



PERCIVAL

**Easily handling low power consumption type Mining Machine  
Secure property with safety mining**

## Project Percival

**Token Sale Whitepaper**

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## 1. Percival project

The intent of Percival is to overturn the common knowledge for existing mining market, and to build infrastructure and system for server provision that is not existed so far, and to issue token that is accepted into crypto currency market and daily living.

The existing mining market consumes much power so the share by Chinese companies that has advantageous in cost such as electric cost is more common.

Besides, the big companies in Asian countries are expecting expansion of crypto currency market and prepare infrastructure in other countries, and are seeking stable profit by investing huge amount of money.

We are going along with that but do not select the participants by the economic reason, and could be ready for success of this project by breakthrough idea and technology to become something assuming part of stable asset management. For detail, we use CPU and GPU that has high performance and super low power consumption required by mining, and develop/manufacture the front-line high performance super power consumption mining machine, and develop the hard wallet with high security.

By the experience of design and development for semiconductor front-line device, we invent idea of unique hard device and develop the super small size mining server that is used SOC by world's front-line semiconductor 7 nano technology.

For the hard wallet associated with that, it will be prepared environment that is not easily subject to cyberattacks not to have risks for participant's property.

Our hard wallet is card type with fingerprint sensor and has the highest security level among the existing private wallet. Due to that, it can prevent hacking and its secondary damage before happens, and we prepare and provide system that can unify management of mining pool and hard wallet for everyone to join safety.

We believe the mining server that permeates daily living will be the asset management in the new era.

Herewith, Percival project will attempt to provide the tool that is acceptable by all users.



# Percival Platform

## 2. Mining

The term “Mining” is to join the encryption system of virtual currency (Bitcoin or Altcoin) and the transaction history system. The virtual currency is managed consistency by adding all transaction record for a certain period per 10 minutes. For its processing, to record data consistency for all transaction that occurs during period subject to it and the past transaction data that is diverged into network are required. Besides, this transaction data is called Blockchain and the operation done here is block generation.

The virtual currency is not required banking facilities in the existing countries by this mining

function and keeps validity and reliability by P2P (Peer to Peer) network.

P2P means Peer to Peer (parity/par to parity/par, device to device) that is not via centralized server.

In other words, it calls negotiation transaction and it is used in several kinds of SNS now.

To join this mining is to keep and manage consistency or reliability of virtual currency, and to remove administrator like centralization.



Mining



Mining coin by mining server

### 3. Blockchain

The technology refers as pronoun of virtual currency is called Blockchain.

This Blockchain means technology of transaction data that is the center of virtual currency.

The transaction data (record) means transaction, and Blockchain is the linking condition of several transactions. The characteristic of Blockchin is to be managed dispersedly. That is kept by any user's computer. Due to no control facilities like countries, bank or finance organization, the information and authority are not centered in one place. That merit has an infinite of possibilities and it is expected to be offered many kinds of operation or service at low cost.

Blockchain is managed dispersedly by several computers so it is not possible to be renewed in real time per transaction. The operation will be done the approval as a whole per 10 minutes. For example, the transaction data (transaction) of cash transfer (when and how much it was transferred by who) is recorded. This will be the block. This record is opened so everyone can check it. But this information (transaction) is encrypted so the detailed information is not be checked. Any data of Blockchain can be checked and managed by anyone at any time.

The very personal information (detailed information) cannot be managed but it can be said that the security to prevent from any crookery is improved by disclosing time series of cash transfer.

Blockchain is the technology that is possible to be non-centralization and it can prevent server

down by batch management. Furthermore, every user monitors each other so it is not controlled by certain administrator absolutely. The direct cash transfer by using Blockchain among individuals without though finance organization is possible and it helps to reduce commission charges.

Finally, the best characteristic is crookery is impossible. Since Blockchain is encrypted and dispersed, if any crookery is done, it will be obvious by consistency with dispersed data.

In this manner, the technology of Blockchain can prevent any crookery or falsification from any aspect by front-line dispersion ledger that is not existed so far, and it must be the breakthrough technology for network technology.

#### **4. Ethereum Platform**

Our project adopts ERC20 because ERC20-compliant token is compatible to exchange so it can be smoothly prepared for future listing.

Besides, ERC20-compliant token can be used common wallet and it can be reduced development cost.

#### **5. Characteristics/Technology of Percival**

Our member had experience to design and develop front-line device of semiconductor, and to develop and expand the core components for the newest model electric device to the market. Especially, they had achievement of mobile device which was used SOC by company Q, the largest US application processor for one of the main component in smart phone. By using their SOC which is produced by the world front-line semiconductor 7 nano technology, we would like to develop the hard device for project Percival.

