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1. Introduction

1.1 OVERVIEW

If someone keeps looking into the messenger in our daily lives, no one can be free from legal standards. Occasionally, the swearing out of a conversation, or a tantrum, can make me trouble one day with cyber defamation.

Freedom doesn't just allow freedom to be trustful, kind, right, and beautiful. It is the freedom that allows me to make a mistake in imperfections. God made Adam and Eve, and gave them the forbidden fruit, allowed freedom for them to cross the forbidden line.

“Give us freedom. Grant us freedom.”

The digital world continues to evolve, and social messenger using smartphones occupies most of their daily lives, whether individuals or organizations. Through this, many social messenger platforms will emerge as the most powerful business platforms in the Internet world.

From now on, the social messenger server will provide the information to the investigative agencies for the public interest of a country and receive their business stability from the government. However, a few years ago, personal privacy can be controlled from the states, smart minds begin to use secure messengers as means to recognize and avoid the situation.

1.2 VISION

Four core elements, BlaaChat is aiming for are in ‘connection’. By having all the information, places of use, outlook, and people being connected, we aim to reach the actual use in real life at the end. the 4th Industrial Revolution is in progress not only in the industry of block-chain, but also in many others, including IoT, robotics, AI, and autonomous vehicle. However, historically, it is hard to call it a stage of a revolution that is overcoming the internet.

We started from a study on ‘what kind of role does the block-chain play in the 4th Industrial Revolution, which was made to allow storage and management between individuals without an organization, by supplementing the limits of internet, which information processing is done in through a server’.

With its benefits of guaranteed transparency, being impossible to be forged, and easier sharing of information, block-chain is

continued to be challenged, even now, by many organizations with a lot of ideas and crypto-currency developments. However, the perspective of being connected in real life is still facing a lot of difficulties.

By providing various services reflecting such challenges, we are aiming for connection between not only organizations, but organizations with individuals, and also between individuals. In doing so, we have identified development challenges as below, where our capabilities need to be focused on.

1. Provide a platform where one's own brand value can be created, regardless of an individuals or enterprises.

2. Provide a wider range of places of use for the points which is easily discarded by users. Provide information and platform to suppliers, which can be helpful for potential customer and continuous purchase inducement strategies.

3. Add expandability to the platform of physical location-based to provide customized information to users, and strategic targeting to suppliers.

4. Provide a messenger with excellent security that can be reliable, and provide an app of multilateral places of use through interconnection.

BF3 will grow and be provided as a platform that can increase one's own brand value, as a service for all, from small business owners to individuals and enterprises, with its core value of 'issuable by anyone'. The marketing approach of strategies to achieve corporate objectives that are not easy, especially harder for small business owners, such as potential customer pool expansion, customer retention, and continuous purchase inducement, can be increased by being shared and connected with service user information of prior consent through BF3.

Point exchange between brands through the DEX system becomes a means that provide a wider range of places of use for users, which provides expandability over just a simple beneficial loyalty policy.

BLOODLAND, as a location-based platform, shares a role for real information of location and time, and of a medium that can easily receive such information, through information sharing with brands participating in BF3. This provides efficient choices to both users and suppliers.

BlaaChat is a user-friendly app of more convenient use through the integration of a messenger app and a wallet.

1.3 SECURITY MESSENGER STATUS

The most popular representative in the secure messenger sector are Telegrams and Signals.

The biggest advantage of the recent secure messenger is as follows:

- Firstly, end-to-end encryption was formed.
- Secondly, through this, it goes beyond message transmission and encrypts voice calls, video calls.
- Thirdly, even the contents stored in the terminal are encrypted so that it disables Digital Forensic.
- Fourthly, screen capture is also disabled.

On the other hand, the disadvantages are as follows:

Firstly, since the authentication method is based on a phone number like other messengers, it is possible to specify who the target of the subscription is during the process of adding a friend.

Secondly, the authentication password is stored in the server, and the password eventually acts as a key that opens encrypted information of not digital forensic inside the terminal. In other words, if the investigative agency got that information, all security functions are disabled.

Thirdly, it is impossible to transfer assets through the messenger function.

Fourthly, the technology developed by Google and spreaded to the world, it's WEB RTC technology. This is a very convenient technology that enables group calls in games we often play, and in messengers, it handles heavy data packets of video chat with P2P between end terminals. If you give up the speed, you can also encrypt the data being streamed. However, P2P technology is very vulnerable to security. IP addresses between user end terminals are exposed so easily that hacking can occur.

Application	All Chat E2EE	All currencies E2EE	Message Server Storage	Digital forensic prevention	Password Server Storage	IP tracking (Stealth mode)	Encryption VPN
BLAA	O	O	X	O	X	X	O
Signal	O	O	X	△	O	O	X
Telegram	X	X	O	△	O	O	X
FB Messenger	X	X	O	△	O	O	X
Kakaotalk	X	X	O	△	O	O	X
Weply	O	X	X	△	O	O	X

<Table 1> Security messenger function comparison

△ Digital forensics: The reason indicated by △ is encrypted and stored in the end terminal, so the end terminal cannot be read immediately. However, it is possible to decode the forensic encrypted data using the authentication information of the server. BLAA has no authentication information, so forensics is impossible.

The first button of an important secure messenger starts right from the initial authentication. In addition, the ciphers constituting the chat rooms for each individual chat room should not be stored in the server, and should be designed to exchange encoded information through a common encryption key between end terminals. This is called encryption between end terminals. However, in the existing method, encryption should not be processed by using the encryption key of the end terminal stored in the server, and it must be thoroughly personalized as it is generated without using the network in the end terminal.

The authentication method which is fundamentally different from the existing security messenger is the most basic element of all security, and based on this, BLAA Chat was designed.

2. BlaaChat

2.1 THE GOAL OF BLAACHAT - ANONYMOUS SECURITY MESSANGER.

[Step 1] Integration of the automatic certificate issuing method that works with the BLOOD Mainnet

All certificates are issued automatically. Issuing must be possible at any time required by the client, yet the host issuing it is not the BLOOD server, but the party that applied for issuance, and the party registers in the network after issuance, still the private key must be thoroughly personalized. The private and public key pairs will be handled by the owner. Through this, it is possible to specify who the owner of the public key is.

