GIANT

White Paper V 1.2

Giant

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Giant White Paper

Giant Design Goals: Smart Bets

Giant is the use of blockchain technology and smart contracts for digital assets to be self-managed, to achieve "smart bets" with a distributed network.

Digital Assets

Digital assets are programmable assets that exist in the form of electronic data. With blockchain technology, the digitization of assets can be decentralized, trustful, traceable, highly transparent, and free of intermediaries. On the Giant blockchain, users are able to register, trade, and circulate single type of assets - Giant Coin.

Giant has two forms of digital assets: global assets and contract assets. Global assets can be recorded in the system space and can be identified by all smart contracts and clients. Contract assets are recorded in the private storage area of the smart contract and require a compatible client to recognize them. Contract assets can adhere to certain standards in order to achieve compatibility with most clients.

Giant Coin Specification

- Name: Giant
- Ticker: GIC
- Type: PoS + MASTERNODE
- Premine: 200,000 GIC
- Collateral: 1,000 GIC
- Maturity: 200
- Max Coin Supply: 1,323,000 PoW Phase + Infinite PoS Phase
- Block Time: 120 seconds
- Difficulty Retarget: DGW v3.0 Every block
- P2P Port: 40444
- RPC Port: 41444

Application and Ecosystem

Ecosystem is vital for the open source community. In order to achieve the goal of an intelligent economic network, Giant will be committed to the development of its ecosystem, providing mature development kits, improving the quality of project documents. We plan to support the following Giant-based applications and ecology and to reward improvements to the design of the experience:

- Node Program
  - A fully functioning Full node PC program
  - Web / Android / iOS clients that do not need to synchronize with the blockchain
- Giant Network site
- Blockchain Explorer
- Giant Contracts
  - giantjs
  - GiantConnect
  - GiantSigner
- Decentralized Applications
  - Giant.Exchange
  - Giant.Bet
  - Giant.ColdStake

Giant Management Model

Economic Model

Giant has a single native token, Giant Coin (abbreviated symbol GIC).

GIC coins emission is unlimited, but the reward for a block is regulated depending on the block height. At the beginning, the emission curve is designed for the rapid growth of the network, while further, the number of issued coins will decrease. The decrease will occur both due to the reduction of the fee for a block, and due to burning of the transaction fees. Burning of the transaction fees is an important element of the Giant network, since the fee is required to create a transaction and to execute the smart contract. Burning of the fees in the Giant network provides a long-term effect by increasing the value of GIC and by eliminating the problem of transaction spam. The emission of Giant is divided into two phases:

1. the PoW phase (8 May 2018 - 20 August 2018)
2. the PoS phase (all subsequent time)

A key element of the Giant economy is Giant masternodes. Masternode is a full node of the Giant network and it is associated with a frozen collateral of GIC on the account of the masternode owner. By helping to scale and to validate the Giant network, the owner of the masternode receives the following options:

- Payment of 80% of rewards from a block

- Ability to create smart contracts in the Giant network

- Opportunity to participate in Giant technology-backed projects revenue

- Opportunity to participate in determining of the future of the Giant network through voting, where 1 vote equals 1 masternode

Masternode Rewards

The Masternode Reward depends on the phase and number of enabled Masternodes in the network. In general, payments for a standard day for running a Masternode can be calculated by using the following formula:

$$(n/t)* r*b*a$$

Where:

n is the number of Masternodes an operator controls

t is the total number of Masternodes

r is the current block reward

b is blocks in an average day. For the Giant network this usually is 720.

a is the average Masternode payment (80% of the average block amount)

Return on investment for running a Masternode can be calculated as $(n/t)* r*b*a$ where variables are the same as above.

Timeline	Block	Reward Distribution (Miner + Masternode)	Coin Emission	Total Supply	Inflation Rate
Premine	2 — 500	0 GIC	200,000	200,000	
08.05.2018 - 04.06.2018	501 — 20000	2 GIC + 8 GIC	194,990	394,990	49.37%
04.06.2018 - 01.07.2018	20001 — 40000	3 GIC + 12 GIC	299,985	694,975	43.16%
01.07.2018 - 20.08.2018	40001 — 71400	4 GIC + 16 GIC	628,000	1,322,975	47.47%
PoS	Block	(Staker + Masternode)	Coin Emission	Total Supply	Inflation Rate
20.08.2018 - 07.05.2019	71401 — 262800	(4 GIC + 16 GIC)	3,827,980.00	5,150,955.00	74.32%
07.05.2019 - 07.05.2020	262801 — 525600	(2 GIC + 8 GIC)	2,627,990.00	7,778,945.00	33.78%
08.05.2020 - 07.05.2021	525601 — 788400	(1,6 GIC + 6,4 GIC)	2,102,392.00	9,881,337.00	21.28%
08.05.2021 - 07.05.2022	788401 — 1051200	(1,2 GIC + 4,8 GIC)	1,576,794.00	11,458,131.00	13.76%
08.05.2022 - 07.05.2023	1051201 — 1314000	(0,8 GIC + 3,2 GIC)	1,051,196.00	12,509,327.00	8.40%
08.05.2023 - ∞	1314001 — INFINITE	(0,4 GIC + 1,6 GIC)			

As you can see, the GIC supply is designed for the fast accumulation of Masternodes in the Network during the first years. By that we can ensure the speed of transactions once the Giant based projects start.

Premine Distribution

200,000 GIC Premine is reserved for the following purposes:

- 6000 GIC - to create the first 6 masternodes that stabilize the Giant network

- 44000 GIC - to have bounty programs and airdrops

- 50000 GIC - marketing budget for the promotion of the Giant network and Giant-based applications (Giant.Exchange, etc)

- 100000 GIC - motivation of developers for the development of the Giant network and its ecosystem

Note that the pre-mined coins are excluded from the process of staking after the Proof-of-Stake phase begins.

