **NAC**

Distribution Model of **NAT**







Distribution Model of NAC— PoW by PVE

Evaluation Mechanism

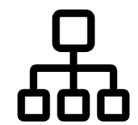














Distribution Model of NAC—PoW by PVP

Evaluation Mechanism

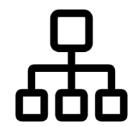
We introduce some basic concepts of Noah's Ark.



Distribution Model of **NAT**









Distribution Model of NAC——By Staking

Evaluation Mechanism

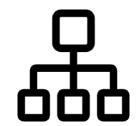
We introduce some basic concepts of Noah's Ark.



Distribution Model of **NAT**









Distribution Model of NAC—By X2E

Evaluation Mechanism

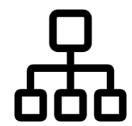
We introduce some basic concepts of Noah's Ark.

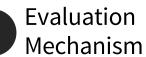


Distribution Model of **NAT**

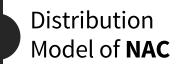












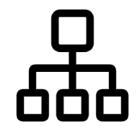


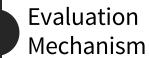












Distribution Model of NAT—PoW by PVP

Distribution Model of **NAC**

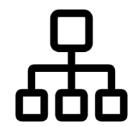


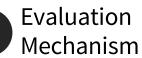






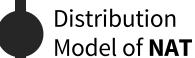






NAC Cycle Mechanism—Buying New Cars

Distribution Model of **NAC**

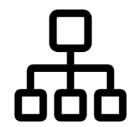


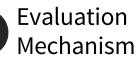






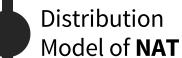






NAC Cycle Mechanism—Old City Unlocking

Distribution Model of **NAC**

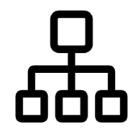












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Distribution Model of **NAC**

Distribution Model of **NAT**

NAC Cycle Mechanism

NAT Cycle Mechanism

Inflation of **NAC**

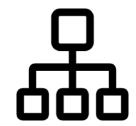
NAC Cycle Mechanism——Car Upgrading

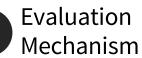
We introduce **the value of four elements**—body, wheels, energy core, control chip, **the cost of upgrading** and **the success probability of upgrading**.

Body	Lv 0	Lv 1	Lv 2	Lv3	Lv4
Value					
Cost					
Prob.					
E.C.	Lv 0	Lv 1	Lv 2	Lv3	Lv4
E.C.	Lv 0	Lv 1	Lv 2	Lv3	Lv4
	Lv 0	Lv 1	Lv 2	Lv3	Lv4

wne.	LV U	LV 1	LV Z	LV3	LV4
Value					
Cost					
Prob.					
C.C.	Lv 0	Lv 1	Lv 2	Lv3	Lv4
C.C.	Lv 0	Lv 1	Lv 2	Lv3	Lv4
	Lv 0	Lv 1	Lv 2	Lv3	Lv4

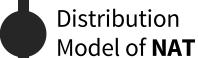






NAT Cycle Mechanism—Robbing by PVP

Distribution Model of **NAC**

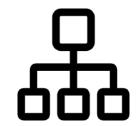


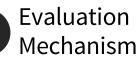






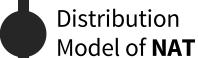






NAT Cycle Mechanism—Renting Cars

Distribution Model of **NAC**

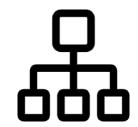


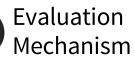






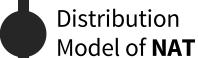






NAT Cycle Mechanism—Selling Cars

Distribution Model of **NAC**

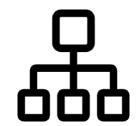


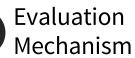






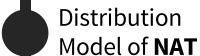






NAT Cycle Mechanism—Buying via NAC

Distribution Model of **NAC**

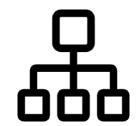


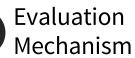






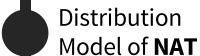






NAT Cycle Mechanism—Buying via NAC

Distribution Model of **NAC**

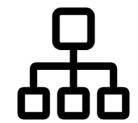












Evaluation Mechanism

Inflation of NAC

Distribution Model of **NAC**

We introduce some basic concepts of Noah's Ark.

Distribution Model of **NAT**

NAC Cycle Mechanism

NAT Cycle Mechanism

Inflation of NAC