[Step 2] end-to-end encryption protocol

Any terminal device can decrypt the content of the conversation based on the encrypted key of the chat room created by the subject who creates the conversation. This is similar to the way the military shares security among allies who know the cryptic relief. Encryption exchange between the corresponding end terminals can be performed only at a specific time. For example, when requesting a function such as adding a friend or inviting one to a group, the password is quickly exchanged, and a temporary password is set between terminal devices to temporarily share the password at that

time, and the temporary password is used for a short period of time and discarded. Finally, the exchanged password is stored in the end terminal. All messages are encrypted from the end terminal with the corresponding password, and the contents are transmitted to the main server exchanging messaging, so that no one can manage the server or know the contents.

[Step 3] Transfer and exchange assets between end-to-end terminals

The most powerful feature of BlaaChat is that it allows any exchange of the BLOOD Mainnet. The BLOOD Mainnet can transmit not only BLOOD Coins, but also their own promises (BF3), and the promises can be converted into assets at any time through the payment guarantee. BF3 does not destructively destroy the power of the central bank to issue money, but rather gives the individual the central (state) seignorage (currency issue right) that mankind has historically built. The issued signorage can have faith through the promise of promise.

[Step 4] Completion of additional functions

Steps 1 to 3 are the most essential functions of BLA and additional functions must be completed to perform the functions of global security messengers.

a. Gamification - Through the combination of BLOODLAND and BlaaChat, set a gamified goal, and build your own worldview in a gamified virtual world.

b. Pointing – Individuals in a gamed world are optimized to solve pointed goals and receive points as a result of their efforts.

c. Assets from the Point

d. The combination of BlaaChat and blockchain mainnet enables the conversion of points in the game into digital assets, thereby enabling the realization of individual values.

e. Advertising in the form of messaging and point rewards for consumption of those ads

f. Blood donation and compensation

[Step 5] Chat with encrypted data packets (voice, video) and stealth mode (no IP tracking)

a. Stealth mode cannot be applied using P2P communication.

b. The existing IPphone communication standard can be hacked.

c. Hybrid data packet exchange method that combines the advantages of P2P communication with the advantages of IP telephone.

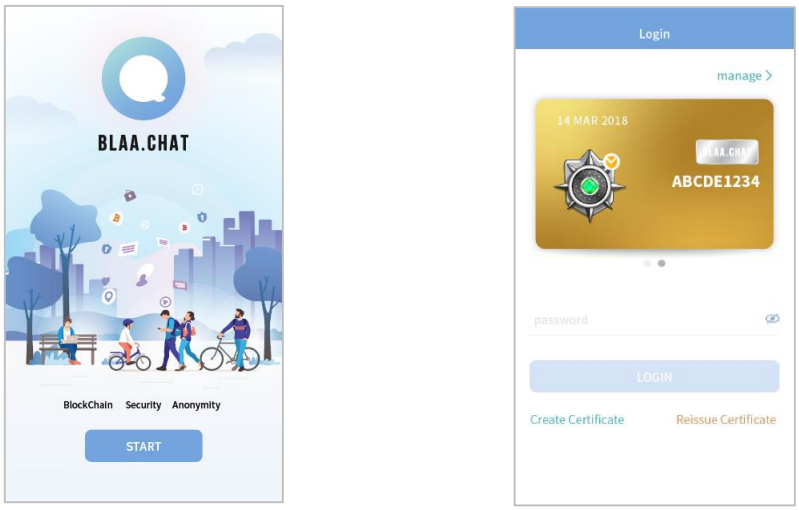
[Step 6] Increase subscribers through integration of important messenger platforms

a. Integration with Facebook messenger

b. Interworking with Telegram Messenger

c. Interworking with another useful messenger.

2.2 INTRODUCTION TO THE BLAACHAT



<Figure 1> BLAA Chat main screen, login screen through certificate

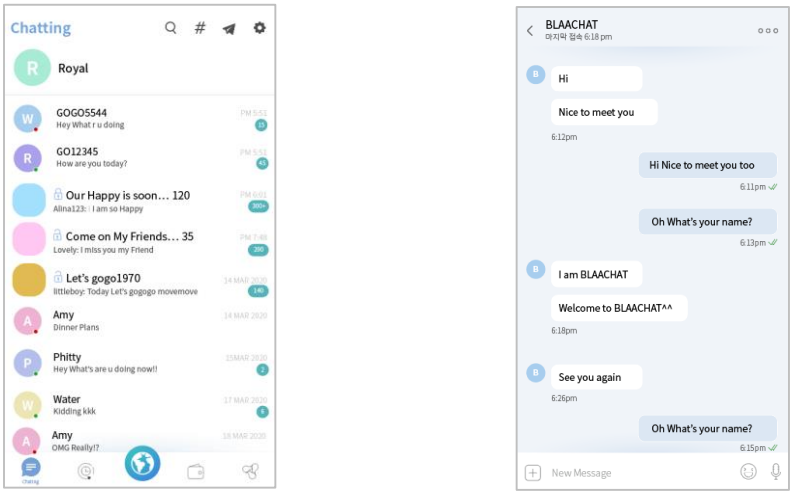
1. Start

When signing up, BlaaChat without a phone number or email authentication process performs a simple and secure sign-up process based on certificates. Communication is possible only by knowing the ID of the other party. With the introduction of certificate-based **- Anonymous security** messenger technology, BlaaChat enables full anonymous communication.

2. Security messages

All chat contents in progress with the other party are encrypted, and the encryption key for encryption processing between end terminals is not stored on the server.

In addition, the digital forensic of contents in the device is impossible if the duplicated encrypted password is not known even if the terminal device is exposed to an outsider not authorized by the user.



