IGToken

Whitepaper v2.0

Human Consensus Prediction

CEO Justin Lee

Contents

1.IGToken

IGToken- A unprecedented prediction market of based decentralization network.
High centralization hinders social progress. Therefore, we hope to establish a completely decentralized Consensus Prediction System, and everyone's weight is equal.

IGToken is a decentralization prediction platform, hoping to establish a consensus forecasting system with the same weight as the same, and use large data intelligent computing and analysis to realize enterprise application forecast.

IGToken uses incentives to allow participants in a market to communicate, instantly and transparently, their wisdom regarding the outcome of upcoming events, effectively predicting the future. We designed IGToken from the start to be decentralized, which makes it difficult to manipulate prediction results.
In IGToken prediction markets, IG tokens are used:
  (i) by IGToken users to pay for a certain prediction through IGToken and
  (ii) to incentivize IGToken users (through the payment of a fixed number of IG tokens) to virtually "buy and sell" "outcome shares" in the Market. Users virtually "buy and sell" such "outcome shares" based on what they see as the probability at any given moment and agree on a virtual "price" that such transactions will occur. As long as a prediction is active, the virtual price continues to fluctuate and indicates the probability of an outcome according to the crowd's wisdom. When a Market matures, meaning the market Event transpires in the real world, IGToken determines the winning outcome based on the Oracle of the Event. There is no payment of any form (whether in Fiat or IGT tokens) between the buyers and sellers with respect to the purchase and sale of the "outcome shares".

There are no"winners" and losers" once the Market matures and there will be no payment of winnings (whether in the form of IG tokens or otherwise) to "winners" or a deduction of assets (whether in the form of IG tokens or otherwise) from the "losers".

The IGToken platform implements three of the necessary conditions for crowd wisdom put forth by James; diversity of opinion, independence in making opinions, and decentralization of organization.

2.Prediction Markets

There are two main methods of scientific prediction: one is statistical and mathematical models, the other is machine learning and data mining. In essence, these two methods use historical data and software systems to generate forecasts.

In recent years, the third way of "social analysis" is increasing as a trend to predict the market. The market uses incentives to allow the public, not just experts, to contribute their own experience and wisdom, pool market information to help make decisions, and allow teams to be smarter than individual individuals or experts.

2.1 Theory and operation

Over time, the success of a cryptographic currency requires it to become a driving force for sustainable economy. As IG is being picked up by more users and providers.With it, the network effects of the IGToken ecosystem will grow, creating ecosystem value for long-term holders and token sales participants.

The successful economy needs IG's growing demand in the IGINTE network. Because the participation event prediction requires users to get IG, the demand for token increases.

The length will be proportional to the number of active users and the number of active investment events. The growth of demand will also be related to the activity of relying on IG to establish events.Incentive providers to hold large IG reserves to provide the collateral and market reserves needed to run many events simultaneously.

Since the beginning of the information age, scientific forecasting methods have always existed. The basic theory of forecasting market includes effective capital market hypothesis (ECMH) and Hayek hypothesis. These assumptions help explain how information is aggregated, so that market prices provide an accurate estimate of the likelihood of future results.

According to ECMH, the capital market is so effective in reflecting information about individual stocks and the stock market as a whole that any analysis that predicts future stock prices cannot outperform the market. Hayek assumes that market price is a means of synthesizing different information. Even if people have limited knowledge of the environment and other related aspects, the market will operate.

Essentially, the market collects the judgments and confidence of all parties involved in the same event, thus predicting the future outcome of the event. Similar to the stock market, the stock market is used to distribute prices for future estimates of stocks, and the "forecasting market" distributes values for beliefs about the future.

Specifically, forecasting market usually predicts the outcome of an event by asking questions of possible results. Every possible outcome has its own possibility. The sum of all probabilities is equal to 100%. The probability of the result represents the transaction price of the transaction result in the market. James Surowiecki, a famous American journalist, put forward three conditions of group wisdom: diversity of opinions, independence of expression and decentralized organization. Similarly, when market participants have different backgrounds, their decisions are not based on the opinions of others, and their opinions are based on local knowledge, the prediction of the market is the best. There are three characteristics in predicting the market:
1, effective collection of different kinds of information.
2, effective and transparent incentive mechanism to obtain real and relevant information.
3, near real-time information update makes the result operation quite difficult.

