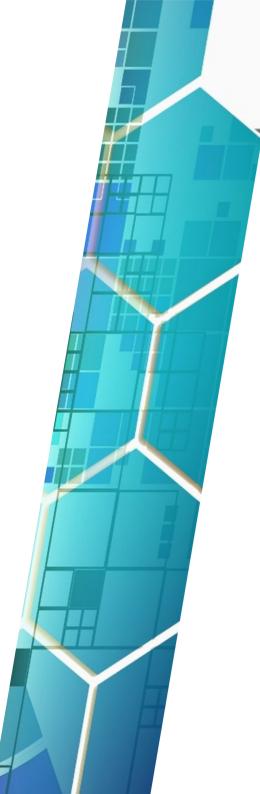


## BigTangle

Inasset GmbH domiciled in Niddatal, Germany, intends to conduct a private and a public fundraiser for the BigTangle platform and the creation of a global market and a global ecosystem with maximum efficiency as further described the following and the BigTangle whitepaper available on:

https://bigtangle.net/bigtangle.pdf



## BigTangle: Intrinsic Value

Everybody loves security, trustlessness and decentralization in payment systems.

The cryptocurrency community has worked very hard on blockchain technologies in the past 10 years. However, it turns out that conventional blockchains cannot adequately solve current real world problems:

As a payment system, we expect that the solution must be equal to or better than Paypal, Visa and Alipay in terms of scalability and cost-performance.

As a decentralized market and exchanges, we expect the solution to be equal to or better than NASDAQ, the NY Exchange or Binance in terms of scalability and confirmation speed.

As a decentralized supply chain management system, we expect that the solution is usable on a global scale.

As a decentralized E-Commerce solution, we expect that the solution must be equal to or better than Amazon and Alibaba by eliminating fees and centralization overhead.

Only a solution with a parallelizable architecture and an implementation based on Big Data technology can achieve all of the aforementioned properties at the same time. Without sufficient scalability and cost-performance, a cryptocurrency network cannot achieve ubiquity and become standard.

This is where BigTangle comes into play.



BigTangle is a cryptocurrency network extending directed acyclic graph architectures with Markov Chain Monte Carlo (MCMC) as a consensus algorithm and distributed Proof-of-Work.

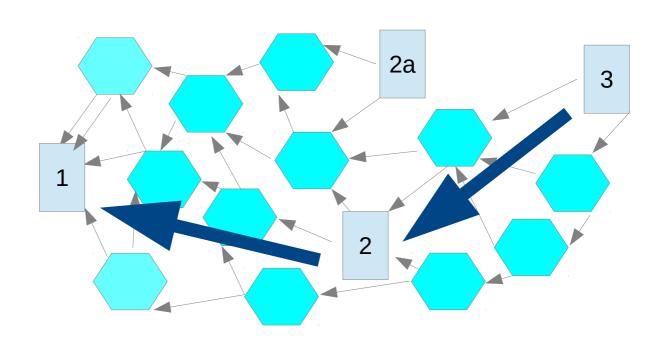
Through the use of industry standard big data technology in conjunction with the parallelizable architecture, BigTangle is a successor to conventional blockchains in the sense that it generalizes existing blockchain and smart contract architectures and makes them usable on a global scale.

Because of this and the unique design simplified pictured below, BigTangle has the potential to exist as the only platform of its kind comparable to the Internet.

BigTangle focuses on economically important key use cases. Custom token issuances, market exchanges, mining and smart contracts are supported.

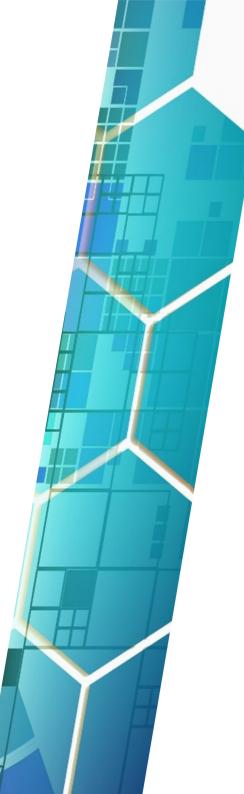
To fully understand the BigTangle, it is worth it to read the whitepaper and referenced papers for technical details and mathematical proof. In simple terms, BigTangle is very similar to family trees with MCMC as natural selection process. The application is build on microservices and is very easy for use. You can test the application and inspect the source code.

