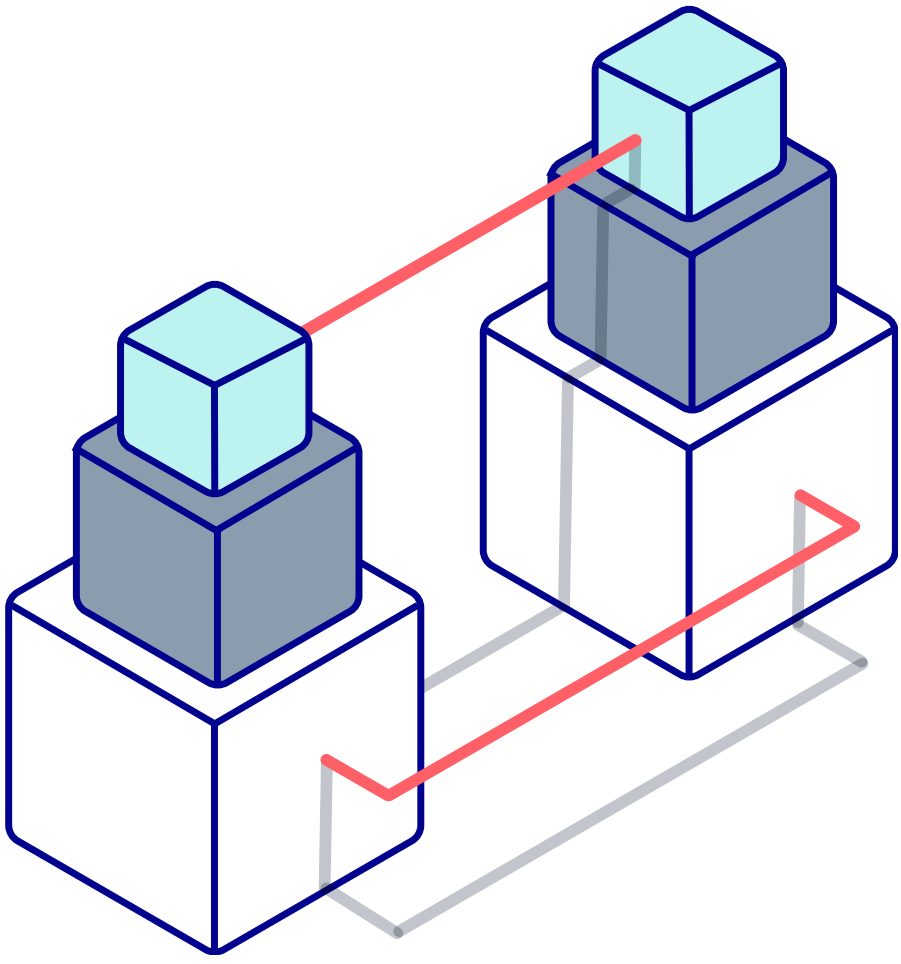
TTC Ecosystem

This document proposes a technical implementation for the ecosystem building of TTC Protocol including DAPP acquisition and governance.



Abstract

As addressed in the TTC Protocol white paper, The TTC Protocol is a decentralized and token-incentivized social networking protocol for the next generation of social platforms. This protocol uses cryptocurrency token incentives to create a more rewarding, dynamic social network.

The TTC Protocol also helps developers access the benefits of blockchain technology. By developing in the TTC Ecosystem, developers will not only have access to an end-to-end blockchain solution, they will also have access to an airdrop subsidy for gaining new users, a daily pool of issued tokens for use in rewarding users, and access to a service-wide advertising network.

The TTC Protocol will be implemented and maintained by TTC Foundation, which aims to build a healthy ecosystem of diversified decentralized applications (DAPPs). This ecosystem will improve the user experience of participants in social networks around the world.

In summary, the TTC Protocol provides a one-stop solution for integrating blockchain technology and a stable, vibrant ecosystem that provides value to all participants: developers, users, and third-party advertisers.

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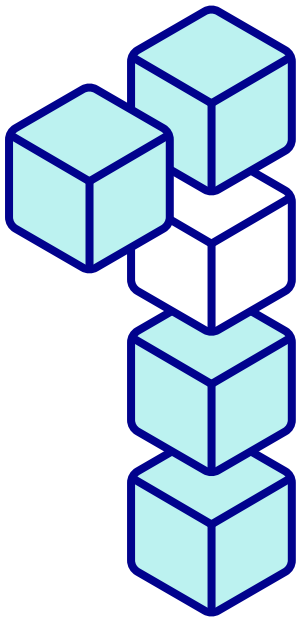

As social network services grow increasingly sophisticated, users run up against the limitations inherent in centralized architectures. Centralized architectures require users to place trust in a single authority, which can lead to increased censorship, vulnerabilities, and abuses of power. Additionally, centralized architectures are often closed development environments, lack transparency, and are rarely meritocratic, meaning participants on a centralized network are almost never accurately rewarded for the value the add to the network.

The TTC Protocol overcomes these limitations and creates network ownership alignment whereby participants are active stakeholders in the network. The result is a vibrant ecosystem (“TTC Ecosystem”) in which developers can share resources and collectively grow the network's value much more rapidly than in a centralized network.

The TTC Ecosystem consists of four major components: TTC User System, TTC Open Platform, TTC Reward Engine and a system-wide TTC Advertisement Network. Participants in the TTC Ecosystem include users, DAPP developers, and third-party advertisers. The ecosystem is maintained by a not-for-profit foundation, the TTC Foundation, which administers a number of programs that are designed to benefit all participants and to grow the ecosystem. Programs include an Ecosystem Building Fund that offers various subsidies to DAPPs and an Issued Reward Pool of tokens that offers token incentives to users. Figure 1 demonstrates how these components interact in the TTC Ecosystem.