Forecasting markets are widely used in many sectors, including but not limited to insurance, defense, health care, public administration, sports, entertainment, and even within companies.

For example, in 1996, HP Labs and Caltech co-hosted a three-year market forecasting experiment. The study made 12 different predictions for 20 to 30 employees from different parts of HP's lab (business, finance, marketing, etc.). Experiments show that over 75% of forecasts are more accurate than HP's official forecasts.

In 2003, the U.S. Department of Defense issued a "policy analysis market" (later known as the "terrorist futures market"), mainly predicting the political and military turmoil in eight Middle East countries and the U.S. response, aimed at improving the U.S. intelligence level. Collection capacity around the world. The US Senator later refused and canceled the forecast market.

In 2005, Google announced the use of forecasting markets within the company to predict product release dates, new office locations and other strategic events.

2.2 Liquidity and Volatility

IG will be used as the only currency for the IGToken network's operations (transaction costs, joint payments, and predictor payments) and for function goods that predict event outcomes Money. Unlike other investment currency schemes, it is a flexible exchange rate currency that exposes it to liquidity and volatility risks:

 • **Liquidity: The risk that an investor will not be able to obtain a token when he wants to speculate about the outcome of an event, and that the user will be unable to sell the token.**
 • **Volatility: The risk of currency fluctuations between the time the investor operates on the resulting share of the merger and acquisition and the time the user wants to cash.**

These risks are a serious problem for most leading markets when the proposed services are issued with money and subsequent service growth is modest.

Typically, peer-to-peer markets tend to follow an exponential growth pattern due to the inherent network externalities of peer-to-peer services. Some of them are being adopted.Technologies to mitigate these risks are mainly the use of sub-currencies or the introduction of pegged/stabilized currencies used by consumers. For predicting the market.The cost of separating money from investment currencies for the operation mechanism. In addition to losing the advantage of currency elasticity against currency shocks, this separation is

There is also a negative effect on reducing the market for currency manipulation.Relying on Bancor as IG's token platform, it will provide unlimited pools of liquidity and solve liquidity risks. Volatility risk has also been alleviated.Their data show that IG will enjoy a dense market from the start, eliminating the need for linkages or stabilization mechanisms. Invest.com is committed to becoming IGToken.The first provider of the network has more than 8 million transactions per year. This activity ensures the required liquidity and creates efficient transactions.The critical number of end-users required.

2.3 Comparison with Traditional way

The following table compares the forecast market with other common methods of gathering information and opinions.

	Prediction Market	Poll	Experts`Opinions/Panel
Sampling	People participate actively	Random sampling	Recommendations screening
Scale	Big	General	Small
Frequency	Continuous;untill the event ends	Once	Once;periodic
Method	Interactive	Solitary	Solitary;interactive
Content	Predicting the probability of events	Expressing personal preference	Personal preference-probability of events
Weight	Depended shares purchased	Equal	Uncertain
Truth-telling Motivation	Economic returns	None	Popularity
Opinions Update	Reflects participants view changes via price movement; continuous	One-time analysis; discontinuous	One-time analysis
Accuracy	High	Average	Very high
Execution	Set up trading market	Large-scale interviews questionnaires	Selecting experts

3. IGToken Ecosystem

The IGToken ecosystem will try to create a globally decentralized market-centric network where users can discover and participate in events created by providers and operators. The ecosystem establishes a long-term cooperative operation model in which providers can enjoy opportunities for innovation and competitive compensation, while users can enjoy various experiences and the ability to profit from participating in various forecasting events.

3.1 Providers and Operators

Providers develop predictive market client applications based on IG's open source deployment (reference deployment). Providers can customize applications and create user experience according to their best practices.

The role of the provider includes:
• provide access to the network through the original IG application.Or release the brand version of the application according to the reference provided by IG.
• Extending applications to its customers to bring IG network traffic.Operators create events and are always ready to solve their real-world results.

  When an event is created, the operator determines the cost of participation in the event and pays the provider the combined cost. Any entity, individual or organization can become an operator in the IG network. Create forecast events that users will be interested in.