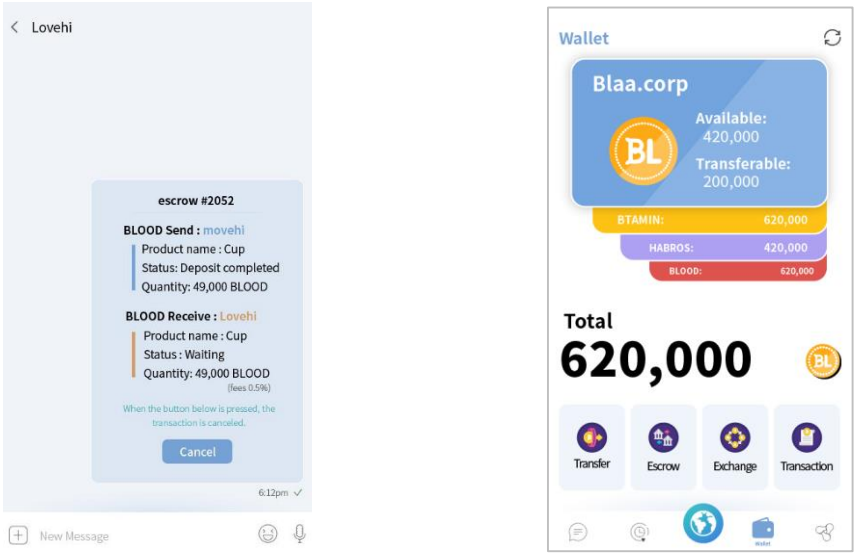
<Figure 2> BlaaChat Chatting screen

3. Advertising

Advertising in the form of messengers using the BLOOD Mainnet generates revenue for both advertisers and participants. Advertisers can expect more advertising effectiveness through active advertisement participation, and circulation occurs due to active participation of participants. This is BlaaChat's most powerful revenue model.

4. Escrow service

There is a possibility that the advertisement may be advertised by using the strong anonymity, or the exchange of goods through it may not be done in time. In order to prevent this from happening, BlaaChat supports the escrow service.



<Figure 3> BlaaChat wallet Screen

5. Exchange

The BF3 issued by using the BLOOD Mainnet can be connected to the external market without restrictions through the exchange function of BlaaChat. As soon as the appointment is issued, the exchange is activated by registering with BlaaChat, and the use of one's own promise as a direct fee also helps to activate the exchange.

6. Game

It is designed to integrate games and communication through a game that works with messenger, and Point in games is linked with blockchain assets. It's possible to expand the accumulated points not only in games of BlaaChat but also by linking with external games.

7. Virtual Real Estate - BLOODLAND

BLOODLAND and BlaaChat, the most basic functions of the BLOOD Mainnet, share location-based advertisements and are integrated into one app.

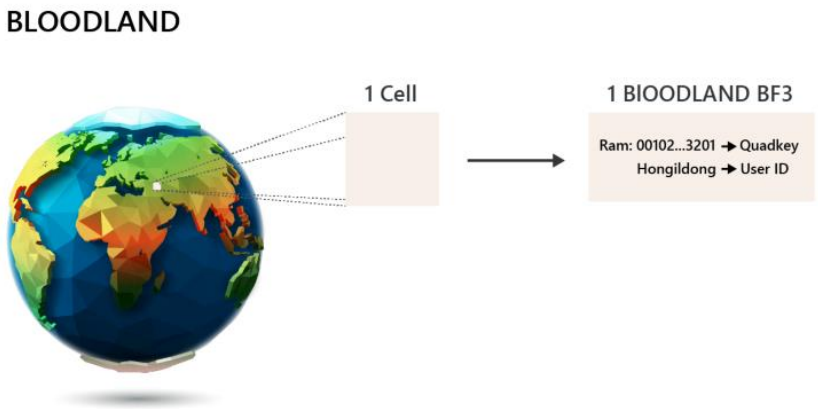
3. Virtual World – Virtual as like as Real

3.1. BLOODLAND

BLOODLAND, a virtual space, is the same as the Earth, which exists in real life. Geographic features existing on it is the same as the data on the Earth in reality and can be redefined by the users.

BLOODLAND is composed of newly added information on the existing space of the Earth, and outputs of program or metadata, such as website, shopping mall, and videos, can be executed as well. For example, BLOOD users can experience a virtual space with reality, such as actions done on the Earth like playing game at some point on a certain area on BLOODLAND that he/she wants to experience or participating in the website at some point. BLOODLAND is made with BF3 of BLOOD Mainnet as a basis.

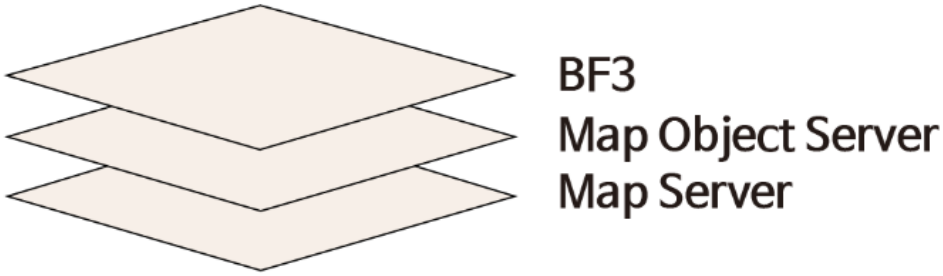
Quadkey item of 1 cell of BLOODLAND is the same as 1 BLOODLAND BF3, and BLOODLAND BF3 individually saves distinct Quadkey of each BF3 using the space called brain (RAM).



<Figure 4> Quadkey of Each Cell

BLOODLAND is designed to save and execute the output of compiled programs and share the vision (the actual screen shown) Quadkey vision sharing technology. BLOODLAND is one giant network computer that is experienced by all client computers of users at the same time, as well as a cloud storage space of a new concept. On geographical features on BLOODLAND, not only program or script execution is available, but also various systems, such as Windows,

Mac, Android, and Linux, can be participated as clients while retaining independence. Unlimited use is available on the BLOODLAND platform. If web standard technology is applied, BLOODLAND execution becomes available without being subordinated to the platform.



<Figure 5> BLOODLAND Layering Structure

BLOODLAND obtains distinct Quadkey by cell. Since the past of maps started to be produced,

Universal Transverse Mercator has been developed as a means to put the Earth on a map. A technology of location information of the Earth based on GPS has been developed from Universal Transverse Mercator. This is an ideal means, which is an output of existing Mercator with longitudinal axis Mercator coordinate system, which solves extreme distortion of the South Pole and the North Pole, and horizontal axis Mercator coordinate system with extreme distortion of the equator, supplementing each other to show all regions of the Earth with minimum distortion. Current digital map is made with triangulation method of satellite on top of this. BLOODLAND is produced with Mercator coordinate system and the Earth is designed with Quadkey base.