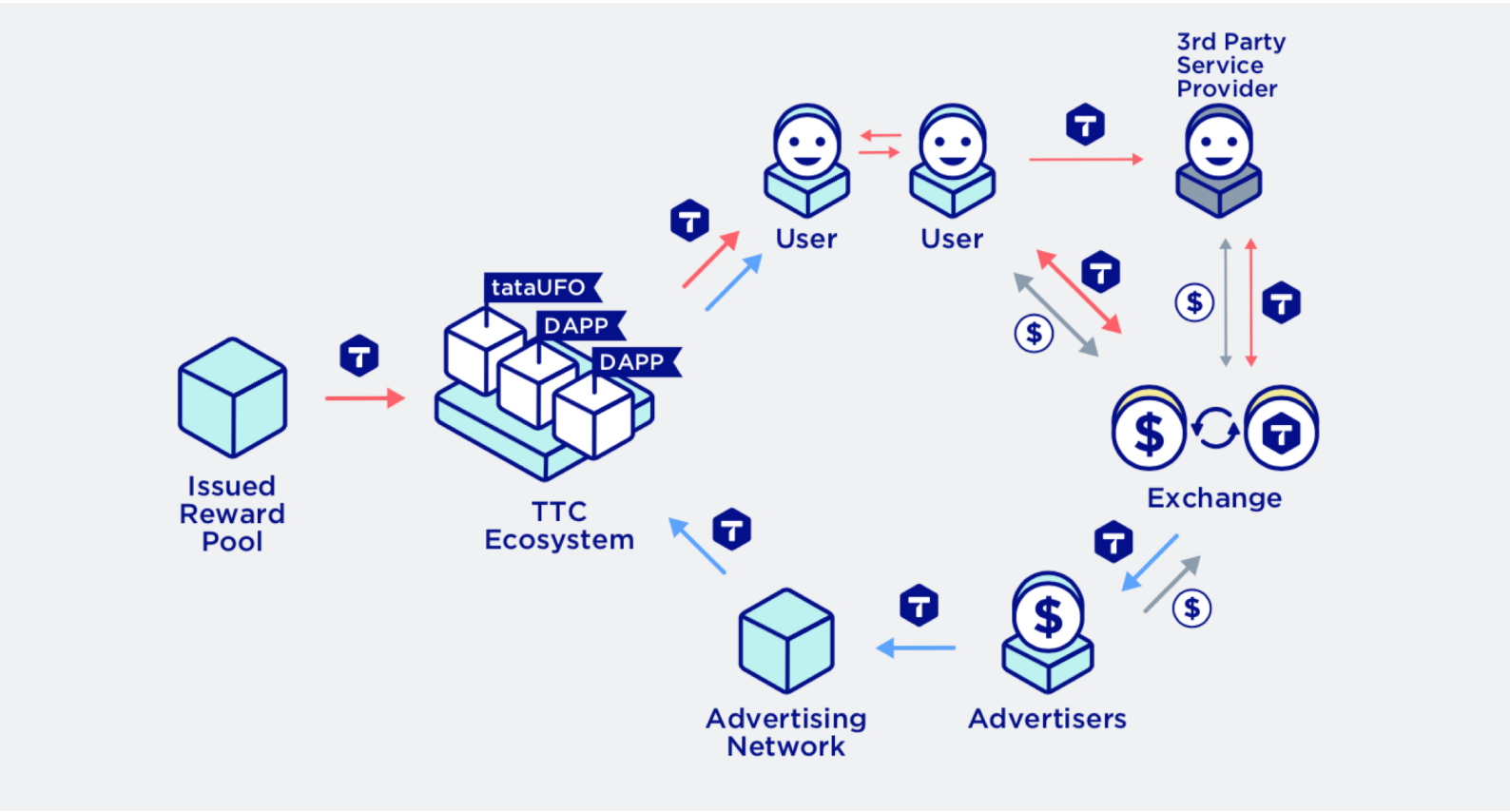

Fig 1. Value chain of the TTC Ecosystem

In the TTC Ecosystem, every participant work for an one goal, allowing for a more efficient, transparent, and meritocratic network. Users receive real economic value via token incentives, and advertisers and developers are able to easily leverage blockchain technology in a vast network, supported by a variety of subsidy programs.

Decentralized Consensus

Blockchain is a state-of-the-art record-keeping technology that allows any group to achieve a *decentralized consensus*. This has two important implications.

Firstly, no central authority controls how information gets added to a record. Instead, information is collectively verified by the group. Secondly, records can be verified publicly by anyone. This means users can trust records to be accurate and authentic, without needing to trust an issuing authority, or needing to trust other users.

Because of this, decentralized consensus is able to align participants in towards a unified goal. This shared goal creates a more efficient and transparent network, one that is resistant to bad actors and better able to recover from points of failure within the network.

Token Incentives

In addition to the benefits of using a decentralized architecture, the TTC Protocol also offers the added benefit of token incentives. TTC token incentives deliver commercial value to users, giving developers integrating the TTC Protocol a competitive advantage. Developers can also use token incentives to accelerate their platform and service growth beyond what is conventionally possible. By integrating token incentives on top of blockchain technology, the TTC Protocol is able to increase the network's value for all participants in the TTC Ecosystem.

High Advertising Value

The TTC Ecosystem benefits from an integrated user system where all DAPPs share the same advertising network, and all users have a single wallet integrated across all DAPPs. This network-wide integration means the TTC Advertisement Network is able to offer both DAPPs and third-party advertisers access to a wider audience, better targeting, and another layer of commerce in the TTC Ecosystem. This additional layer bolsters the TTC token economy and speeds its development. Also, because the TTC Advertisement Network is integrated across all DAPPs, as new DAPPs participate, the Advertisement Network only becomes more valuable over time.