Governance Mechanism

The Giant decentralized and self-financing governance system empowers the community to steer the direction of Giant. This system will allow someone to make a management proposal using the application giantpay.network. Proposals are voted on by masternodes to direct the future of the currency and projects. Initially the Giant block reward allocates 0% into a community-governed Treasury Fund. In the future, after the implementation of the planned for 2018, the community will decide what percentage of the reward block will go to the Treasury Fund. This fund will be fully open to audit by the public, providing assurance of the fund's intended use.

The Giant community will be able to determine if a certain course of action is feasible by using the mechanism of proposals. The budget allocation will only be conducted after a two-step vote. The first stage will be held on our Discord server. The second stage - a masternode owners vote - will be opened if the proposal passes the Discord vote. This means that all users will be able to have a say in a sensitive question of budget allocating, including the masternode dividends. The masternode owners can be compared to the board of shareholders.

Smart Contracts

Blockchain technology provides us with a decentralized, tamper-resistant, highly reliable system in which smart contracts are very useful. Giant has an independent smart contract system: GiantContract.

The GiantContract smart contract system is the biggest feature of the seamless integration of the existing developer ecosystem. Developers do not need to learn a new programming language but use Javascript (Java and C # in the future) in their familiar IDE environments for smart contract development, debugging and compilation. Giant's Universal Lightweight Virtual Machine, GiantVM, has the advantages of high certainty, high concurrency, and high scalability. The GiantContract smart contract system will allow millions of developers around the world to quickly carry out the development of smart contracts. GiantContract will have a separate white paper describing the implementation details.

Giant smart contract system consists of two parts.

GiantVM - Universal Block Chain Virtual Machine

GiantVM is a lightweight, general-purpose virtual machine. Its architecture is based on the Javascript V8 engine that reads and executes instructions in the contract in sequence, controls the process based on the functionality of the instruction operations, logic operations and so on. It has a good start-up speed and versatility, is very suitable for programs such as smart contracts, can also be ported to non-blockchain systems, or integrated with the IDE to provide an optimal development experience.

Software Development Kit - Compiler and IDE plugin

DevPack includes the high-level language compiler and the IDE plug-in. Because GiantVM's architecture is based on Javascript engine, the compilers in DevPack can compile Javascript code into GiantVM's instruction set. Developers do not need to learn new languages and will be able to immediately start developing smart contracts in any Javascript IDE. This greatly reduces the learning curve for developing smart contracts, allowing us to easily build a vibrant community around GiantContract.

The first implementation of the API for smart contracts will focus on the issues of implementing smart bets, but in the future, smart contracts in the Giant network will become increasingly universal.

The Decentralized Binary Options Giant.Exchange

Decentralization, transparency and other good features of the Giant project will be demonstrated in the first Giant decentralized application — Giant.Exchange.

Centralized binary option companies have been known to scam investors by manipulating the price feed in their favor, hold their funds and suspend accounts when payout is to be proceeded.

Traders are being robbed by fraudsters. They may win the trade or two but still lose their money.

Giant.Exchange founders aim to build an independent and decentralized platform for the binary options industry based on the Giant blockchain. Traders on the Giant.Exchange receive:

- P2P trades - Traders bet against Brokers (the same traders who create a smart bet contract), Giant.Exchange does not receive a share of profit as traditional platforms do.

- Guaranteed Payout - payments are made by the smart contract directly to traders' GIC address. No one can block withdrawals.

- 100% Transparency and Provably Fair by getting assets price on blockchain. Therefore cheating by price feed manipulation is impossible.

- Independent suppliers of the verified information - Oracles will provide the data on price motion and market dynamics by creating their own smart contracts which link the API of crypto exchanges with the binary options platform Giant.Exchange.

We create a 100% on-chain system, as we believe the foundations of the Giant blockchain are solid and can support a high user-friendly Dapp.

We do not bet against traders but provide a large catalog of assets and create marketplace by letting bankrollers (masternode owners) create varied asset contracts by themselves on our platform, e.g. 1 minute BTC/USD, 5 minutes BTC/ETH etc.

Giant.Exchange has a separate White Paper that describes its features and technological aspects.

Acknowledgments

       This project would not be possible without the previous work of the Bitcoin and Dash development teams. We appreciate their efforts greatly. We are excited to belong to an open source community and appreciate the opportunity to contribute to this growing technological field.

Legal

Cryptocurrency investments are inherently high risk. Before using any cryptocurrency, it is important to consider the nature, complexity and risk. Do not invest more than you can afford to lose. It is important not to use coins with taking into account the possible loss, since the type of change in these currencies is highly volatile and the Giant team is unable to regulate market-defined prices. We strongly suggest seeking advice from your own financial, investment, tax, or legal adviser. The Giant Development Team will always act in good faith and is not liable for the use of Giant by other community members, people or institutions.

Summary

Giant is a distributed network that combines digital assets, smart contracts and masternodes. The Giant system will use many original technologies, as the infrastructure for the products which may benefit from the user-generated Smart Bets and transparency.

To make this all possible, the digital currency called Giant Coin (GIC) is used for all Giant in-blockchain operations. GIC as a single mean of payment of Giant based projects is capable of becoming mass used among users of Giant based projects and investors running Masternodes.

References

1. Bitcoin: A Peer-to-Peer Electronic Cash System: https://bitcoin.org/bitcoin.pdf

2. Dash White Paper:
   https://dashpay.atlassian.net/wiki/spaces/DOC/pages/5472261/Whitepaper