# Maximum security, decentralization, scalability by integration into a genealogical tree



Block with Transactions. Transactions are usually independent except for double spends. The MCMC consensus algorithm performs the selection process to solve conflicts.

Mining Reward Blocks are blocks with coinbase transactions only. Mining reward block must be in a chain over the Tangle. In the example above, blocks 1, 2 and 3 are such a chain. Let blocks 2 and 2a be in conflict. The MCMC consensus algorithm will solve this conflict by (in this case) having selected block 2 due to higher rating.



### BigTangle: A scalable revolution of blockchains

### **Key Features:**

Ease of Use, Completely Feeless, Real-Time Transaction Confirmation, Infinite Scalability, Smart Contracts, Permissionless, Trustless, Decentralized App, Distributed Proof of Work and Quantum Security.

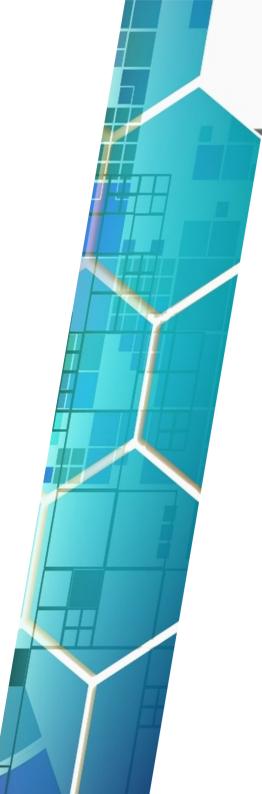
### **Power Consumption:**

BigTangle is inherently a client and server architecture. There is no need for Pools, since the PoW-Mining is of low variance (almost all of the blocks are rewarded) and significantly reduces the need for pooling, while conventional blockchains exhibit a winner-takes-it-all reward scheme. The BigTangle requires the same power consumption as Bitcoin as any systems based on PoW.

However, comparing the transactions per seconds (TPS), e.g. 10 TPS in Bitcoin or 200 TPS in Ethereum, BigTangle with 10 server nodes in our clusters can achieve 1 Million TPS with the same power consumption. Big Data and blockchain parallelization are the only solution to get significant TPS at affordable costs.

Keep in mind that replacing other technical processes with the BigTangle network will also reduce total power consumption.

#### **BigTangle: The Market for All Transaction Services** All figures are shown as of latest available data on September 2018 <sup>1</sup> All Money = money in any form including bank or other $AII^1$ deposits as well as notes and coins Money <sup>2</sup> Physical Money = money in forms that can be used as \$86,5T Physical<sup>2</sup> a medium of exchange, generally notes, coins, and Money \$34,4T certain balances held by Banks USD in Circulation \$1,5T Amazon Jeff Bill \$970B Gates Bezos \$112B \$90B Bitcoin ΑII \$112B Crypto-**Apple** Currencies \$1T \$202B Gold Market Cap Stock \$7,8T Markets \$67,5T



## BigTangle: Intranet and KYC

The BigTangle software can be deployed in private or other trusted environments, allowing one to run private, owned BigTangle networks with different rule sets.

These BigTangle networks are arranged in a hierarchy, i.e. they possess a parent Tangle such as the Mainnet between which a transfer of values is facilitated. For this purpose, each new Tangle has its own interface accounts (addresses) possessed by the private intranet operator from which it is possible to transfer funds into the parent Tangle and vice versa.

A user interested in transferring funds from the parent Tangle into one of its registered child Tangles can transfer tokens to one of the child Tangle's interface accounts, at which point they are either accepted into the child Tangle or returned by the trusted intranet owner.

Inside of such intranets, consensus protocol, transparency, permissiveness and other rules are set by the trusted intranet owner. Transfers of value can be performed internally as it is pleased. For example, in a work agency intranet it would be possible for clients to pay values to work forces in private and in arbitration of the owning work agency.

In general, enterprises and governments can deploy the software internally and e.g. do KYC (Know Your Customer) as well as privacy protection while remaining compatible with BigTangle's Mainnet.

This allows BigTangle to offer a holistic and flexible approach to value management, enabling privacy, transparency and accountability wherever needed by banks, stock exchanges or enterprises.