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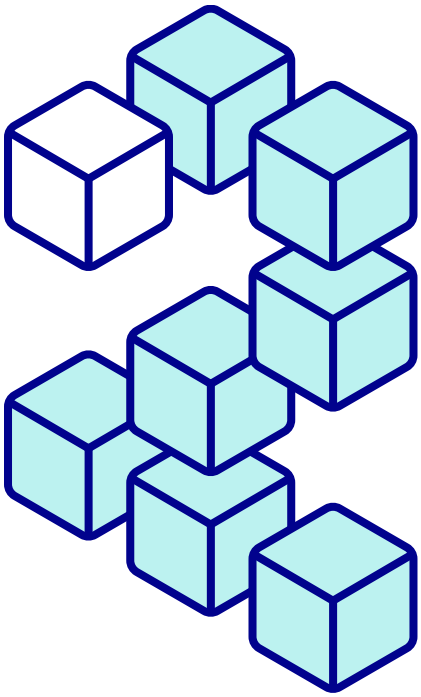
From APP to DAPP



The primary drivers of the TTC Ecosystem are the decentralized applications that utilize the TTC Protocol, or DAPPs. Because of the important role DAPPs play, DAPPs intending to become part of the TTC Ecosystem will be subject to review by the TTC Foundation. Only those that pass the assessment will become members of the TTC Ecosystem.

After receiving an application from a potential DAPP developer, the TTC Foundation will conduct a full assessment, looking at quantitative indicators such as the service's registered users, monthly active users, and advertising value, as well as qualitative indicators such as influence in their field, and the development team.

Any web or mobile service with a social interactive component can benefit from the TTC Ecosystem. Each member DAPP will benefit from the TTC Ecosystem in the following ways.

Airdrop Subsidy

An airdrop campaign is a term for a process by which a cryptocurrency enterprise gifts crypto-tokens to some users for free in order to help bring early users onboard. Airdrops also help some startup services and platforms get through the “cold start” stage by providing a practical way to acquire early users.

The TTC Foundation provides an airdrop subsidy to each DAPP for this purpose, as well as a complete set of airdrop solutions on the TTC Open Platform. Airdrop rewards will be distributed to participants through the TTC Open Platform directly.

Issued Reward Pool

The TTC Open Platform will also reserve a portion of tokens to be used as rewards that incentivize participants to be active on the network. All DAPPs will get a share of the issued rewards every day, according to the platform type, user group, and advertising contribution to the TTC Ecosystem. The method if distributing reward TTC tokens is through predetermined rules and logic in the TTC Reward Engine.

The reward pool will also help guide users' actions. Rewards distribution is highly customizable, and by incentivizing certain types of behaviors, the reward pool can also encourage DAPP users to participate proactively in ways that align with the developers' intentions, or in ways that best serve the needs of a particular community.

Advertising Revenue

All DAPPs in the TTC Ecosystem share the same advertising network, which provides the collective advantage of a large scale. Developers have access to more advertisement channels and methods, while advertisers can access a wider audience with more granular control over targeting.

Additionally, because the TTC Advertisement Network is decentralized, users are able to receive the bulk of tokens from advertising, with only a small portion of tokens apportioned to DAPP developers, used only to cover platform maintenance costs. This makes users active participants in the ecosystem and creates an environment of invested stakeholders rather than passive netizens.

Subsidy Strategy

The TTC Foundation will utilize several different strategies to help build a stable, diverse ecosystem. Cryptocurrency token incentives is only one such strategy. The TTC Foundation will also employ additional subsidy strategies for DAPPs, depending on the current stage and needs of each DAPP.

For established platforms that have been in operation for a while, developers are eligible for a one-time subsidy with an upper limit of 10,000,000 TTC tokens.

For new platforms, developers are eligible for a percentage of TTC tokens via one of the TTC Foundation's other subsidy programs such as an Airdrop Subsidy and Issued Reward Pool as well as advertising revenue. The exact percentage of tokens will be determined on a sliding scale during the TTC Foundation's assessment. TTC tokens subsidized to developers will be locked in for N months, with 1/N released each month.

The TTC Foundation is also able to invest in a DAPP's team or company on a case-by-case basis, offering TTC tokens in exchange for equity. As a nonprofit entity, the TTC Foundation uses equity to help build and maintain the TTC Ecosystem.

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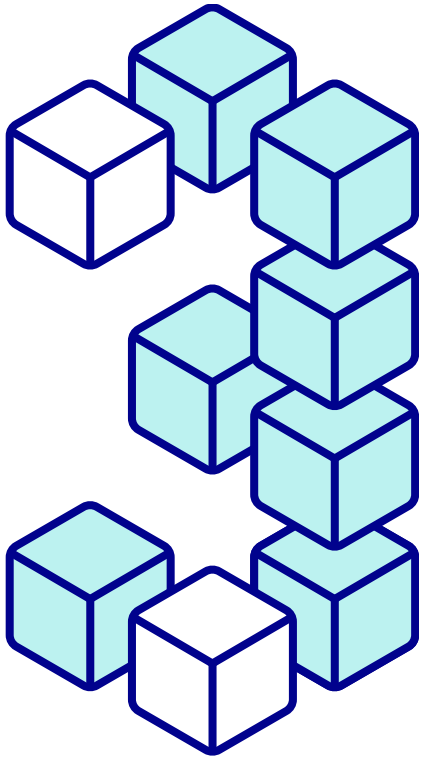
TTC Foundation and its Governance



The TTC Ecosystem is administered by the TTC Foundation, an independent and non-profit governance institution. The TTC Foundation's primary function is to help build, maintain, and improve the TTC Ecosystem, ensuring it operates reliably and transparently. Key responsibilities of TTC Foundation include the following:

- To allocate resources to develop and acquire more DAPPs on the TTC Open Platform
- To assess and fund new projects
- To plan asset distribution mechanisms to DAPPs that ensure sustainable development
- To establish the smart contract of a decentralized and incentivized social network with a potential network effect
- To operate and promote the TTC Advertisement Network in order to increase advertising revenue for DAPPs
- To establish a set of fair and transparent governance processes, and to supervise the operation of the TTC Reward Engine, rules of engagement, legal policies and other issues related to governance

The TTC Foundation will fulfill its function through two main sources of tokens: (i) the Ecosystem Building Fund, which provides support and incentives for DAPP developers, and (ii) the Issued Reward Pool, which provides token rewards for users.