3.2. ADVERTISEMENT ON BLOODLAND

An advertiser can select the range of location for advertisement, select advertisement format (image, video, audio, or text), and decide amount of selected advertisement. Then, by depositing BLOOD corresponding the value of selected advertisement amount to advertisement server, users, who are located in relevant advertisement area, use BLOOD wallet application (BLOOD TALK), and

have consented to BLOOD compensation policy, will receive advertisements. The advertisement in the message format will be sent as notification, and can be confirmed to be received real-time or when users want. Only the advertisements with confirmation completed are preceded with compensation.

Compensation for advertisements are paid with BLOOD and it is divided between users who received advertisements, BLOODLAND owner of the location advertisement was received, and managing authority of BLOODLAND advertisement by moderate ratio.

3.3. COMPONENTS OF BLOODLAND

Components of BLOODLAND can be divided into 4. They are BLOODLAND server, which takes care of storage and execution of BLOODLAND; Quadkey item, an item that exists on BLOODLAND; native cloud where binary files are stored, which is operated on items and geographical features of BLOODLAND; and client service that will be installed on devices of the users.

BLOODLAND server consistes of map server that manages map of BLOODLAND; map object server that manages detailed topographical map on map server; and Quadkey conversion server that converts and saves map object to Quadkey.

Quadkey item refers to all objects existing on the map. Quadkey Items are basically consist of Quadkey item server that creates, stores, and manages basic attribute items; mass cloud Quadkey block scanner that saves Quadkey items under blockchain based(BLOODLAND BF3) and takes care of all sorts of transactions; Quadkey property server that saves all attributes of items; Quadkey event server that takes care of item events; Quadkey service server that takes care of areas of non-visible activities of items; Quadkey content provider server that takes care of various images and metadata of items; Quadkey broadcast receiver that recognizes and responds to broadcasts like advertisement;

Quadkey manifest server that allows dynamic management of all basic attributes of items; Quadkey intent that actually executes all relevant Quadkey execution columns; Docker system for managing and processing multiple servers; main server, which is like a brain, to manage all systems; and web based native plug-in and BLOOD docking that operates BLOODLAND.

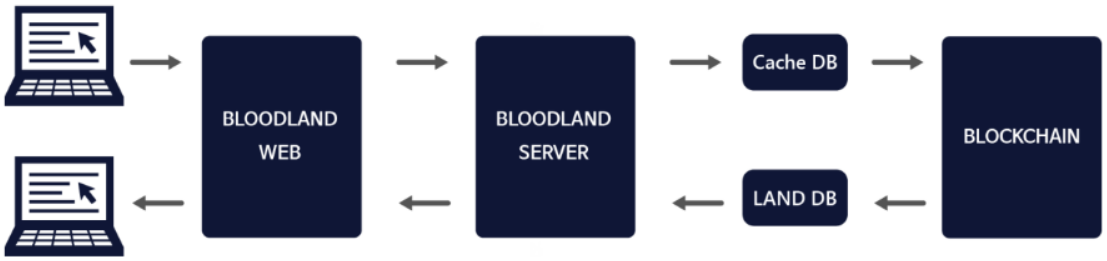
The above content is similar to the management process of operating an application on an Android device. One big Android device is operated on the Earth, and each client device can share or personalize operating image or metadata to experience. This provides the basis of the most fundamental technology that consists of super network computing without boundaries.

Quadkey item is activated through Quadkey intent. If an aspect of Quadkey item being activated composes the screen, it is called Quadkey activity, and if it is not visible on the screen, it is called

Quadkey service. Because Quadkey is used to determine the distinct location of item, Quadkey based item determination method can eliminate confusion and ambiguity of relative coordinate value using X, Y coordinate system. If at a certain region, Quadkey is brought down for each item to be prepared to receive a certain event of a central network, items that created nodes on broadcast create Quadkey intent.

For example, let's look at a scene from Ready Player One (directed by Steven Spielberg, 2018). The main character enters to the dance floor. There is a crowd, and dance music is being played. Here, the crowd is Quadkey activity. The clothes the crowd is wearing can be in many different colors and shapes through Quadkey content providers. Because the dance music is not visible, it is Quadkey service being operated, and answering the phone in the middle is Quadkey broadcast being operated on the main character. On this, certain reactions of the main character can be objectified with Quadkey intent.

Among Quadkey items, existing programs consisted of binary execution files can be converted to binary format, which is executable on the web through native cloud compile, and be executed on the web browser with web based native plug-in after being saved under the server. Plug-in executable on a web browser is also called client service, and the client service can be operated on Chrome based web browser. Chrome browser published native Chrome to the public and provided WEB-GL, which allows the implementation of web based 3D Quadkey items.

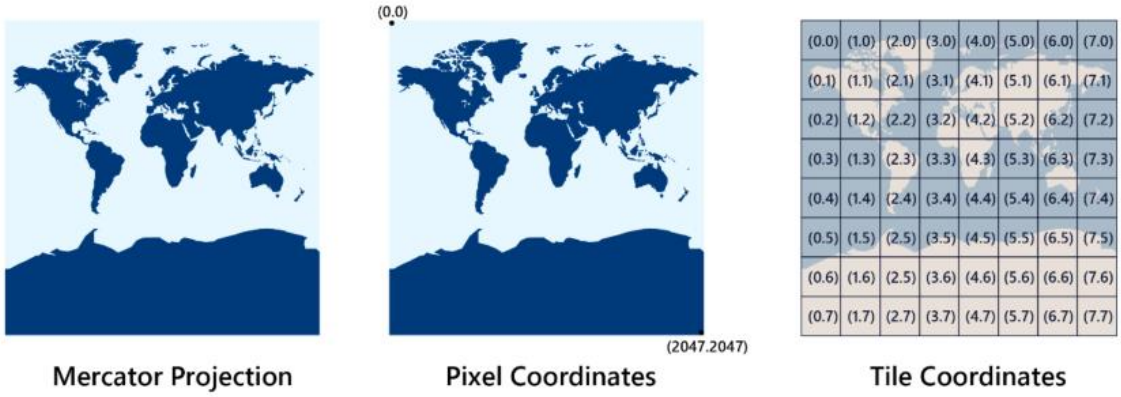


<Figure 6> BLOODLAND Execution Structure

3.4. DETAILED EXPLANATION ON QUADKEY

Projecting the entire Earth on a map is called Mercator projection. There is a means to define a location on the relevant map, which is a point based, location-based Pixel Coordinates, and this is often used by latitude longitude system using satellite. For point based Pixel Coordinates X, Y, there is an issue of the absolute value being changed depending on the level value, which can lead the relevant location value to be changed depending on the level (Resolution or expansion stages of digital map, which can be described as 0 to 23 levels) value.

