Fountain Whitepaper V0.93en

A content ecosystem based on PoC

Thanks Steem, a pioneer.

Mission and vision

Fountain is a block-chained content ecosystem based on Proof of Contribution. Through a set of clear proof of contribution rules, blockchain technology is used to record the contributions of all participants. After accurate calculation, tokens are awarded to all participants. This will effectively motivate people to participate deeply in a content community application and the entire ecosystem, contributing to their strength.

With the constant growth and development of the ecology, Fountain has a rich content community application, and the author, readers, curators, IP investors, block nodes, application developers and many other roles will be taken from the token. Their income. The ultimate realization of our vision: a win-win, sustainable content ecosystem.

Preface

The core concept of Fountain stems from the problems of traditional Internet content community applications: users of content community applications have made great contributions to the community, but they have not been able to obtain effective contribution credits and rewards.

For example, content community applications such as Twitter (Weibo) and Quora (Zhihu), a large number of users have made the following contributions to the application:

- User-contributed original content
- Users contribute their own time for reading and vote to the high-quality content.
- Users contributed their own comments and commit to community activities

The application has been developed in the process of user contribution. The app has gained billions of dollars or even billions of dollars in market value, but it has

nothing to do with most users, which is manifestly unreasonable. I believe we all have the same example of empathy:

> You are an author on Quora. During the year, you have created many quality posts, and your post has received a lot of approval. Obviously, you contributed to Quora. One year later, you left Quora for some reason, but you didn't get any proof of contribution and reward.
>
> Imagine that there is a Quora built on Fountain. In the same situation as above, when you leave Quora, you can get 1 million tokens based on the proof of contribution. In the circulation market, the value of 1 million tokens can be 10,000 dollars.
>
> Which is more reasonable? Which Quora would you choose?

Therefore, we came up with Fountain's design principles: a relatively fair contribution should support any participant who contributes to the development of the community.

It can be seen that the core of Fountain is how to design an open and transparent proof of contribution rule, which we call it PoC (Proof of Contribution). We will explain in detail in the PoC mechanism section.

Partner

Since the development of the blockchain industry, the application ecology of the public chain has not been developed, which is a severe problem. For example, Ethereum's data analysis in September 2018 shows that the total daily life of all DApps in Ethereum is less than 10,000, also with a slight decline from the beginning of the year.
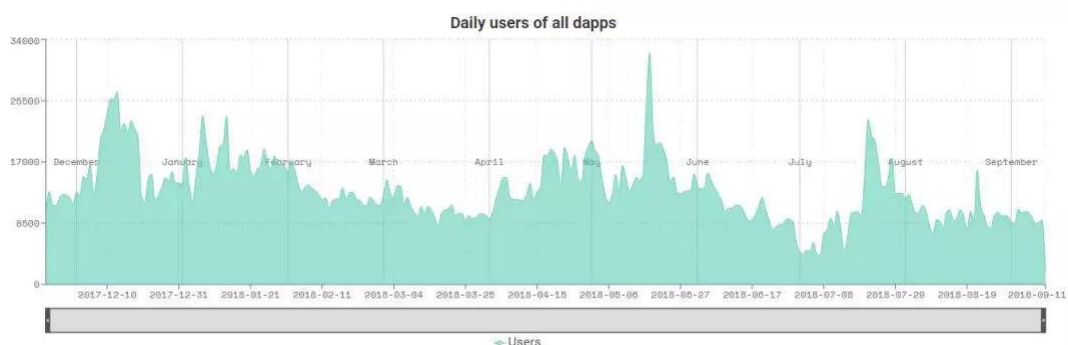
In terms of application ecological development, we believe that the blockchain industry should build an ecosystem with the application of massive user base in the Internet industry. Fountain will strive to bring more Internet content community applications into the ecosystem through rational rule design, achieve a win-win situation and promote the development of the blockchain industry.

In order to harvest Fountain participants more quickly and efficiently, we chose to work intensively with China's premium original content community "Jianshu". In the course of many years of operation, "Jianshu" has accumulated a large number of active users and a large number of high-quality contents, and has a vision that is highly compatible with Fountain. It can be the best partner for us.

"Jianshu" was established in 2013 and has now developed into China's premier creative community. Relying on convenient creative tools and intelligent distribution strategies, we have gathered a large number of high-quality authors and works, which are very popular among young people. The team has received multiple rounds of financing from SIG Heiner Asia, "Junlian" Capital, "Saifu" Investment Fund, "Gobi" Venture Capital and other quality investment institutions.

"Jianshu" has been launched on the web, iOS, Android and other mainstream platforms. With a total registered number of users of more than 12 million, an average of 3 new contents are published every 3 seconds, and the average monthly traffic is 200 million times. Up to now, its main site (http://jianshu.com) has a global Alexa ranking of about 500 and China's ranking of about 60. The R&D team always pays attention to good product design and experience, and is bound to break the current situation of "unrealistic design," " hard to use," "slow starting".

As the "Jianshu" joins the Fountain Ecology, the massive active users of "Jianshu" will become blockchain users, "Jianshu" users will receive the token rewards they deserve, and "Jianshu" will increase the user activity through the incentive of tokens. Moreover, as a founding cooperative application, get the distribution return of the initial token. This is a win-win cooperation.

Comparison of "Jianshu" and Steemit data:

	Jianshu	Steemit
Site	http://jianshu.com	http://steemit.com
Language	Mainly Chinese	Mainly English
Alexa ranking	No.500	No.1700
Mobile App	iOS、android	N/A
Registering	Free registering instantly	Paid instant registering / queuing for free registering
Users	12 million	1.1 million
Active users per day	Site 2 million +App 0.5 million	Site 0.25 million
Main features	Chinese authoring community with high completion, excellent user experience, stable content traffic, recommendation engine with intelligent algorithm	The decentralized creation community driven by the blockchain. It has a high-value circulation model, high visibility in overseas markets, and early entry advantages of the blockchain.

"Jianshu" is Fountain's first and most important partner, but there is no doubt that we will work hard to expand the ecosystem of more partners to join Fountain. Especially the products of East and Southeast Asian countries. This plan is designed because Steem's current main user advantage lies in the English-speaking countries. Fountain is based on the "Jianshu" in China, far surpassing Steem's user advantage, and is more suitable for developing partners and users in East Asia and Southeast Asia. We do not rule out the possibility of directly incubating, investing in or acquiring content community applications in China, Korea, Japan and Southeast Asia to accelerate ecological development. Please refer to Appendix 1 for more partner expansion plans.

