apollon
CRYPTOCURRENCY

We aim to be one of the top ten pan entertainment and leisure industry ecology alliances in the world, leading the transformation of entertainment and leisure industry and digital economic ecosystem.

APOLLON BLOCKCHAIN PROJECT

Pan-entertainment, commercial payment and settlement should be astronomical for the global economy. Apollon provides the underlying technology infrastructure for commercial-level applications by creating a highly compatible and expansible blockchain infrastructure. Realizing the "free flow of value" blockchain digital economic network.

Index

Apollon Foundation (Malta) Limited （"Apollon Foundation" or "the Group or APO"）– White Paper

This white paper ("Paper") has been prepared in compliance with best industry practices and regulations as understood by the Group. This white paper should not be considered as a prospectus nor an offer document and is not intended to constitute a security nor shares offering or a solicitation for securities investment in any jurisdictions. For more information, please refer to the Risk Warning and Disclaimer section of this Paper.

Important notice

This Paper is issued by the Apollon Foundation (Malta) Limited ("Apollon Foundation" or "the Group or APO") and has been prepared in respect of the issuance of cryptocurrency or token. This follows approval of the offer by the Board of Apollon Foundation through a resolution dated June 7, 2018.

Directors' Responsibility

The directors, whose profiles are provided in this document, have taken all reasonable care to ensure that the facts stated and the opinions expressed herein are true and accurate in all material aspects, and no other material facts have been omitted. The directors accept responsibility for the information contained in this Paper in relationship to Apollon Foundation.

Forward Looking Statements

This Paper may contain certain forward-looking statements with respect of:

• Certain Apollon future plans and objectives

• The Group's expectations in connection with launching products, service or technologies

• The Group's expectations on operating environment and market conditions

• The Group's business growth expectations on: the customer or member numbers, usage, and token exchange rate and against the possible backdrop of the market competition.

Forward-looking statements are usually not always 100% assurance of future performance and events. In certain cases, it may be a projection based on business assumptions or business forecast perimeters regarding present and future business strategies. The Group tries hard to offer forward-looking statements in order to present an easily comprehensible type of the future events and consequences. Nonetheless, forward-looking statements are not factual yet at the time of writing this White Paper. As such, in real business world situation, the end results could be better or worse as the situation may be.

Directors' Declaration

We hereby declare that the Board has taken reasonable care and assurance to ensure that the information contained in this Paper is comparable as much as we can. We certify that to the best of our knowledge and belief, there are no other facts the omission of which would make any statement within this Paper relating to Apollon Foundation false or misleading and that we have made all reasonable enquiries to ascertain such facts and that this Paper contains all the information required by law.

We confirm that none of the directors individually or with others, or in a company of which they were directors, has been involved in bankruptcy, liquidation or other regulatory prohibitions. As directors, (being the persons set out in June 7, 2018 of this Paper under the heading "Team" "Directors"), we collectively and individually accept full responsibility for the accuracy of the information provided in this Whitepaper.

Risk Warning and Disclaimer on Digital Asset

This Paper is intended to convey information to specific target groups that request updates on APO project. This Paper does not constitute any current or future investment advice nor any form of contract and buy-sell commitment. Since there are many governments holding different view on digital assets, their government prevailing rules or regulation may affect the reader's thinking about digital assets valuation and limitations.

A piece of digital asset may have its intrinsic value and may be subject to market fluctuation.   Readers of this Paper are requested to seek the opinion of their investment, financial and legal advisors on digital asset buy-sell. Readers are reminded to be updated on their respective country's legal rules and regulations of digital assets.

APO token is an important part of the Apollon platform ("Platform") project. It is not meant to be an investment product and does NOT fall into the following categories:

(a) Any kind of international country specific currency;

(b) Securities (not any kind of shares, convertible bonds, preference shares);

(c) Legal entities equity investment with the right to claim performance bonus;

(d) Stocks, bonds, notes, warrants, certificates, or other instruments that grant any rights.

APO token, one kind of digital assets in the market, does not give a buyer any share or claim of the company performance bonus in a form of interest nor dividend, and decision-making power of the company.

Once participants participate in the APO digital asset distribution plan, they understand and accept the implicit and explicit risks of this APO project and are willing to personally or collectively as the case may be to bear all economic and financial consequences.

APO respects and always acts on commercial activities in compliance to responsible country's rules and regulation. Participants must be updated on their respective country's rules and regulations on digital assets.

The Apollon team will not assume any responsibility for the consequences of the investor's personal buy-sell behavior. A participant must read APO's Terms and Condition carefully before making APO purchase decision. If you have any questions, you should consult your professional advisors as mentioned above.

The Apollon Foundation owners and management are collectively responsible for the factual description and accuracy of this Paper. Readers of this Paper are reminded that forecast of the APO business and the information technology ("IT") method of deployment may change when the Platform is on actual deployment.

IT deployment method is like fashion; it comes and goes. Newer technology may replace prevailing technology if the management believes newer technology can offer a more efficient, robust and secured Platform operations.

There may be existence of force majeure in any form of action from now to the actual operation of Platform. Alternative and remedial action may occur. Regardless, any alternate and remedial action is meant to improve the APO platform ("Platform") effectiveness and seamless operations on top of a secured Platform.   Any major changes in the implementation process will be updated on the APO website.

The team will publish updated progress reports on APO website, covering content and technical progress, and may be in a rare occasion omission of certain information.   APO vested and concerned parties are requested to seek updated reports or addendum to the Paper on APO website on a timely basis.   Apollon team explicitly confirms that APO does not assume any actual nor consequential losses arising from the buy-sell of APO token or coin.   This Paper again is an informational paper and participants should not hold Apollon team, individually nor collectively, liable for the sole reliance on this Paper for

the buy-sell decision.

Know-your-customer (KYC)

Due to different countries are holding different view on the cryptocurrency issuance, we shall restrict the buyers who are residents in the following countries:

1. People Republic of China

2. South Korea

3. Resident of United States of America

APO respects and observes rules and regulation as imposed by different countries. The restrictions on residents of restricting countries is a living documents. Digital assets buyers are requested to see our APO website for any latest terms and condition as imposed by APO on this ICO issuance.

1. Overview of Apollon Platform

The Apollon Blockchain Vision Statement

Apollon's business vision is to provide commercial-level integrated Blockchain infrastructure services. The Group's core competency in this business model rests on the following areas:

   a. A community marketplace concept based on a host of pan-entertainment offerings with diversity

   b. Capable and robust technology deployment in the Blockchain, side-chain and Blockchain security areas

   c. Strong and secured offering on the payment tools and payment gateway

   d. Structuring a 2-tier currency structure to alleviate a platform operator's pain points

And the Group will offer the following comprehensive set of technology functions:

1. The Apollon Blockchain project aims to develop and support all the related business applications with the underlying Blockchain infrastructure technology. The Group believes that APO Platform is one of world's first and most comprehensive multi-chain platforms, coving and re-sharping pan-entertainment and eCommerce ecosystem landscape. The re-sharping of products and service offering could mean that it is beyond a customer's comprehension (never know such a product or service could exist) at this point in time.   APO's vision is to have a "free flow of value", enabling users or members of the Platform to enjoy the benefits of the rich offering of blockchain technology.

2. APO's underlying technology infrastructure 1) uses BFT-DPoS as a consensus mechanism ("Byzantine fault-tolerant (BFT) consensus and Delegated Proof-of-Stake (PoS)"), supplemented by Blockchain cutting-edge technologies such as modular smart contracts, zero-knowledge

proofs, and state-channel technologies, to create high-throughput, high-security, resource-saving technologies with low-cost processing. 2) Longtooth as one of the world most innovated decentralized communication protocols to provide services to services direct communication without having to use any centralized servers. This is also a relatively better technology deployment method to prevent or reduce any hacking-risk, arising on single point of failure 3) TuYYo as one of the world most secure IM tools to provide state-of-art point-to-point, public and private (hot and cold) personal key to protect any message and document transferring to and from through the platform. 4) A technology combining NTRUsign signature and Keccak-512 hash algorithm reduces risk and threats of rapid development of quantum computing and popularization of quantum computers.

3. Apollon enables cross-chain interaction technology to allow many different Blockchains to connect and communicate with each other. A variety of systems can run through and to integrate with each other to provide an efficient, convenient, secured, and stable data processing.   The Apollon Blockchain system enables a large number of Blockchain data to do parallel processing. The Group is closely watching the IT development of the Pratt & Whitney case of Blockchain deployment which apparently may trigger the change of the future evolution of FinTech deployment .

WHAT'S APO

The Apollon Blockchain project aims to develop and support all the related business applications with the underlying Blockchain infrastructure technology. APO's vision is to have a"free flow of value", enabling users or members of the Platform to enjoy the benefits of the rich offering of blockchain technology.

BFT-DPoS consensus mechanism | Innovated decentralized communication protocol | Secure IM tool | Anti-quantum algorithms | Cross-chain interaction technology

2. APO Ecology – Linking Entertainment related Parties into the Platform

Apollon's strategic plan is based on Blockchain based pan-entertainment service offering. And the Group may be closely following the footsteps of Tencent Holdings Limited ("QQ"), a Hong Kong Stock Exchange listed company on the gaming industry with different set(s) of technology deployment. The Group respects QQ group and its management, and it would be very hard to compete with QQ, based on their current offerings and its market position. However, the Group wonders that there must a new and disruptive way (according to Harvard Business School Disruptive business model) lying ahead of QQ's current game offerings. That way, may be the Group can compete with QQ on their huge customer base.

QQ has active user of over 980 million and their value-added service ("VAS") which is mainly their gaming business. For the year ended December 31, 2017, QQ reported VAS revenue of RMB 154 billion (US$24.2 billion) which has a year-on-year growth of 43%. By any measurement standards, their VAS is clearly in leadership position in this field.

It is the Group's plan to have the following business in the Platform and effectively, this Platform can be considered as a type of eCommerce platform. The difference between APO Platform and eCommerce is that APO Platform can be very international, offering simple and effective payment tools. It also offers electronic wallets and smart payment tool (smart contract), offering clearing and transactional convenience. Last but not the least, it is a secured and interactive platform, offering high degree of privacy with an international acceptable payment token, APO coin:

1. eCommerce for new technology and latest fashionable products (including Internet of Things, artificial intelligence products etc);

2. QQ or equivalent of gaming or entertainment service offering;

3. Chat room for innovative service offering;

4. Travel and related services

5. Secured and efficient payment method

As an example, let's consider there is an operator on APO Platform, wanting to promote Nha Trang in Vietnam holiday package. Booking can be done via Blockchain then onto the side chain to complete with payment in APO coin. Travel and living spending bonus points can be used in the APO shops for discount or price reduction incentives.

Another example, let's consider there is an operator wanting to offer the same idea as QQ in gaming. He opens an electronic shop in APO Platform. International players can use APO coin to play and the loyalty bonus points can be used in the game or other Platform shops.
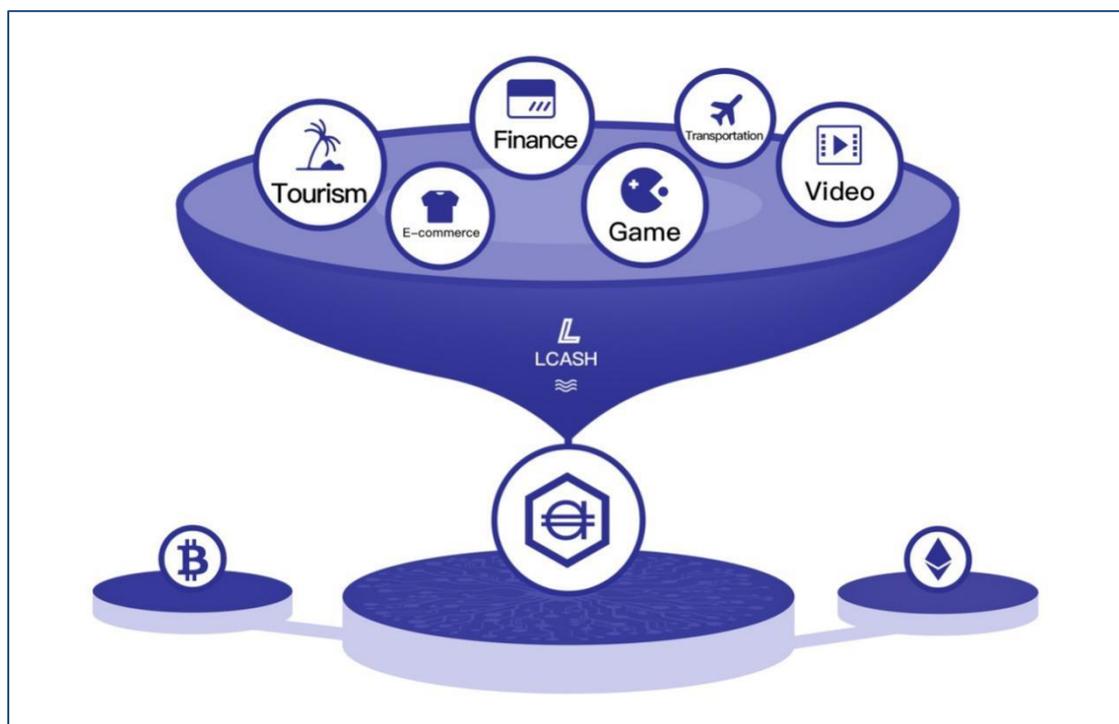
Specifically, APO Platform will offer the following:

1) When an interested APO commercial retailer, service provider or operator working on a legitimate and defined industry, once buys a defined quantity of APO coin, this entity can have the right to build and operate an electronic shop ("e-Shop") on the platform subject to APO internal compliance review;

2) Apollon will provide Blockchain BFT-DPOS secured mechanism to e-Shop operator, enhancing their ongoing and secured operations while offering corresponding incentives to the e-Shop operators and possibly their end-customers;

3) Apollon Blockchain offers high degree of seamless data processing productivity to ensure TPS throughput and guarantee continuous DAPP usage. An e-Shop operator can develop its own application running on side-chain basis within the system, such as games, chat or other applications enhancing a user's experience;

4) Apollon Blockchain offers a two-tier structure, meaning between the underlying Blockchain technology and commercial or e-Shop specific application. Operator can run its own customer's payment and clearing infrastructure (say call it, POS) and Apollon will not involve on its POS flow;

5) APO underlying technology infrastructure uses BFT-DPoS as a consensus mechanism, supplemented by technologies such as modular smart contracts and state channel technologies, to build high throughput and security with low operating and running cost;

6) Eventually, Apollon Blockchain will also support other popular Cryptocurrency, say Bitcoin or other ERC20 standard coins once a net transactional set of data are sent to the Blockchain level for clearing or application of Blockchain smart contracts;

7) e-Shop operator runs its own business application on a side-chain basis and there are several available technologies available such as state channel, smart contract or flashing. There will be sufficient security mode being built into the whole network;

3. Innovation : Blockchain-based Pan-entertainment Alliance

3.1 Optimization of Trading and Payment System

(1) Global trading volume and payments are on the rise

Boston Consulting Group ("BCG") published their report "Global Payments 2020 ways from 2016 through 2026". BCG indicated that global payment is on the exponential growth path.   And the growth engines derive from the following categories of payments:

1. **Diverging Growth Across Regions –** different growth rate for mature and emerging markets
2. **Retail Payments -** Consumer-led payment business (typically Business to Consumer, "B2C")
3. **Wholesale Payments –** Business to Business payment **("B2B")**
4. **Cross-Border Payments –** International trade Cross-border payments

BCG indicated that during 2016, global payments reached US$421,105 billion. Payment venue can be classified as below:

      a. Bank-led
      b. Telco-led
      c. Prepaid & Electronic Wallets
      d. eCommerce-led payments
      e. Special purpose payment banks

Apart from all the international bank payments, other payment "tools" are shown as below:

1. Paypal
2. Credit Card – Visa, Master & American Express
3. Apple Pay
4. Android Pay
5. Samsung Pay
6. Ripple for international payments
7. Merchant wallet such as Neiman Marcus department store etc

BCG also indicated that in 2016, non-cash driven global payment was about 5.5 times global countries GDP with a close to year-on-year 4% growth. At the same time, the revenue generated by core payments has reached 800 billion U.S. dollars, accounting for 20%-25% of the global banking industry revenue.

The Group believes that once the Apollon payment platform becomes operational, the demand for its service and in the near future on B2C and B2B payments could be substantial.

(2). The fee is greatly reduced

The existence of Blockchain is in fact an industrial break though by the virtue of its distributed, secured, auditable and decentralized processing mode. With high diversity of parties in the Blockchain network, there is almost little needs for any trading or finance intermediate entities.

At present, the overall transactional fees charged by different payment modes in various countries varies from 1%-3%.

(a) China's specific payment entities charge a lower fee: Alipay and WeChat. Their domestic fee-charge is between 0.38%-0.6% and for international payment, up to 3%. In special circumstances it may reach 5%.

(b) Paypal for example, its current charge rate is between 2.9% to 4.4%. For digital product rate, it could be as high as 6% and with a commercial bank equivalent of cross-currency exchange rate. There may be times, the cross- currency rates are less competitive. If in a case of less competitive cross-rate charged, the fee charged could be up to an additional 2.5%. Paypal has more than 210 million global active accounts, covering more than 200 countries and regions, and can accept more than 100 currencies, payment and access to support 56 currencies, 25 kinds of currency accounts. Paypal is one of the strongest and leading international payment

companies in the world. For any B2C and B2B global payments, the transactional cost could be high.

Core payment will increase by $900 billion until 2026
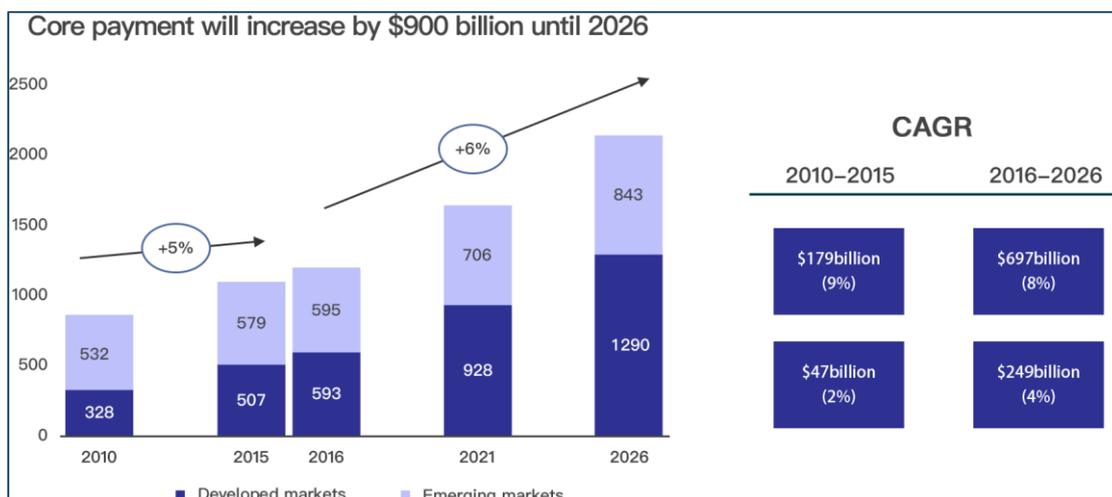
(3). Cross-border payment

During 2016, China's import and export cross-border e-commerce (including B2B/B2C) reached RMB 6.7 trillion (US$1.05 trillion), which accounted for 27.5% of China's total import and export volume with rapid growth. At present, China has established 13 cross-border e-commerce comprehensive experimental zones. In 2016, Haitao, a Chinese eCommerce website helping Chinese buyers to buy foreign goods had reached RMB0.42 billion (US$66 million), an increase of 83% over 2015. This trend will increase further with the rapid development of cross-border e-commerce. Chinese cross-border e-commerce sales, not counting B2C elements in the Tmall.com and JD.com was USD 86 billion in 2016 which was three times the value shown in 2014, as quoted by eMarketer, a research consultancy firm.

In 2017, total number of China global outbound tourists exceeded 10.5 billion for the first time which was much higher than 15 years ago. At the same time, the total tourism revenue in the year of 2006 reached 5.17 trillion, equivalent to 7.0% of global GDP.

Asian students studying abroad is also a big market. The market size of

China's student studying abroad is over RMB250 billion (US$39.4 billion). It is estimated that there will be an additional 85% if it were also to account for students' local consumption in overseas countries.

(4).Real-time trading

As mentioned before, Blockchain is a distributed, auditable, secured and difficult-to-hack platform. It is a decentralized platform adopting a unique consensus mechanism to achieve decentralization.   That is to say, there may very little need for any financial intermediate organizations to be involved in the process.

As in recent years, concern raised by different countries and governments on Anti-Money Laundry ("AML"), Know Your Customer ("KYC") and Anti-Terrorist Money ("ATM") are on the rise.   For any larger amount of money transfer, the lead-time is not within 24-hour.   There were cases that a bank transfer could be suspended for months, pending for the bank's detail compliance scrutiny.

Payment channels	Speed	Fee rates	Transaction scenarios
T/T	T/T actual bank–in date is slow but banks will value back the date of transfer	High fees ; Multiple fees ; quota limits	B2B & Large amount ; traditional import/ export trade
Professional remittance company	Fast ; 10~15 mins	High fees; differentiated fees	Less than $10,000
Third–party payment	Fast ; T+ 0	Low fees	Small amount & high frequency ; cross–border E–commerce

| T/T、Draft、Credit Card , etc | → | Oversea third-part payment organization | ← → | Domestic third-party payment organization |

Pay/ Receive exchange

| Oversea buyer | Orders → | Cross-border E-commerce service platform | → | Domestic seller |

| Domestic logistics | ← | Customs | ← | International logistics |

← Capital flow   ← Cash flow   ← Product flow
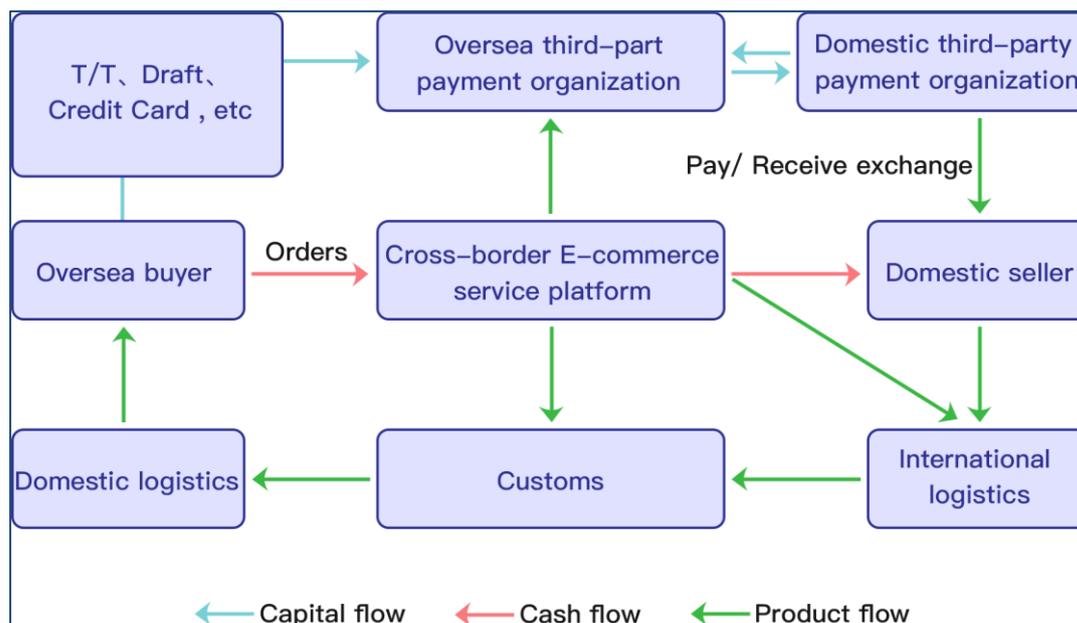
3.2 Optimization of the Ecological Alliance

(1). Establishing a Universal eCo-Standard Payment for Recreation

The majority of cross border payments cover B2B model but B2C payments are on the rise. It is the Group's intention to create and offer a seamless cross-border payment system using APO coin. Without using financial intermediate, over times may speed up the transfer process. This payment mechanism could be extended to cover eCommerce (B2B & B2C) transactions.

At present, the industry standards for payment and settlement procedure vary among countries. Local country government policy, Central Bank guidance and its local currency is adding another layer of complications. Blockchain is ONE international network with "free flow" of cryptocurrency.

Blockchains are decentralized and distributed (distributed ledger technology) across P2P networks that are continually updated and synchronized. Blockchain doesn't have a centralized location and there is no single point of

failure. Delegated Proof of Stake ("DPoS") is a consensus algorithm maintaining consistent agreement on the truth across the network, validating transactions and acting as a form of digital democracy. It is an efficient system.

(2). Data Protection and System Optimization

Blockchain offers compelling reasons where you can transact without having to hand over every part of your transaction details, remember or activate the account owner's PIN using special method. The Blockchain's potential for zero knowledge proofs also offers a cryptographic way to do things like prove your age without showing your age, or demonstrate and proof your status with a record of successful transactions — without revealing detail transaction content.

3.3 Data Privacy and Information Security

Centralized customer's data base could have a chance to be hacked or stolen. The recent Facebook's database leakage is a good example. For centralizing data base storage, there is always a security risk no matter how small the probability from happening. However, by the virtue of decentralized computing, Blockchain has a security advantage.

3.4 Optimization of Blockchain Technology

(1) Double-Layer Mechanism

The double-layer mechanism is the unique digital system for APO's ecology. In addition, it will drastically increase the efficiency and reduce the payment and clearing transactional cost. It is a combination of market rate driven APO token and the constant dollar secondary currency. The characteristic of APO offers a shelter, shielding digital asset market rate fluctuation risk, ensuring a constant dollar nature of the settlement monetary tool, the secondary token.

(2) High Throughput

The APO Blockchain underlying technology infrastructure for commercial applications has the advantages of high security and throughput, resource conservation, and low operating costs. The BFT-DPOS consensus mechanism is adopted, and APO incentive mechanisms are incorporated to achieve parallel processing. The super node governance mechanism is being put forward for DPOS super nodes to construct an ecological production framework.

(3) Wide Application Scenario

APO eCo-Platform comprises of convenient commercial and other offerings such as online games, cross-border eCommerce, animation IP, travel and tourism service offering and other complementary service offering. Within the APO eCo-Platform, trading could be done directly, avoiding or eliminating unnecessary third parties "less-value-added" service, resulting in lower transactional costs. And the interaction with the respective trading party is direct, without the need of the middle man or intermediate.