## BigTangle Ecosystem: Gold Digital Currency

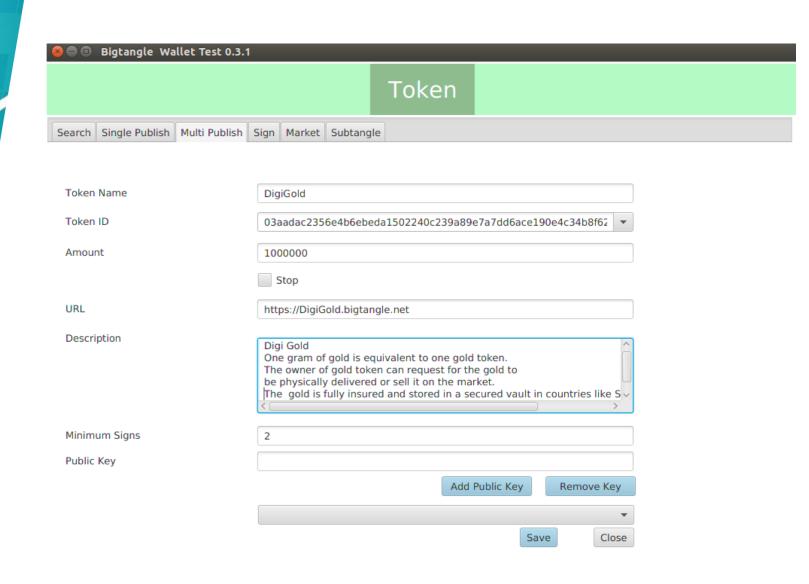
BigTangle is "THE" technology to build market and exchange applications for value objects and their transferral. The key for BigTangle's success is to establish an economic system.

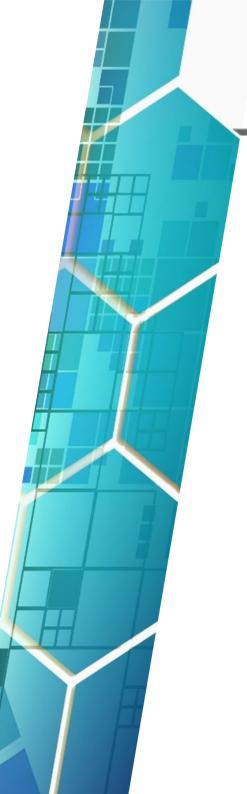
BigTangle is the best platform to build e.g. a gold-backed token. More and more investors are now interested in gold based tokens, which is further encouraging countries around the world to issue their very own gold-backed cryptocurrencies. For instance, one gram of gold is equivalent to one gold token.

The owner of gold token can request for the gold to be physically delivered or sell it on the market. The gold is fully insured and stored in a secured vault in countries like Swiss or Singapore. The BigTangle platform enables the gold token as base payment unit.

The token issuance protocol in BigTangle can be used to issue gold-backed tokens. Users must trust the backer of the token, but exchange transactions can then feasibly be processed trustlessly within seconds on a global scale.

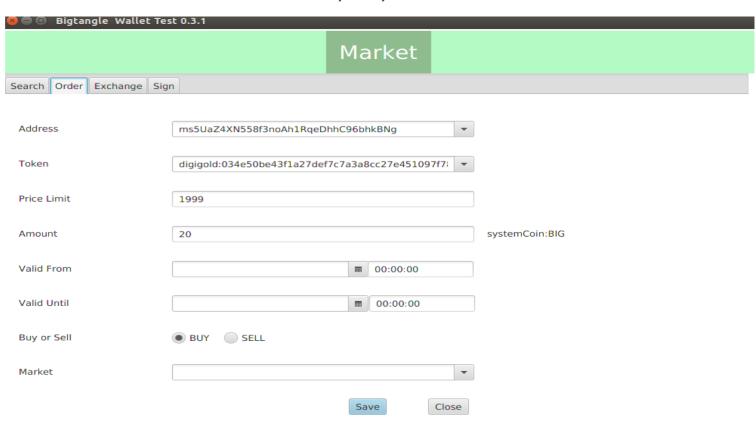
## BigTangle Economic System: Gold Digital Currency (one exampel)