Ecosystem Building Fund

200,000,000 TTC tokens (20% of the total TTC tokens) are allocated to the Ecosystem Building Fund, for use in developing the TTC Ecosystem. The fund will be used for (i) investment in DAPPs in exchange for equity and (ii) airdrop subsidies.

Equity Investment

As the number and diversity of DAPPs grow, so does the value and robustness of the entire TTC Ecosystem. As such, the TTC Foundation is committed to finding and funding potential DAPP developers that will strengthen the TTC Economy and diversify the services offered on the network. A total of 140,000,000 TTC tokens will be allocated to equity investments in promising DAPPs with high-growth potential.

Airdrop Subsidy

To ensure the TTC Ecosystem grows quickly and stably, the TTC Foundation also provides an airdrop subsidy to DAPPs to help platforms acquire early users.

The airdrop subsidy is distributed to new users and to those referring new users to the DAPP according to a

predetermined portioning schedule. All original users and new users are included when calculating a user group receiving an airdrop reward.

The subsidy amount is calculated according the following criteria:

1. Subsidy totals for DAPPs reduce over time. This ensures early DAPPs in the TTC Ecosystem acquire more subsidies than latecomers. When the total number of DAPPs in the TTC Ecosystem doubles (“Period”), the subsidy for each DAPP reduces by 20%
2. Subsidy totals for users reduce over time. This ensures early users get more airdrop rewards than the latecomers. When the number of users in a DAPP doubles (“DPeriod”), the subsidy for each user reduces by 20%
3. The total airdrop subsidy is 60,000,000 TTC tokens.

For example, if the number of users in the first Period within the first DPeriod is 25.67, in Period N and DPeriod M, airdrop rewards per user are calculated as

$$AirdropTokenPerUser = 25.67 * 0.80^{N-1} * 0.80^{M-1}$$

Table 1, 2 and 3 depict the airdrop subsidy distribution scenarios in the cases of one DAPP and three DAPPs.

Period	DAPP A in DPeriod	New users	Airdrop Token Per User	Total Airdrop Tokens	Estimated TTC Value (USD)	Airdrop TTC Value (USD)	Total Airdrop TTC Value (USD)
Period 1	DPeriod 1	10,000	25.67	256,700	0.09	2.31	23,103
Period 2	DPeriod 2	20,000	16.43	328,576	0.09	1.48	29,571
Period 3	DPeriod 3	40,000	10.51	420,577	0.09	0.95	37,851
Period 4	DPeriod 4	80,000	6.73	538,338	0.09	0.61	48,450
Period 5	DPeriod 5	160,000	4.31	689,073	0.09	0.39	62,016
Period 6	DPeriod 6	320,000	2.76	882,014	0.09	0.25	79,381
Period 7	DPeriod 7	640,000	1.76	1,128,978	0.09	0.16	101,608
Period 8	DPeriod 8	1,280,000	1.13	1,445,092	0.23	0.25	325,352
Period 9	DPeriod 9	2,560,000	0.72	1,849,718	0.55	0.40	1,023,523
Period 10	DPeriod 10	5,120,000	0.46	2,367,639	1.03	0.48	2,437,452
Period 11	DPeriod 11	10,240,000	0.30	3,030,578	3.90	1.15	11,810,454
Period 12	DPeriod 12	20,480,000	0.19	3,879,140	10.46	1.98	40,583,275
Period 13	DPeriod 13	40,960,000	0.12	4,965,300	20.58	2.49	102,189,306
Period 14	DPeriod 14	81,920,000	0.08	6,355,584	43.62	3.38	277,224,079
Period 15	DPeriod 15	163,840,000	0.05	8,135,147	101.65	5.05	826,935,497
Period 16	DPeriod 16	327,680,000	0.03	10,412,989	237.86	7.56	2,476,837,202
Period 17	DPeriod 17	655,360,000	0.02	13,328,626	556.59	11.32	7,418,622,788
	DAPP A Total	1,310,710,000	0.09	60,014,076			

Table 1. Airdrop subsidy distribution in one DAPP case

	Dapp A	Percentage decrease compared to one DAPP	Dapp B	Percentage decrease compared to one DAPP	Dapp C	Percentage decrease compared to one DAPP
Joining in	Period 1		Period 4		Period 8	
Total airdrop subsidy for 10,000 users	256,700	——	131,430	-48.80%	53,834	-79.03%
Total airdrop subsidy for 1,270,000 users	3,072,569	——	2,173,061	-29.28%	890,086	-71.03%
Total airdrop subsidy for 10,230,000 users	5,971,744	——	5,072,235	-15.06%	2,077,588	-65.21%

Table 2. A case of airdrop subsidy distribution with more than one DAPP. It's clear that early DAPPs in the TTC Ecosystem acquire more subsidies than latecomers