4. APO Solutions – Linking Entertainment

4.1 Apollon Double Pass Structure

The Group aims to conduct international business. To avoid or alleviate unnecessary transactional complication based on APO coin market value fluctuation, Apollon designs a dual-layer digital currency structure based on:

1. APO and
2. LCASH (Liquidity CASH which has a par value of US$1.0)

In the Apollon Blockchain double-layer structure, APO coin is the primary cryptocurrency. It has an intrinsic market value which may vary over time. Within the Apollon eCo-Platform, there is another "operational currency" called LCASH. Each LCASH is equal to US$1. It is used as an intermediate tool bridging the legal and APO token currency. It acts as a currency applicator for intermediaries and legal currency clearing and settlement with stable value. The currency tools (or token) will facilitate consumer payment and simplify a merchant's clearing and settlement process.

Apollon will develop a Level 2 Exchange Gateway platform for double-layered digital currency structures, providing basic coding and templates. However, the issuance and the actual transactional trading of LCASH is the sole responsibility of the merchant(s) or operator(s). The Group as expected will provide all the necessary API and Platform inter-connect technology to the operator(s).

If needed, different merchants can have their own coins at side-chain level. It could be LCASH1, LCASH2, LCASH3 etc. Unlike APO coin, LCASH is being issued by merchants via an APO coin deposit to the Platform as collaterals.

The exchange gateway allows global APO merchants to quickly convert secondary token into their required currency.   By using the redemption platform gateway, merchants can freely convert any legal currency, digital currency, and online platform tokens (such as online game tokens) in the ecosystem. In the same way, consumers can also use Level 2 token to purchase products or services from any merchant in the Apollon platform. They can also exchange secondary tokens with local merchants.

4.2 Advantages of Double-Layered Permit Structure

In the APO Platform, LCASH can be used within the close circuit and with high degree of security and privacy protection.   Moreover, LCASH has a constant value.

4.3 The Relationship between Two-tier Structure and Operation Logic

The APO Blockchain is meant for global merchants.   In order to offer higher degree of service, merchants are requested:

1. To purchase APO coin first
2. Thereafter, this merchant has the right to operate and to issue LCASH
3. In order to sustain the LCASH value security, say for example $1,000,000 worth of APO coin will be placed to APO Platform as security in order for merchants to issue $800,000 worth of LCASH
4. For remaining 20%, APO is treated as a collateral against the intrinsic value of APO fluctuation
5. This 20% value is considered as a buffer or reserve against the backdrop of the APO coin market value fluctuation.

As such, APO is acting like an internal banker to the merchants in the APO platform.   This way, the issuance of the LCASH is systematic and well under control.   When there is a large consortium wanting to open a small number of

e-Shops on the APO Platform, the consortium could opt for just using their consortium-led LCASH (one type only) or issuance of different LCASH: LCASH1, LCASH2 or LCASH3 etc.

The Group could allow external party to operate like an internal banker within the platform at a later stage.   By then, the Group will be in a better position to consider the terms and condition of the external party service offering.
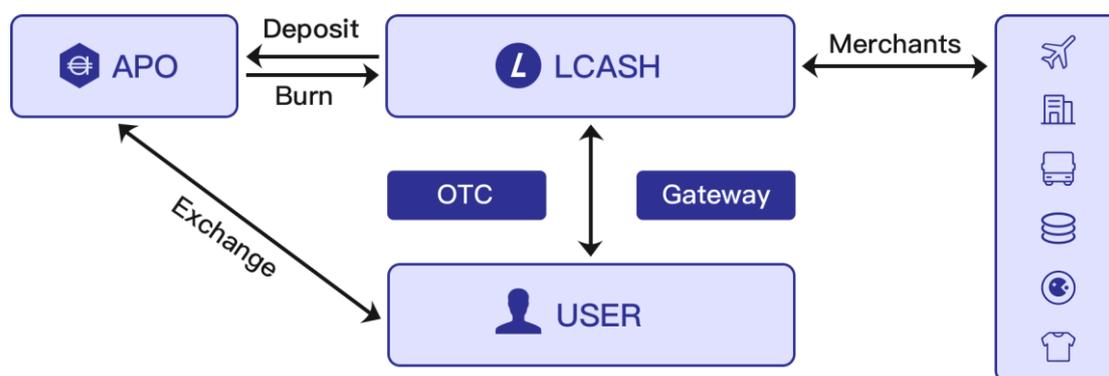
As long as there are merchants opening up new e-Shops and there are consumers exchanging the LCASH via buying APO coin, the free market supply and demand dynamic may possibly push up APO coin market value.

5. Technology Implementation – Build the Underlying Foundation Framework

5.1 BFT-DPoS Consensus Mechanism

APO determines the block out time and in this case, every 0.5 seconds. At a given time, the production of each block will only be granted to a block producer. If a block fails to be produced within the specified time, the block at that specific time will be skipped. When one or more blocks are skipped, there may be more than 0.5 seconds of blocking time.

In the APO system, 126 blocks will be generated per round (each block producer produces 6 blocks, multiplied by 21 block producers). 21 independent block producers will be voted by APO holders. Selected block producers will perform block production in the order agreed by most block producers (more than 15 block producers agree).

These 21 super-nodes will be responsible for collecting the transactions in the network, verifying the transactions and packing them into the blocks, and broadcasting them to other nodes. After the verification, the blocks will be added to their local Blockchain.

If a block producer misses a block in production or does not produce any block within 24 hours, they will be removed from the block producers until they announce their intention to re-produce blocks to the entire network again. By

eliminating obsolete blocks, producers can minimize the number of missing blocks while ensuring the smooth operation of the entire network.
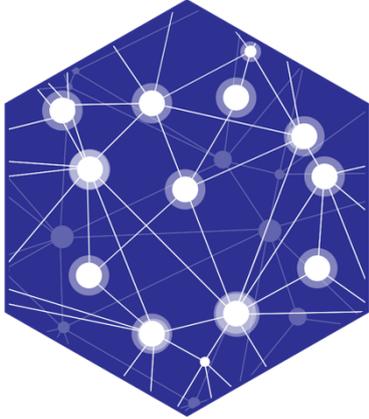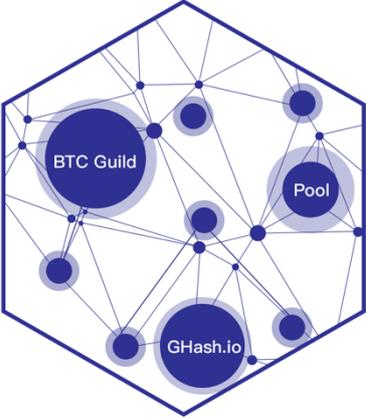
Property	DPOS	POW	PPC POS
Discouragement of power centralization	✓	✗	✓
Higher TPS	✓	✗	✗
Higher speed of verification	✓	✗	✗
Energy–Efficient	✓	✗	✓
Encouraging development	✓	✗	✓

Under the DPoS consensus mechanism, block producers have a cooperative and reciprocal relationship. Each node cooperates to complete block production and accounting. This is unlike the other consensus mechanisms that compete with each other for benefits reasons. The workload verification consensus mechanism (PoW) and the next node competes for bookkeeping rights through computational power, resulting in the whole network computing power concentrated in the hands of a few mines, or the nodes in the PoS to obtain more bookkeeping awards by competing for the amount of the holding money.

When a bifurcation occurs in the network, the consensus algorithm will automatically jump to the longest chain to avoid the occurrence of hard bifurcations. Block producers are required not to produce blocks on two forks at the same time. Block producers who violate the rules will be removed. The system automatically recognizes and removes violators who have this dual production cryptographic evidence.

On the basis of DPoS, APO will join the Byzantine Fault Tolerance Consensus (BFT) to provide fault tolerance of $f=\lfloor(n-1)/3\rfloor$. This fault tolerance includes both security and availability, can withstand general failures and Byzantine failure. In the APO network, a block is identified as irreversible after being confirmed by 15 block producers. With this consensus, any block producer could generate cryptographic evidence. This would result in the same time stamp or block height betrayal on both blocks, generating cryptographic evidence. The irreversible consensus in this mode is expected to be reached within 1 second.

High Throughput

Under the DPoS consensus mechanism, 21 nodes with high computing power are selected by the entire network as representatives to maintain the network and produce blocks, ensuring a stable high throughput (TPS) for the entire network. APO can reach tens of thousands of transactions per second, far beyond the speed attached by Bitcoin and Ethereum. High throughput enables faster transfer rates, lower network latency, and smoother operation. It also allows users to experience the same transaction speeds as existing

mainstream payment methods such as Alipay, WeChat and VISA.

High Security

The high degree of decentralization of APO makes the entire network structure and user access more stable. Developers gain proportional network bandwidth, storage space, and computing power in proportion to APO holdings in the APO network. This may make local networks less vulnerable to attacks and the main network will not be affected, thereby increasing the security and reliability of the network.

Save Resources

Compared to Bitcoin and Ethereum's PoW consensus mechanism, the DPoS consensus mechanism adopted by APO does not need to increase the power to compete for the right to book, and not to waste extra computing power and greatly save resources.

Low Operating Costs

The APO ownership model allows developers to obtain the proportion of the resources by the number of APO token holding. There is no need to spend on the development and deployment of applications, and there is no need to continuously burn GAS costs during the development and deployment of applications like Ethereum. GAS fees continue to increase with the increase of applications on the Internet.   Besides the buying APO tokens as collateral to APO Platform, there is no fee payable while trading on the APO network.

5.2 APO Decentralized Service to Service Direct Communication Mechanism

Every elements on APO system is meant for addressing some kind of services. APO adoptes Longtooth, an open and patented technology that can easily enable interconnectivity and interoperability between all services across different ecosystems thus potentially creating a massive combined ecosystem unmatched by others in size. It assigns unique identification to each participating service and its applications. Such identification will be used for authentication and authorization during interacting with other participating

services. Latency issues are hugely alleviated as things to things communications can be used as much as possible instead of going through a middlemen cloud.

5.3 APO Bit and Byte Data Transfer Secure Protection Mechanism

Every data flow on the internet will have risk of getting sneaked by Data theft. APO believes that protection of each bit and byte on the system is one of the most critical needs for APO system.   APO adopted TuYYo, one of the world most secure IM app technologies, the state-of-art public and private (hot and cold) personal key to protect any single message and document transferred through the platform. Every encrypted data need to have the "present hot key" to decrypt the data, that means the "present hot key" keep modified every second on the network so as to protect using old key to decrypt old data. In addition to the data flow from the internet, APO wallet, APO IM will make use of TuYYo technology to protect users' data as the highest security level.

5.4 APO Anti-Quantum Algorithms

New anti-quantum algorithms are devised, which replaces existing SHA series algorithm with the Keccak-512 hash algorithm and replaces ECDSA signature algorithm with an integer lattice-based NTRUsign signature algorithm. These algorithms reduce the threat coming from development of quantum computing and gradual popularization of quantum computer. New anti-quantum algorithms are devised, which replaces existing SHA series algorithm with the Keccak-512 hash algorithm and replaces ECDSA signature algorithm with an integer lattice-based NTRUsign signature algorithm. These algorithms reduce the threat coming from development of quantum computing and gradual popularization of quantum computer.

5.5 APO Incentive Mechanism

In order to encourage more nodes to participate in maintaining the main network and block production, to provide computing power and network resources for the system, APO network needs to generate APO coin incentive to those cryptocurrency miners.   APO will use up to 30% of the total amount of tokens as a prize pool. After each consensus is reached, those who book and provide resources will receive a certain amount of APO awards. APO's incentives could be adjusted in future, depending on the actual situation.

5.6 Parallel Processing

APO allocates various parts of the block to different processing processes and parallelizes the blocks. Specifically, APO divides the block into cycles, each cycle is divided into threads, each thread contains a list of transactions, and each transaction contains a set of information to be sent. In this tree structure, the interaction layers are parallel to each other and each is processed sequentially. The parallel processing speed will be several times faster than a single processing speed.   As such, the APO network throughput will be further improved to reach a higher level. And commercial applications on the network will also be supported.

5.7 Super Node Governance Mechanism

The APO system grants Blockchain producers (super-nodes) the ability to freeze accounts, upgrade application systems, and propose hard-fork improvement suggestions for underlying protocols. When a smart contract has vulnerability or an abnormal state, a super-node has the right to decide which transactions are added to the block and which one is to be frozen. At the same time, APO creates a point-to-point protocol as a legal constraint on the entire network. Users in the network need to sign on it. This protocol defines the obligations that users need to perform to resolve disputes between users. It also defines the source code for readable intent. Protocols, used to identify differences between bugs and features, direct the community to fix when errors occur. Every transaction in the APO network must use the hash of the protocol as part of the signature.

High Reliability and Consistency

The governance mechanism of APO can perfectly resolve the differences in the network and quickly reach consensus, avoiding situations in which the interests of investors are substantially impaired when the system is being attacked or problems are not quickly being resolved.   It will then improve the reliability of the APO network.

5.8 Smart Contract

APO uses highly efficient modular smart contracts that can support different

development languages. At the same time, developers can develop their own unique smart contracts on the side-chain to meet a developer's needs for smart contract customization. To say the least, smart contract is a key part of the payment and receipt system and APO Platform needs smart contracts for APO coin and LCASH utilization.

5.9 Zero Knowledge Proof

APO payments are posted on the main chain, but the sender, receiver, and transaction amount of the transaction would be confidential. APO encrypts the contents of the private transactions and uses the latest cryptographic technology solutions to verify their validity. It also supports privacy and transparent addresses, providing privacy and selective transaction transparency.