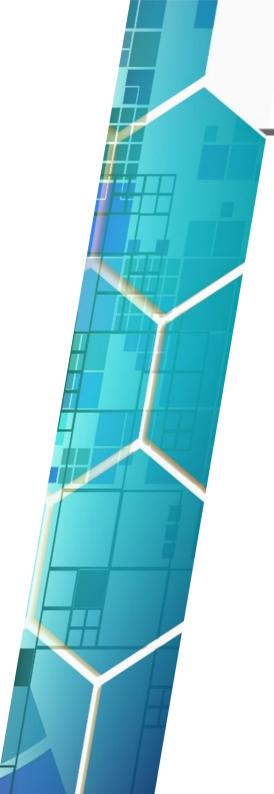




## BigTangle: Market and Exchange

BigTangle has a built-in decentralized OTC market and exchange. All tokens can be traded with low latency and high scalability without any fees. The gold-backed tokens can be traded and booked very easy.



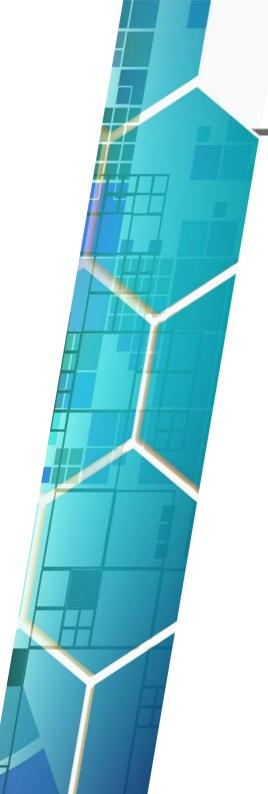


## BigTangle: Economics

BigTangle is "THE" technology to build market and exchange applications for value objects and their transferral. Analogous to the Internet, eventually there will only be one such public internet-of-value.

Using BigTangle, we can not only use a public internet-of-value, but also run Intranets in permissioned environments. After establishing a market economy, the BIG tokens shall be the singular payment method for all services and achieve a market capital of perhaps billions to trillions of USDs.

An investment return cannot be projected into the future. For the famous Bitcoin history, refer to e.g. https://en.wikipedia.org/wiki/History\_of\_bitcoin This historical return on investment shows that the early Bitcoin investor invested 30 USD in 2011 and got 1 million USD in 2018.



## BigTangle: Economics

Name of token: Total initial offering: Hard Cap:

Pre ICO: Issue value: Issue period:

Token Supply per 1 USD: Accepted currencies:

ICO: Issue value: Issue period:

Token Supply per 1 USD: Settlement platform: Accepted currencies: Token supply per 0.2 ETH (1 ETH = 225 USD): Token Emission for rewards p.a.:

KYC, No Whitelist

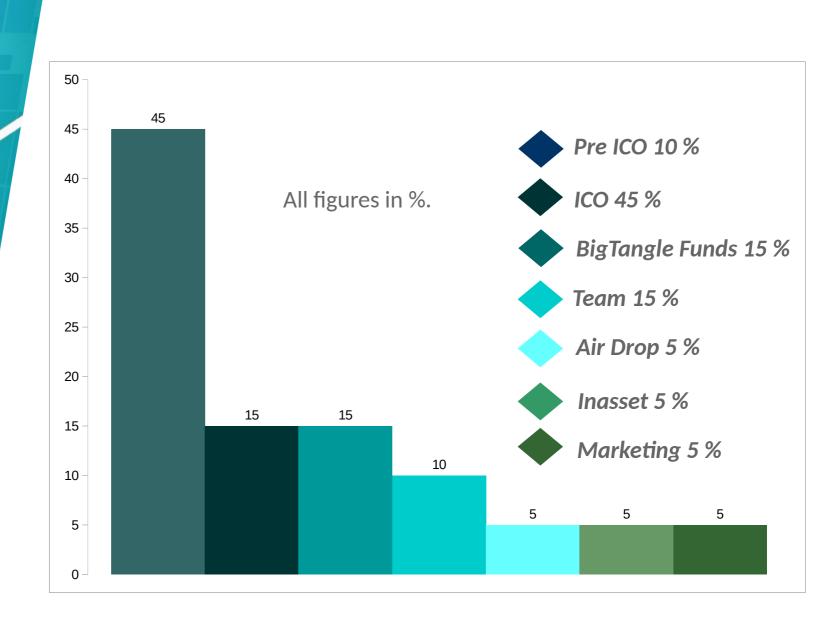
BIG 1 trillion BIG (100 %) 40 million USD