By going in deeper with Quadkey based, with a value of (Quadkey, Z), location of any small object can be described on Quadkey based. Above 23 levels, the actual location of the item is shown, is recognized as located in Quadkey center, and Z value can be calculated through the metric system with a location distance value of the lowest point of the item from the surface of the Earth. Using the relevant Quadkey and Z key based, accurate location of the item anywhere on the virtual space on the Earth can be described.



<Figure 7> Quadkey Structure

3.5. PROOF OF ASSET ALGORITHM OF BLOODLAND

Algorithm of blockchain searching for new blocks is basically based on Byzantine Consensus

Algorithm (Byzantine Fault Tolerance, BFT). In order to resolve this, initial Bitcoin used proof of work.

Later, in order to improve the problems of proof of work method (electricity usage, mining equipment issues, 51% attack, and etc.), proof of asset is started to be used. Proof of asset basically provides a higher chance of finding a new block based on the probability distribution of the asset. Interestingly, for asset distribution of BLOODLAND, proof of authority, which does not trigger Byzantine Fault, was chosen.

First, the authority of the account finding all new blocks is designated. The designated account is saved under blockchain storage, brain (network RAM), and is opened to all participants. Authority to find new blocks designates rounds. Thousands or millions of blocks exist for each round, and each block has a creation cycle of around 1 second to resolve the transfer speed limit of BF3. The creation cycle of the block can be faster at some point in the future when system performance is enhanced.

For example, if current blocks belong to 100 rounds, the account for finding a new block of 101 round is already decided and published to all participants through the internet.

Newly issued BLOOD is distributed through the distribution system of BLOODLAND. The distribution system of BLOODLAND redistributes to the participants based on the asset ratio of BLOODLAND BF3

(BL). The asset of BL is entered within blockchain where BL is included and saved under the memory of blockchain (brain). The distribution system of BLOODLAND refers to the brain and distributes according to the ratio. All of these processes are designed to be opened to the public. In order to achieve this, all BLOOD achieved by users who find new blocks is immediately redeemed through BLOOD distribution system, and BLOOD distribution system executes distribution once a week to reduce network overload and achieve fair distribution.

4. New renovation concept Mining token - BLAA

4.1 BLAA TOKEN

BLAA is a hybrid (POW + POS) based crypto asset that combines mining coins and platforms such as Ethereum, BLOOD Mainnet.

It will be used as a major currency system that is universally used in the virtual district called BLOODLAND, with over 8,000 owners of BLOODLAND and 1 million cells in the virtual district were sold. Based on the secure chat called BlaaChat, an application consisting of a messaging service, game, BLOOD donation, and the virtual district BLOODLAND, has already been launched in Google Play and App Store. In the future, BLOODLAND will be realized by matching the virtual communication world with the actual location of the Earth based on VR.

BLAA is one of the BF3 BLOOD Mainnets. This is to complete the world view of BLOOD that has a variety of world views such as security chat, blockchain, and BLOODLAND on the BlaaChat platform, which combines the advantages of POW and POS to increase the versatility of the BLOOD Mainnet and its external appearance. It has a purpose to expand to.

4.2 OVERVIEW

Symbol character: BLAA

Total Supply: **400 million**

Method: Converted to POS method based on Seed Farming of POW method and redistributed

Initial Supply: 5% of the total issuance - **20 million**

4.3 INITIAL COIN DISTRIBUTION PLAN

Founder: 5 million

*350 million incineration of founder's BLOOD token

*After 1 year lock-up, 5% volume of total (5million) is released every month

*Incinerate at 1 BLAA to 70 BLOOD ratio (Round 1)

Operator: 5 million

*350 million incineration of Operator's BLOOD token

*After 1 year lock-up, 5% volume of total (5million) is released every month

*Incinerate at 1 BLAA to 70 BLOOD ratio

Developer: 3 million

*After 1 year lock-up, 10% volume of total (3million) is released every month

General IEO: 7 million

*Immediately after listing 5% of their lock-ups were released.

*5% volume of total (5million) is released every month

*Round 1 (9 July 2020)

3 million BLAA Incinerate at 1 BLAA to 70 BLOOD ratio

3,000,000 BLAA: Use BlaaIEO menu of transferring feature in BlaaChat.

Get 1 BLAA per 70 BLOOD (at least 1,000 BLAA and maximum 500,000 BLAA for each account)

500,000 BLAA (1Blaa per 0.05USDT in VinDax Exchange)

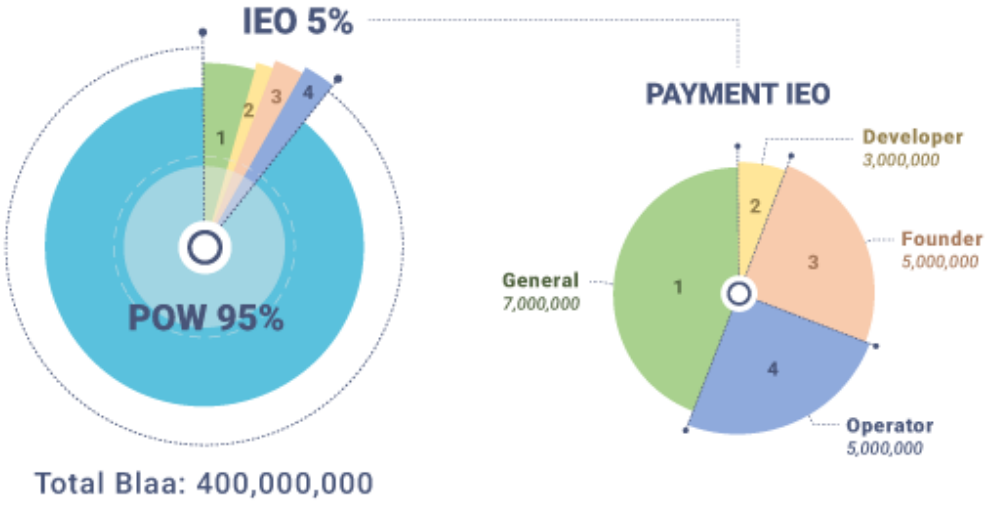
* Round 2 (16 July 2020)

3 million Incinerate at 1 BLAA to 75 BLOOD ratio

3,000,000 BLAA: Use BlaaIEO menu of transferring feature in BlaaChat.