APO uses zk-SNARK's zero-knowledge proof structure, which allows the network to maintain a secure balance ledger without publicly showing trading participants or transaction amounts. Transaction metadata is encrypted and does not publicly display spending rights and transaction amounts. zk-SNARK is used to ensure that no one is cheating or stealing the transactional details and its related economic asset value.

Strong Confidentiality

APO enables users to enjoy the advantages of high speed and convenience of the underlying Blockchain, ensuring a user's private and sensitive information.

5.10 State Channel Technology

APO uses state channel technology to enable chain-to-link transfer and reduce the burden on the main chain. In simple terms, APO establishes a transaction settlement layer outside the main chain. APO holders can establish nodes in the channel, and nodes are connected to each other to establish a channel. Both parties can directly or indirectly clear through the transaction channel. The multi-signature final transaction confirmation will return to the main chain. State channel technology greatly increases transaction speed, while further enhancing privacy to reduce transaction costs.

The only publicly visible transaction is the transaction when the channel is entered and closed. All other transactions are invisible to the outside world.

Specifically, opening a state channel in an APO network requires that two or more participants agree on the initial state and put some APO token (deposit) into the channel for hosting. When the state channel predictor receives a valid status update, it will enter the challenge period, and other participants may submit a status update of the higher serial number. After the challenge period, the valid status update with the highest serial number is accepted as the final status. When any participant wants to close the channel, after updating to the latest state, the channel is closed after the data is uplinked for settlement. In this process, the status update must be signed by at least two channel participants. The serial number of each successive status update must be higher than the former. The status channel working party can only submit the latest status update before closing after the channel is closed. This ensures the accuracy of determining whether the status is valid or not.

5.11 Side Chain

The side-chain is based on the main chain consensus and completely inherits various performances such as main-chain throughput, while deploying the main-chain technologies

Anchor Currency

For merchant(s) or operator(s) who adopt APO's side-chain to build up a commercial-level payment and clearing system, they need to buy and deposit APO tokens to have the rights, issuing a fixed par value currency called LiquidCash (LCASH). LCASH is an important money engine for the entire ecological system. Proper management and promotion of LCASH usage is to ensure the APO platform business is on the rise.

LCASH has the exchange stability while having the freedom and convenience of digital currency. It adopts the Pof (Proof of funds) consensus mechanism to One-vs-One (1:1) backing on its currency. That means for every LCASH token (US$1 par value) there is a 100% monetary reserve backing for this LCASH token.

APO uses automatic matching engine, currency conversion engine and intelligent order routing to enable users to freely complete exchange of legal currency and digital currency on the gateway platform.

5.12 Cross-Chain Interaction

The Apollon cross-chain communication protocol consists of three functional modules:

1. Register Module: This module provides two functions. The first is to register the original chain involved in cross-chain transactions. The module generates a unique ID through the specific algorithm rules of the original chain and maintains the ID registry of the original chain to avoid fraud caused by the dummy chain.

   The second function is to register the assets to be transferred. This generates a unique ID through the asset's specific algorithm rules to ensure the uniqueness of the asset.

   Cross-chain transaction data transfer module: This module provides three functions.

   The first function is that the user on the original chain sends a cross-chain transaction request to APO. This is the starting point for transferring assets into transactions.

   The second function is to confirm the success or failure of receiving the verification code node.

   The third function is that Apollon's verifier node sends a legitimate transaction to the original chain and completes the return process.

   Transaction status query module: This module mainly provides the function of querying the authorized status of asset transfer transactions from the original chain to the APO chain locked account and the function of locking the account back to the original transaction chain of the APO chain. These are the control signs of cross-chain transaction progress.

   We are using a hypocritical user Alice as an example to illustrate the transfer of assets into the data transmission process. The user wants to transfer the value in the original (Ori) chain to the Bay chain.

Step 1: Alice initiates a transaction on OriTx with OriAccount on the original chain, sends the asset OriAssetID to Apollon's locked account LockedAccount, and broadcasts the cross-chain transaction request InterTxReq to the APO chain through the cross-chain transaction data transmission module.

This function takes the transaction data as a parameter as follows:

OriTxInfo = (OriBlockNum, OriTx)InterTxReq = (OriAccount, OriChainID, OriAssetID, value, OriTxInfo, sig)

Step2: The cross-chain transaction on the APO chain proves that the node (Voucher) receives the cross-chain transaction request and checks the transaction status query module whether the transaction has been identified on the original chain.

The Function Token Locking Flag (TLF) takes OriTxInfo, OriChainID and OriAssetID as parameters as follows:

TLF = CheckCommitment (OriChainID, OriAssetID, OriTxInfo)

The third step: cross-chain transaction verification node (Voucher) collects the consensus of TLF results. If TLF = true, OriTx has been approved. The Validator receives the data TLF = true and then checks the original chain's asset registry. If it is a new asset, the asset will be registered and added to the registry. The public account APOAccount maintained by Validator initiates the transaction APOTx, deploys smart contracts for new assets and assigns OriAccount value tokens to the contracts. If it is a registered asset, the transaction APOTx directly distributes OriAccount's value coupons to existing asset contracts. If APOTx is approved. Validator uses the cross-chain transaction data transfer module to reply Alice's information about successful cross-chain transactions:

First part

APO wallet

wITxReq(From ETH to APO)

OriTx(ETH)   InterTxRed

ETH Chain   Certificate

Second part

Verify OriTx(ETH) commitment

Reject WITxReq or timeout ← False — TLF

Reach a consensus

Generate UnlockedOriTx(ETH) ← Verifier

Third part

Generate ANTx

Storage management ← Time is up — APO — False →

True

WITxReq commitment
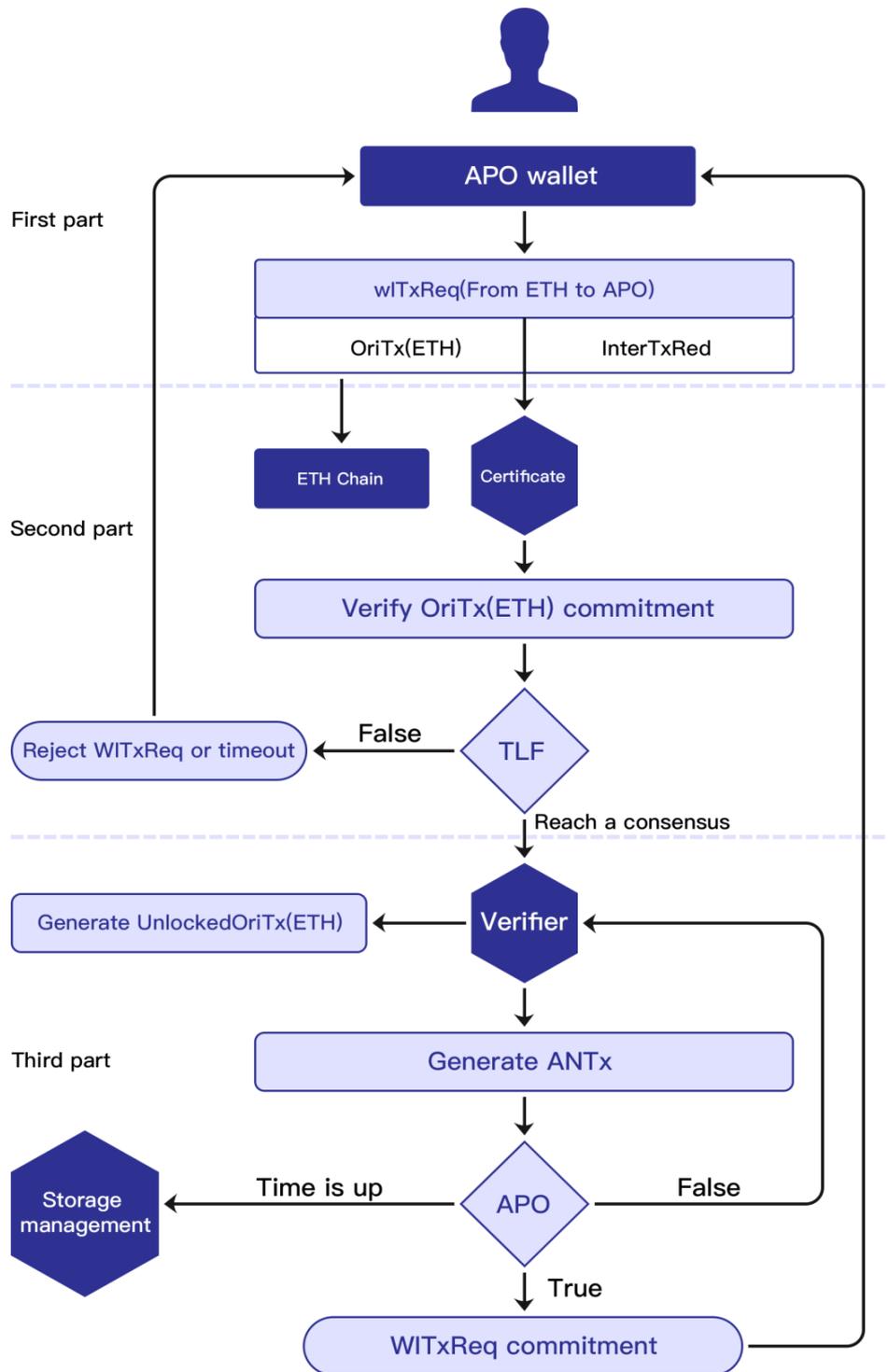
Response = (APOAccount, InterTxReq, TRUE, addressSC, sigvalidator)

If APOTx fails, the locked account management node (Storeman) initiates a transaction on the original chain, transferring Alice's locked assets back to her account OriAccount.

If the TLF's recognition result is considered to be false, cross-trade is considered invalid.

5.13 Modular Design

Any scripting language or virtual machine can be connected to APO's API with sufficient operating efficiency as long as it is suitable for sandboxing. The separate design of scripting languages, virtual machines and APOs have improve the compatibility of APO as an underlying chain, such as the Ethersystem virtual machine (EVM) in the APO system. It can support the existing Ethereum contract and also set up Web formation (WASM) gives APO systems extensive industry support, allowing smart contracts to use well-known languages such as C or C++.

5.14 Flashing

Apollon guarantees high liquidity by using the existing gateway reserves in the network. In the early stage of operation, only USD/LCASH gateway are reserved, and a variety of legal currency/Lcash reserve pools are continuously adding according to user's requirements (corresponding exchange mechanisms can also be established with Cryptocurrency). Different reserves are managed directly by different reserve managers.

Apollon's Operator. Apollon allows multiple types of coins to coexist (by eliminating monopoly of reserves) in order to obtain better prices (by using other sources) to ensure better liquidity. In addition to Apollon's Operator, the network is authorized to allow different people or organizations to manage their own reserves. In this case, Apollon can support these currencies by transferring the management of certain low-volume currency/Cryptocurrency to the corresponding reserve managers. In this way, parties willing to undertake low-trading currency trading/exchange risk can create their own reserves for these currencies and register with Apollon. It should be noted that Apollon does not hold any reserve funds registered with it. Their funds are stored in their reserve smart contracts, which will follow Apollon's basic principles.

6. APO Application Scenarios

6.1 Service Target – Pan Entertainment Industry Ecology Alliance

With the rapid global economic growth and shrinking world in terms of closer and better communication protocol such as Internet and social media tools, consumers have a higher appetite for entertainment offerings.   At the same time, Blockchain technology evolution has provided new ideas in addressing industrial pain points. The APO project wants to establish an ecosystem for operators residing in the platform while having a fair degree of business diversity. The platform service covers the entire entertainment industry, including but not limited to games, tourism, and cultural cross-over activities with efficient payment systems. In addition, the Group would also like to see reduction of transactional costs, increase of operational efficiency, and promotion of newer model of economic growth collectively.
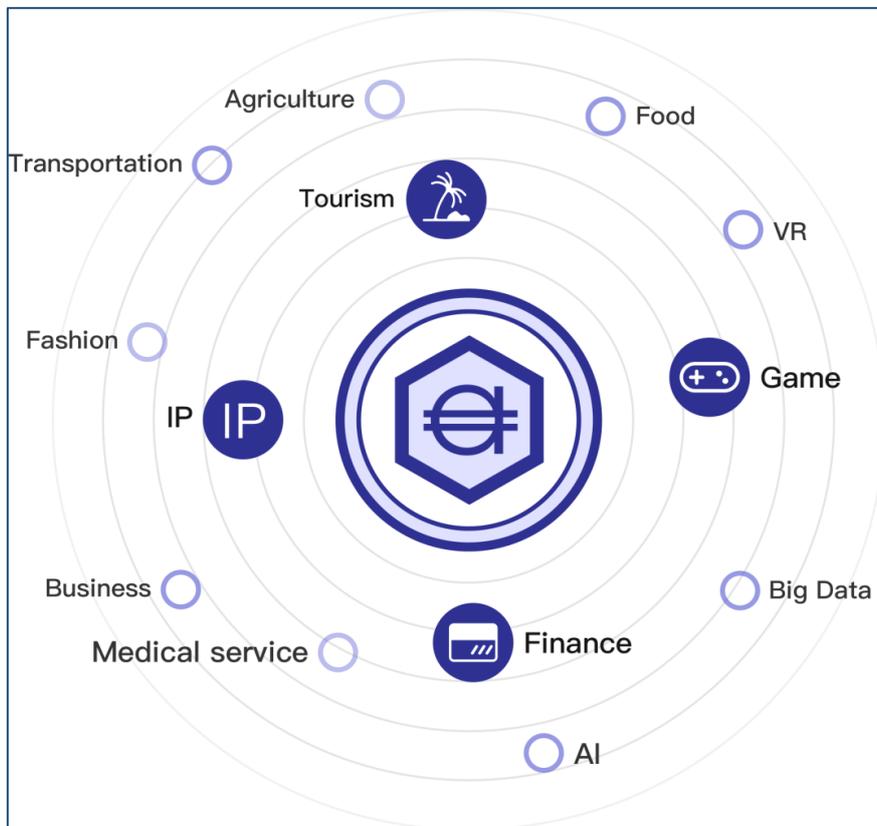
It is the Group's intention to create "disruptive" changes on gaming industry. No doubt, QQ is clearly a leader in the gaming industry. Being one of the largest listed companies by market capitalization by value in Hong Kong, there is a lot of revenue and periodic reporting pressure. QQ is trying very hard to make improvements in the gaming industry.

eSports (known as **electronic sports** or **competitive** (**video**) **gaming)** are a form of competition using video games as a venue for competition. The most common video game genres associated with eSports are real-time strategy (RTS), first-person shooter (FPS), fighting and multiplay online battle arena (MOBA). There are many organized tournaments such as "The International", the "League of Legends World Championship", the "Evolution Championship Series" and the "Intel Extreme Masters".

eSports have become very popular lately. Players in UK spent almost 3.3 billion British pound (GBP) on computer games in 2016, according to Newzoo game research company. It is believed that eSport could be enrolled into one of the qualified Olympic games. However, the trial experience of eSports will happen in the 2018 Winter Olympic Games in PyeongChang. Moreover, Olympic Council of Asia (OCA) had approved to include eSports into the 2022 Asia Olympic Games.