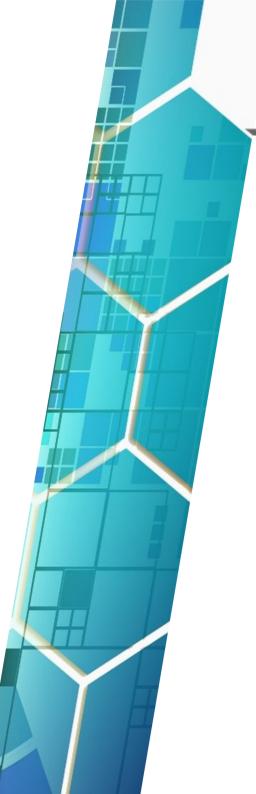
100 billion BIG (10 %) 4 million USD (net 3m \$) 01.10.18 until closing (latest 31.10.18) 25,000 BIG EUR, CNY, USD, ETH and BT

450 billion BIG (45 %) 18 million USD 01.11.18 - 31.12.18 (earlier closing is possible) 25,000 BIG Ethereum ERC20 ETH

1 million BIG 20 billion BIG







## Comparison with other cryptocurrencies

BigTangle is a successor to Bitcoin and Ethereum with blockchains as a platform.

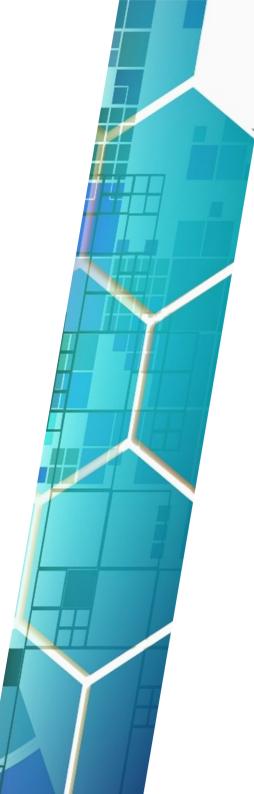
BigTangle inherits all functionalities provided by Bitcoin and Ethereum. That are the special cases of BigTangle. The multidimensional BigTangle can be reduced to a blockchain by disallowing multiple block predecessors. The implementation of BigTangle shares a common base with Bitcoin, UTXOs, Script stack language and ECKeys.

The main problems of blockchains are low confirmation speed and scalability. The reason for this is the mixing of coinbase (mining rewards) and user transactions in one block, even though user transactions are highly parallelizable due to their independence from each other.

Indeed, the mining rewards must be a chain to allow for reward and difficulty adjustments as well as ensure a game-theoretically stable consensus. Here, classical blockchains use the simplest consensus algorithms: the longest blockchain wins and chains are mutually exclusive to each other.

Instead, BigTangle splits user transaction blocks from mining rewards and allows parallel conflict-free user transaction blocks to be unified in the consensus. To achieve this, BigTangle allows blocks to have two predecessors and uses the MCMC algorithm to rate and build new blocks, thereby establishing consensus without forcing parallel blockchains to be mutually exclusive.

BigTangle therefore generalizes existing blockchain and smart contract architectures and makes them usable on a global scale.



## Comparison with other cryptocurrencies

BigTangle is a successor to Bitcoin and Ethereum with blockchains in regards to scalability, finality and decentralization.

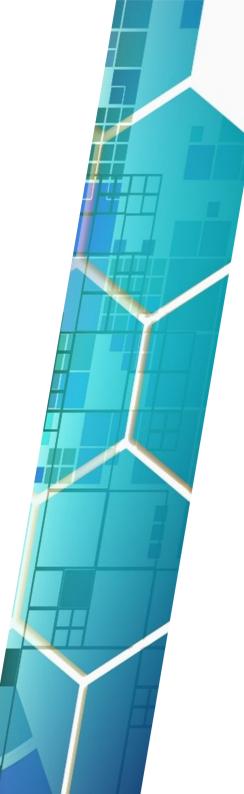
### Scalability:

- 1) BigTangle is a cryptocurrency network extending directed acyclic graph architectures with Markov Chain Monte Carlo (MCMC) as a consensus algorithm, that allows for blocks created in parallel to be unified later.
- 2) BigTangle is implemented with Big Data technologies: Kafka, Spark and Hbase.