Token

We believe that the performance of all users in the community is valuable and contributes more or less to the community, so we designed tokens to prove these contributions. All tokens constitute the value of the entire Fountain ecology, and the token of Fountain is called FTN.

FTN

FTN is Fountain's most fundamental value record unit. There are two ways to get FTN. Obtained through contributions to the community, or through market transactions. The former is more critical because the user must have the time to contribute to the community in order to increase the overall value of it. Therefore, we must design a PoC (Proof of Contribution) mechanism to effectively measure the contribution of all community users and reward tokens accordingly.

Initial allocation

The initial total amount of FTN is 3 billion.

Of these, 1.5 billion will be used as foundation reserves, which will be used for initial community consensus building, partner testing, long-term incentives for core teams, daily operations and investments. At the same time, the reserved funds will also be used to curb short-term speculative speculation that may be manipulated by large investors. Of these, 500 million will be given "Jianshu" to thank for its support to Fountain. The remaining 1 billion will be used for community support programs, and the proceeds will be used for the development, operation and marketing of Fountain.

Usage	Qty (Billion)	Percentage	Lock period

Community support plan	10	33%	6+12 months (unlocked after 6 months of the first round of delivery, linearly unlocking every day for 1 year)
Foundation	15	50%	12+48 months (300 million initial unlocks, the remaining 1.2 billion unlocked after 12 months of the first round of delivery, linearly unlocking every day for 4 years
Partner	5	17%	12+24 months (unlock after 12 months of the first round of delivery, linearly unlock every day for 2 years)
Total	30	100%	

Additional allocation

Based on the essential characteristics of the content community. Users continue to create new and valuable content to share with all users so that the value of the community as a whole is growing, so we believe that the complete deflation or constant total Token economy does not apply in such a fast-growing community that encourages content production and consumption. We will issue 1 million additional FTNs per day for eco-incentives. The first-year increase rate is about 12%, and then it will decrease year by year, approaching zero eventually.

85% of the annual FTN will be based on the PoC (Proof of Contribution) consensus mechanism for community rewards, 10% will be based on the DPoS consensus mechanism for reward block production, and the remaining 5% will be converted to Foundation reserves. Safeguard the sustainability of the Foundation. To reduce speculation, all FTN awards will likely be given to users in the form of FP.

| Items	Role	Percentage
Community reward (PoC)	FP Holder	15%
	Content contribution (author, voter)	55%
	Operational contribution (proposer, judge, introducer)	15%
Block production reward(DPoS)	witness	10%
Foundation		5%
Total		100%

PoC Mechanism

The design of the PoC (Proof of Contribution) mechanism for community user contribution certification is extremely important. Only by effectively rewarding the

daily labor contributions of all community users, the entire ecology can be properly motivated, and the ecology will continue to grow in the direction of growth. All holders will also receive good profits in return with the development of the ecology. We must clarify how community users contribute effectively and design FTN rewards based on these contributions.

FP

We will encourage long-term holders of FTN because the long-term holding of FTN means the true participation of the holders in the ecology, and they will vote based on the long-term sustainability of Fountain. The short-term holders will take the opportunity to buy low and sell high, and cannot make practical contributions to the development of ecology. Their behavior and will must not be consistent with Fountain's vision.

In view of this, we designed FP (Fountain Power). Users can convert FTN to FP at a 1:1 ratio at any time. However, when the user chooses to convert the FP to FTN, the total amount of the FTN is divided into 13 equal shares, one redeems per week, and the 13-week redemption is completed. FP cannot be circulated and must be redeemed for FTN before it can be circulated.
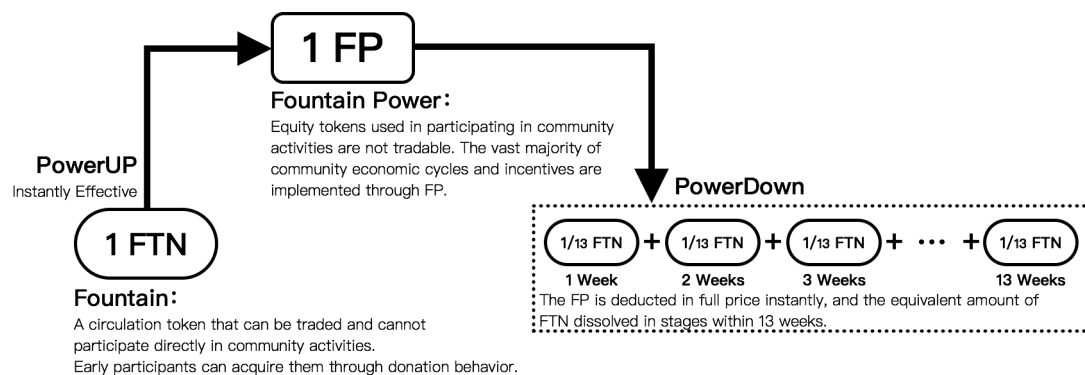
FP is Fountain's entitlement credit. Holding FP is like becoming a citizen of Fountain, fulfilling obligations for ecological prosperity and governance, while enjoying legitimate rights. FP is the core of the entire PoC operation. The design of the PoC mechanism is based on the principle of one FP one vote. The more users are holding the FP, the bigger the influence of the allocation of the PoC reward pool.

Because the active vote of users holding FP is the guarantee of the entire ecological operation, 15% of the annual increase will be awarded to FP holders, and users are encouraged to convert FTN into FP to participate in the voting. The rewards that each FP holder receives are determined by the proportion of FP they hold to the total amount of FP held by all users.

Content contribution

Content is the most critical value in the Fountain, and the author of the content deserves to be rewarded. The user's vote for the content is the curation of the

content and the process of adding value to the content, so the voter should also be rewarded. Content-rewarding rewards are designed around the author's contribution to the creation and the contribution of the reader's curation. 55% of the annual additional FTN will be used as a reward pool for this part.

Voting weight

The author publishes the content, and the reader reads the content and generates voting behaviors such as likes or dislikes, and each reader holds a different FP, and the voting weight is different.