Period	Dapp A in DPeriod	New users	Airdrop Token Per User	Total Airdrop Tokens	Dapp B in DPeriod	New users	Airdrop Token Per User	Total Airdrop Tokens	Dapp C in DPeriod	New users	Airdrop Token Per User	Total Airdrop Tokens
Period 1	DPeriod 1	10,000	25.67	25,670								
Period 2	DPeriod 2	20,000	16.43	328,576								
Period 3	DPeriod 3	40,000	10.51	420,577								
Period 4	DPeriod 4	40,000	6.73	269,169	DPeriod 1	10,000	13.14	131,430				
Period 5	DPeriod 4	40,000	5.38	215,336	DPeriod 2	20,000	8.41	168,231				
Period 6	DPeriod 5	80,000	3.45	275,630	DPeriod 3	40,000	5.38	215,336				
Period 7	DPeriod 5	80,000	2.76	220,504	DPeriod 4	80,000	3.45	275,630				
Period 8	DPeriod 6	160,000	1.76	282,245	DPeriod 5	160,000	2.21	352,806	DPeriod 1	10,000	5.38	53,834
Period 9	DPeriod 6	160,000	1.41	225,796	DPeriod 6	320,000	1.41	451,591	DPeriod 2	20,000	3.45	68,907
Period 10	DPeriod 7	640,000	0.90	578,037	DPeriod 7	640,000	0.90	578,037	DPeriod 3	40,000	2.21	88,201
Period 11	DPeriod 8	1,280,000	0.58	739,887	DPeriod 8	1,280,000	0.58	739,887	DPeriod 4	80,000	1.41	112,898
Period 12	DPeriod 9	2,560,000	0.37	947,056	DPeriod 9	2,560,000	0.37	947,056	DPeriod 5	160,000	0.90	144,509
Period 13	DPeriod 10	5,120,000	0.24	1,212,231	DPeriod 10	5,120,000	0.24	1,212,231	DPeriod 6	320,000	0.58	184,972
Period 14	DPeriod 11	10,240,000	0.15	1,551,656	DPeriod 11	10,240,000	0.15	1,551,656	DPeriod 7	640,000	0.37	236,764
Period 15	DPeriod 12	20,480,000	0.10	1,986,102	DPeriod 12	20,480,000	0.10	1,986,102	DPeriod 8	1,280,000	0.24	303,058
Period 16	DPeriod 13	40,960,000	0.06	2,542,234	DPeriod 13	40,960,000	0.06	2,542,234	DPeriod 9	2,560,000	0.15	387,914
Period 17	DPeriod 14	81,920,000	0.04	3,254,059	DPeriod 14	81,920,000	0.04	3,254,059	DPeriod 10	5,120,000	0.10	496,530
	Dapp A Total	163,830,000	0.09	15,305,813	Dapp B Total	163,830,000	0.09	14,406,304	Dapp C Total	10,230,000	0.20	2,077,588

Table 3. A case of detailed airdrop subsidy distribution with more than one DAPP

Issued Reward Pool

In order to encourage participants to improve the TTC Ecosystem, 25,000,000 TTC tokens (25% of the total TTC tokens) are allocated for rewarding users and developers who make valuable contributions. These rewards will be issued in proportion to the value of the participant's contribution, according to a fixed set of parameters for calculating DAPP value.

Calculating DAPP Value

When a DAPP submits an application to join the TTC Ecosystem, the TTC Foundation looks at three parameters to quantify its initial DAPP value. Afterward, the DAPP value will be updated every 7 days, using the formula below:

$$\textbf{DAPP value} = \{ [(\textbf{N}_{\textbf{new-user}} * u1 + \textbf{N}_{\textbf{active-user}} * u2) * \textbf{U} + \textbf{V}_{\textbf{new-content}} * c1 * \textbf{T}] * \textbf{D} / 100 + \textbf{advertising revenue} * a1 + 10 \} * \textbf{S}$$

$\textbf{N}_{\textbf{new-user}}$: number of new users in last 28 days

$\textbf{N}_{\textbf{active-user}}$: number of active users in last 28 days

$\textbf{V}_{\textbf{new-content}}$: value of new contents in last 28 days

V_{ad} : advertising revenue in last 28 days

D : nationality parameter

U : new user parameter

T : anticipated user participation parameter

S : subsidy parameter

u1, u2, c1, a1 : constant

If **Vp** represents the DAPP value in the last period, and **Vc** represents the DAPP value in the current period, the TTC Foundation can determine change in value as

$$\max [\max (\mathbf{Vp} / 2, \mathbf{Vc}), \min (\mathbf{Vp} * 2, \mathbf{Vc})]$$

The nationality parameter **D** is set in Table 4.

Continent	Nation / Region	D
Asian	China	2
	South Korea	2
	Japan	2
	India	1
	Southeast Asia	1
	Other regions in Asia	1
North America		3
South America		1
Africa		1
Europe		2
Oceania		2
Other		1
Customization		0.5~4

Table 4. Value schedule for the nationality parameter **D**

The new user parameter **U** shows the degree of difficulty at which a DAPP acquires new users. The anticipated user participation parameter **T** shows the willingness of user participation in a DAPP. They are set in Table 5.

Product type	Benchmark	U	T
Social Networking Service	Facebook/ Instagram	10	2
Social Media	Toutiao	1	2
Video community	Youtube	3	2
Customization		0.5~100	0.5~3

Table 5. The new user parameter **U** and anticipated user participation parameter **T**

The subsidy parameter **S** shows how much subsidy a DAPP can acquire from the TTC Ecosystem. It is clear that new DAPPs receive larger subsidies according to Table 6.

	Number of users	S1	Days in the ecosystem	S2
DPeriod 1	10000	32	1~28	32
DPeriod 2	30000	16	29~56	16
DPeriod 3	70000	8	57~84	8
DPeriod 4	150000	4	85~112	4
DPeriod 5	310000	2	113~140	2
S = min (**S1**, **S2**)				

Table 6. The subsidy parameter **S**

Table 7 demonstrates how DAPP values are calculated in different scenarios.

	Video community in China (maturity)	Video community in USA (maturity, no ads)	Social media in China (startup, no ads)	Social media in China (stagnation, no ads)	DPeriod 1Social media in China (growth)	Media in India (decline)	New DAPP	New DAPP (no data)
Days in ecosystem	100	1	30	200	100	50	1	1
New-user	2,800,000	280,000	10,000	10,000	10,000,000	10,000	10	0
Nactive-user	28,000,000	2,800,000	100,000	100,000	40,000,000	1,000,000	10	0
Vnew-content	10,000,000	1,000,000	100,000	100,000	10,000,000	100,000	10	0
Vad	28,000,000	0	20,000	20,000	10,000,000	500,000	0	0
D	2	3	2	2	2	1	2	2
T	2	2	1	1	1	2	1	1
U	3	3	5	5	5	1	5	5
DAPP value	35,120,010	1,068,010	992,160	62,010	32,200,010	533,010	742.40	320