Get 1 BLAA per 75 BLOOD (at least 1,000 BLAA and maximum 500,000 BLAA for each account)

500,000 BLAA (1 BLAA per 0.055USDT in VinDax Exchange)



<Figure 8> Initial BLAA Distribution Pie

4.4 MINING THROUGH PROOF OF WORK

4.4.1 Farming

Through the proof of work, the mainnet will reward SeeD to the participants who find the hash value of the new block, and to distinguish this behavior from general mining, it is called Farming. Farmed SeeD does not mine BLAA by an absolute percentage of its quantity, and Farmed SeeD is first rewarded to the wallet of only one participant who has one wallet address per block. This process is called algorithm compensation. Based on the Farmed SeeD, based on the weight, the difficulty, and the number of consecutive farming, the SeeD is adjusted to mine the BLAA relatively. Relative does not mean BLAA is compensated for the number of SeeDs, but when mining SeeDs, it determines the relativity to be compensated for the appropriate function of mining compensation through weight, difficulty, and whether it is exclusive mining. It means to have. If mining is to provide the key currency of a specific blockchain as a reward for the act of finding a block hash to create a new block of distributed ledger through proof of work in the blockchain, Farming is for the participants who have found the new block hash value. In the pre-compensation stage, the action of compensating the SeeD having relative value in advance and collecting the SeeD are collectively referred to as the act. Several types of SeeD obtained through farming are possible, and the SeeD is named as SeeD[Name of Hash Algorithm]. For example, the SeeD farmed using the CPU hash-based Argon2 algorithm is called SeeD[Argon2].

4.4.2 SeeD

As described above, SeeD, named SeeD [Name of Hash Algorithm], allows you to harvest multiple different forms of farming. According to the initial plan, it will support mobile and web mining based on SeeD[Argon2, CPU], and will provide a mining environment that can respond to various hash algorithms and changes in the environment such as SeeD[SHA256].

SeeD[…]'S farming procedure is dualized into an **algorithm compensation** step that rewards members who find the block hash in the first step and a **weight compensation** that divides the reward according to the weight of all members. The ratio of algorithm compensation is 1/4 of the compensation rate per block, and **the weight compensation** is 3/4, which is 3 times **the algorithm compensation**.

4.4.3 Point Mining weight

SeeD[X] is a proof-of-work blockchain network, and the network will reward SeeD to participants who have found a hash algorithm for new blocks. If the number of participants participating in the SeeD[X] farming is defined as n, 1SeeD[X] is compensated for every block to overcome the limitation that only 1/n people receive SeeD compensation. However, 1SeeD[X] is not converted to BLAA as an absolute value, and if the total amount of BLAA to be divided and divided per block is Total_BLAA_Per_Block, ¼ of the number of T_B_P_B is the algorithm compensation that compensates the participants who found the block hash. The remaining ¾ is redistributed by the mining weight to the total number of n people (weight compensation). The mining weight is equal to the number of referrals who introduced BlaaChat, which is equal to the total amount of the first-level referrals. Preventing referral fraud in the first stage by judging the actual existence of the lower stage in BlaaChat, phone authentication, face authentication (rather than storing face photos, specific values for distinguishing faces are stored), KYC authentication, etc.; verifying referral fraud by various authentication methods. Besides, since the increase in the number of members and the increase in the number of participants in BlaaChat is directly related to the market value of BlaaChat, it is possible to maintain the market value of BLAA and BLOOD and play a positive role in membership growth. The weight can be adopted by attracting actual members and other methods.

4.4.4 How to Obtain Point Mining Weight (Referral points)

a. When your promotion creates a recruited downline distributor, you earn 1 point for each sub-distributor.
However, if the sub-distributor has been inactive for more than 6 months, the point set as a sub-referral will disappear.

b. Referral points are obtained through incineration of BLOOD. According to the referral acquisition index, according to the value of the BLOOD that can be incinerated per point, one referral point is obtained and the corresponding BLOOD is incinerated. The default value is 1 point for incineration of 3000BLOOD. Obtaining points through BLOOD is limited to one year. (September 27, 2021)

c. If you purchase BLOODLAND with BLAA, you earn 0.25 point for each BlaaLand. You can plant BTAMIN farm and receive the advertising rewards.

The maximum referral point per account cannot exceed 1,000 points. The referral index above 1,000 points is converted to an index called sReferral, which can be transferred to other people, and disappears as much as 50% when transferred. In other words, if you have 2,000 points, you have 1,000 Referral points and 1000 sReferral points. This referral index is transferable to others, and the referral index that is transferred based on 1,000 points becomes 500 points.

4.4.5 Universal web-based mining - SeeD[CPU]

In the case of SeeD[CPU] or SeeD[Argon2], which will be created first by the initial plan.

It is designed to be able to mine in a chrome-based web browser. When development is completed, it is possible to pharm in any environment where a web browser is possible, as well as the inside of BlaaChat.

The Argon2 algorithm is a CPU-optimized mining algorithm that has the best CPU mining effect compared to a GPU chipset.

4.4.6 Restrictions on large capacity mining

If the number of members finding the hash value of Farming and Blockchain is limited to a certain number of people, it is possible to limit the monopoly of mining by applying a half-life index to a specific wallet address. For example, if a certain wallet address is to oversee SeeD[X], it is to secure diversity, if a half-life index is applied to the mining wallet, ½ for 1 time, ¼ for 3 times. When applied, the efficiency of farming of 1/8 is reduced, and the total amount of blows distributed to all members is increased by the amount reduced by the half-life index. The formula to which the half-sensing index is applied must be announced in advance 72 hours before application, to prevent confusion caused by sudden volatility.