Besides, our member had experience for mining by ASIC exclusive mining machine so would like to expand the new mining market with our semiconductor technology and mining technology.

## 6. Characteristics of Company Q

Company Q is located in San Diego/USA and is the world largest manufacturer focused on mobile device.

**2017E Top 10 Fabless/System IC Companies (\$M)**

2017E Rank	Company	Headquarters	2016 Tot IC	2017E Tot IC	2017/2016 % Change
1	Qualcomm	U.S.	15,414	17,078	11%
2	Broadcom Ltd.	Singapore	13,846	16,065	16%
3	Nvidia	U.S.	6,389	9,228	44%
4	MediaTek	Taiwan	8,809	7,875	-11%
5	Apple*	U.S.	6,493	6,660	3%
6	AMD	U.S.	4,272	5,249	23%
7	HiSilicon	China	3,910	4,715	21%
8	Xilinx	U.S.	2,311	2,475	7%
9	Marvell	U.S.	2,407	2,390	-1%
10	Unigroup**	China	1,880	2,050	9%
—	Top 10 Total	—	65,731	73,785	12%
—	Other	—	24,694	26,825	9%
—	Total Fabless/System	—	90,425	100,610	11%

\*Custom ICs provided by foundries for internal use.

\*\*Includes Spreadtrum and RDA

Source: Company reports, IC Insights' Strategic Reviews database

## 7. Characteristics of SOC by Company Q

It is architecture of ARM base chip set developed by Company Q, and is the semiconductor used for Smart phone and Tablet mainly.

Its SOC is installed multi functions that include excelled processing ability, low power consumption and several kinds of communication function, and in additional minimum dimension. In case of model no. “QSD8x50” chip set, it is operated by 1GHz against CPU clock frequency for the normal mobile is 500MHz. Image processing is corresponded to WXGA (1280 x 720 dot) of resolution at max and to run 720p HD video is also possible. It achieves power saving function and battery can be last whole day. For the communication function, it supports W-CDMA (HSPA), Wi-Fi, ISDB-T, GPS and Bluetooth. For OS, it can be operated not only Windows Mobile but also Android and Linux series OS.

Its SOC has been started using for high performance smart phone such as “Nexus One” by Google and “XPERIA X10” by Sony Ericsson, and also for “Smart book” which is appeared as middle category of net book and smart phone.



## 8. Characteristics of newest SOC

The application processor of Snapdragon 845, the highest class of Snapdragon 800 series, can be said as the bestest performance device for CPU, GPU and network.



The super lowest power consumption and high performance SOC by 7nm process

## 9. High performance of SOC

The front-line device which was achieved super lowest power consumption with 2.8 GHz CPU and 630 MHz GPU in SOC.

Table: Main specification of Snapdragon 845 and existing Soc

	Snapdragon 845	Snapdragon 835
Model	SDM845	MSM8998
MFG. process	Second-generation 10nm LPP	10nm LPP
CPU core	Kryo 385	Kryo 280
Physical core number	8	8
Max. operation clock	2.8 GHz	2.45GHz
GPU core	Adreno 630	Adreno 540
Memory controller	LPDDR4X 1866MHz	LPDDR4X 1866MHz
Integrated modem	Snapdragon X20 LTE	Snapdragon X16 LTE



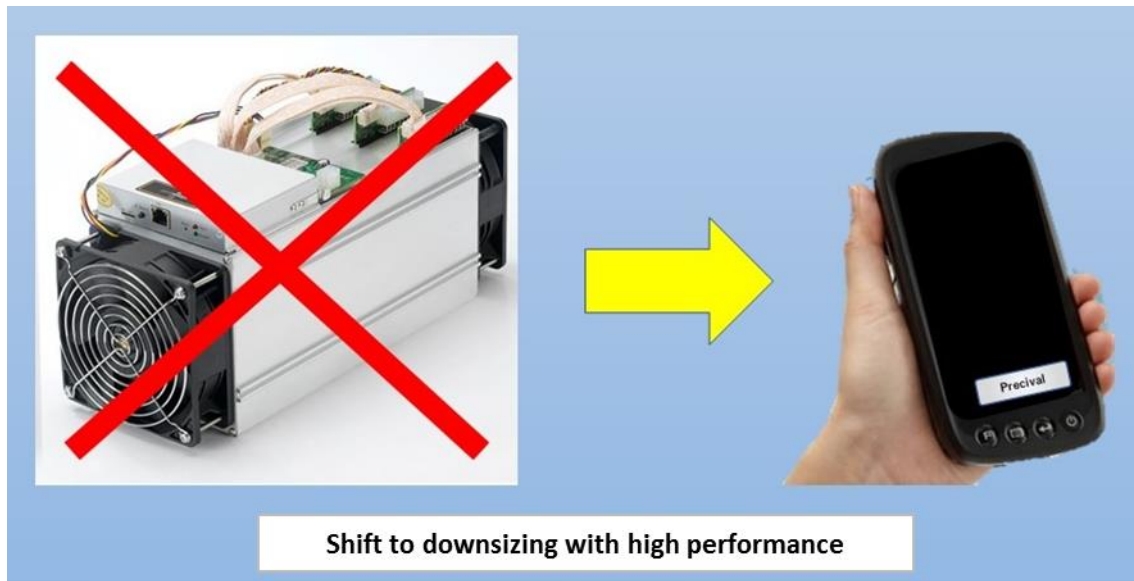
It has the highest score by mobile analysis App performance.