Table 7. A demonstration of DAPP value in different scenarios

Reward Issuance Schedule

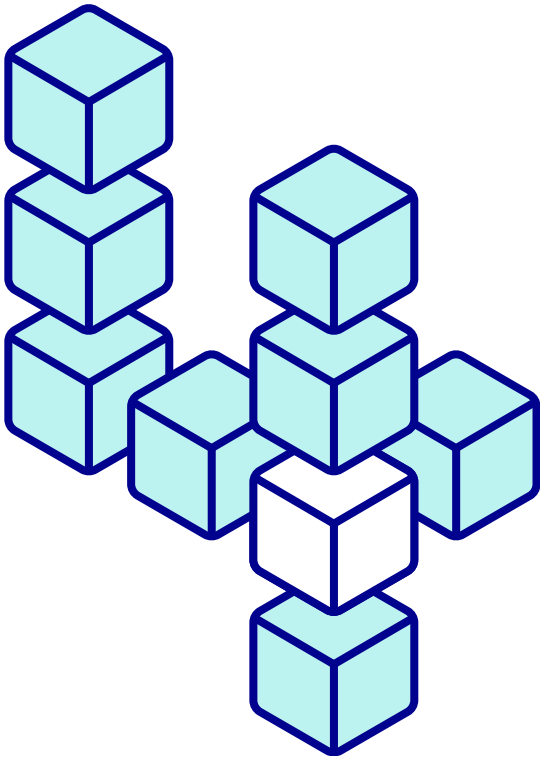
Each year, half of the remaining TTC tokens in the Reward Pool are distributed to users. The number of TTC tokens distributed are divided equally, such that the number of tokens distributed on any given day are the same as any other day in the same fiscal year. The ratio of TTC tokens distributed among DAPPs is determined according to the value that each DAPP provides to the TTC Ecosystem, as calculated by the TTC Foundation.

A user may acquire TTC token rewards from different DAPPs in the TTC Ecosystem. This acts as an effective incentive for users to use more DAPPs.

In the case of scams, artificial manipulation, or other means of creating inaccurate value, the TTC Foundation can take active measures such as suspending token distribution, or even suspending the DAPP’s services from the network.

04

TTC Blockchain Solution



The TTC Blockchain Solution (“TTC Solution”) is built to be easily integrated into a variety of applications. By adopting the TTC Solution, developers will have access to the TTC User System, TTC Reward Engine, TTC Advertising Network, and the TTC Open Platform for use in developing DAPPs.

TTC
User System

All DAPPs on the TTC Ecosystem are accessible through a single user account and wallet. This means that a user can log into any DAPP with one account and can receive all TTC Rewards from various DAPPs in one wallet.

Such a unified user system creates synergy between DAPPs and increases the potential advertising value of each user. As a user's value increases, ads commensurately increase in value and the portion of tokens a user receives from advertising also increases. This creates a feedback loop that makes both the user and the TTC Ecosystem more and more valuable as it grows.

TTC
Reward Engine

Reward TTC tokens for a DAPP are distributed to users who contribute to the platform on a daily basis. Rewards are reserved for two types of contributions: (i) Content Rewards for users who create and consume original media, and (ii) Reputation Rewards for users who achieve and consistently maintain good standing among other users.

Figure 2 demonstrates the value chain of user behaviors and incentives. Please refer to the whitepaper on the TTC protocol for further details about the TTC Reward Engine.

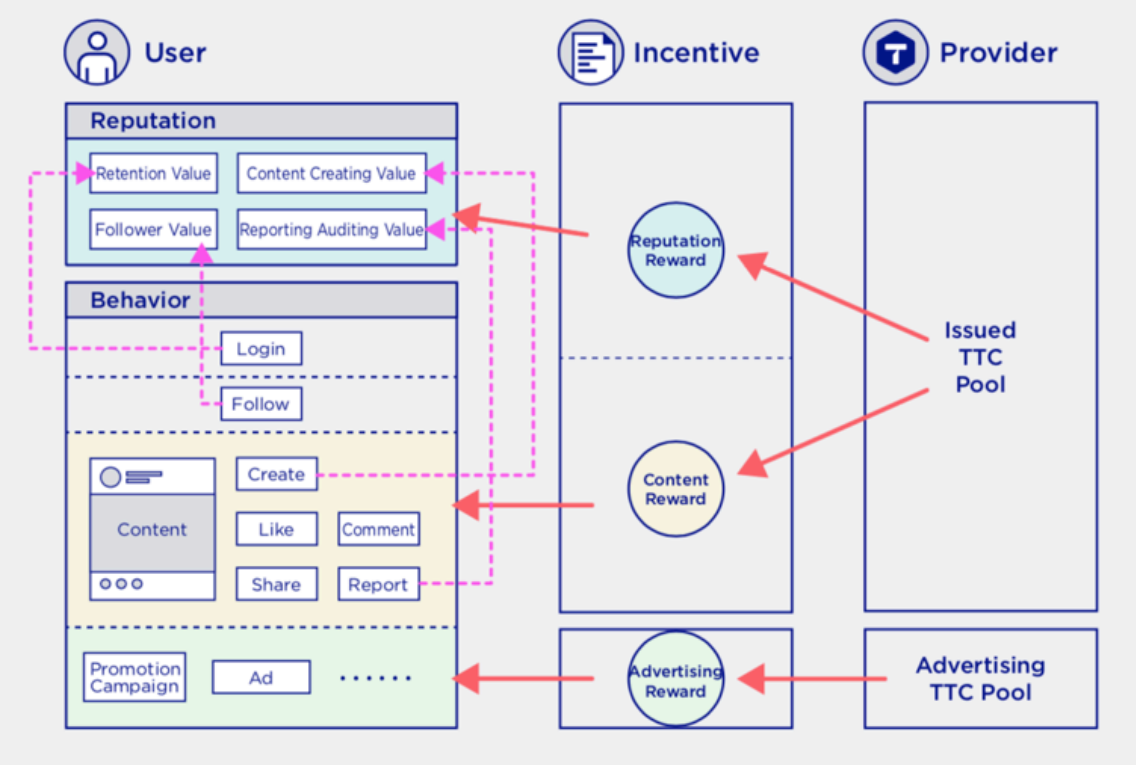


Fig 2. The value chain of user behaviors and incentives

Content Rewards

Content Rewards are short-term rewards for users who create a piece of content and interact with it (e.g., with it liking, commenting, sharing and reporting). It is distributed according to the calculated value of a relevant piece of content. The proportion of reward apportioned to the creator and curators of said content is predetermined.