The total number of times that user *i* votes in the statistical period (ie, one day) is C_i, then the weight assigned to each click or point is: $W_i = (FP_i - D)/C_i$

Where FP_i is the total number of FPs owned by user i (if the number of FPs in the user changes within one day, the last FP number is used); D is the reserve; C_i is the number of votes for user *i* on the current day.

Unlike Steem, the content on Fountain can be always voted. This means that a novel ten years ago can still be voted and rewarded by users today.

Content heat

After calculating the weight of each vote, we can calculate the heat value of the content based on the reader's vote for each content. We believe that whether it got likes or dislikes, it only represents the values of different users, and there is no right or wrong in itself, so it should be regarded as voting.

See Content heat value calculation method below:

$$A = like + dislike$$

$$like = \sum_{i \in Likers} W_i$$
$$dislike = \sum_{i \in Dislikers} W_i$$

Here W_i is the voting weight of the user *i* who likes or clicks, $like$ is the sum of the voting weights of all the people who like, and $dislike$ is the sum of the voting weights of all the people who step on.

We think that comments are content, and the heat of article comments is a reflection of the popularity of the article. Therefore, the final heat value of each content will be calculated by adding the voting heat value of the sub-comment:

$$H = A + \alpha \sum_i A_i$$

Where A is the voting heat value of the content itself, and the subsequent summation part is to sum the voting heat values of the sub-comments. α is the weight parameter of the sub-review which is currently set to 0.5.

Content reward distribution

In general, moderate heat articles are the majority, the articles with particularly high heat and extremely low heat are relatively few, close to the Beta distribution, as shown below:
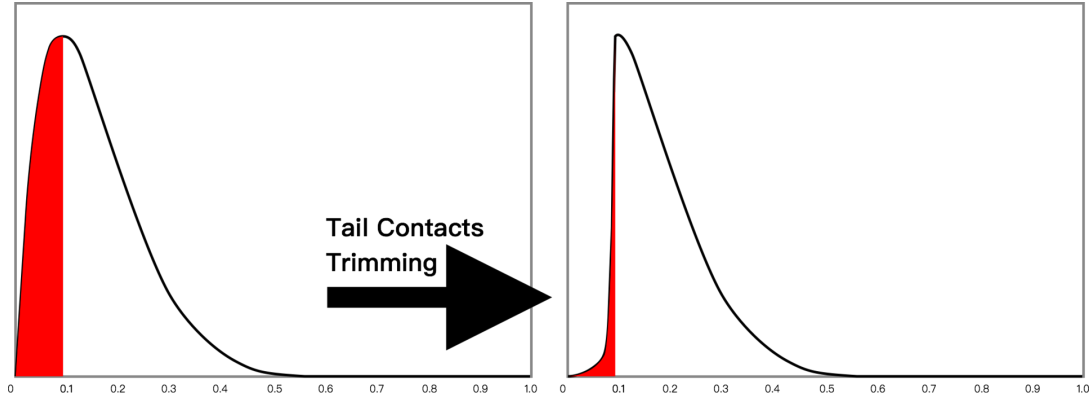
Here, the horizontal axis represents the heat value, and the vertical axis represents the number of articles. The heat average value of $1/e$ or less (ie, the red part) is defined as the tail content. And adjust its weight:

We sort The tail content from high to low according to the heat value. According to Ziff's law, the maximum heat value in the tail content is divided by the sorting number as the new weight. This minimizes the weight of the tail's irrigation content while retaining a certain amount of revenue.

According to the rules mentioned above, the weight of an article now is:

$$Q_i = \begin{cases} H_i & \text{Top Contents} \\ H_T/I_i & \text{Tail Contents} \end{cases}$$

Where H_i is the heat value of the content, H_T is the maximum heat value of the tail, and I_i is the sorting number of the tail content. The final income distribution formula is:

$$R_i = T \times \frac{Q_i}{\sum Q_i}$$

Where R_i is the reward for an article, T is the total number of FPs to be allocated, and $\sum Q_i$ is the sum of the weight distribution weights of all content on the day.

After the content revenue is determined, it will be redistributed among the author and the voter of the content, and the distribution ratio is 80% for the author and 20% for the voter. So the rewards the author gets are:

$$r_{writer} = 0.8 \times R_i$$

According to the voting weight of each voter, the proportion of the total voting weight of each content is equal to the reward obtained by assigning 20% of the articles or comments belonging to the voter:

$$r_{voter} = 0.2 \times R_i \frac{W_j}{\sum W_j}$$
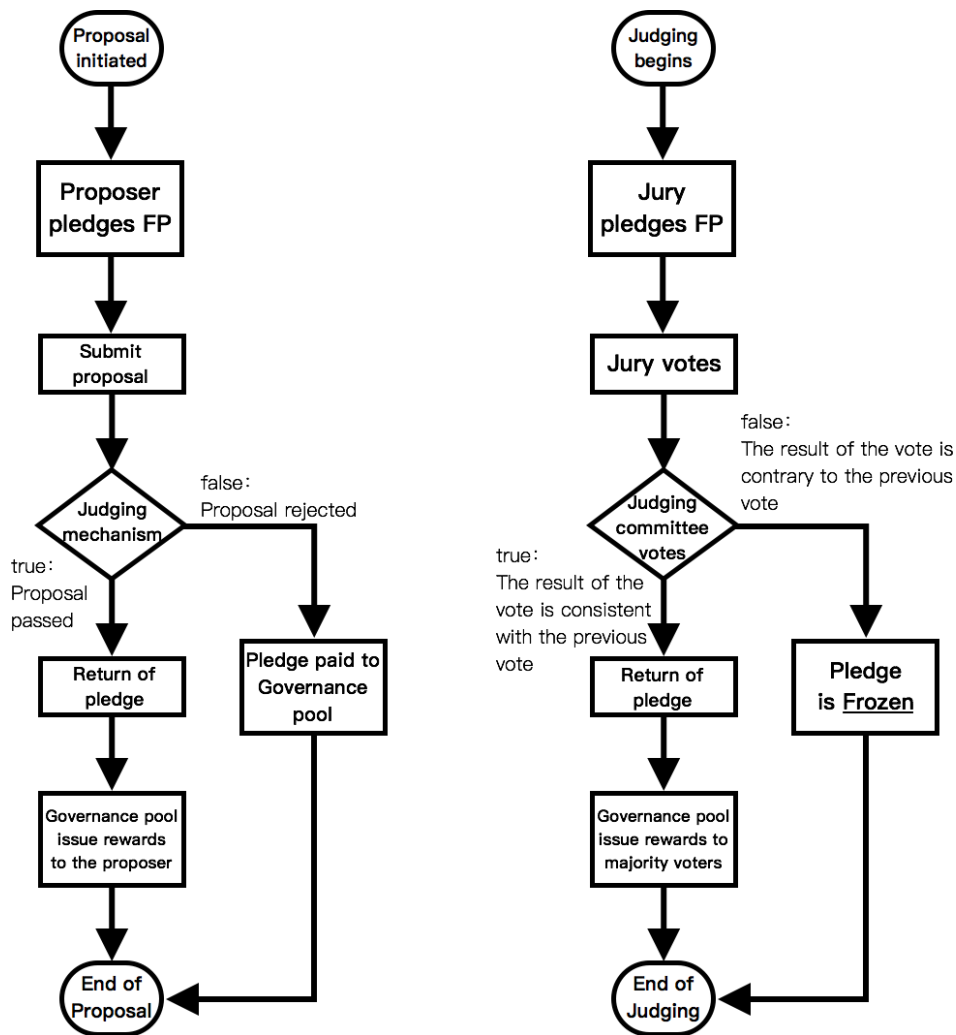
Operational contribution