AnTuTu	Total score	CPU	GPU	UX	Memory
Snapdragon 845	266186	91848	107815	58779	7744
Snapdragon 835	194674	67351	79535	40956	6832
Kirin 970	212544	72470	81120	44281	14673

Geekbench	Single-Core	Multi-Core
Snapdragon 845	2457	8312
Snapdragon 835	1789	6389
Kirin 970	1887	6755

## 10. Characteristics of Mining Machine

By the lowest power consumption and fan less, our mining machine will be the super high efficiency rate mining machine. Besides, by the own developed cooling system, we invented cooling system for mobile device and greatly contribute to the reduction of running cost to contribute to the benefit and development for every joined miners.



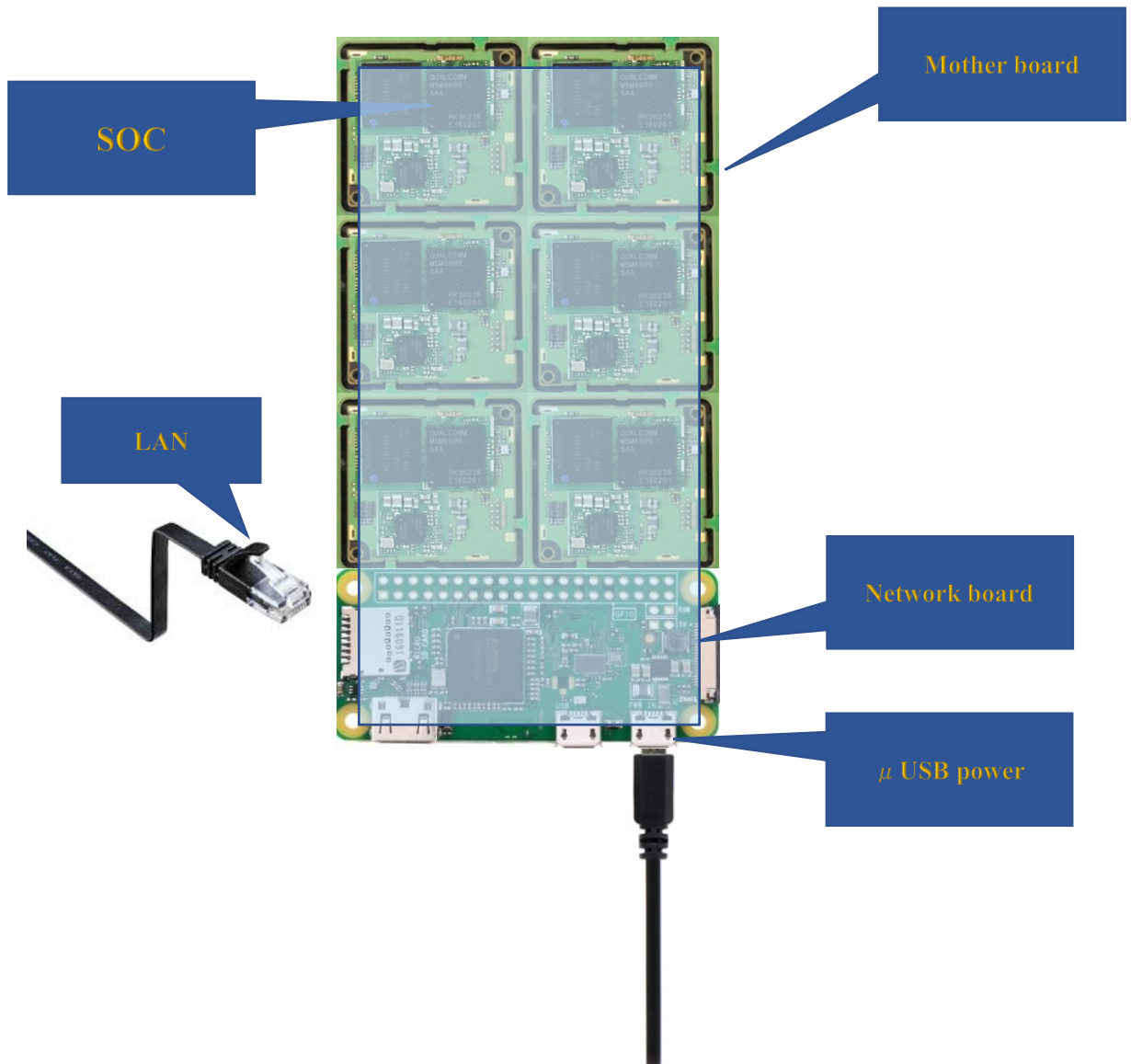
## 11. Original device using several pieces of SOC