The roles of operators include:
• famous centralised predictors of these events
• provide the necessary collateral and market reserves necessary for the operation of these events.

Individual entities can act as providers and operators; similarly, providers can integrate predicted markets from different operators in their applications.

3.2 The Roles of IG

An official entity that creates IG tokens (IG), patterns, and technologies. IG focuses on publishing open source encryption technology, enabling IG networks to be decentralized.

The roles of IG include:
• Create IG token (IG) and execute its token event to finance the development and operation of the network.
• Define the mode of forecasting market on IG network in a safe, fair and decentralized manner.
• Create incentives for providers to join IG networks, adopt IG and bring their customers into IG's predictive Market
• The technologies needed to develop and operate the network, such as Ethereum intelligent contract for predicting events.

• Publish IG application as an open source reference, allowing users to participate in IG network.
• through the formation of partners and marketing to promote IG network guidance activities.
• managing ecosystem regulation.

3.3 From Individual to Ecosystem

The power of IG network comes from creating a whole which is greater than the sum of its parts. IG is based on a common currency operation that will provide trust to users and mainstream audiences and a pool of liquidity needed to operate smoothly. Common technology-based execution events will ensure interoperability between providers, as well as standard security levels and fairness across the network.

The decentralized ecosystem provides a sound operational mode. Although a specific node can always be closed, but there is no centralized failure point, with the continuous development of the ecosystem, there will be new nodes. Infrastructure is separated from entities as providers and operators to minimize the risk of regulatory review and related costs.

3.4 Growth Tools

The incentive provider brings traffic to the network and shares customers with other operators to get fair compensation. Providers'applications may display events operated by the same provider; providers may choose to display events that they operate with other carriers in order to provide a broader choice of events; some providers may be masterminds to bring valuable events operated by third parties to their users.

Joint cost mechanisms ensure that this model is beneficial to both providers and operators, since cross-promotion of events is not a hard requirement for the network. Variety of categories ensures that users enjoy more types of events in their applications and find the same matching objects for them.
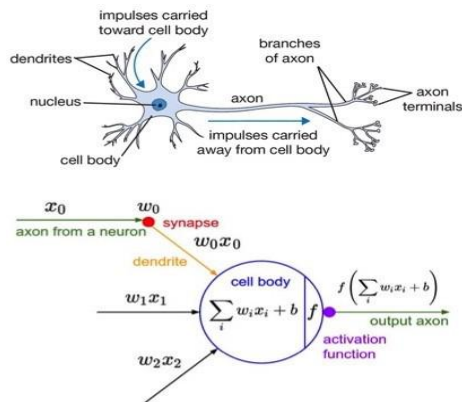
4. IGToken Platform

4.1 Events

Predicting the events in the market constitutes the basic activity surrounding the prediction action. Events have a format for speculation about the future. For example: "Who will win the upcoming football match between Barcelona Football Club and Real Madrid?" Or how much will the box office revenue of the upcoming Hollywood movie premiere last weekend?

For simplicity and practical reasons, events on the IGToken platform need to have a discrete and clearly defined number of potential results. For example, there may be three possible outcomes for "Barcelona Football Club", "Real Madrid" or "No Championship" (cancelling the game in the same score). Event creators can normalize persistent effects such as Star Wars Open Weekend Revenue into discrete ranges.

Every event has a very clear solution. This is the time point for giving a clear answer to future speculation. For example, in the football match above, this is a point of ending the competition and announcing the winner. The multiple potential outcomes of an event are resolved into a single outcome, one considered a winner, and all other outcomes considered a loser.

1.1.1 Event Creation

The IGToken platform is a decentralized system that allows anyone (including users) to create events.

In fact, we expect most of the events to be created by providers. Creating quality events is an arduous process and requires professional knowledge. Consider sport-related events - this will include focusing on various leagues, processing real-time feedback for each game in the available sports list, and specifying each event for each game, specifying potential outcomes.

We hope that different providers can focus on different events. One provider may focus on some League Sports events, another may focus on the politics of a country, and the other may focus on movies and entertainment news. It is expected that users will participate in the prediction events that they feel strong affinity. Determining that these tastes and handmade events will spark a passionate debate is the art practiced by experienced event operators. Create a new event by issuing intelligent contracts to the block chain.