There are three configurations that developers can adjust when distributing Content Rewards:

1. The weights of each interaction to a piece of content, namely likes, comments, shares and reports
2. The proportion of reward distribution between content creator and curators
3. The distribution of reward among curators can be set to follow different patterns, such as decrease in sequence after each interaction, or divide equally in a given period

Reputation Rewards

The reputation reward is a long-term reward measured and rewarded according to a user's loyalty, the quality of their content, the number of their followers, as well as their participation in auditing reported content.

The weights of the components that make up a user's reputation value can be adjusted by developers accordingly. For example, adjustments to retention value, the value of content created, follower value and auditing & reporting

value will result in a reputation value that more accurately reflects the value of the user on a specific platform.

Customizing the Reward Engine

The default proportions of Content Rewards and Reputation Rewards is 50/50, with shares of rewards divided equally. Developers can adjust this proportion as necessary.

There is a full API of the TTC Reward Engine for developers to adjust the configuration according to the specific needs of any given platform that utilizes the TTC blockchain solution. Figure 3 demonstrates the TTC Reward Engine distribution.

TTC Reward Engine Configuration

Rewarding pool distribution

Proportion of content reward	50%
Proportion of reputation reward	50%

Content reward distribution

Weight of interactions

• Weight of liking	1
• Weight of commenting	1.5
• Weight of sharing	1.2
• Weight of reporting	-2

Distribution between content creator and curator

• Proportion of content creator	61.8%
• Proportion of content curator	38.2%

Curator distribution pattern

- (•) decrease in sequence
- ( ) equal division

Reputation reward distribution

Weight of retention value	20%
Weight of value of content created	30%
Weight of follower value	30%
Weight of auditing & reporting value	20%

Fig 3. TTC Reward Engine configuration

TTC Advertisement Network

All DAPPs in the TTC Ecosystem share one advertising network. This allows advertisers to reach a larger audience and to set specific target user groups across different DAPPs. Users experience more relevant advertisements and advertisers can run ads more effectively, bringing greater benefits to all parties.

Advertisements are configurable as individual display ads, promotional campaigns, customer surveys, and more. DAPPs will be able to adjust their deployment strategies using analytics that track the effects of ads.

TTC
Open Platform

There is a complete API available to developers for integrating into the TTC Ecosystem that includes airdrops, user migration, data updating, statistics, and analysis.

The TTC Open Platform will also utilize a hybrid transaction solution in order to provide a smooth and consistent experience to adopters. The transaction solution will consist of the following attributes.

1. The core transactions of TTC tokens and user wallets will be settled on the Ethereum blockchain
2. A side-chain will be deployed for TTC token distribution and general service, including the reward engine, advertising network, and user system, as well as general ecosystem building, tech support and so forth
3. Exclusive service in DAPPs will be off-chain

Figure 4 depicts how the hybrid transaction solution works. Eventually, the TTC Ecosystem will evolve into a fully on-chain service, in order to achieve transmission efficiency.