We will make high performance device by using several pieces of Snapdragon 845.

This will be the first device in the world and the unprecedented technical structure is required.

We will make the original device that cannot be emulated but can do mining easily by using our original design technology.

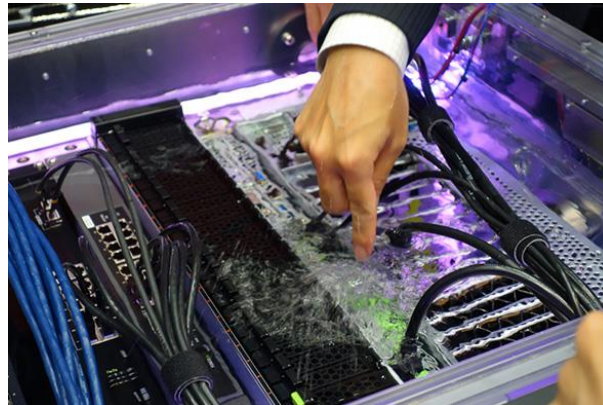
『Image of board assembling』



## 12. Development of cooling system (Immersion Technology)

Our machine will be different from the existing mining machine that is no noise and less electric expenses.

In addition, to have high cooling efficiency, by using immersion technology, we will make the world first mobile immersion machine in spite of mobile device.



Our designed structure will make performance of Snapdragon 845 higher and we will offer the machine that makes power consumption lower at the lower cost.

## 13. Characteristics of Percival

The below table shows comparison between our mining machine Percival and another maker's.

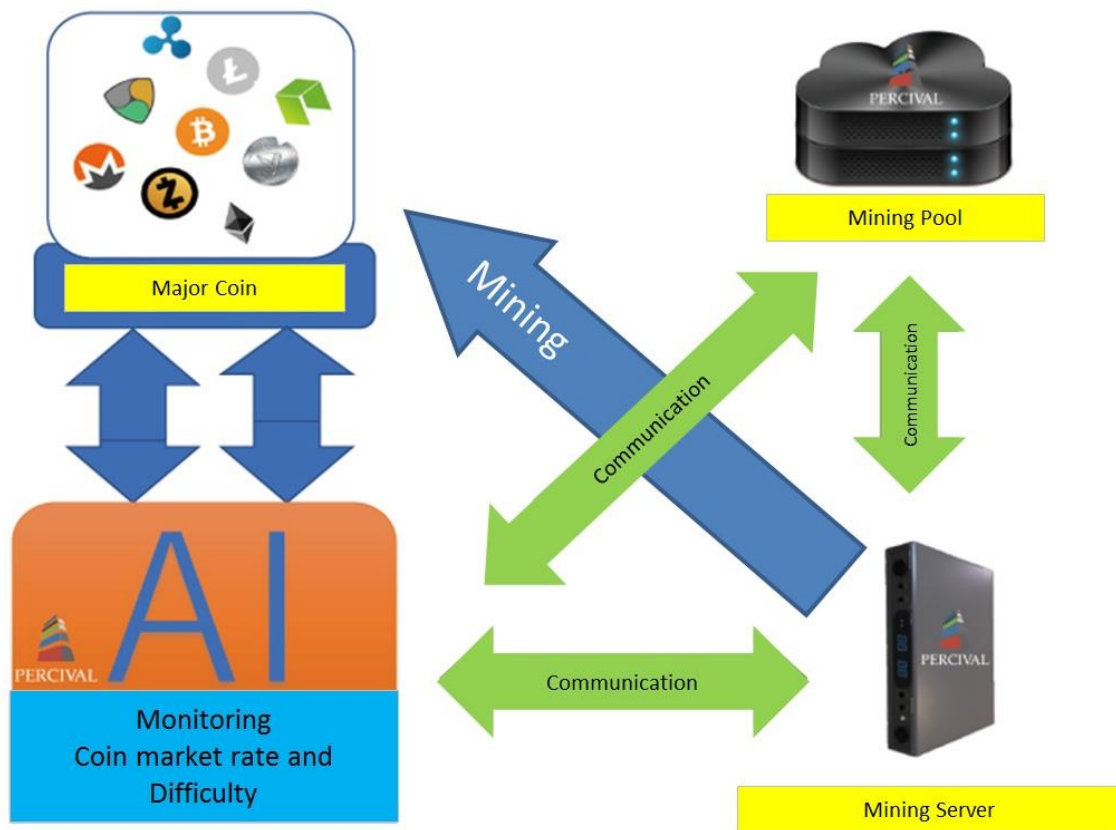
	GTX1080Ti	Percival Mark-1
Hash rate	GPU : 1683MHz Hash rate : 778Hs	CPU : 2.8Ghz×6 = 16.8Ghz GPU : 630M×6 = 3.78Ghz Hash rate : 10.8kHs
Power consumption	250W	80W
Cooling system	Cooling fan	Small size immersion
Noize	70DB over	None