In addition to content contributions, operational-based contributions are also significant. We include community contribution contributions and introduction and promotion contributions that have fundamental values in the application and operation of the content community and are included in the rewards. 15% of the additional annual FTN will be used as a reward pool for this part.

Community governance reward

For content community applications, governance around violating content and violating user behavior is critical (such as copying someone else's work). For the application official, this piece of operation is weighty, and at the same time makes users feel unfair. Therefore, we encourage community users to participate in public affairs and give FTN rewards, which reduces the official workload of the application, and gives users a sense of participation and the whole process is transparent.

The sponsors and judges involved in community governance and construction will adopt the following process:

- Pledge: The proposer pledges a certain amount of FP to submit a community governance proposal.
- Judgment: whether the proposal is passed, whether the penalty is accurate, and whether the sponsor is compliant.
- Decommissioning: If the judgment is passed, the pledge target is released and returned; if not, it will be included in the community contributor quota pool.
- Benefits: At the same time as the demolition, the sponsor will receive additional rewards from the pool of community contributors.

Proposal flow

```
Proposal initiated
        ↓
Proposer pledges FP
        ↓
Submit proposal
        ↓
Judging mechanism
   ├── false: Proposal rejected → Pledge paid to Governance pool → End of Proposal
   └── true: Proposal passed → Return of pledge → Governance pool issue rewards to the proposer → End of Proposal
```

Judging flow

```
Judging begins
        ↓
Jury pledges FP
        ↓
Jury votes
        ↓
Judging committee votes
   ├── false: The result of the vote is contrary to the previous vote → Pledge is Frozen → End of Judging
   └── true: The result of the vote is consistent with the previous vote → Return of pledge → Governance pool issue rewards to majority voters → End of Judging
```

Since the number of participants per day and the amount of pledge are dynamically changing, and the amount of contributor quota pool is fixed, to solve this problem, we have designed the following mechanism:

- If all participating hostages are less than or equal to the increase of the contributor's quota pool on the day, after the participants receive the same amount of reward as their respective pledges, the remaining portion of the pool will be transferred to the next-day contributor's quota pool until the end of the issuance.
- If all the participating hostages are greater than the increase of the contributor's quota pool on the day, the ratio of the total pledge of each participant to the total pledge of all participants on the day is used as the weight, and the proportion is automatically allocated as the next day's pledge.
- The total amount of pledge of each participant on the next day = total pledge today - today's scored quota + total pledge of the next day.

For more information on community governance systems, please refer to appendix 2.

Introducer reward

The development of the community is inseparable from the joint construction of all participants, and the core value of the community value is the quantity of excellent content. Therefore, we encourage all participants to introduce more outstanding authors to the community. As the guide of the introduced person, the introducer must lend the initial reserve to the introduced person. If the remaining FP of the introducer's account is insufficient to borrow the sanctuary, the introduction relationship is automatically cancelled. Unlike the time limit for the loan lending reserve, the introduction of the reserve by the introducer does not have to be repaid. As a reward, the introducer can receive the highest amount of bonus from the loaned reserve from the pool of community contributor quotas.

- Malicious inviting massive users to receive referral rewards is something we want to avoid. In order to suppress this behavior, we will use the final heat value of the content created by the introducer as a measure and allocate it:
- Before the introductory person's income reaches the bonus of the loan reserve equal, the sum of the weights calculated by the PoC mechanism of the content of the introduced referee is used as the weight of the introducer and is in the pool of the community contributor's quota. Add FP for halving.
- Before the introductory person's income reaches the bonus of the loan reserve equal, the sum of the weights calculated by the PoC mechanism of the content of the introduced referee is used as the weight of the introducer and is in the pool of the community contributor's quota. Add FP for halving.
- If all the referrals in the community contributor pool are received, but the contributor's quota pool remains, the remaining portion will be automatically transferred to the next day's contributor quota pool until it is fully allocated.

## User registration and reserve funds

In response to the Sybil attack against the reward pool, the current common suppression methods are:

- Higher registration certification threshold;
- After being punished by the community, part of the FP must be pledged when participating in the content release;
- Reserve system (the more the total wealth value is, the more registered accounts, the more reserves are used so that the available wealth value is smaller).

For the above three methods, Fountain will be used to effectively resist the Sybil attack. Currently the reserve for each user will be set to 10 FP. In order to provide a more user-friendly experience, after the official launch, new users will receive 10 FPs borrowed by the Foundation as initial reserves. After a period of time, the reserve will be reclaimed, and new users can use this time to participate in community interactions to get enough rewards to cover future reserves.