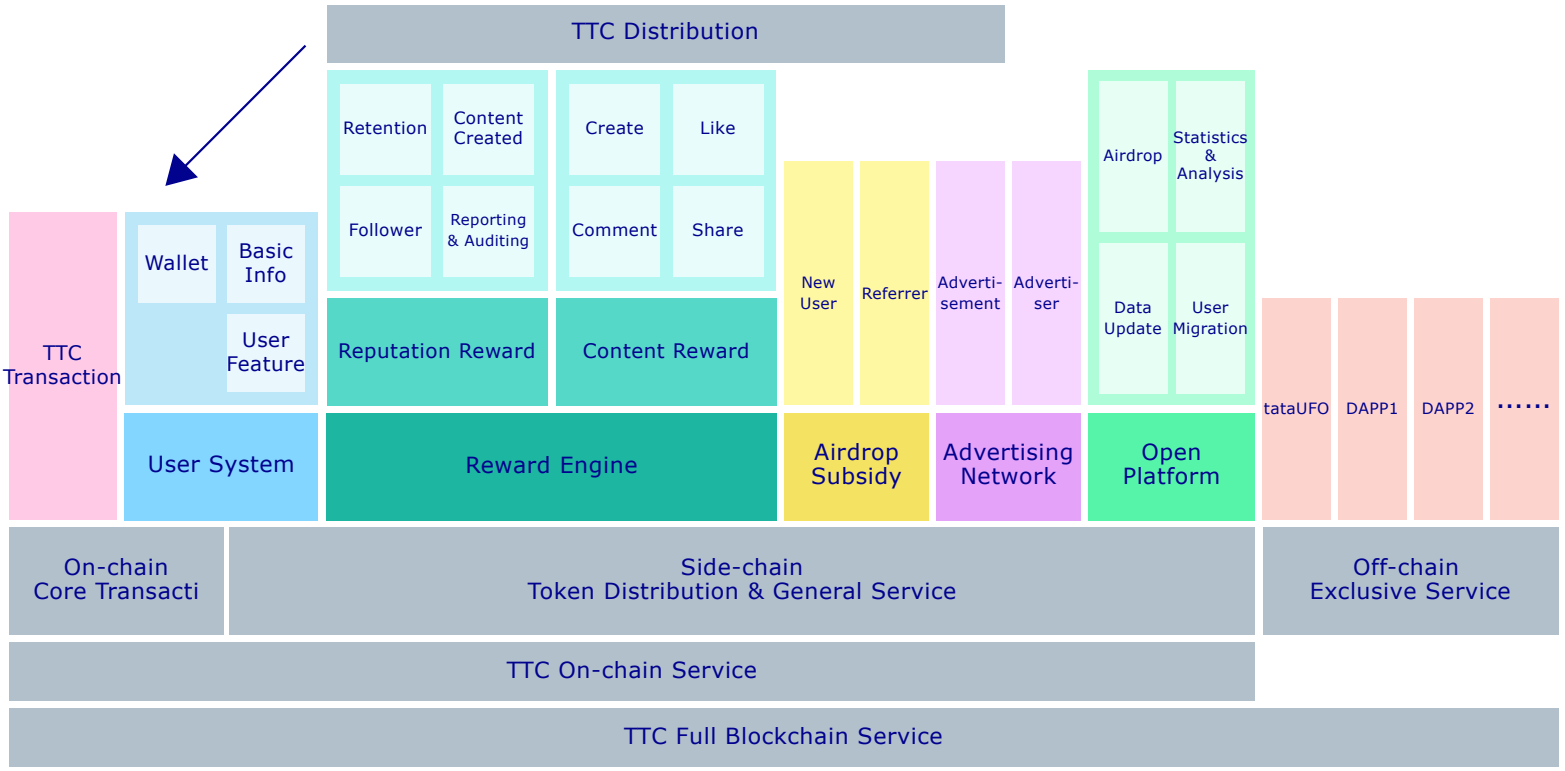


Fig 4. The TTC Open Platform’s hybrid transaction solution

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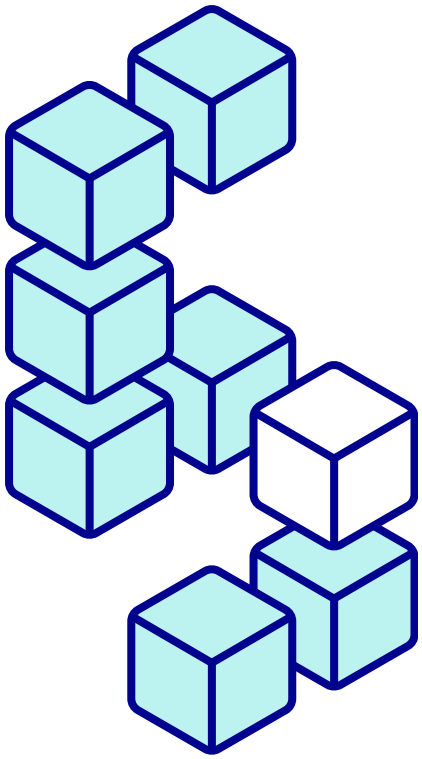
Examples of DAPP



An Original Video Community

One example of a platform that can take advantage of the TTC Protocol is a video community. Members of the video community Replay like to show off high-quality videos they've created and share them within the community. The Replay platform just launched and needs more active users. The developer applies to the TTC Foundation for admittance to the ecosystem and passes the assessment.

The TTC Reward Engine configuration is set as follows:

1. The proportion of Content Reward to Reputation Reward is set at 60/40, with 60% of rewards given to content creators. The developer wants to encourage existing and new users to create more high-quality videos in a short time.
2. The weights of likes, comments and shares are set to 1:1:2 in order to heavily favor shares. The developer wants to expand the user base and build brand awareness outside the community.
3. The proportion of rewards given to video creators and curators is left at the default setting. The distribution among curators decreases in sequence with each subsequent interaction.

4. The Reputation Reward configuration is also left at the default setting.

The developer also applied for the Airdrop Subsidy and conducted an airdrop campaign via the API. A number of users from a competitor community joined upon hearing they could earn rewards from the platform directly. Among this group were two or three high profile creators, and the campaign drew attention from the public.

The additional press helped Replay capture a number of new original video creators who joined the platform. Some of these creators became the core active members, even helping to evangelize the Replay platform on other social networks.

After Replay's core user group and community style has been established, the core members of the platform continue to make reliable contributions, piquing advertiser interest in the platform. Advertisers begin to use the TTC Advertising Network to reach young audiences on Replay. Replay earns more revenue from increasing interest from advertisers and cements itself as a leading video community.

A Media Outlet

Another example of a platform that can take advantage of the TTC blockchain solution is a PGC (Professional Generated Content) media community. In this case, an established media outlet called Homemaker created a digital platform for its active community interested in home improvement, interior design, and DIY remodeling. members primarily use the platform to obtain information. The platform has been in operation for a while, but even though there's a core group of users, they visit infrequently, and the platform needs to drive increased user activity.

The reward engine configuration is set as follows:

1. The proportion of Content Reward and Reputation Reward is set at 70/30. The developer wants to encourage users to interact with the content more in a short period of time.
2. The weights of likes, comments, and shares are set to 1:3:2. The developer wants to prioritize commenting because it provides additional value to users and improves the likelihood and frequency of user activity.
3. The Content Reward is distributed entirely to the curators. Distribution among curators follow a pattern of equal division.

4. The Reputation Reward is calculated based on retention value and auditing & reporting value. The proportion is set to 50/50.

User activity increases quickly after only a short period of operation online. There are more high-quality comments on the platform, which improves the health of the community healthy and makes the user base more active.

The most active users on the platform were able to earn larger rewards for commenting. By sharing their knowledge and answering questions within the community, the developer noticed that even on days when the outlet did not publish any new material, users were still active on the platform.

Because these users were rewarded for their continued contributions, over time, the platform gained a reputation for having valuable comments and highly knowledgeable community members. Others interested in specific questions about homemaking began to use the platform's search feature and ask questions directly to users with high reputations instead of searching via other search engines.

As a result, advertisers in the construction and interior design industries began to use the TTC Advertising Network to directly target community members. The platform is able to earn more revenue from this sudden influx of advertisement and the platform grows into the leading publication in its field.

Summary

As the premier decentralized and token-incentivized social networking protocol for the next generation, the TTC Protocol provides an end-to-end solution for developers who want to join the blockchain community quickly, easily, and reliably. This protocol uses cryptocurrency token incentives to provide a more rewarding and dynamic experience for social network users.

The TTC Ecosystem provides a number of advantages, including the TTC's airdrop subsidy for gaining new users and TTC's daily pool of issued tokens for use in rewarding users, all while ensuring it is easy for developers to build a DAPP on the TTC Open Platform.

In summary, the TTC Protocol provides developers with easy access to the benefits of blockchain technology and a robust ecosystem that improves the user experience of participants in social networks around the world.