“Lowering facility investment” “Ascent reward securement” “Reduction of power cost”  
“Decrease noise”

## 14. Utilization of AI

In mining market, many kinds of coins are existed and the benefit is disposed become unstable by change of difficulty or coin marketing price.

But by utilizing AI technology, it is possible to increase the stability of benefit.



## 15. Hash Rate

The hash rate is the number of operation efficiency. As a number is big, the mining ability is higher. The power consumption is direct linked to the electric cost so it is better to be lower. For cooling performance, if the machine has higher cooling performance, it can be kept the machine performance and failure rate will be lower.

By those points of view, comparing with other maker's machine, Percival Mark1 is superior in terms of all points.

Under the industry that the high performance mining machine has been developing, we have confidence to win the competition with other companies by the excellent staffs and development technology.

Next is about hash rate that is the most important for mining.

The miners that can get the mining reward is the one that calculate the complex code fastest only so when the calculation speed is increased, the mining reward gaining rate is also increased.

GPU mining server by other companies can be done mining by using GPU only but Percival Mark I can be done mining by using both of GPU and CPU.

Due to that, kinds of mining coin can be increased to keep the reward rate.

Verifying rewards for mining that can be obtained, by the other company's GPU server, a hash rate is 778H/s at core clock 1683MHz. On the other hand, by Percival, it is 10.8KH/s at 6 chip total. By other company's GPU, XMR coin can be mined 0.0894XMR only per 1 month but by Percival Mark1, it can be mined 1.24XMR per 1 month.

\* The values above assume that all factors are constant under the environment of each mining pool.

\* The calculations are based on the hash rate, mining difficulty at March 15<sup>th</sup>, 2018 present. The numbers may very upon changes in various external factors including changes in competitor products. (Updated on March 15<sup>th</sup>, 2018)

From now on, by proceeding improvement for electric power cost, we think that we can develop the next generation mining machine by considering operation efficiency.

## **16. Security reinforcement**

Percival is also focused on the security provision to keep participant's property and right, and to make it a goal to maintain the market stabilization.

## **17. Soft security**

Building the web application security using OWASP, we will offer the more secure environment and achieve the safety dealing using digital sign by public key cryptography, and also by sharing account information, we will support transparency of dealing and protection of privacy.

## **18. Hard security**

By using semiconductor for security, only strong authentication function and approved IoT device will have the limited access to online service. And only approval accessories and consumption parts can be recognized and used.

Complying with device authentic method of USB Type-C™, secure connection with remote host using TLS (Transport Layer Security) hand shake protocol will be possible.

Besides, as the additional function that the security infringement risk is suppressed in a minimum, secure upgrade for secure boot and firmware using signature verification, usage monitoring secure counter, secure paring with application processor at host, wrap/unwrap of local/remote host envelope and built-in key pair generation will be installed.

It will support asymmetric cryptography by Elliptic Curve cipher (ECC) using key of Brain pool curve 256bit and 384bit, and Target Cipher method using AES-128 or AES-256.