In our cluster with 5 server nodes, more than 1 million transactions per seconds (TPS) can be achieved. Big Data and blockchain parallelization is the only solution to get significant TPS at affordable costs.

### Finality and Confirmation:

Assume that the network is synchronous, then BigTangle can achieve confirmation for finality in real time. MCMC ensures that when the network hash power has voted on a transaction, it will continue to stay in the consensus with extremely high probability. Bigtangle is a client and server architecture and enables the clients to make transactions and check balances on different servers.



## Comparison with other cryptocurrencies

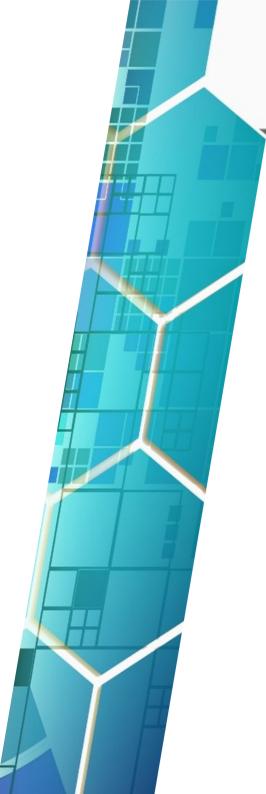
## BigTangle is a successor to Bitcoin and Ethereum with blockchains in regards to functionality.

BigTangle natively implements a protocol for self-issuing custom tokens. Users can issue custom tokens and use them on BigTangle to serve their needs.

BigTangle implements container technology for smart contracts written in many computer languages, e.g. Ethereum VM.

BigTangle realizes a variety of economically important key use-cases: Beyond the decentralization of payment processing, the network can be used as a base service layer for the decentralization of markets in general, transfer and ownership management, authenticity proofs for assets of any kind or supply chains and ownership management.

As a protocol for the internet of value, The BigTangle software can be deployed in private or other permissioned environments, allowing one to run private, owned BigTangle networks with different rule sets. BigTangle defines a protocol and interface for value transfers from private BigTangles to the public or other private BigTangles and vice versa.



## **Protection of Investment**

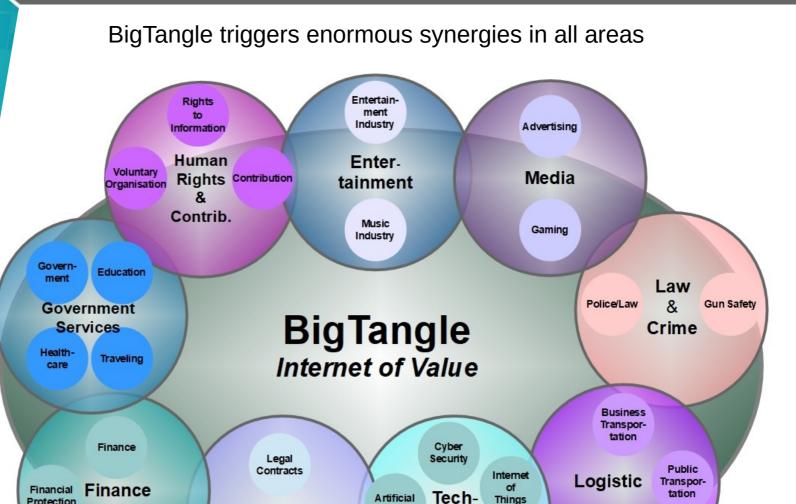
BigTangle's source code must be published openly on GitHub. However, the source code will be copyright protected. The BigTangle team is currently applying for patents for key technology components of BigTangle. This will ensure that the stakeholders of BIG Tokens will not see viable competitors before the building of an economy in BigTangle is finished.

In two years, it is expected that the source code will be open source and the patents will be removed. The copyright and patent can forbid any forks of the BigTangle system and thereby protect investments.

As per date September 2018, the software development of BigTangle is 80% finished. There is a running testnet with 2 clusters operating interconnected. The cluster with name bigtangle.org is operated in a cloud environment in China and bigtangle.de is operated in Germany. The team will operate MainNet nodes.

BigTangle is initially funded by Inasset GmbH in Germany and Yuanyun in China.