Development route

Fountain's ecological architecture can be divided into four layers, namely the chain layer, industry protocol layer, community protocol layer and DApp:
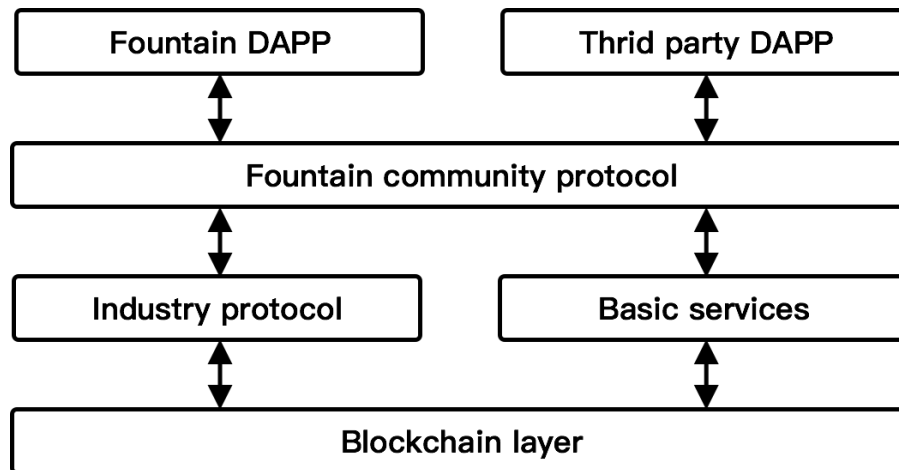
Since Fountain's original intention is to use Token rewards to build a valuable content community, the overall design is mainly focused on the PoC mechanism. For the fastest testing and subsequent iteration of the PoC mechanism, the initial Fountain can be based on the existing mature public chain such as the Ethereum. Workshop or EOS for development. Fountain's development expectations are divided into three phases:

Alpha stage

The core objective of this phase is to implement core functions including the Fountain token system, account system, content addressing and acquisition, and content-based interaction incentives. In this phase, we will establish a set of address-to-content addressing systems on the chain and establish a complete recording system for user information and interaction revenue. At the same time, we will establish a set of revenue accounting system based on chain interaction behavior with the partners, initially realize the PoC mechanism and other supporting services on the cloud, and carry out related records and tests to improve the related community setting and configuration for future expansion.

At the completion of this phase, the basic services and economic incentive models will be basically completed and preliminary tests can be conducted.

Beta stage

On the basis of the Alpha phase, we will strengthen the alliance function of the industry chain at the chain level, and prepare for the access of more community platforms and the autonomy of the entire content industry; at the protocol level, we will further improve the arbitration system and realize the channel-based KYC

services, etc.; at the community level and the application level, we will improve the introductory system and related community governance models to gradually realize and improve the established functions of Fountain.

In this phase, user data, virtual asset data, social data, and content data are gradually imported from the partner into the test chain and the Fountain chain, and these beta users are allowed to perform full-feature testing on the Fountain chain. Based on the daily trial results, we will optimize the parameters in the system and finally determine a set of parameters for future official operation.

Official operation stage

At the beginning of this phase, it is the official operation of all the functions of the Fountain. We will make appropriate adjustments based on user feedback to ensure that users are better able to interact on the Fountain. At the same time, according to the needs of existing and future partners, we will consider the improvement of new functions and will choose the right time to turn to the self-developed own public chain according to the actual operation of the whole system.

For more technical solutions, please refer to appendix 3.

Conclusion

Fountain structured the Token economic solution framework of PoC + DPoS, and built the ecology through cooperation with sophisticated Internet applications, and creatively applied the token economy to the content community application field of mass users, which solved the problem that traditional Internet users could not obtain. Proof of your own contribution and return on income. It is expected to achieve a win-win, sustainable content ecosystem.

Disclaimer:

Participants interested in Fountain and/or FTN should read this section carefully. Any participant who uses Fountain and/or holds FTN directly or indirectly shall be deemed to have accepted the disclaimer described herein. Fountain reserves the right to modify, update and explain this disclaimer.

- FTN adopts the principle of voluntary participation. Any participating individuals, groups, organizations and/or entities shall bear any and all costs, expenses, risks and liabilities arising from participating in Fountain and/or purchasing and holding FTN.
- This white paper should not be construed as and should not constitute any investment advice, investment intention or intent to invest in securities. This White Paper shall not constitute and shall not be deemed to be an offer to sell securities, an offer to buy or sell securities in any jurisdiction, and shall not be deemed to be any form of contract or undertaking.
- Buying and/or holding FTN is not an investment activity. Fountain should not and cannot commit to the value of FTN, and Fountain does not assume any obligation or liability for any direct or indirect loss or damage caused by the participant's participation in FTN.
- Fountain does not make and expressly disclaims any express or implied, statutory or other forms of representations and warranties, including but not limited to:
  - Warranty, fitness for a particular purpose, suitability, use, ownership and non-infringement;
  - Ensure that the content ecosystem Fountain and/or FTN is designed without any flaws, errors, viruses and/or harmful components;
  - Ensure that there are no errors, errors, flaws or inaccuracies in the content of this white paper.
  - Ensure that the contents of this white paper do not infringe any third party rights.
- FTN is not a representative or symbol of ownership and/or control. Holding FTN does not mean that it has control over Fountain, nor does it imply that it has the power to make decisions on Fountain.
- The contents of this white paper may be modified, revised, or updated as the project progresses. The team will post updates to the public via website announcements or new white papers. The team will try to achieve all of the goals in this white paper, but the goals in this white paper may change in the light of unpredictable circumstances.

Appendix 1: Partner expansion direction

wallet

The healthy development of the Fountain ecosystem is inseparable from the excellent wallet application. We will consider incubating or investing in wallet applications, and we will also consider entering into market cooperation with existing wallet applications to ensure a good user experience.

Exchange

Based on Fountain's possible massive user base in the future, we will consider incubating or investing in OTC trading applications, token-token trading applications, and actively seeking legally compliant fiat-token exchanges.

Decentralized paid content platform

The disadvantage of the traditional centralized paid content platform is that there is no doubt that the platform obtains a large amount of revenue. The original author deserves a higher return.

Decentralized IP investment platform

The traditional IP investment platform, which has a large amount of information is not transparent, and the IP investment platform that uses the blockchain ledger is extremely disruptive for IP investment. The wider masses will be more confident to participate.

Community economy

Community-based activities have a strong vitality, and community leaders have taken advantage of IM's group chat features such as Telegram and WeChat to unite members and lead them to conduct diverse business activities. The content creation and consumption of members is an essential part of collaborative work. It can work through the Fountain Eco, improve collaboration efficiency, record member contributions, and distribute revenue.