In July, 2018, Apollon Foundation will organize a Virtual Reality ("VR" VR is where a person can experience being in a 3-dimensional and interacting environment during the game playing) and eSport centre in Hong Kong. This will be the first one and the permanent Hong Kong VR and eSports centre. The Group is in active negotiation with a leading entertainment group in Nha Trang, Vietnam in terms of forming eSport an entertainment centre(s).

It is the Group's intention to turn certain type of traditional and existing entertainment games or websites into eSports as well as VR for general consumer entertainment. This is one of the steps the Group is promoting technology advancement to do gaming transformation. The effect of such transformation is simple: players will experience "real life" and on the spot gaming perception.

The Group is aiming at eSports as well as Virtual Reality types of video gaming. If the Group were to build a large scale of platform and to help gaming operators to reside onto platform, the changes to consumers or players will be obvious:

1. Consumers or players can able to select a large variety of games from operators;
2. Different game operators can offer games with diversity, matching the players' preference, say in mainland China, Taiwan, Hong Kong and Macau. That is the Chinese language territories;
3. Of course, there will be different versions of games which could cater for European, American, Russian and South East Asia (Indonesia, Thailand, Vietnam, Singapore & the Philippines) markets;
4. Just like any games in the market, players are playing against the operators or;
5. The players can play with each other in the Internet world. For example, a Chinese player can play against another party in South America;
6. There are also other considerations to be addressed such as payments, points accumulations, transfer of points, player's loyalty systems, points for goods barter-trade etc;
7. Subject to legal consideration, can the operators return the deposit cash back to players etc?
8. Of course, it is the Group's intention to disallow players under the age of (say) 16;

6.2 Specific application scenarios

One of the key business critical success factors is convenience: convenience to players, consumers and business operations in the APO platform. And among all convenience business factors, one element comes out: payment & payment gateway.

The Group has its own core competency on the technology side. Whilst the Group addresses business strategy and visons, in reality, a good percentage of the strategy and vision can only be achievable based on sound IT and technology capability. The Group offers the following products and service based on its core competency as well as getting third party outsourcing support:

1. APO Coin

2. APO Coin for gaming

3. APO Exchange

4. APO Chain and Side Chains

5. Smart Contract

6. Electronic Wallet (eWallet)

7. State Channel and other side-chain network

8. Network and Blockchain security

9. And more!

APO coin, LCASH and eWallet are "cash" or digital asset storage and spending convenience.   Smart Contact is a payment and receipt convenience. State Channel or Flashing are two examples of side-chain technology which can boost productivities and the Group is committed to use latest technology as well.   Blockchain security is a prerequisite for the whole APO platform and the Group is 100% committed to offering a high degree of security operations.

APO Network is committed to using the Blockchain technology to change the gaming industry ecosystem. The Group plans to offer and conduct online and offline activities ("O2O"). The platform will gradually penetrate into the online, offline and multi-fields to form an eCommerce "human-like" payment platform. This could be an industrial disruptive process whereby the network can do:

1. Cryptocurrency functional activities under the Blockchain ecosystem

2. Offer O2O on "human-like" gaming and eCommerce activities

3. Offering game development window for existing and new game developers

4. Adding social networking functions

5. Offering credit information via Big Data to operators to facilitate their credit assessment for members

6. Offering members on truly O2O gaming convenience

7. Offering members reward system

8. Offering O2O eCommerce platform for members

6.2.1 Blockchain Games

APO provides an efficient solution for the development of the gaming industry through the use of Blockchain technology. The Group's sustainable ecosystem will comprise of players, game developers, game operators and other servicing agents.

The Group will provide Blockchain platform technology for the interconnect to be used by operators. In certain case, the Group's IT department may extend the service to an operator who may have inadequate IT resources at a fee.

Apollon builds a Blockchain underlying technology platform that can empower the online gaming operators or practitioners, providing unparalleled infrastructure and offering seasoned game operators to develop and build high-end commercial-grade applications. Online gaming operators can rely on the Apollon Blockchain infrastructure to launch literally thousands of types of online games. The respective operators will manage and accountable for their game content applications and related payment and settlement systems. The follow-on action and connection will be linked to the online games payment and settlement systems and also other global payment agencies.

With the Group's commitment on IT focus and technology advancement, operators will be able to use the Group's platform, witnessing seamless operation and customized player's gaming experience. Apollon's friendly operator's interface allows online gaming operators to easily connect to real-time docking with Apollon's Blockchain infrastructure engine, allowing all game operators to participate, build and connect to APO platform for game development and proper game launching. The Group ensures all game publishers, agents, operating merchants, and players all have the ultimate and satisfactory online gaming experience.
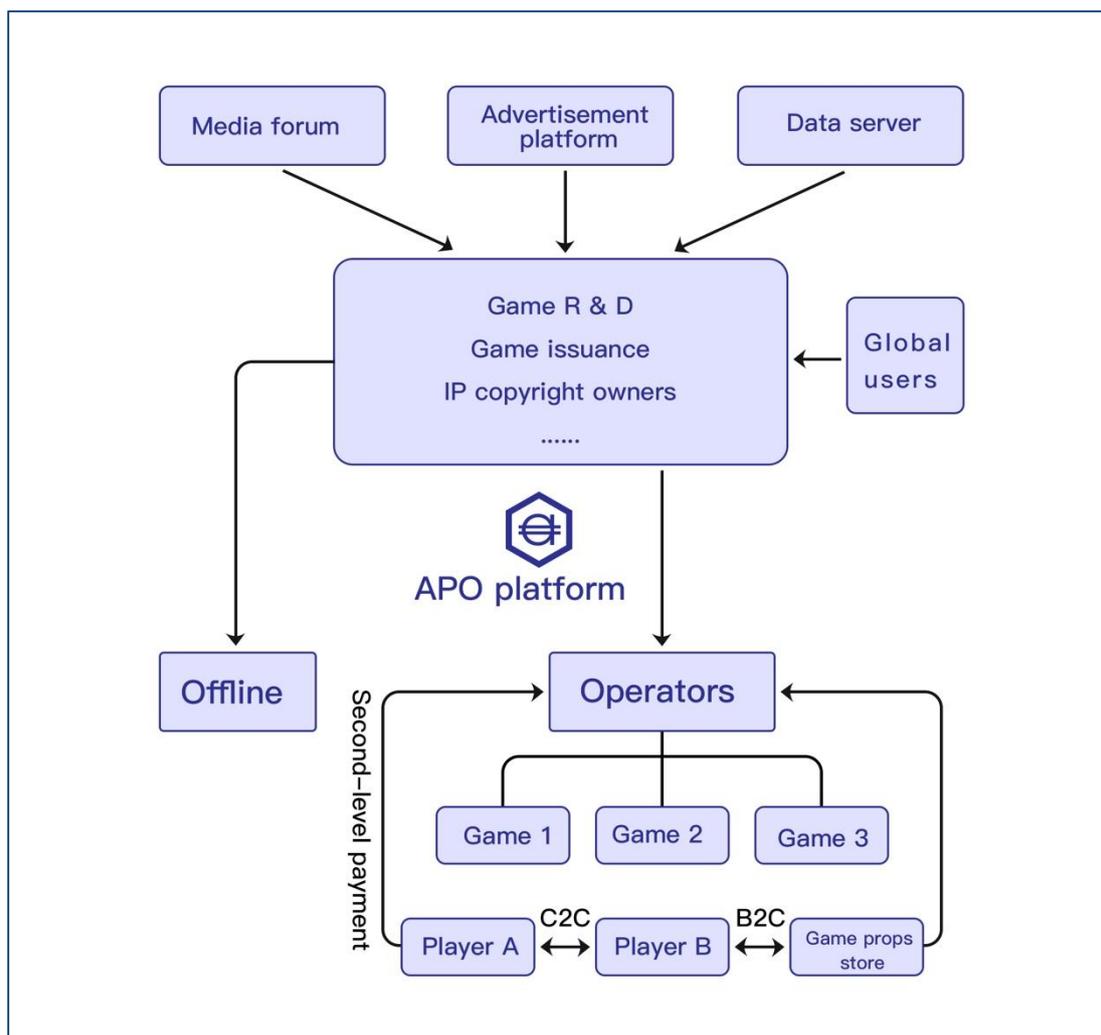
6.2.1.1 Supporting Low Cost and Real Time Payment & Settlement systems Dual-Layer Logic

Non-standardization of virtual or digital currency usage with close to zero-cost settlement characteristics is offering operators all the challenges. Without a common and mutually acceptable platform, all the industry operators need to work on their fair share of research and development work to handle different types of virtual currency and its payment system. It would be very convenient to have "plug and play" features being built into a platform at inception. This way, the convenient business flow will reach players via the efficient connectivity by operators onto the platform. This is the key features of APO platform.

The Group offers APO digital wallet and API interfaces which are effectively providing seamless and parallel work flow as Alipay and WeChat Payment Systems.   Moreover, a two-tier logic is meant to address and isolate industrial pain points on currency fluctuation on pricing of the service offering. APO coin is on Blockchain and it is subject to a fair degree of exchange fluctuation while LCASH handles the industrial needs with constant exchange value.   As mentioned before, APO coin is the top tier and can experience exchange fluctuations.   The second-tier is a "constant dollar" currency, being back up by individual operators on a 100%-to-80% deposit lock up, using APO coin as collaterals.   This two-tier structure caters for operator's concern of value fluctuation.

Legend: The schematic diagram of the technical architecture of Apollon Blockchain in the online gaming industry:

Online Gaming Content Operators	Online Payment and Clearing Providers	Online Gaming Content Operators

APO API

Side Chain&Super Node &High Throughout	KYC/AML Account Security	Basic Coding and Templates

APO Chain

Cross Exchange Gateway	Cross Chain Gateway	State Channel & Flashing	Cross Border Gateway

Other Exchanges (binance , huobi, …)	Other Chains (BTC , ETH , …)	Ripple,Visa,Master,Zipper , …

Furthermore, the mapping of the LCASH is one of the key processes on the side chain for the settlement system operated with unique code identity, determined by operator(s). It is decided that LCASH is only a unified indicative proxy. LCASH also has a constant value of US$1.0. If there were any specific business IT requirements, it is being determined by operators. This way, upward and downward processing in terms of handling payment and settlement, building payment gateways and interconnect with eCommerce operators will have a consistency logic flow. Again, APO carries market value while LCASH has a constant US$1.0 value. This way, operators can have two options of currency: APO and LCASH catering for all of their business requirements.

6.2.1.2 APO Platform Saves a Lot of Time and Effort to Individual Operators

With an advanced and efficient set of software deployment onto the platform, a good part of an operator's IT work is being done. Online and individual game operators have to develop their own Blockchain solutions: Blockchain games, payment & receipt and payment gateway (such as using ERC20 standards) as well as Blockchain security.

The Apollon IT team is working on Blockchain technologies, developing Blockchain advanced level of infrastructure with capabilities of supporting multi-level commercial applications, and designing scalability and compatibility on API interfaces. Online game operators, content providers and game payment and settlement providers don't need to develop complex DAPPs. Apollon IT support can give them all kinds of technical advisory and assistance. All the online game and other supporting operators can focus IT resources on their side-chain applications, integrating to APO API migration within a shorter period of time. This is an important time-to-market advantage: shortening development time and giving players new games and other faster online offerings. The end point is to improve the business economics of all the APO gaming operators.