### BigTangle: Protocol for the Internet of Value



Contracts

Inheritance

**Property** 

Protection

Banking

Interface

Things

Power

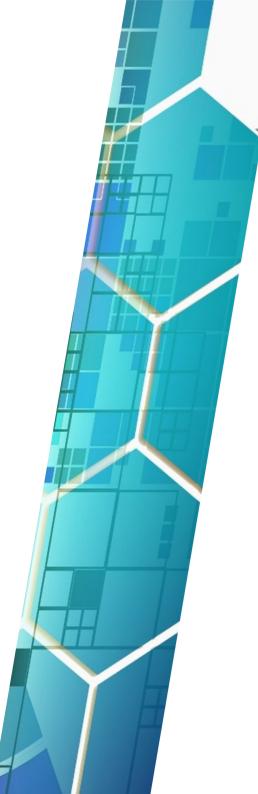
Management

Automotive

nology

Cloud

Storage



## Risks

### Supervision:

BigTangle has a unique technology able to work together with central banks. It enables the issuance of Fiat money by design. However, crypto-assets have been supervised by many national regulatory agencies. Thus, BIG may be forbidden to trade or hold in some countries.

### Building the market:

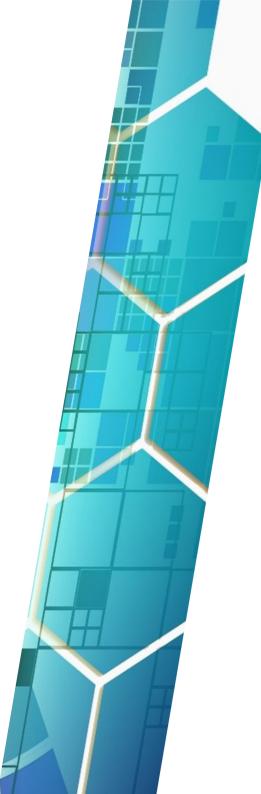
The key for BigTangle's success is to establish a market economy where users can transfer all kinds of values via a single public instance of the BigTangle network.

#### Other risks:

There are other general risks related to BigTangle: software weaknesses, vulnerabilities or bugs.

#### Please note:

This is the description of the functionalities and use cases of BigTangle the Internet of Value. It does not include the solicitation of any neither type of investment.



## **Application of funds**

Completion of the first applications	0,4m \$
Development and implementation planned applications	1,1m \$
Marketing	1,0m \$
Administrative costs	0,2m \$
Network extension	0,2m \$
Miscellaneous	0,1m \$
Total	3,0m \$

## Outstanding expertise in all specialist areas



Dr. Jianjun Cui

<u>CEO</u>

30 years in development

Big Data, Web Application,

Cloud Computing, Distributed

Database

+ Bitcoin Dr



Tao Jiang

<u>Core Developer</u>

10 years in Development

Web Applications

+ Bitcoin



Dr. Pu Zhou

Finance + Communikation



Frank Lu

<u>Business Analyst</u>

10 years in Development
Kershner Trading Group
Akuna Capital



Wolfgang Blumenthal

Marketing + Organisation

20 years Bank- and InsuranceMarketing, Venture Capital
Marketing, Project development of
sustainable environmental
technologies



Maximilian Hensel

<u>Core Developer</u>

3 years in Development
of Web Applications
+ Bitcoin

## Outstanding expertise in all specialist areas



Dr. Martin Drees

<u>Business Analyst</u>

30 years in Development of
Distributed Applications



Maximilian Lowin

<u>UI Developer</u>

3 years in Development of
Web and UI Applications



Yang Liu

<u>Core Developer</u>

10 years in Development

Web Applications + Blockchain



Kai Cui

Core Developer

3 years in Development
of Web Application
+ Bitcoin



Xiao Mi

Core Developer

20 years in Development

Web Application +

Cloud Computing

## Special experts on the advisory board



Prof. Dr.
Willi Freeden
University Kaiserslautern
Publication:
Cui-Freeden Statistics