Social media

Social collaboration like Wikipedia is exciting. A token-based social media is a new experiment that is more feasible and reflects the value of social work.

The above applications are just a few examples. In fact, all parties in the content industry chain are likely to become our partners, such as photography, music, film and television, games, animation, publishing houses and so on. If you are interested in cooperation, please send an email to: dapp@fountainhub.com

Appendix 2: Draft Community Governance

Proposal

Each community user can obtain a proposal by pledge FP, and "reporting" content that includes prohibited content is a common form of proposal. The purpose of pledge FP is to prevent waste of public resources caused by random proposals. The system will return the pledge of the FP after the proposal is approved and the "appeal" period is overdue, or the "appeal" proposal is completed. If the proposal

fails, the pledge FP will be credited to the next day's community contributor quota pool, allocated at the next additional issue, continuing to motivate community governance in the form of FP.

Judge

We will establish a system of judges regarding the jury system:

Judging panel screening criteria

- Before using the community officially, users should choose the language they are primarily reading and the language they can judge to avoid the situation where the content of the proposal cannot be read.
- To prevent the judge from arbitrarily misjudged, the judge needs to pledge the FP equal to the pledge of the proposal. Therefore, the judge should lock in enough FPs, such as 10000FP, in advance to pay the FP required to judge the mortgage.
- For each proposal, the judges should be randomly searched for in each FP number interval, so that the judgment is concentrated in the head users with more FP holdings or the tail users with fewer FPs.

Judging principle and process

- To improve the efficiency of community processing, the earlier the proposal is proposed, the higher the probability that the judge will see it. In principle, each proposal should be judged within 24 hours after the proposal is initiated. If the judging is not completed within 24 hours, the judgment is terminated and decided by the existing judging result (if the number of people passing through the number of participants in half).
- To prevent misjudgment, we introduced a grievance mechanism: if the proposal is approved, the sponsor (original author) will have a chance to appeal within seven days after the result of the proposal is issued, and the FP will initiate a grievance by pledge more than the original proposer...

More judges will judge appeals.

- Each proposal will only show the content of the judges and the categories of violations, and will not display the sponsor information, nor the information such as the proposal opinion or the complaint. Because we believe that the prohibited scope defined by the restricted area should be clear, in line with the judgment standards of the vast majority of ordinary users, no need to explain.
- The final result of the proposal is the result of the appeal of the proposal. If the sponsor fails to appeal within seven days, the final result is the result of the first judging.

- If the result of the proposal is consistent with the judge's judgment, the judge (including the judge of the first judgment and appeal proposal) will be returned to the judge, and this part of the FP will be counted as the judge of the day. Weights. Therefore, the pledge period of the judge may be up to nine days.
- If the final case result is inconsistent with the judge's judgment result, the FP of the initial review judge's pledge will be frozen, and the FP during the freeze period will not be included in the case income, and will not be included in the judge's FP lock.
- When the proposal is approved, the article or comment reported by the proposal will be immediately hidden.
- A hidden article or comment will no longer be able to participate in the calculation of content weights and receive corresponding revenue.
- If the appeal proposal is finally approved, the display of the article or comment will be resumed, and the Token revenue distribution will be re-acquired from the date of recovery. The Token allocation for the concealed period is not compensated.

Proposal to judge relevant parameters

Proposal category	Pledged FP base value	Number of judges required	Required pass ratio
proposal	100FP	9	6/9
"Appeal" proposal	Original proposal pledge + 100FP	15	9/15

Although we hope to adopt the above system, we hope to achieve community autonomy and effectively manage it. However, after the proposal, "it happened to be" that there were enough irresponsible judges, the probability of releasing the content of the problem still exists. To prevent this from happening, any content can be repeatedly proposed, and each proposal can also be appealed. However, FP for each proposal required pledge = the total number of proposals for the content × the proposal needs to pledge the FP base value.

Penalty

To maintain a healthy and orderly and sustainable community ecology, we will set the penalty as:

- When an author is successfully reported for the first time and has no complaint or failure to appeal, the author enters the observation period. When the article or comment is published again during the observation period, the FP is required to be pledged as a deposit, and the pledge period of the deposit is equal to the observation period. The number of days, which means that even if the observation period is over, the deposit may still be in the pledge period.

- If the remaining FP in the user's account is insufficient to pay the deposit, the user may not post articles or comments.
- The FP during the pledge period will not participate in the distribution of all community rewards.
- If the newly published content is reported again successfully during the observation period and there is no appeal, or the appeal fails, the full deposit of the article or comment is immediately deducted.
- When the author meets the punishment conditions again, the penalty standard will also increase and meet the exponential growth rule: $P_n = P_0 \times 2^{(n-1)}$, where P_n is the penalty value, which can be the number of days or margin FP; P_0 is the penalty base, and n is the number of violations.

| parameters	Observation period	FP value to be pledge	Pledge period
P'	7days	100FP	7days
Example:			
2nd violation	14days	200	14days
......	......	......	......
5th violation	112days	1600	112days
......	......	......	......

All pledged FPs deducted by the proposer, judge, and even the author will be credited to the community contributor quota pool, allocated at the next additional issue, and distributed in the form of FP.

Although there are many doubts about the efficiency of decentralized governance, we are willing to work with like-minded friends to manage the entire ecology, and to discuss and optimize the governance program. For those interested in this topic, please send an email to: pilot@fountainhub.com