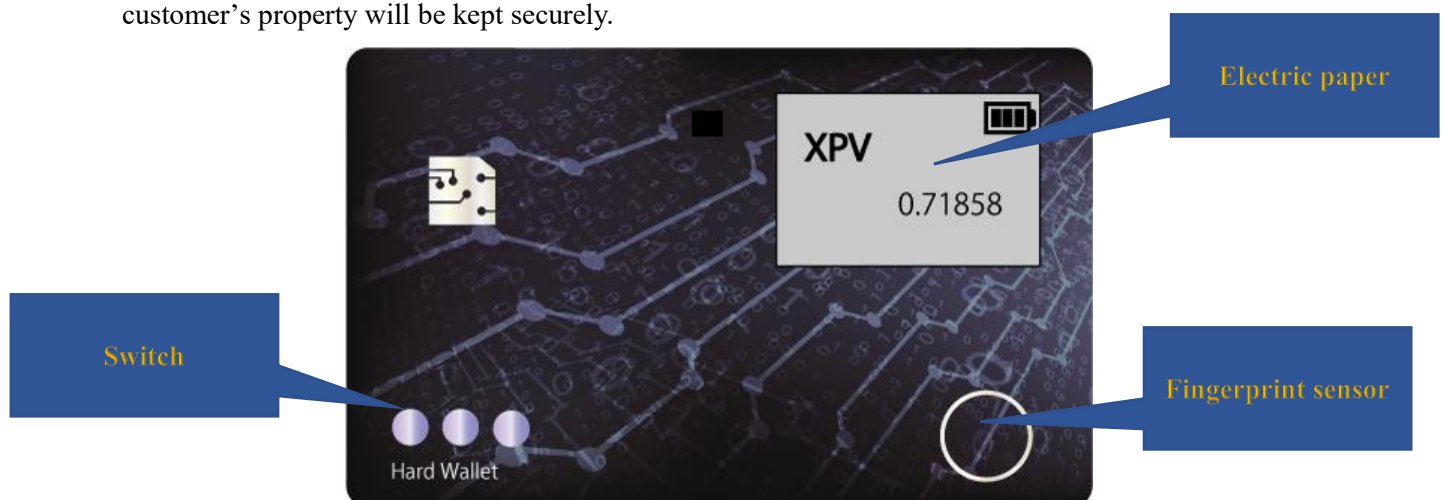
Having unique serial number, operating system will equip recognition and kernel for data control, and have the strong protection feature for each attacks (logical attack, fault attack, side channel attack and physical attack) with

## 19. Original pool (POOL)

By building original mining pool, we will build front line security system that can be accessed to own hardware only to have limited access from outside and to offer the stronger security system.

## 20. Hard wallet

Develop the hard wallet for Percival and main altcoin. Improve the environment that will not be subject to cyberattacks to keep participant's property. It will be card type that can be put in wallet. We will develop the card module with world's first finger print sensor that can validate identification. By build-in finger print sensor, it cannot be operated by third party and the customer's property will be kept securely.



## **21. Project Percival**

We believe that our duty is to utilize reliable technology to provide an environment that users can use with comfort, and this is our mission. By utilizing Ethereum platform that is used for Also, ICO and adding add-on the own interface, the security will be more strong and it makes the record and management of the dealing with more safety and reliability possible. Building the platform to offer the circumstance with comfort will lead to potential application.

We offer great flexibility with thinking user's profit first.

## **22. Approach to market extension**

To secure share of the mining industry, we work to develop high-performance mining machines and realize "high revenue" and "reduction of electricity cost", and use artifice for sales method to let every users introduce mining machine fairly, and also offer the best circumstance that more and more users can join and build the stable quality.

## **23. All begin by Project Percival**

As mentioned earlier, we will develop the superior hardware than other companies and by Project Percival, we will manage the log on mining machine setting in mining pool, and share the operation efficiency or abnormal value in real time, and shorten the down time (stop period of machine) at abnormal situation and prepare circumstance at stable operation efficiency.

## **24. How to purchase Percival Mark I/Hard Wallet**

Our developed mining server "Percival Mark I" and "Hard Wallet" can be exchanged by XPV coin.

We will manage the exclusive sales website and it will be exchanged XPV coin only.

The prior booking is available since May, 2019 via exclusive website and the shipment will be started since August, 2019 accordingly.

## **25. Financing Percival (ICO)**

Percival is a project with the purpose of "Regaining the user-led virtual currency market". To achieve the goal of the project, we issue XPV tokens and utilize the cloud funding model of Initial Coin Offering (ICO) to finance the project.