To create intelligent contracts, operators will determine the following parameters:

·Formal description; the formal wording of speculation that the event is trying to predict. For example, "Who will win the title between Barcelona Football Club and Real Madrid in the 18-19 season?"

·A list of potential results; a discrete list of all potential outcomes of an event. After the event is resolved, the single element of the list will be regarded as the winner.

· A prophet; the identity and characteristics of entities or processes that declare formal results of an event when solving an event.

·Participation fee; event creator defines the cost of user participation in the investment specific event. The cost is defined as the percentage of user investment. Event creators are free to charge as much or as little as they want, because the cost will eventually be paid to them. Some of the costs can be retained to other events that bring traffic events to other providers. How much of this part is also defined by game creators. For example, the total cost of games is 5%, of which 45% are used by providers to bring investment users.

· Collateral; operators need to provide collateral to protect users from fraud and to ensure that the predictor's deliberate false reports are not profitable. The collateral can be event-based, as an IG collateral, locked by the prophet in an intelligent contract for 24 hours after the event is resolved, or by associating the event with the operator's CR collateral. Based on the type of collateral, the amount must exceed a certain percentage of the total amount of active investment in all the results. If the user objected to the prophet's report of the event and won the dispute, part of the collateral would be lost. The exact amount of loss is proportional to the total amount of investment lost and is distributed among all users who suffer losses. But all the controversy is open, and we expect operators to try to eliminate false reporting of small and large incidents and avoid the risk of affecting their reputation.

·Market builder reserve; as the market builder of the event, the event builder guides the forecast by providing IG reserve as a counterparty to the first investment. The amount of reserves will affect the speed of LMSR market makers adjusting the prediction ratio of different results. The reserve is expected to be returned to operators, although its actual allocation due to user speculation may decrease or increase.

1.1.2 Event Participation

All investments predicted by the event result were IG. Users can invest in specific results through this workflow.

4.1.2.1 The user uses the following parameters to perform the call to the smart contract "IG-BUY" method:
• the amount of IG spent on the result share.
• potential investment results

4.1.2.2 Supplier address (for transfer of joint costs)
The maximum price of the result option (optional)
• The "IG-BUY" method is executed on the regional chain and the result share is allocated to the caller according to the current market price.
• The amount of IG invested is locked in the contract until the event is resolved and the result share is assigned to the user on the block chain.
• deduct the participation cost from the amount of betting according to the percentage defined by the event. Deduct joint fee from participation fee. Each fee will be sent to its recipient.

4.1.2.3 Users can invoke the "IG-SELL" method of intelligent contracts to liquidate part or total result shares:
• If the user does not sell all of his or her result shares, wait for the event to resolve and the prophet reports the event results
• If the user has a share of the correct result, the "IG-COLLECT" method of the smart contract is invoked. The method will be based on the result share of the caller.

The amount paid to it:
• Within the next 24 hours, any user can choose to challenge the prophet's report by sending IG to a disputed intelligence contract. This will trigger the following dispute procedure.

At any given time point, the user can see the current prediction of the market event result. The prediction ratio is calculated based on the total amount of IG that is bet on each event. When users participate by betting

the result of an event with IG, they effectively buy the share of the result expenditure.

If the event is resolved to a different result, the share of the failed result is zero, and the IG bet on the result is lost. If the expected result of the event occurs, the user can collect the share of the payment according to the share of the result he has. With the progress of events and the increase of investment, the price of shares will fluctuate. The price is derived from a variant of the LMSR market builder algorithm, encoded into the event participation intelligence contract, and takes into account the total IG bets so far on each potential outcome. For more details about market builders and LMSR, please refer to the technical notes below.

The above steps are performed by users using official IGToken applications, or derivatives of this reference deployment application published by a specific provider. The purpose of the application is to abstract the technicalities of the process, provide an easy-to-use product with minimal resistance and a good user experience.