Appendix 3: Technical Solution

Architecture

Fountain's ecological architecture can be divided into four layers, namely the chain layer, industry protocol layer, community protocol layer and DApp:
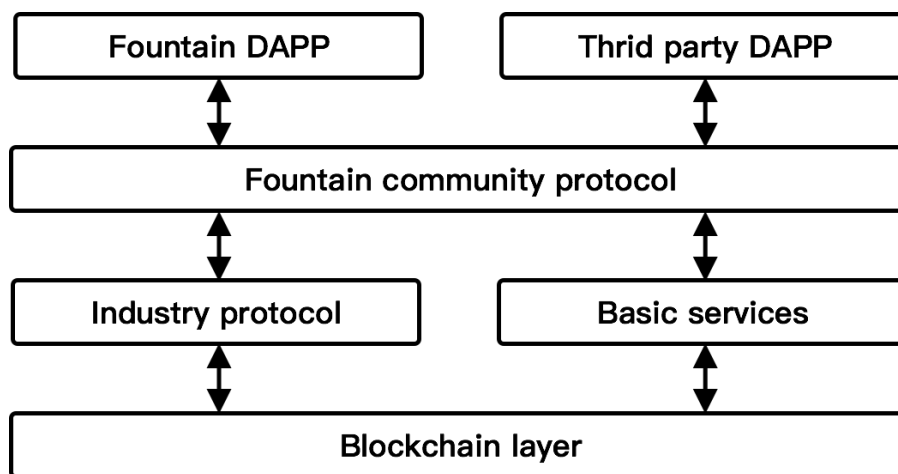
Chain layer

The chain layer at the bottom of the whole system can be realized by subsequent development based on existing mature public chains such as Ethereum or EOS. When necessary, turn to Fountain's own public chain. The chain layer provides the basic functionality required for the entire Fountain and is the soil in which the Fountain can function.

Since Fountain is different from other blockchain projects, it has actual business correspondence. User interaction is not only transaction transfer, but also a large number of community interactions. Therefore, there are specific requirements for chain throughput and processing speed. The fuel costs required for bookkeeping also tend to be zero.

Due to the positioning of Fountain, it is the industry chain of the content industry. There may be more than one content community in the future, and a large number of users in various communities will face multiple levels including industry rules adjustment, community rule adjustment, community arbitration and so on. With the scope of activities, so in the choice of the underlying chain, we will adopt a hybrid scheme of alliance chain and public chain.

Whether the rules are adjusted, and similar organizational forms of DAO will be established in each community to determine the development of each community. Such an organizational structure will facilitate the ecological formation and evolution of the industry chain, while at the same time ensuring that there is no conflict between the industry and the community. Under the same set of industry rules, different communities can have different community rules. Rules are set up by industry alliances or community management groups, and once established, all users interact in the same set of rules in the same community.

Technically speaking, we will introduce the structure of the alliance chain on the basis of the public chain, as an additional structure on the public chain. New Alliance users will vote through existing members of the Alliance to decide whether to allow them to join the Alliance. The resolution of the alliance will also be confirmed and

protected by means of ring signatures, etc., and the relevant parameters of the entire Fountain or smart contracts will be adjusted when necessary.

Protocol layer

The protocol layer is divided into two parts: industry agreement and community agreement, which correspond to the basic rules and related services of the entire content industry, as well as the states and functions unique to the community. Industry agreements are a set of rules that must be followed across the industry, including a set of smart contracts and corresponding underlying services, while community agreements are proprietary to a particular content community in the content industry. Formally, they are a set of smart contracts based on the underlying chain, and the corresponding network services and protocols available to the DApp. Different DApps call different smart contracts and network services depending on the community.

DApp

Each community has its own DApp that presents content from the community to users. It is the display and interaction interface of the entire ecology. The DApp can be an official version developed by the community itself, or it can be a private version developed by a third party. As long as the two sets of agreements between the industry and the community are followed, the relevant network services and smart contracts can be invoked. We can borrow the MVP architecture in the software architecture to express the relationship between the underlying chain, the two protocol layers, and each DApp:
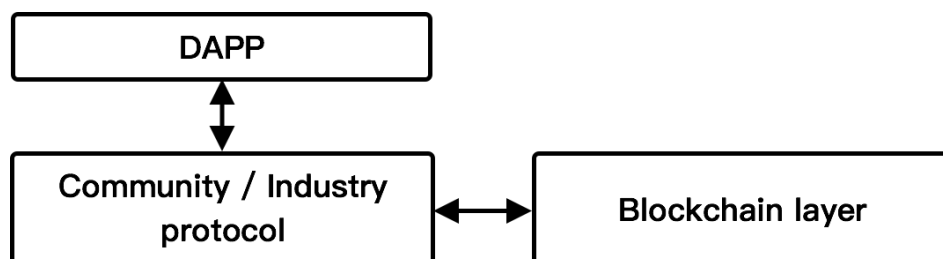
Basic services

At Fountain, there are some basic services that are used today and in all content industries, such as content chain storage, content addressing, chain KYC solutions, Markdown and rich text editor solutions.

One of the basic services that Fountain uses mainly is content addressing, which is essentially a set of smart contracts that are "translated" into a common URI address on the Internet through a set of identifiable HASHs on the chain, so that DApp can get it. The specified resource. This is a chain-net combination scheme, where content that cannot be processed or processed in the chain is processed on the traditional Internet, and resources are acquired in the form of calling the Internet service on the chain. This type of service can be implemented in multiple ways,

either by the server accessing the chain through the DApp, by triggering a specific smart contract Event event, or by a distributed domain name resolution service such as IPNS.

The necessity of the entry controlling system

Relying on the healthy development of community rules and interaction interfaces (App or DApp) so that The online ecosystems, including the content community ecology, could grow healthily. In the content community, the main ways to undermine this healthy development are the following:

- Damage to the ecology by third-party App/DApp that does not comply with the protocol;
- Use robots and other means to forge multiple accounts to destroy the community ecology;
- Use community rule vulnerabilities to conduct interactive behaviors that are sensible but whose purpose is to maximize personal interests.
- ......

For example, Third-party DApps can disrupt the entire economy by publishing offending content. There are many possibilities for violating content, such as a lot of "plagiarism" or "terror" content. Such behavior can have a very negative impact on the entire Fountain ecology.

Therefore, our solution is DApp's access mechanism: there is an industry alliance or community management group to determine whether a third-party DApp is eligible for admission, and if it is qualified, it is given a specific token Token. When calling a smart contract or other network services, the DApp that needs to provide the token is eligible to call the DApp, such as the simplified smart contract:

```
1   contract MasterPiece {
2     address public butler;
3     mapping (address => uint) prices;
4     mapping (address => mapping (address => bool)) public bills;
5
6     constructor () public {
7       butler = msg.sender;
8     }
9     modifier onlyButler () {
10      require(butler == msg.sender);
11      _;
12    }
13
14    function setPrice (address article, uint price) public onlyButler {
15      prices[article] = price;
16    }
17    function buy (address article) public payable return (bool) {
```

```
18    uint price = prices[article];
19    if (msg.value < price) {
20     msg.sender.send(msg.value);
21     return false;
22    }
23    bills[msg.sender][article] = true;
24    return true;
25   }
26  function check (address user, address article) public view return (bool)
   {
27    return bills[user][article];
28   }
29  }
```

In the above code, we can add the allowed DApp access tokens to the entire community through a specific account and can remove a Token when needed to control the protected smart contract function. In fact, this approach can also be used to do more complex rights management.