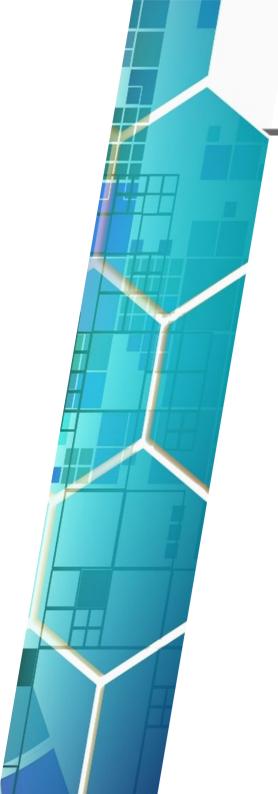


Dr. Mike Lee Cryptocurrency Expert Advisory Board of Fusion



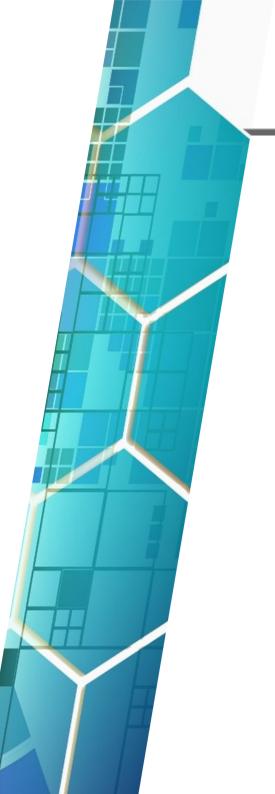
Max Zhang

10 years in Marketing
Tsinghua university tsinghua x-lab



### **Special thanks to Bitcoin contributors**

Aaron Voisine, Adam Mackler, Alexander Lolis, Alex Taylor, Alon Muroch, Amichai Rothman, Andreas Schildbach, andrewtoth, Bennett Hoffman, Carlos Lopez-Came, Carsten Otto, Chris, cyberzac, Dave Collins, dexX7, Diego Basc, elbandi, eleetas, En-Ran Zhou, Erik Tierney, Fireduck, freak, Gary Rowe, Giannis Dzegoutanis, Glenn Marien, GreenAddress, gubatron, Harald Hoyer, Jakob Stuber, Jameson Lopp, Jarl Fransson, Jim Burton, Jiri Peinlich, Johnathan, Jonny Heggheim, Justas Dobiliauskas, Kalpesh Parmar, Ken Sedgwick, Kevin Greene, Kirill Vlasov, Kosta Korenkov, kushti, langerhans, Loco, Manfred Karrer, Marc-André Tremblay, Martin Zachrison, matija.mazi@gmail.com, Matt Bogosian, Matt Corallo, Michael Bell, Michael Bumann, Mike Hearn, Mike Rosseel, Miron Cuperman, monk, Mora Zyx, mruddy, ollekullberg, Oscar Guindzberg, Pavol Rusnak, peacekeeper, Peter Dettman, Peter Stockli, Peter Todd, Piotr Włodarek, Richard Green, Robin Owens, Ross Nicoll, Sean Gilligan, Sebastian Ortega, Simon de la Rouviere, Simon Vermeersch, Stephen Reed, troggy, Tyler Houlihan, Willem Noort, Will Shackleton, Wojciech Langiewicz, Xiaofeng Guo, Ximo Guanter



## Roadmap, BigTangle started on May, 2017

Q3 2018

Start of internal testnet, Going public and building community, PRE-ICO: up to 10% BIG are prepared for initial investors

Late Q3 2018 Simulation tests: Running test agents for automated tests with large numbers of clients. frequent updates for test clients and server nodes Performance, load and attack tests, GraphX implementation

Q4 2018

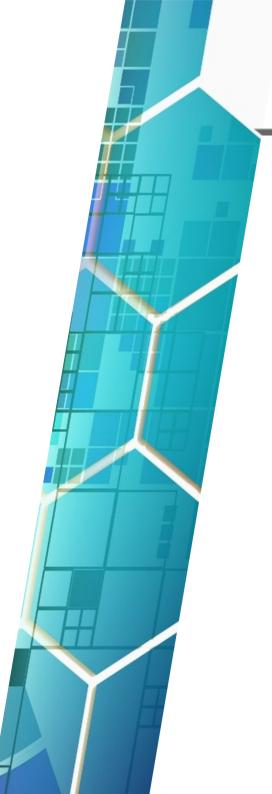
Release of Testnet with GraphX implementation. Source will be made available in Github. Public ICO for BIG on Ethereum is started.

Q4 2018

Production Test: Production software release for testing in Testnet

Late Q4 2018

Mainnet launch



## References

Website https://bigtangle.net

Whitepaper https://bigtangle.net/bigtangle.pdf

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