1.2 Joint mechanism

A part of the specified event participates in the cost to bring together the provider to bring the traffic to the event. When a user invests in results through an event intelligence contract, the joint mechanism of another provider promotes this activity, and the provider's address must be included in the transaction. If there is no association, the operator's address should be used. The joint cost is directly paid to this address.
Using this mechanism, vendors are encouraged to share their own traffic with events from other vendors and help their customers discover events created by others.

1.2.1 Promotion Credit Mechanism

Providers can provide promotional credit to users in order to reduce barriers to first use. Similar mechanisms have been successfully used in related industries and have significantly increased the interaction between users and platforms. This mechanism has been adapted to the dispersive nature of IGToken.

Users using promotional credit can start using IG before resistance to purchase occurs and bet on the outcome. Promotional credit is provided by IG.

Providers can set the expiration date of this credit. If set, the IG credit will be returned to the provider address unless it is used before the expiration date.

The promotion credit mechanism is deployed as part of the IGToken token intelligent contract. When giving promotional credits, a new Ethereum wallet will be created for users. This wallet is marked in the chain Ledger as a sales promotion and the expiration date of the need. The token from this purse can only be used to participate in event prediction. It is executed by allowing tokens from the wallet to be sent only to a specific event intelligence contract (as an investment in the share of the result).

Promotion credits can only be locked into events created by the issuer, and if they expire, unused credits are returned to the provider.

1.2.2 Mortgage Mechanism

Event operators need to provide collateral with IG, which is locked in a smart contract within 24 hours after the event is resolved. The amount of collateral should be proportional to the amount of IG that is bet on all the results.

One of the purposes of collateral is to motivate event operators to select trustworthy predictors and report the results accurately. If the controversy over the event is won, the loser who invests in the loss will receive part of the collateral in proportion to his total loss.

1.2.3 Prophet and dispute mechanism

One of the challenges of deploying a decentralized trust forecasting market system is event resolution. Decentralized deployment traditionally relies on chain aware trust contracts. Intelligent contracts have limited ability to read out-of-chain data because there is no guarantee that different nodes will get the same results or that the results will not be manipulated. Since most events are related to actual events in the real world, the real source of the results is essentially out of the chain.

The common solution to this problem is to rely on a prophet to report the results of events in the real world onto the chain. Once the predictor has reflected the results on the chain, this data can be used by various intelligence contracts deploying the system.

One of the design principles behind the IGToken platform is not compromising the practicality of practical use. The IGToken network aims to be a major driver of the advanced forecasting market and to encourage mainstream users to participate in forecasting events. As a result, mechanisms such as convergence and slow resolution of decentralized predictions are impractical and provide a bad user experience. On the contrary, we propose a quick solution centralized prediction mechanism protected by decentralized dispute mechanism.

When an event is created, its operator needs to specify the address of the prophet associated with the event. The platform has nothing to do with the type of predictor, so it's also possible to use decentralized predictors, but in fact, we expect most event operators to specify their addresses as predictors so that they need their private keys to sign the predictor report. This means that many of the forecasters in the system will be built in centralized. The system transforms each centralized prediction into an effective decentralized prediction by providing a decentralized dispute mechanism for users who disagree with the prophet's report.

Consider ways to resolve disputes in a decentralized manner. The default method is to use the consensus of other members of the IGToken network to resolve disputes. The mechanism follows the forerunner's method: the dispute party must place the token on the line relative to the forecaster's report. Anyone in the network can agree or disagree and put the token on the line. The forerunner is the one with the most token so far (agree / disagree). If the forerunner does not change within 24 hours, the winner will be resolved. The winning party shares all the tokens of the failed party, which is punished by losing all tokens on the line. This dispute mechanism can be deployed in a trusted and decentralized way through dedicated intelligent contracts.

2. Application Program

IGToken will develop and publish the client of IGToken platform in the form of full-featured forecast market application. The application will be open source, and the client that implements the model includes chain access through Ethereum to IGToken Intelligent Contracts, and storage of access content, lists, and event metadata from the decentralized cloud.