Online gaming operators using APO platform don't lose their branding identity. Moreover, APO platform even offers to do digital marketing, promoting and

enhancing operators' unique gaming themes and models. The attraction to players playing APO online games is obvious:

1. Better choices of online games

2. Fair and equitable games on the platform

3. Fast, secured and efficient network

4. No need to do administrative work (registration, KYC & AML details)

5. A piece of comfort in terms of placing deposits to APO

6. Available Loyalty, Customer Service, Promotions, eCommerce & Barter Trades
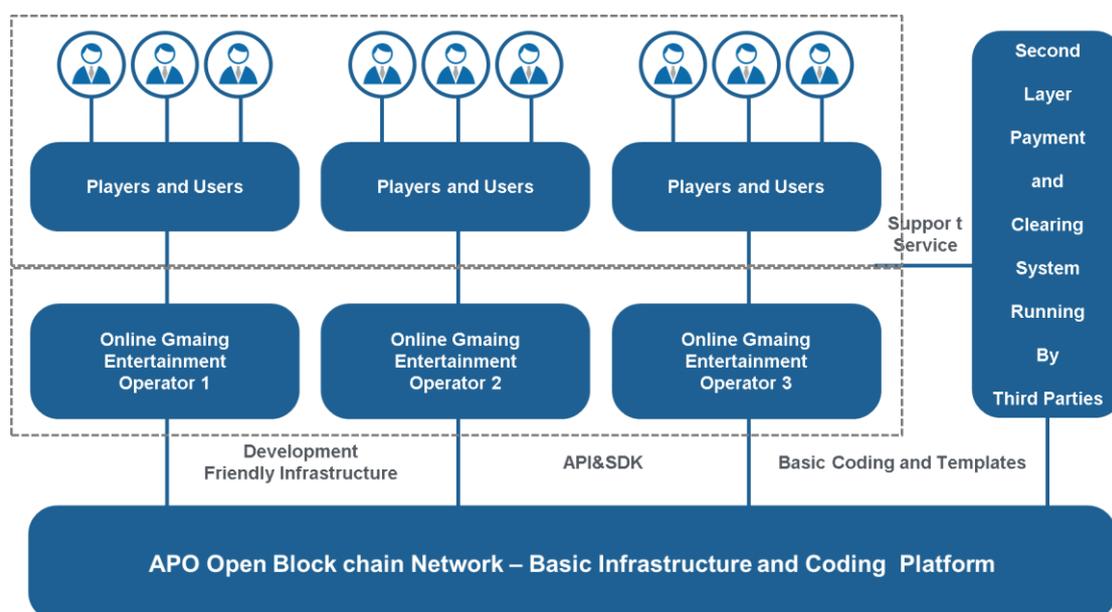
6.2.1.3 Registration and KYC

Apollon will use Blockchain mainstream self-governing identity technology to help users achieving secure, private, and speedy registration. The Group will ask for players or members prior consent on personal information dissemination (such as applying for credit etc). Centralized registration saves players a lot of future time and effort. The Group believes that once APO platform is operational, number of new members will be on a rise in a speedy

fashion.

6.2.1.4 Putting Members' Social Media Connectivity at Work

The APO platform will offer social media community infrastructure. All the online operators will be mindful about helping players to do social media information sharing and game invitation. Members or players can do solo-sharing, group-sharing and other more innovative social medium connectivity in time to come.   APO will also work with operators to do new games and periodic game promotion and incentives.   The Group has the connection to get millions of new members registration at the inception of the APO platform since the Group already has the connection with a few key online game operators.

6.2.1.5 Technical Architecture Overview

For the online gaming operators, APO Blockchain infrastructure provides:

a. A secured and unified settlement platform

b. A side-chain infrastructure module back up by APO platform and technology

c. A high throughput TPS infrastructure

d. An open source technology template with friendly yet secured interfaces

e. APO payment API, APO Chain symmetric master side-chain, state channel and flashing

f. APO digital electronic currency wallet (eWallet) App, super node and other more

Apollon Blockchain naturally attracts online gaming operators and users who use Apollon infrastructure with the following convenience:

1. Availability of APO (digital) eWallet which is as convenience as Alipay

2. APO offer a 2-tier chains: Blockchain and side-chain mechanism. It also builds on a two-tier communication structure, offering one-stop payment and settlement solution

3. High degree of security: hardware isolation keys, alternate hot & cold wallet security settings

4. Offering cross-chain trading, symmetrical side chain & flash network

5. Supporting APO as well as Blockchain exchanges (including smaller exchanges)

7. Correct and precise landing page access to Online Gaming spot

8. High data & transactional throughput to enhance a player's user experience

9. Friendly APO IT support and development interface(s)

Mobile function

The mobility that you carry with you eliminates distance and geographical restrictions and you can get the services, information and entertainment you need at any time

Wallet function
Create and import your own APO wallet on your mobile phone and keep your digital assets secure.

Digital assets
Manage your own APO system digital currency assets through mobile phones, and get the latest digital currency market information at any time.

Social Sharing
Finding your own circle, you can buy APO-based digital currency and ICO projects, sharing ideas with others.

Transfer transactions
Based on APO technology, users can easily receive, transfer APO digital currency.

DApp online gaming
In APO Ecology, you can easily enter online gaming for entertainment. you can also use various APO smart contracts to enjoy decentralized services through DAPP.

News
From this App, you can get the latest updated for APO project and blockchain industry news. at the same time, you can also get the opinions from the most professional APO technical experts.

6.2.1.6 Development of blockchain games

Apollon's side-chain supports the development of high-throughput Blockchain

games, providing global game developers with smart contracts for game projects. All game development transactions and payments can be achieved through the platform's secondary tokens.

6.2.1.7 Credit Consumption Management

By working with gaming operators and eventually eCommerce operators, the Group can over time build up a member's spending or transactional history. Upon request by operators and with the consent by individual members, operators can grant spending credit to selected members. It is the responsibility of operators to grant credit in term so LCASH amount to individual members. The Group only acts as a facilitator to this credit offering process.

6.2.1.8 Copyright protection of featured content

Apollon can protect the copyright of some special content development in the game field. For example, the game is about designer works. The use of blockchain's distributed billing technology can circumvent plagiarism risks and can also rate works.

### 6.2.2 Tourism, Customer Service & Travel Management

The Group focuses on tourism ecosystem, ensuring tourism related operators who can work on an open, equitable, transparent and trust-worthy ecosystem. This ecosystem is banking on the APO Blockchain platform. With the benefits of the Blockchain system, all the Blockchain strength is overlaying on top of the travel business process and flow:

1. Tourism industry practitioners or operators can use Blockchain decentralized features to build a series of tourism blocks. Initially, one would argue that it is more on a B2B focus. Eventually the tracking of information, service enrollment and payment functionalities will also benefit B2C business on travel products, services and tracking of travel activities

2. Establishes a supply chain and trade credit system - APO platform will help operators to gain access to banking and financial institutions. By the virtue of Blockchain capabilities, it helps either vendors (or suppliers) or financial institutions to assess and grant trade credit to the relevant parties

3. With the business activities being vouched on Blockchain, all the vested Blockchain business parties can track and monitor the business flow with high degree of trust. A good but not exactly the same example: in 2017, IBM and Maersk Line (the largest sea container operator in the world) formed a Blockchain alliance to do sea freight and shipment business on the network. In such a way, all the vested parties can review the status of any container ship in action.   With sufficient and real time trade information, granting trade credit will be done under a higher degree of business flow assurance

4. The APO 2-tier coin system on APO can also work for tourism industry. APO coin can be used to book travel related products and service (air travel, hotel room etc).   For the travel industry vendor settlement, a member can use LCASH to log in the fixed exchange rate.   For the travel industry, the gross operating margin is not high and as such if there were any negative currency movement, it will cut into their profitability.   The Group will work closely with tourism vendors to ensure currency fluctuation which will be kept at a minimum and it will not be a show-stopper in some cases

5. APO introduces the BFT-DPOS consensus mechanism and it will be based on the APO coin holding to ensure LCASH issuance.   The fixed exchange helps to boost travel business.
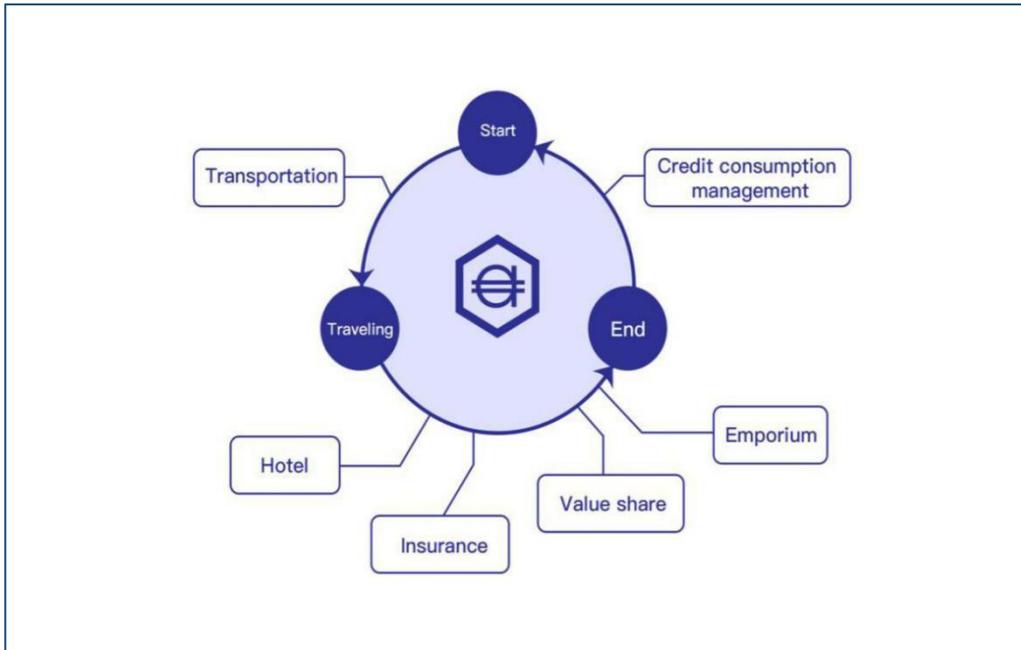
6.2.2.1 Supporting Apollon Payment and Settlement System in Tourism Industry

APO Blockchain Unified Payment Platform API enables fast access to applications by providing standard RESTful API interfaces for upper applications. Apollon will access different public and digital currency exchanges at the bottom of the application, running cross-chain technology, masking the differences between different public chains for upper-layer applications, and calling various underlying APO Blockchain Chain. APO platform operators don't need to care nor address payment and receipt, digital authentication, digital Blockchain transactional as well as platform security matters. The tourism operators, like the gaming operators, only need to address on their business application side.

In essence, APO platform is like an eCommerce enabler to the platform tourism operators with the added security on the network (Blockchain) and the payment system (APO payment platform).

In addition, as mentioned in online gaming, Apollon also provides online payment and settlement support systems and development infrastructure. Apollon also addresses real-time payment and settlement requirements for offline travel and vacation scenarios for consumers and merchants. In

particular, the state channel and flash overlay technology have been developed to support the instant payment experience of offline travel and vacation scenarios.

Payment interfaces on Apollon is divided into seven layers:

(1) Blockchain layer: It connects multiple public chains, implements operations such as query and transaction on the chain, and invokes multiple intelligent technologies of the Apollon backbone, providing infrastructure for industry users.

(2) Unified payment layer: The LCASH receipt and payment will be handled in the side-chain, connecting to Blockchain via a unified operational API.

(3) Functional support core layer: The core modules of the support system, including payment centers (such as payment and receipt of main chain APO coin), and digital identity and credit center, establishing transactional records for future credit reference.

Seven Levels of Tourism Ecosystem

Commercial Application	Product Service Layer
	Operating Platform Layer
	Basic Commercial-Business Application Layer

Apollon Infrastructure	Unified API Access Layer
	Functional Support Layer (Multi-Blockchain Technologies)
	Apollon Blockchain Layer
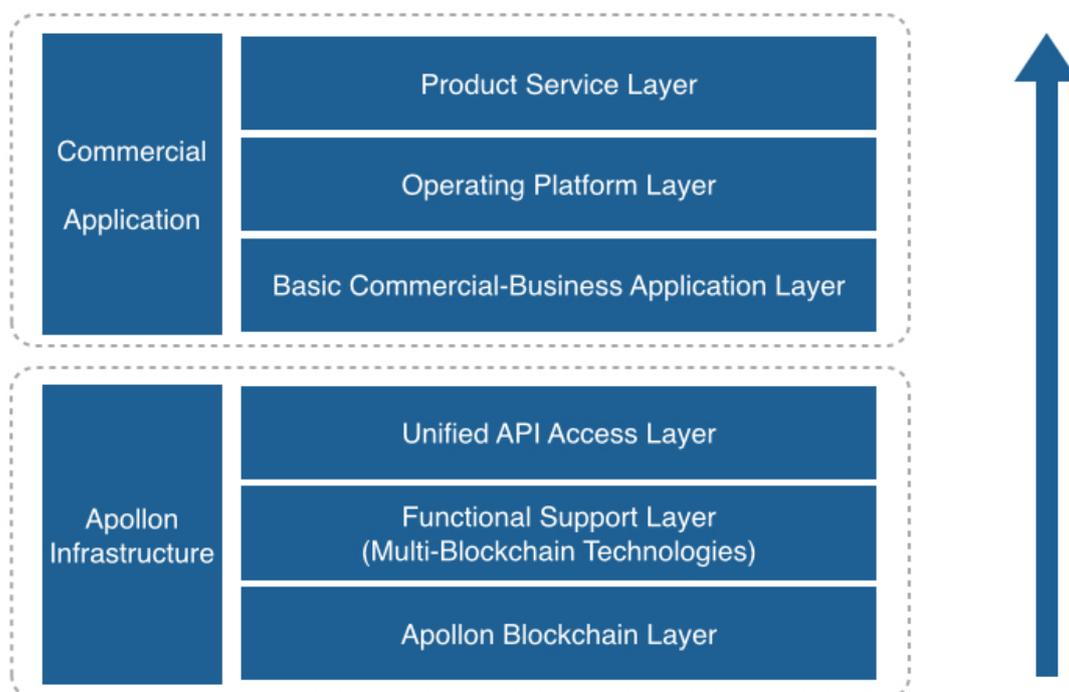
(4) Unified access layer: Provide industry application developers with basic technology modules for developing of side-chain token and docking API for

open source third-party systems, while achieving interface security and flow control, admission control and service isolation.