For content that has been chained by a third-party DApp, since its content is not necessarily stored on the short-book server, but the URL is just placed in the chain, the address of the specific content can be found through the content addressing service for display (in Filtering is of course done on official DApps, but not on third-party DApps.) In this case, one is that the content-addressing service will delete the relevant entries (in the case of IPFS and the BitSwap behind it, the route and storage corresponding to the specific address are all emptied), and on the other hand, the relevant on the chain. Entries are tagged and flagged as violating content, ensuring that content-related entries are not displayed on official and DApps that comply with official agreements.

Decentralized paid reading platform

The disadvantage of the traditional centralized paid reading platform is that there is no doubt that the platform obtains a large amount of revenue. The original author deserves a higher return.

The key to paid reading is to record and verify whether the specified user has paid for the specified article. We can record purchase information in the blockchain and perform search verification when needed to achieve paid reading. Specifically, when a user purchases an article, we need to record the purchase record on the chain. When the user wants to read a paid article, the content addressing service goes to the article storage server for content request. At this time, the article storage server will query the chain whether the current user has purchased the specified article, and if purchased, it will provide the article.
The general process of a smart contract of this type can be written as (Solidity):

```
1  contract MasterPiece {
```

```
 2   address public butler;
 3   mapping (address => uint) prices;
 4   mapping (address => mapping (address => bool)) public bills;
 5   constructor () public {
 6    butler = msg.sender;
 7   }
 8   modifier onlyButler () {
 9    require(butler == msg.sender);
10    _;
11   }
12   function setPrice (address article, uint price) public onlyButler {
13    prices[article] = price;
14   }
15   function buy (address article) public payable return (bool) {
16    uint price = prices[article];
17    if (msg.value < price) {
18     msg.sender.send(msg.value);
19     return false;
20    }
21    bills[msg.sender][article] = true;
22    return true;
23   }
24   function check (address user, address article) public view return (bool)
   {
25    return bills[user][article];
26   }
27  }
```

In the initial stage, we will use the cloud server as the storage service provider of the article. In the future, we will consider switching to a distributed file storage service like IPFS, and set up a paid reading key distribution system to save the article ciphertext in distribution. In the file system, the secret key for decryption is managed and distributed through the key distribution system, thereby implementing paid reading.

Decentralized IP investment platform

In the field of content creation, one of the problems we often encounter is that the author has an excellent idea, but due to the pressure of life, he has to give up the creation of this content and switch to other. A healthier decentralized IP investment platform is precious to authors. The author publishes the project, including the time plan for completing the work, the income distribution rules after the work is completed, and the reader pays for the work before the work is completed, and the automatic distribution of the work income is completed within a certain period of time after the work is completed.

The traditional IP investment platform, with a large amount of information, is not open and transparent, and the IP investment platform that uses the blockchain

account book will allow the wider masses to participate more confidently.

One such smart contract, in its approximate form (Solidity):

```solidity
contract WritingProcess {
  address public butler;
  mapping (address => WritingProgram) public programs;
  event NewProg (address author, address article, uint stocks, uint price);

  struct WritingProgram {
    address author;
    address article;
    uint public total;
    uint left;
    uint public price;
    uint stockcoinpool;
    uint public coinpool;
    mapping (address => uint) stocks;

    constructor (address _author, address _article, uint totalstock, uint
  stockprice) public {
      author = _author;
      article = _article;
      total = totalstock;
      left = totalstock;
      price = stockprice;
      coinpool = 0;
      stockcoinpool = 0;
    }
    function buy (address buyer, uint stock) public return (bool) {
      if (left < stock) return false;
      uint s = stocks[buyer];
      s += stock;
      stocks[buyer] = s;
      left -= stock;
      stockcoinpool += stock * price;
      return true;
    }
    function income (uint coin) public {
      coinpool += coin;
    }
    function draw (address a, uint amount) public {
      if (a != author) return;
      if (amount > stockcoinpool) return;
      a.transfer(amount);
      stockcoinpool -= amount;
    }
    function sharebonus (address user) public {
      uint s = stocks[user];
      if (s < 1) return;
      uint p = coinpool * s / (total - left);
```

```solidity
47      user.transfer(p);
48      coinpool -= p;
49      stocks[user] = 0;
50      left += s;
51     }
52    }
53
54   constructor () {
55    butler = msg.sender;
56   }
57   modifier checkProg (address prog) {
58    WritingProgram p = programs[prog];
59    require(!p);
60    _;
61   }
62   modifier checkProgAndPayBack (address prog, uint coin) {
63    WritingProgram p = programs[prog];
64    if (!p && coin > 0) msg.sender.send(msg.value);
65    require(p);
66    _;
67   }
68
69   function publish (address user, address prog, uint total, uint price)
    public checkProg(prog) {
70    p = new WritingProgram(user, prog, total, price);
71    programs[prog] = p;
72    emit NewProg(user, prog, total, price);
73   }
74   function buyStock (address prog) public payable checkProgAndPayBack(prog,
    msg.value) {
75    WritingProgram p = programs[prog];
76    uint s = msg.value / p.price;
77    p.buy(msg.sender, s);
78   }
79   function rewardProg (address prog) public payable
    checkProgAndPayBack(prog, msg.value) {
80    WritingProgram p = programs[prog];
81    p.income(msg.value);
82   }
83   function shareProgBonus (address prog) public checkProgAndPayBack(prog,
    0) {
84    WritingProgram p = programs[prog];
85    p.sharebonus(msg.sender);
86   }
87  }
```

Some of our technical solutions are listed above, we will adjust and refine according to the actual progress of the project. For Fountain, it's exciting to get thousands of users quickly. At the same time, it also means more pragmatic requirements for technology and architecture. We are recruiting core development team members

and decentralized community development teams. If you are interested in joining us, please email: developer@fountainhub.com