The application is designed to run on the following platforms:
• native application suitable for Windows
• native application suitable for Mac
• native application suitable for Linux
• native application suitable for Android

Once the user successfully downloads the binary files, they can run locally on the computer. The application will provide a fully functional P2P prediction market client. Anyone can use the application to pin the actual IG on event results and use the product in real life. **Because the application is designed to be completely peer-to-peer, it does not rely on any central failure point.** Future versions of the application will include a mobile version that runs natively on iOS and Android devices as well as Web-based versions

2.1 Reference Implementation

The official IGToken application will be released as open source software on GitHub and will serve as a formal reference for clients that are fully compatible with IGToken networks.

Shi. In order to maintain compatibility with the IGToken network, the following aspects should be retained:
• **rely on IG as a token for all network activity selection.**
• **official smart contracts using the IGToken platform.**
• **IG compliant P2P protocol for peer event discovery**
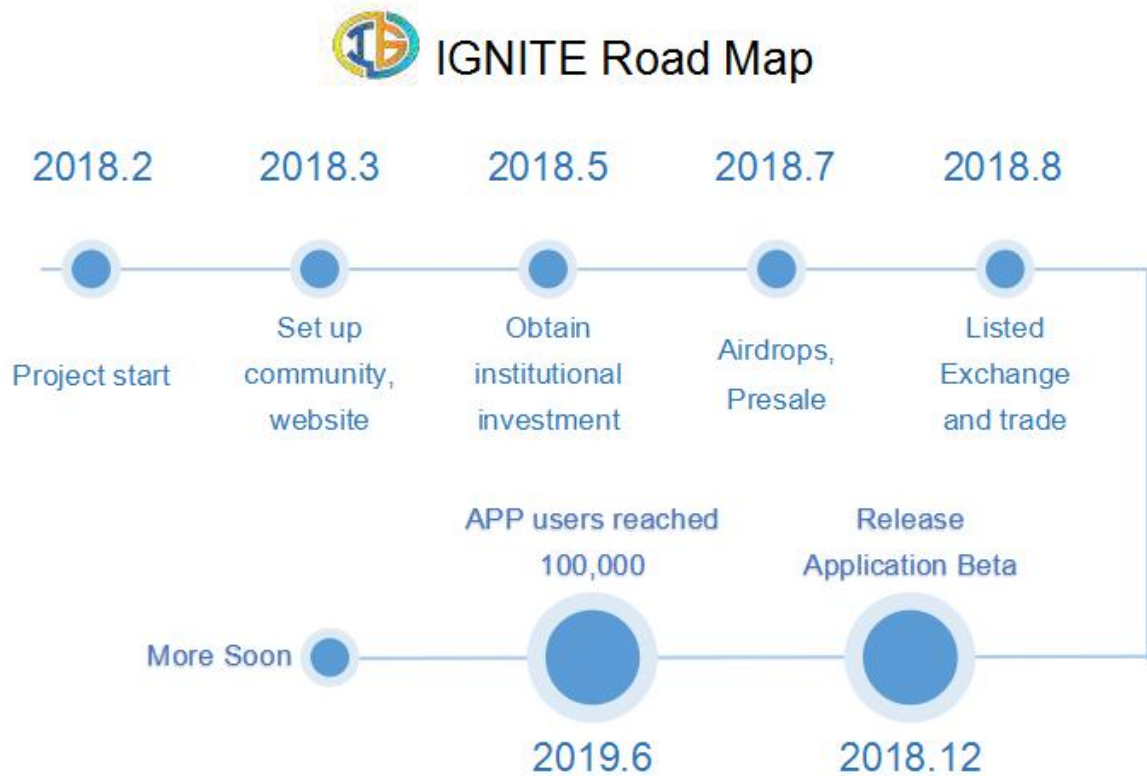
2.2 Derived Version

Encourage any entity, individual or organization to change the official reference implementation and publish its own brand and custom client to IGToken. This is true for providers because encouraging them to do this process can provide their customers with a brand experience. By specifying their own provider address as the federated address when invoking the event method, the provider will enjoy the federated fees paid by third-party operators for the investments of its application users.