(5) Basic Business Layer: Apollon provides basic code and technical templates to enable financial settlement of payment orders, user registration and wallet operation and to support the business management.

(6) Operating platform level: Tourism operators develop and operate their own e-Shops, enabling their eCommerce transactions.

(7) Product service layer: tourism operators rely on the infrastructure provided by Apollon to achieve all client-side service and product delivery functions.

6.2.2.2 Open Source Travel Service Basic Cloud Platform Module

Apollon platform, hosting travel industry operators, is an important travel ecosystem. If needed, the upstream and downstream suppliers, agents or service providers can be recruited into the Blockchain, forming an end-to-end tourism ecosystem. This vertical business process integration is in some way similar to the IBM-Maersk container freight business process except in this case, for the tourism industry.

Industry practitioners can perform in-depth secondary development through the service interface APO Blockchain, forming or developing an elaborated side-chain commercial applications. The basic cloud platform technology module system mainly adopts the below architecture:
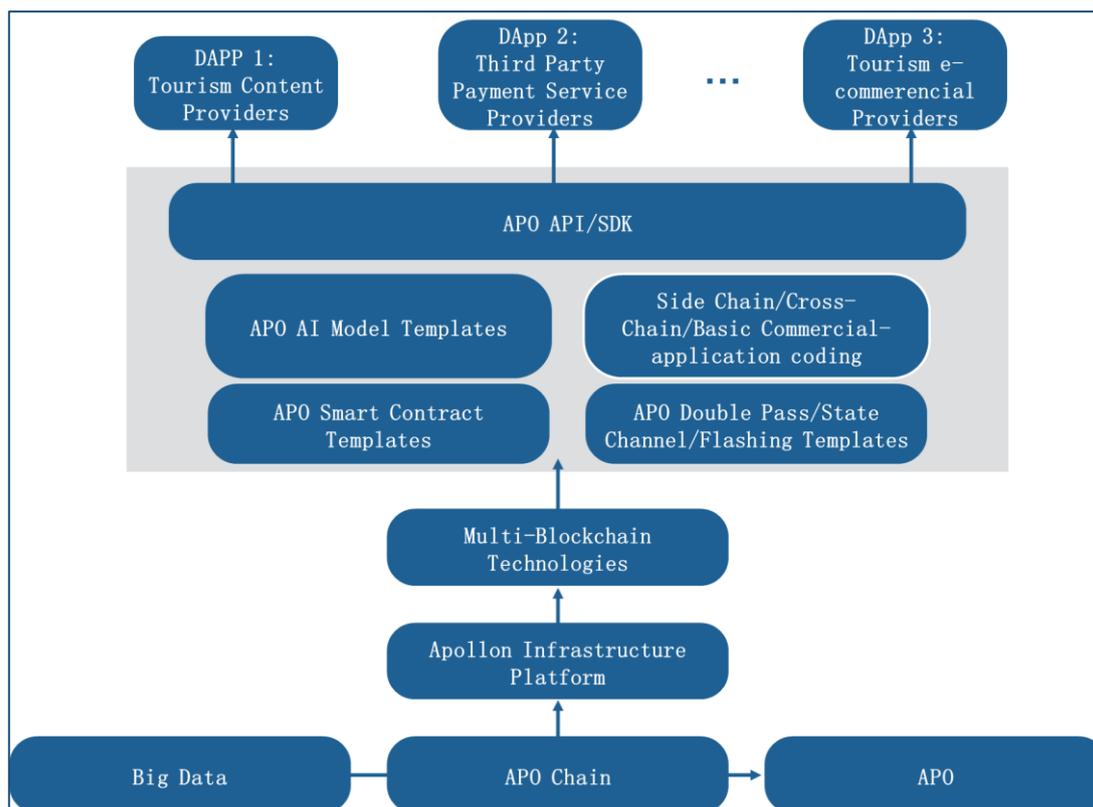
Travel operators handle the application layer which may include:

1. APP mobile applications

2. Websites, and third-party API interfaces

3. The basic operational logic supported by the APO Blockchain platform

6.2.2.3 Global Travel Credit System at Work

When cross-border tourism occurs, consumers will receive differentiated points at all stages of the industry chain such as airline spending, hotels, duty-free shops, and other tourism industry. After that, points can be directly converted into secondary tokens for the payment of tourism ecosystem links.

6.2.2.4 Travel Insurance

Apollon uses the blockchain technology to carry out the entire chain of personal information and set the trigger mechanism for insurance claims through smart contract technology. The traveler can use the secondary pass

to purchase travel insurance directly at the beginning of the tour. When the accident occurs, no third party is required. The applicant directly obtains the corresponding LCASH payment.

6.2.2.5 Value Realization

When passengers share valuable and high-quality content, they can receive corresponding incentives for the LCASH, thereby realizing the exchange of value of high-quality content and promoting the sound development of the ecosystem.   Content can be defined as songs, novels, photos or cartoons etc.

6.2.2.6 Credit Consumption Management

Apollon can accumulate consumer credits and personal information, and can score consumers' credits, and then authorize consumer credit. Consumers can get credits for LCASH coin system, and credit fees are also used for LCASH. For the creditworthy consumers, they can also get loyalties points or bonus.

6.2.3 IP Digital Rights

The development of the cultural and entertainment industry has a huge market potential, and the maintenance of copyright is an important business and asset protection of any developers for the healthy development of the industry. However, there are unclear or non-conclusive rules and regulations in different countries in the copyright and intellectual protection space.   This is the case even if a developer made legal registration in certain territories or countries on his IP and copyright filings.

Apollon uses Blockchain technology to provide IP asset holders and IP digital asset operators with efficient, secured, and convenient digital asset trading platform and its trading history through the Blockchain blocks and smart contract mechanisms for the proof of original work.
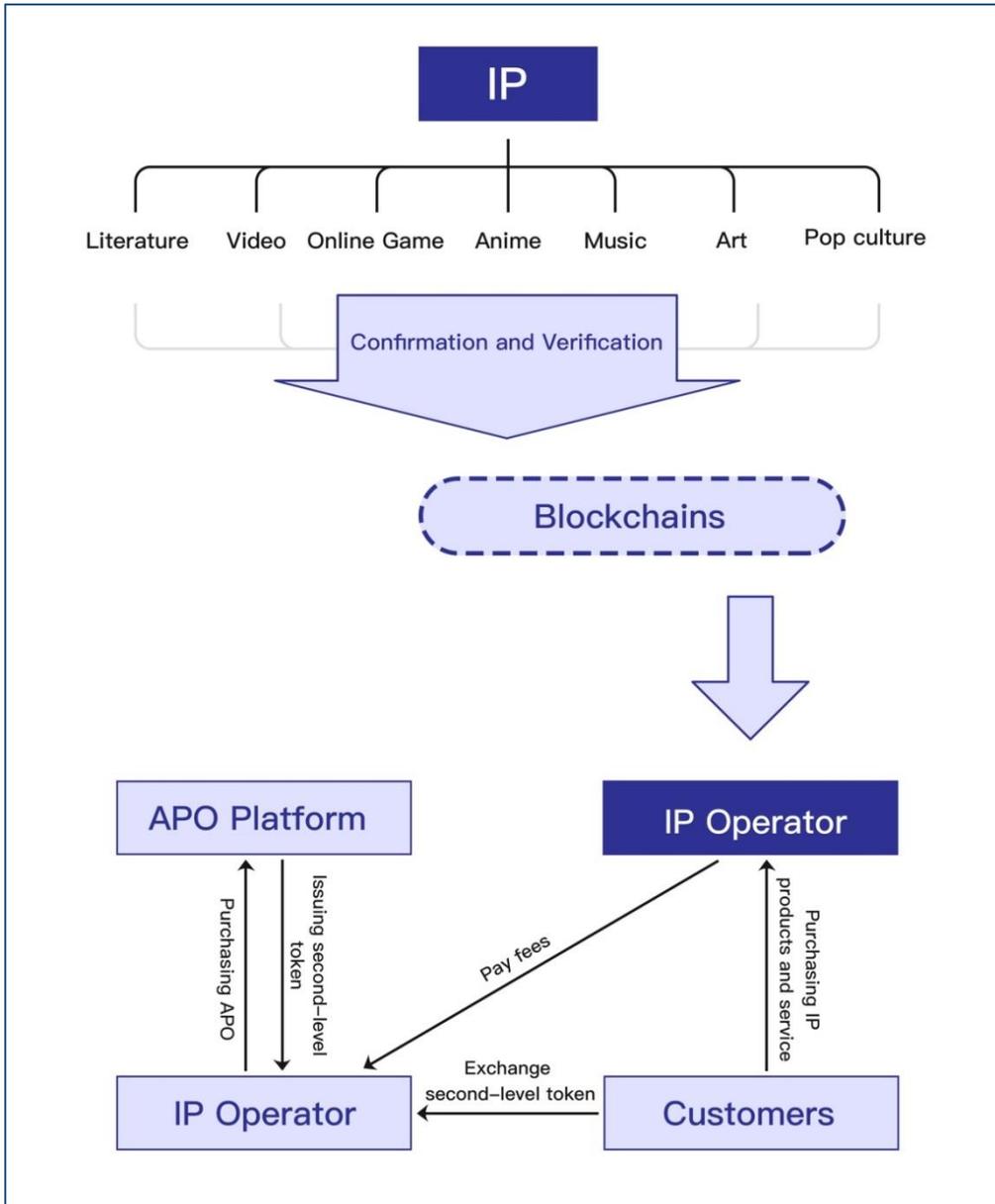
6.2.3.1 Information link, IP digital rights

The copyright holders of celebrities (say for image or photo rights), music, games, literature, animation, etc. can use the Blockchain data storage functions for the proof of economic trading, proof of usage and rights to collect money. Of course, the safest way is for the IP holders to register with their respective countries legal organizations. However, not every country has a consistent legal protection system on IP and Copy Right matters.

6.2.3.2 The circulation ecology of IP assets

Fans of IP can use Flash Cards to implement flash payments and pay them to IP asset providers. The second level token can be used not only for payment and settlement in the process of cultural experience, but also for value exchange. The cultural experiencers can also obtain corresponding secondary token rewards if they make money on the usage of someone's IP to make money. And the original IP owners will have a share of the process based on pre-agreed terms.

6.2.4   Prediction Market
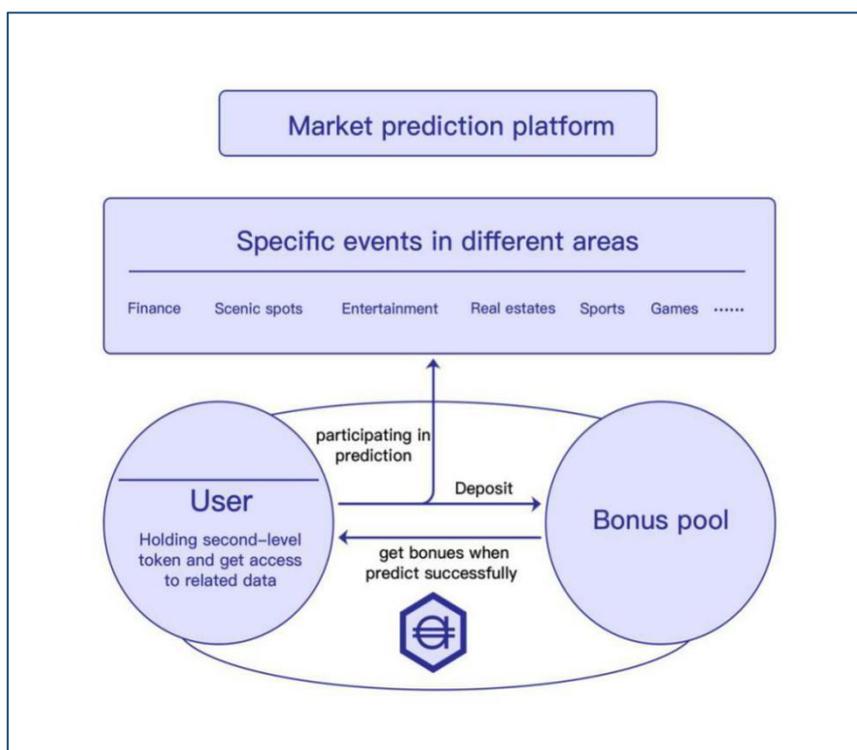
The Apollon may adopt the nature of decentralization, open and transparency of Blockchain to remove the risks that may occur in the centralized prediction market, while using collective-wisdom to improve the accuracy of the prediction. And the participants can get rewards through the prediction of the event. In the APO ecosystem, market forecasting events in various fields (finance, information, insurance, sports quiz, etc.) are provided, and bonus pools are set within the ecosystem. The participants obtain the data permission for the specific event by paying the deposit. The deposit part enters the bonus pool. The participants who predict the success can obtain the bonus. The whole process is completed through the secondary token.