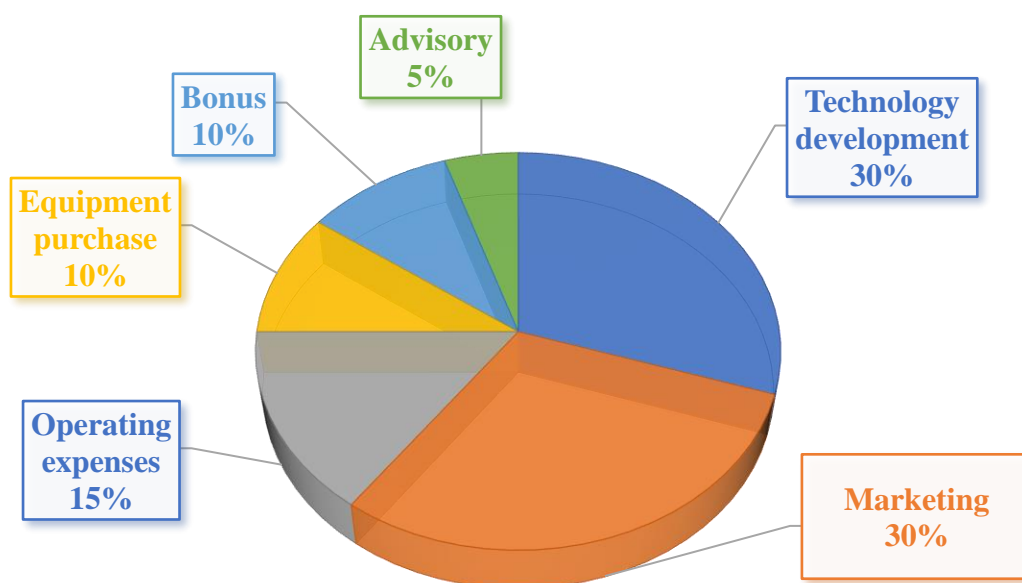


## 26. Use of raised financing

The financing raised through ICO will be used as development of machines, development of hard wallet, technology acquisition cost related to the development of mining pool, securing security enhancement and marketing cost.

Also, for investors, we will issue our own tokens called XPV tokens. The owners of XPV tokens can get the new developed mining machines, hard wallet and use right of pool.

### FUND USE



## 27. ICO (Crowdsale) details

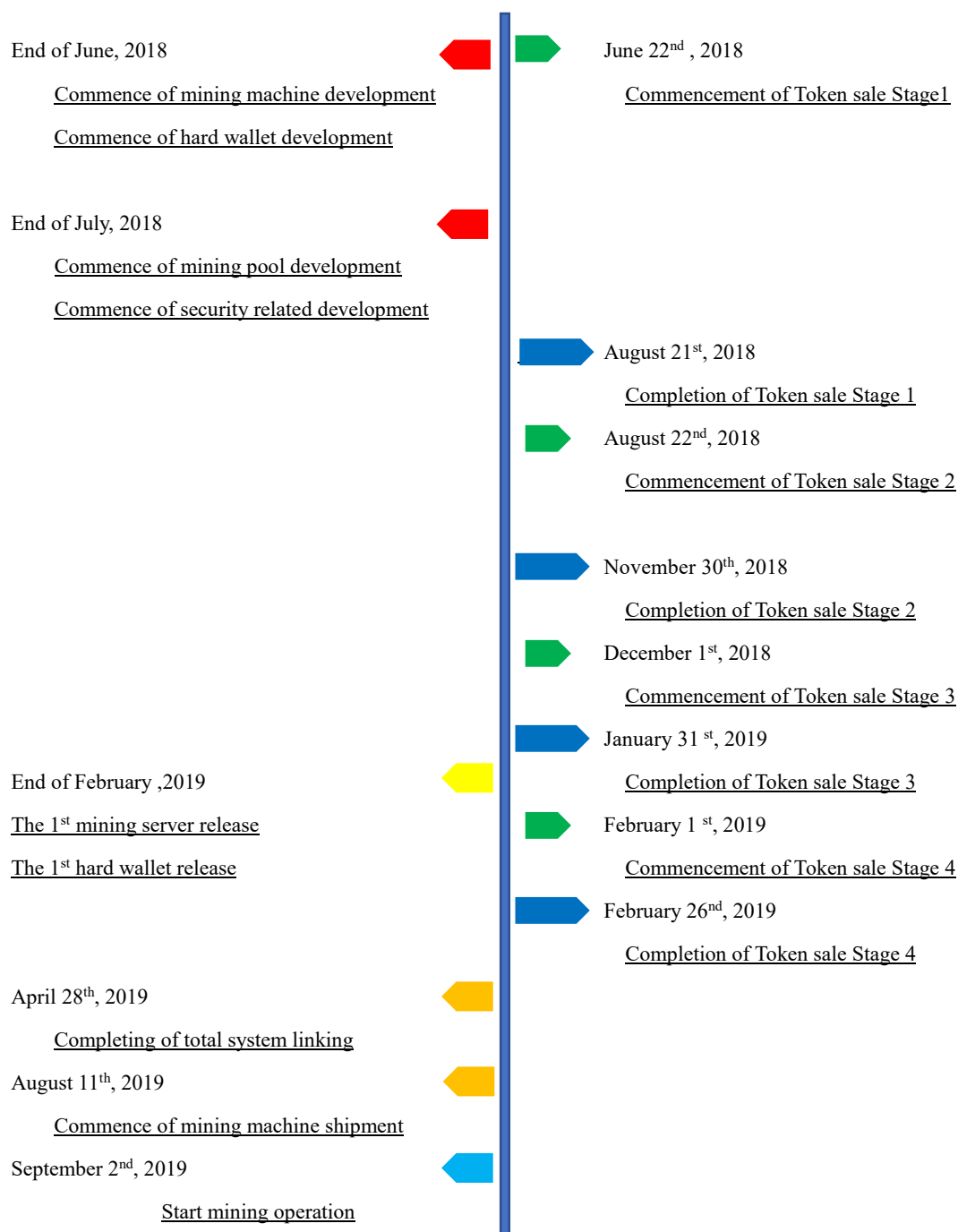
ICO will be implemented as follows:

Symbol	XPV
Total Issue	16,000,000,000 XPV
Financing Distribution (Tokens sale)	6,200,000,000 XPV
Hard cap	US\$ 72,000,000
Soft cap	US\$ 35,000,000
Joining max unit	3,200 ETH
Joining min. unit	1 ETH

## 28. Financing Schedule

Symbol	XPV
Issued	6,200,000,000
<u>Crowdsale Stage 1</u>	
Price	0.00002 ETH
Period	June 21st-August 21st,2018
<u>Crowdsale Stage 2</u>	
Price	0.00003 ETH
Period	August 22nd-November 30st,2018
<u>Crowdsale Stage 3</u>	
Price	0.00005 ETH
Period	December 1st,2018-January 31st,2019
<u>Crowdsale Stage 4</u>	
Price	0.00007ETH
Period	February 1st,2019-February 26th,2019

## 29. Roadmap



### 30. Features and Rights of Percival token

XPV token we prepare has the following features and rights.

- Converting with ETH is possible. (But it has the period for converting. Scheduled on Mar..2019)
- The trading of XPV tokens is possible after the ICO is completed.

### 31. Board member

#### Board Member



**Raymond T.M. Liong**

**CEO**

Linkiss International Limited  
Koshin (香港) 有限公司  
合力 (香港) 有限公司  
日本旅行 (香港) 有限公司



**Toru Ueno**

**CFO**

Ueru Co.,Ltd.  
SBI SECURITIES Co.,Ltd.  
Softbank Corp.



**Shinnosuke Arakawa**

**COO**

Linkiss International Limited  
Aplat Co.,Ltd.  
Fujiizm Co.,Ltd.  
Shintec Co.,Ltd.



**Benjamin Chuang**

**CTO**

Linkiss International Limited  
Luxshare ICT  
Plengoer Robotics  
Goertek  
Foxconn International Holdings



**Kouei Nakashima**

**CMO**

Bio research development company / CEO  
Advisor for Tokyo Stock Exchange  
1st section companies  
(for other 7 companies)



**Wang Xiu Min**

**Marketing Overseas**

Linkiss International Limited  
新藤電子 (上海) 有限公司  
ヒューレットパッカー (上海) 有限公司  
電通上海有限公司



**Ali Elsamni**

**R&D**

Linkiss International Limited  
Compass Technology  
Motorola Solutions Inc.  
Lucent Technologies Inc.

### **32. As Project Percival**

We are recruiting people who will support Percival project. This is not something where you just make a profit, we hope more and more people engage with virtual currency and also it requires the participation of people who truly desire the development of this market and toward for future. We enhance fluidity of XPV tokens and after listing on an exchange, it starts the actual trade and the market will determine the future. We would like to have more and more users understand the current status of virtual currency and would like to build relationships with people who are willing to provide us medium to long term support. Hope to receive approbation.

### **33. Risk disclosure**

ICO market has many issues on regulations or technical so it is important to understand the companies working on the project and the overview and purposes of the project. This acceptance is self-judgement so if you believe cryptocurrencies will not exist in the future, you should not support this project. Among the projects where ICO was implemented, there are many virtual currencies that grow into a major scale, and it is not so much a question of level for ICO market potential.

Everyone has chance to join the new project and can join easily. As many new projects are introduces one after another, ensuring the selection and determination of the right project will become important.

**Project operation company**



**Project Percival**

**Linkiss International Limited**

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