4.4.7 BLAA mining for incineration of BLOOD

Every block, 5% of the total amount of BLAA mined Coin is created by an unowned BLAAcoin that nobody owns, and the BLAA Coin is available for purchase by ordinary members at 100 BLOOD per BLAA.

All BLOOD used to purchase the BLAA is incinerated, and the BLAA Service operator, who has not purchased the BLAA, buys all the BlaaChat at regular intervals. All BLOOD purchased BLAA is incinerated. If the possession of the BLOOD company is exhausted for the BLOOD prepared for the purchase, the ownerless BLAA is not created more. In addition, it is newly allocated to the operators of BlaaChat at a rate of 2.5% of the newly created BLAA every every block. It is used for stable operation of BlaaChat and BLOODLAND, BLOOD Mainnet.

Members can sell BLAA for a certain period (6month) to BLAA's operator, and the operator must purchase at a price of 100 BLOOD per BLAA. In that 100 BLOOD, the seller will receive only 90 BLOOD, 10 BLOOD left will be incinerated. As a result, when a purchase is executed from members, 10 BLOOD is automatically incinerated.

4.4.8 1 block / 1 Slot

Average generation cycles per block: 100 seconds

Average sizes distributed ledger per block: 100 bytes

Average numbers of blows per block: 50BLAA

Half-life: Every 630,720 blocks (2 years)

Total amount to be distributed to the public in the first year: 315,360 * 50 = 15,768,000 BLAA

The amount of new ownerless BLAA to be created in the first year: 2,049,840 BLAA

Total amount to be distributed to operators in the first year: 445,446 BLAA

4.5 Proof of work based on the Argon2 algorithm for CPU mining

4.5.1 Argon2 algorithm

Argon2 is a key derivation function that was selected as the winner of the Password Hashing Competition in July 2015. It was designed by Alex Biryukov, Daniel Dinu, and Dmitry Khovratovich from the University of Luxembourg. The reference implementation of Argon2 is released under a Creative Commons CC0 license and the copyright holders can waive that right and use it freely. Since Argon2 is

resistant to mining based on GPU and ASIC, it can be competitively mined through smart devices in a mobile environment. As it aims for CPU-based mining, it is regarded as the most ideal algorithm for now.

4.5.2 A chrome browser-based proof-of-work method

The Argon2 algorithm provides various libraries, providing easy development performance in the JavaScript environment. By utilizing this, various web development environments based on JavaScript are adopted, and web-based mining based on chrome browser is supported to support more general terminal devices to support mining.

4.5.3 Ed25519: high-speed high-security signatures

The Argon2 algorithm is used, and the wallet address is used by the Ed25519 method. This method is currently used as the main authentication key of BlaaChat, and additionally, multiple public key private keys are supported for one ID, so that the public key can be periodically changed.

4.5.4 Between SeeD [Argon2] and BLAA

SeeD[Argon2] is a POW based asset. However, the free transmission is not possible in the SeeD state. When the miner is confirmed, BLAA, which actually acts as an asset, is transmitted to the corresponding wallet address. SeeD and BLAA share Ed25519 based wallets, and the shared wallet can be connected to BLAA, a dPOS method, as a linkage.

5. BLAA IEO

5.1 INITIAL SUPPLY OF BLAA

Details of the initial supply of coins for the initial volume of 20 million of the total volume of 400 million

1. Schedule:
   Round 1 9 July 2020 UTC 21 (for 48hours)
   Round 2 16 July 2020 UTC 21 (for 48hours)
2. IEO Listing: VinDax exchanges
3. Payment method:
    A. When paying by BLOOD(By BlaaChat)
    B. Bitcoin with VinDax exchange

	General	Developer	Founder	Operator	Total	Running total
D-day (Listing)	350,000				350,000	350,000
D+1 Month	350,000				350,000	700,000
D+2 Month	350,000				350,000	1,050,000
D+3 Month	350,000				350,000	1,400,000
D+4 Month	350,000				350,000	1,750,000
D+5 Month	350,000				350,000	2,100,000
D+6 Month	350,000				350,000	2,450,000
D+7 Month	350,000				350,000	2,800,000
D+8 Month	350,000				350,000	3,150,000
D+9 Month	350,000				350,000	3,500,000
D+10 Month	350,000				350,000	3,850,000
D+11 Month	350,000				350,000	4,200,000
D+12 Month	350,000	300,000	250,000	250,000	1,150,000	5,350,000
D+13 Month	350,000	300,000	250,000	250,000	1,150,000	6,500,000
D+14 Month	350,000	300,000	250,000	250,000	1,150,000	7,650,000
D+15 Month	350,000	300,000	250,000	250,000	1,150,000	8,800,000
D+16 Month	350,000	300,000	250,000	250,000	1,150,000	9,950,000
D+17 Month	350,000	300,000	250,000	250,000	1,150,000	11,100,000
D+18 Month	350,000	300,000	250,000	250,000	1,150,000	12,250,000
D+19 Month	350,000	300,000	250,000	250,000	1,150,000	13,400,000
D+20 Month		300,000	250,000	250,000	800,000	14,200,000
D+21 Month		300,000	250,000	250,000	800,000	15,000,000
D+22 Month			250,000	250,000	500,000	15,500,000
D+23 Month			250,000	250,000	500,000	16,000,000
D+24 Month			250,000	250,000	500,000	16,500,000
D+25 Month			250,000	250,000	500,000	17,000,000
D+26 Month			250,000	250,000	500,000	17,500,000
D+27 Month			250,000	250,000	500,000	18,000,000
D+28 Month			250,000	250,000	500,000	18,500,000
D+29 Month			250,000	250,000	500,000	19,000,000
D+30 Month			250,000	250,000	500,000	19,500,000
D+31 Month			250,000	250,000	500,000	20,000,000
Total	7,000,000	3,000,000	5,000,000	5,000,000	20,000,000	

<Figure 9> Initial BLAA Distribution Table>

5.2 BLAA LISTING SCHEDULE

Schedule: July 27, 2020 / Exchang market: Vindax

5.3 BLAA MINING SCHEDULE

5.3.1 SeeD [Argon2] Announcement Date: August 27, 2020

5.3.2 SeeD[SHA256] Announcement Date: November 13, 2020

5.4 BLAA SEED SOURCE CODE OPEN SCHEDULE

5.4.1 SeeD [Argon2] Open Date: August 25, 2020

5.4.2 SeeD[SHA256] Open Date: November 11, 2020

6. Team, Advisors, Development and Marketing Partners

6.1 TEAM

Seung Il Chung (Solomon Chung) | Director of Development | Founder | President

Korea's representative developer from "**National Software Maestro**"

Seung Il Chung, the leader of BLOOD team and the Director of Development of BLOOD Ecosystem, is doing his best for user-friendly blockchain ecosystem with Openness spirit in mind.