7. Product and Platform Launch Planning

7.1 APO Development Start - 2018.Q1

1. The main network of APO settlement layer starts
2. Log submission mechanism (make it easier for developers to submit error logs or vulnerabilities
3. Community operations

7.2 Promotion of APO Scalability - 2018.Q2

1. Development of consensus mechanism of APO main chain
2. Development of State Channel technology
3. Development of Parallel Processing technology

7.3 Promotion of APO Privacy and Security- 2018.Q2

· Development of Zero Knowledge Proof technology

7.4 Development of APO Module - 2018.Q3

1. Smart Contract module development
2. Virtual Machine module development

7.5 Side-Chain Technology Development - 2018.Q4

· Anchored currency technology development

7.6 Cross-Chain Technology Development - 2019.Q1

· Release external security ID of APO

7.7 Release the Testing Network of APO - 2019.Q1

·   Network testing and Security audit

7.8 Release the APO eWallet - 2019.Q1

1. Multi-signature transaction development
2. Wallet backend design to improve performance
3. Integration of Flashing technology

7.9 Super Node Campaign - 2019.Q1

7.10 Apollon——Main Network Launched - 2019.Q2

7.11 Apollon Token —— APO apply for listing in exchanges - 2018.Q4

1. Apply for listing in exchanges within the year of 2018
2. Apply for listing in several main exchanges worldwide

8. Board Members, Management Team and Advisory Board

8.1 Board Members

Kenji Nishihara

* Sasakawa Research Institute CEO

Since its founding, he is engaged in management consulting services in a wide range of fields, mainly in the real estate field and medical field.

* World Kyokushin Karate Federation Honorary President

* International Music Karate Federation Honorary President

Exchange activities are conducted through Karate in various countries around the world. Also, in music sky, we are implementing new initiatives that combine karate and music.

Alan Lau

* Alan has more than 36 years of experience in sales and marketing, management and investment.

* Graduated from Imperial College London (UK) with major in Computer Science, Alan worked in IBM (UK) Laboratory specialized in CICS/SNA research and development for five years. Subsequently in 1985 he started his career in China by joining Digital Equipment Corp's Beijing Office. In 1990 China HP (Hewlett-Packard) appointed him as Director of Sales. Within the following three years, Alan had won many significant computer projects in China for HP, including the

world's first Unix online trading system to Shanghai Stock Exchange and thus making HP a famous brand in China. With this great success, Mr Lau was awarded the HP "President Club" award in 1993. After two years, he started his investment journey and had successfully founded several

well-known companies, such as the Informatics China, 四通

MTI and Asia Online China Ltd. In 1997 Alan acquired a software company which was then merged with North 22 Group and listed in Singapore in 2000. At present, Alan's investments include N22 Technology Inc, ACS etc. in the fields of IOT, Big Data, AI, post-quantum encryption and online games.

* Alan is the founding member and Vice President of the Shanghai Computer Society, Fellow Member of British Institute of Analysts and Programmers* (FMIAP), Member of British Computer Society** (MBCS), Mensa International Member***.

*The Institution of Analysts and Programmers (IAP) of the United Kingdom is an institution for information technologists, based in London. It is one of the UK's leading professional organizations for people working on business systems and computer software.

**The British Computer Society is a professional institution that represents those working in Information Technology both in the United Kingdom and internationally. Established in 1957, BCS rebranded in 2009 it as the Chartered Institute for IT, although this has not been reflected in a legal name change.

***Mensa is the largest and oldest high IQ society in the world

Mika Katsube

* Mika worked in Shanghai Engineering Graphics Society after graduating from Donghua University.

* In 1987, she went to Japan to study in Waseda University and later worked in Honda Research Institute.

* In 1993, she built Japan-China Trading Co., Ltd and

Shanghai Yameng Hotel, serving as the president and CEO respectively.

* In 2006, she invested in Yajing Investment Consultation Co., Ltd and served as the Chairman.

8.2 Management Team

Alan Lau   CEO

Alan is also board member and his profile is listed in "Board Members" section.
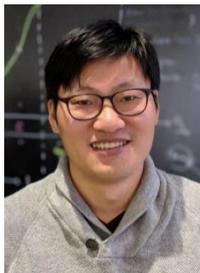
Fei Yang   CTO

Fei has 15 years' experience in software engineering. He worked in diversified industries such as University, governments, Telecommunications, Finance before he started his Blockchain journey. He has worked in blockchain startup, top crypto exchange and Australian top Blockchain consulting company. He got to know bitcoin since 2009 and used to mine it using his Thinkpad laptop and lost the coins as most early miners. He has decided to be all-in Blockchain industry since early 2017

* Co-Founder of FaceWorths

* Co-Founder of SpeckleOS

* Solutions Architect of Blockonomics.IO

* Blockchain consultant of Block8

* Senior software engineer of Bitfinex

Jimmy Chan   CMO

* VP of N22, leading technology company that provide the world most innovated decentralised communication technology for different industries, including IOT, Industry 4.0, smart cities and all kind of borderless computing application.

* ex-CEO of www.newwebpick.com, managed the most reputable and popular website www.newwebpick.com and operate the world largest e-magazine http://ezine.newwebpick.com business of the creative industry. More than 4,000,000 readers subscribed across 155 countries.

* ex-VP of Compaq Computer, Greater China. Managed Sales and Marketing Team, Received High Achiever Award for the best management Award and won the first Most Valuable Team.

* Professional Marketing and Strategic Business Management instructor– Trained more than 1000 marketing professional for the large enterprise, including China Mobile, China Telecom, Shanghai Bell, LG Fiber Optics, PCCW, Lenovo, Founders, and Neu-Alpine etc.

* Professional Strategic consultant – Assisted more than 10 companies to enter China market with the most cost effective and efficient strategic plan and implementation. Including Infogate, Radware from Israel, Ulticom from States, Stonesoft from Finland, PCCW, and Wisers from Hong Kong.

* ex-General Manager, Sales and Marketing of Sun Microsystems China.

Experienced Sales, Channel and Marketing professional – Have been in the business for more than 25 years, all in the multi-national fortune 500 enterprises.

8.3 Advisory Board

Keith Mcdonnell

Senior roles within Online Gaming companies such as William Hill, UK Tote and Bodog EU

He has been in the International Online Gaming sector for almost 20 years. He filled senior roles within the online divisions of William Hill, UK Tote and Bodog Europe and, having spent time running bodog88 in the Philippines, set up kmigaming.com in 2011 to assist Operators, both Asian and European, with areas such as Licensing, Operational set up, Recruitment, Product & Marketing Strategy and Sponsorship. More recently, Keith has taken a number of shareholdings in niche industry businesses, and non-gaming ventures including crypto-based ones, and is regular attendee at most key European and Asian Gaming Conferences.

Aviya Arika, Adv.

Legal Advisor

Aviya is passionately focused on the crypto legal practice. This passion has led her to develop and manage the blockchain practice of a Fin-tech Tel Avia based law firm, and then to move on and establish her own firm, focused solely on crypto, with a presence in Tel Avia, Kiev and other strategic European locations.

Aviya works with various crypto ventures, including token issuers, crypto exchanges, crypto PSPs and funds, in understating their token or product from a legal perspective, in choosing the right jurisdiction and legal framework for them, in obtaining relevant licenses, legal opinion and regulatory rulings, in drafting and reviewing all of the necessary legal documents and agreements, in finding the right banking partners that would go hand in hand with their line of business, and in any other need, legal or otherwise, that they may have. Rigorous research and a genuine interest in the developments in the crypto industry and the regulatory changes in it ensure ongoing relevance and an ability to provide hands-on consultation and solutions.

Marc Gouws

Senior management roles within the European and Asian online gaming sector

Marc Gouws brings 15 years of experience within all forms of gaming having worked with leading players in the industry. (Europe and Asia Facing)

Marc's passion and extensive knowledge within this sector makes him an easy choice to advise on the ever changing trends and opportunities.

Marc has worked with WSOP, WPT, TsogoSun and GalaCoral in land-based casino's and more recently, prominent senior management roles within the online sector.

Kiyotaka Suganuma

Ex-Japan National Police Agency, Chief Cabinet Secretary

He has served as a police-related key position and personally he is very knowledgeable about Japanese police administration and he was Chief Cabinet Secretary at the end. He also has a wide network of connections and knowledge for doing business in Japanese in a strategic way.

Jyoshin Shirai

Ex-Politician of Tokyo Metropolitan in New Komei Party

He has a strong connection in Tokyo Metropolitan government in respect of different government bureau: Police, Fire, Construction and Environment.

Masaaki Matsuyama

CEO of P-Cube Ltd. (Manufacturer of Pachinko and Pachislot)

He has established P-Cube Limited in the year of 2000 in Osaka. P-Cube is capable of making unique Pachinko and Pachislot machines. He is considered as an undisputed figure in the Pachinko industry.

Katsuhiko Imai

Luck corporation ltd. CEO

To date, he has been engaged in hit model development for each age and manufacturing of parts for pachinko / pachislot machines.

Even now, while having pipes with many manufacturers of pachinko / pachislot machines, we will develop a next-generation hit model

While going to be involved, while continuing to think about the future of the pachinko / pachislot machine industry, we continue to walk with trial and error every day, with the key words "break the current situation" and "build a new era of game".

Among them, in particular, he has the greatest expectation about the "Apollo Project"

He is expecting that it will become the "only plan" that will change the form of entertainment.

Takuki Harada

Season Consulting ltd.   CEO

CEO of Tokyo Marunouchi matching club boasting about 500 members.

It is one of Japan's leading M & A matching companies, and since its establishment, it has been brilliant in the field of real estate and corporate M & A, making full use of its

extensive network.

Shizuya Sakai

Business Consultant

Shizuya Sakai Serves as a consultant to various Japanese companies. He has a close contact with overseas and supports overseas companies frequently. He has served as a consultant for overseas companies with many customers, from well-known companies to venture capital companies in Japan. As a bridge in all aspects, he has rich experience in the financial sector and experienced projects is numerous.

Seishin Iwashita

World Kyokushin Karate President (Kancho)

In 1959, the first Souke MROJER LESOUD and Founder Oyama Masutatsu established overseas group WORLD KYOKUSHIN KAI KARATE ORGANIZATION. And established in the lives inherited from the second generation Souke ANDREY COULOMBE, regardless of age, sex, domestic and overseas, to the wider society, they aim to develop projects related to the diffusion of extreme vacuum handpaths, to foster young people and realize social contribution. He will deepen international exchange through this project and contribute to world peace by deepening mutual understanding and friendship beyond the race, thought, religion, and culture difference.

Yuji Shimizu

Founder of one of largest Karate Hall in Japan and unique "Music Karate"

Member of the United Nations Consultative Status NGO, Martial Arts Academy

Nonprofit Corporation International Music Karate

Organization TOSHIN

Yuji Shimizu set up the Toushin Kaikan alone, increased branches one after another from the passion for Karatedo, spread the field of vision overseas and spread the fighting spirit.

He is also the founder of a unique and new "Music Karate" that combines music into karate, and is striving to disseminate it.

Scott Kelly

Senior management roles within the Asian payment and IT solution sector

Scott graduated in Industrial Engineering from the UC Berkeley USA. During the past 30 years, he has done significant business development for many global multinational enterprises in Asia and US, places like Hong Kong, Shenzhen, Manila, Thailand which he has huge experiences and human networks. Scott held responsibilities in Technology R&D, Business Model creation and company restructuring, managerial roles for multinational companies. Scott recently focus on technology innovation especially in the field of Security and Safety System; High Security Intelligent Mobile Payment System, and integrated solutions of Open Source Software implementation and support, companies engaged his expertise were Microsoft, Cisco and OpenBravo etc. Scott also led the development of innovative mobile payment solutions and made it the biggest SMS payment platform in Southeast Asia. Scott not only knows about technology development, but also has his own unique perspective on business, especially retailing, and has sufficient practical experience in international commodity exchange and the establishment of trade centers.

Ikesugi Manabu

Corporation aggregate, the direct of Asia Pacific airport conference.

President of Ikesugikoubou Company Limited.

Taking Hokkaido as the strongpoint, in transportation, accommodation, entertainment and other aspects focusing on the activities between overseas and Japan At the same time, the real estate sales for the prosperous stratum also play an important role for the development of Niseko.

There are many racing horses and it is also engaged in the overseas supply market of Japanese horses. There are also many foreign customers who have also made a great of contributions to the development of horse racing culture.

The Japanese Recommendation team of Crypto Currency

Harada Ryuuji　　　　**Shiori Urabe**　　　　**Akihide Kawasaki**

With the evolution of digital technology, the Internet society has tremendously changed.

In recent years, we have learned the technical knowledge of crypto currency and blockchain which is rapidly popularized in the world, and analyzed the necessary and beneficial contents from a large amount of information.

Our team has been devoting ourselves to verify, explore, evaluate and analyze many technologies of blockchain around the world, and providing correct information for each customer.

9. Issuance of the Token Coin, this ICO Proceed Planning and Fund Usage

The Group plans to issue Apollon Tokens — APO with a total of 2,500,000,000, the Pre-sale and ICO as per the details shown in the following table:

	Activities for issuance of the Coins	Period & Duration	Price of the unit Coins	Total number of Coins	Total Value
1	Presales – A, B and C	May 7- July 13		210,000,000	
2	General Sales (ICO)	Start from July 16	US$ 1.0	248,000,000	US$ 248m
	Total			**458,000,000**	

Usage of Fund:

● Apollon Blockchain infrastructure full process technology development and deployment;

● Apollon ecological construction and marketing / promotion (Establishment of multi-industry main and side chains infrastructure);

● Web eSports and online gaming infrastructure;

● Payment and settlement system + Cryptocurrency and asset eWallet.