Will formally support and record the following aspects of customization:
• **Changing user interface, graphics, color and brand of application**
• **Setting the provider address for joint charges settlement**
• **modify the UX used to participate in events to provide innovative industry specific event experience.**

6.Road Map

IGNITE Road Map

2018.2	2018.3	2018.5	2018.7	2018.8
Project start	Set up community, website	Obtain institutional investment	Airdrops, Presale	Listed Exchange and trade

APP users reached 100,000

Release Application Beta

More Soon

2019.6

2018.12

7.Team

Justin Lee
Founder&Developer

Internet entrepreneur, senior engineer, graduated from computer science and Technology College of Wuhan University of Technology, familiar with back-end application development.

Miri
Co-founder&Operation manager

Miri/Co-founder & operation manager
Internet entrepreneurs, game operation management, she has served of the Dragon chart game, the legend of the Dota.

Ze Wang
CTO&Main Developer

Ze Wang/Main Developer
Team technology director, main developer, master of electronic engineering, Shanghai Jiao Tong University.

Crius
Saas front-end developer

Winner
Front-end developer

Feng Liu
Technology adviser

X-Edison
Front-end developer

Bin Hu
Graphics R&D Engineer

Yu Gao
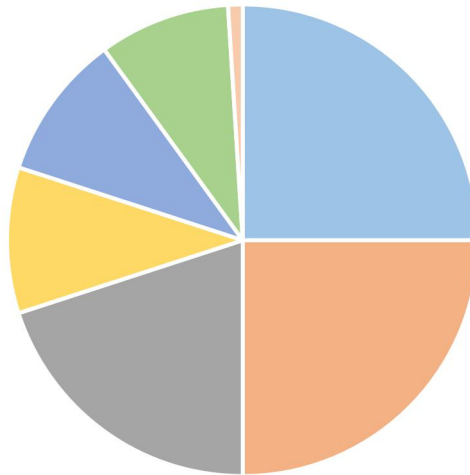Markete

r

Aili
Community manager

Miri
Community manager

Ze Wang
Famous investors

8.Token Distribution

Total Supply 10,000,000,000

■ Foundation 25% ■ Presale 25% ■ Team 20% ■ Community 10%
■ Airdrop 10% ■ Investors 9% ■ Charity 1%

9.Risk Hints

The following are risk factors related to IGToken business, especially token sales events.

* IGToken may not achieve target sales, and may not have enough capital to carry out its business plan.
* IG tokens may be significantly influenced by trends in the digital money market, which may depreciate due to non-IG-related events.
• predicting global or local regulation of the market, limiting the use of tokens to predict transactions.
* IGToken relies on invest.com infrastructure and talent, so any harmful situation at invest.com could have a significant impact on IGToken.
IGToken is a complex software platform that can be significantly delayed due to unforeseen development barriers
* Competitors may introduce the same or better market-forecasting solutions and cause IGToken to lose market share and ultimately fail to achieve its business goals
* Digital currency is extremely volatile, and IG token may be affected by the so-called volatility.
* International laws and regulations may make IG transactions unenforceable.
* The use of IG tokens may be subject to scrutiny by government agencies.
* The ownership of IG tokens may result in new and unanticipated tax laws, thereby weakening the proceeds of IG.
* IGToken may not be able to create the necessary momentum and acceptance for IG tokens, which can lead to low liquidity and industry consumption
* The positions and plans outlined in the white paper may change as the project progresses.

10.Bibliography

[1] Ethereum Whitepaper:
https://github.com/ethereum/wiki/wiki/White-Paper

[2] Augur Whitepaper:
https://bravenewcoin.com/assets/Whitepapers/Augur-A-Dece
ntralized-Open-Source-Platform-for-Prediction-Markets.pdf

[3] Gnosis Whitepaper:
https://gnosis.pm/resources/default/pdf/gnosis_whitepaper.pdf

[4] Rice, Andrew. (2014). The Fall of Intrade and the Business of Betting on Real
Life. Buzzfeed.

[5] Gelman, Andrew. (2016). Something's Odd About thePolitical Betting
Markets.Slate.

[6] Delphy Whitepaper:http://delphy.org/en/delphy_whitepaper.pdf

[7] Baidu
Encyclopedia:https://baike.baidu.com/item/%E5%B8%82%E5%9C%BA%E9
%A2%84%E6%B5%8B

[8] Hanson, R. (2003). Combinatorial Information Market Design
[J]. Information Systems Frontiers, 5(1), 107-119.