He was awarded with the grand prize from KT Venture Award in 2009, and has been participating in various development projects and mentoring activities. By providing a mission to blockchain ecosystem through such experiences, he continued with planning and development, and published BLOOD and BLOODLAND to the world.

- BlaaChat Planning / Development Management
- BLOOD Ecosystem & BLOODLAND Planning / Development Management
- Graduated from Seoul National University
- Developed electronic tax invoice as the first in Korea (2000)
- Won the grand prize at KT Venture Award (2009)
- Won the excellence award at SKT Contest (2009)
- Worked as a full-time mentor at National Software Maestro (2009 – 2012)

Jin Hoon An | Vice President

Jin Hoon An continues exploring about commercialization of blockchain in real life, while designing BLOOD Ecosystem.

He graduated from Seoul National University and is planning blockchain commercialization by steps through BLOOD Ecosystem.

Kwon Seok Kim | Chief Technology Officer

Kwon Seok Kim, the Director of Planning at Korea Patent Attorneys Association, is the Chief Technology Officer at BLOOD team. He graduated from Seoul National. He continues to gradually widening his understanding of blockchain technology and strengthening blockchain technology of BLOOD.

Hwan Oh Bae | Chief Contents Officer

Hwan Oh Bae, the representative of BLOOD Studio, is creating content that will help the technology of BLOOD stand out even more, based on his PR video production experience with Samsung Electronics,

POSCO, LG, Hyundai Heavy Industries, and SK Telecom. He is also in charge of the overall service.

Our Developers and other teams

6.2 PARTNERS

HANKOOKILBO as the leading press of Korea, has decided to cooperate with BLAA team on future blockchain related business and operational management. They will continue with their best in diverse areas, such as providing compensations for good blogs and good articles, by participating in achieving the goal of human oriented coin ideology of BLAA.

TYGEM is an online Baduk (Go) game site with domestic members of 1 million and overseas members of 3.2 million. Cooperation between both companies is expected for diverse content creation of BLOOD Ecosystem.

BLOCKNODE COMMUNICATIONS provides integrated consulting agency services encompassing development, investment, and marketing, to international and domestic block-chain projects. It especially holds expert partners of finance, legislation, and technology, and implemented synthesized accelerating process. Partnership has been signed for activation of location-based service of BLOOD Ecosystem.

DFIN is a specialized company that provides De-Fi service, which will bring innovation to finance through blockchain and digital asset, as well as investment, accelerating, and community building to international and domestic blockchain projects. DFIN and BlaaChat signed partnership for the creation of BLOOD Ecosystem and expansion of actual usage through FinTech network of DFIN.

HAECHI LABS is an international and domestic blockchain technology specialized company. It

provides solutions for companies to connect existing services with blockchain, based on its technical knowhow, and is implementing cooperation relationship not only with domestic enterprises, but also with global exchanges. completed smart contract security inspection service of HAECHI LABS to prevent issues such as security and hacking.

Cyber-Oro has signed an agreement to provide Internet Go game with blockchain technology and provide it with BlaaChat. Cyber-Oro, which has 3 million members in Korea, China, and Taiwan, will help expand the number of members of BlaaChat.

7. Exemption Clause

Please carefully read all content of hereof exemption clause. If you are uncertain of your future

actions, please consult with legal, financial, tax, and other professionals.

7.1. LEGAL NOTICE

1. Hereof whitepaper is only distributed for reference purpose in relation to BLAA project when written, and may be reviewed or modified. Based on the dates on the cover of hereof whitepaper, the latest information is reflected, however it is not the final copy. Information stated in hereof document, such as business operation and financial status of BLAA project, may be changed after the relevant date. Hereof whitepaper may be updated occasionally.

2. Obligation to sign a contract or take a legal pledge in regards to purchase of BLAA does not belong to anyone and funds cannot be received or accepted using hereof whitepaper as basis. Purchase of

BLAA shall only be completed through contract or legal agency, and the parties to the transaction may not receive any form of legal protection on transaction and purchase completed through means not stated. In case of discordance in content of the contract and hereof whitepaper, the contract takes priority.

3. Hereof whitepaper, under any circumstances, shall not be interpreted as coin sales or purchase proposal of BLAA founder/operator/developer, and presentation of hereof document or the document itself shall not be used as a basis or be dependent for contract or investment decision.

4. Hereof whitepaper is not provided as business plan or proposal, and shall not be interpreted as investment proposal or advertisement, such as security and business trust or group investment plan, in any jurisdiction.

5. BLAA shall not be understood, interpreted, categorized, or handled as an opportunity for purchasers to participate, invest, or receive profit/income/payment/benefit or certain.

6. The whole or parts of hereof document cannot be copied; distributed; or disseminated in jurisdiction where coin issue means stated in hereof whitepaper is regulated or restricted.

7. If BLAA purchase is desired, BLAA cannot be understood, interpreted, categorized, or handled as the following. Other currency besides cryptocurrency; bonds and stocks issued by a certain organization; difference contract and other authority under contract that are impersonating, stock unit such as group investment plan and business trust, or derivatives with the purpose of authority, option, derivatives, investment return guarantee, or loss aversion on such bonds and stocks.

7.2. LIMITATION ON DISTRIBUTION AND DISSEMINATION

Distributing or disseminating the whole or parts of hereof whitepaper may be prohibited or restricted by legislations or regulatory requirements of any jurisdictions. In the case of restrictions being applied, you need to be well-informed on your own on restrictions that may be applied due to the possession of hereof whitepaper, and comply. BLAA, staff, representative, and relative shall not take responsibility for such.

In the case of reading or possessing hereof whitepaper through distribution or dissemination, regardless of any purpose, sharing with others, allowing such to happen, or providing cause of such by distributing or copying the content of hereof whitepaper or the whitepaper itself shall not be permitted.