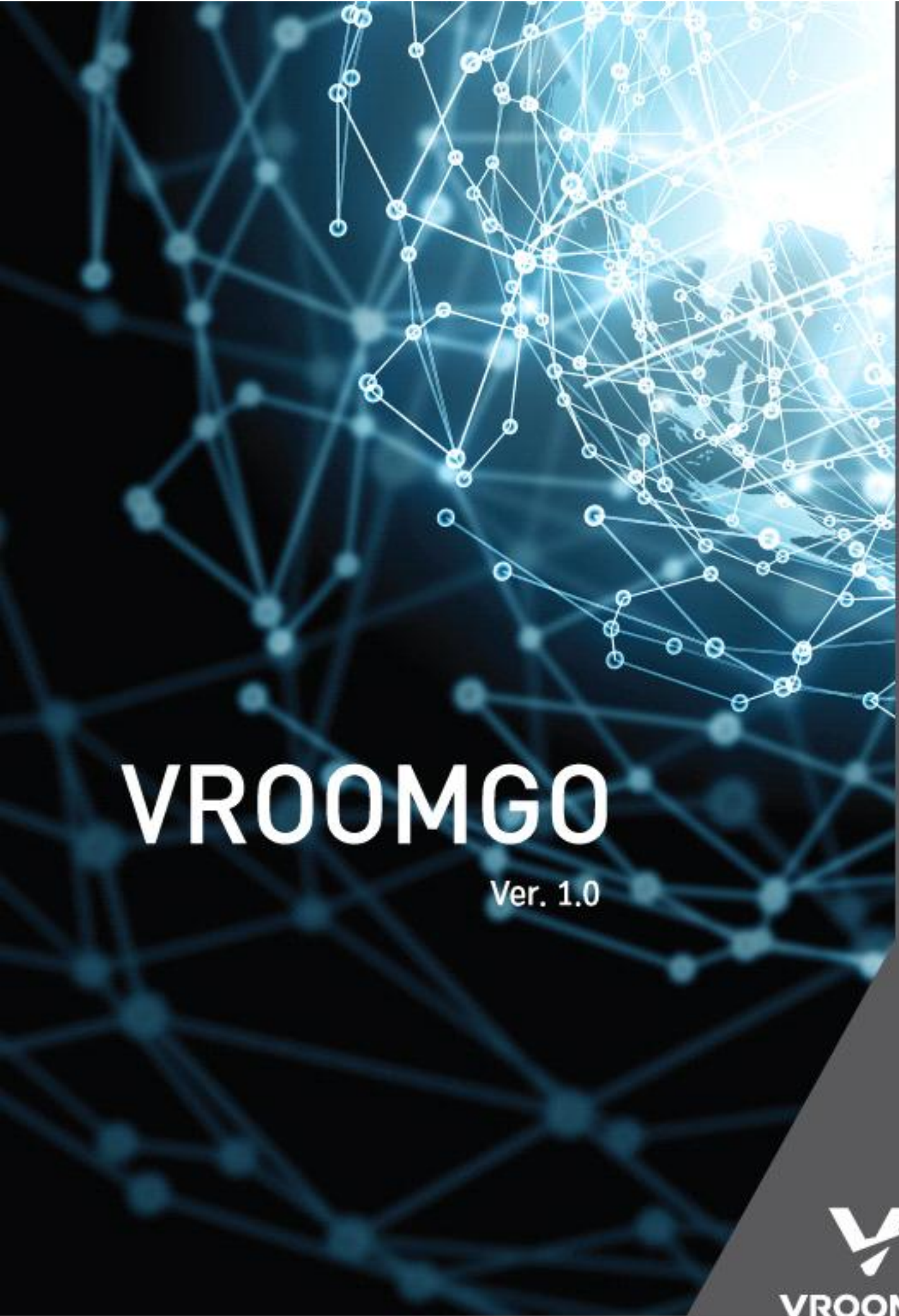


VROOMGO

Ver. 1.0

VROOMGO

Contents

Ⅰ. Disclaimer

This white paper is reference only for the understanding of *VroomGo* business. The business plan described in the white paper should not be construed as any form of investment advisory or investor recruitment. Any decision made based on the information in this document will be the responsibility of the decision maker.

VroomGo Team is not responsible for the accuracy, reliability or error correction of the information herein and all future edits. Nobody does not guarantee future developments of VroomGo to anyone. Business or platform launches may be sooner or slower than expected schedules depending on the development status and company circumstances. VroomGo is not liable for any losses arising out of or in connection with the use of, or investment in VroomGo services. Participating in the coin offering of VroomGo will not guarantee future earnings or losses.

The recipient of the white paper will seek independent advice and will have to assess the issues directly, including risk assessments, technical issues, and consultations with professional advisors.
The materials in the white paper and the white paper itself include the information related to future business, financial performance and developments that are considered to be VroomGo's future forecast information. You can distinguish this information by words such as "prediction," "anticipation," "foresight," "intent," "planning," "judgment," "pursuit "and "forecast,".

In addition, the records, presentations, and materials other than this white paper that are available through the media also contain forecasting information. In addition, the VroomGo team can often orally provide information that discusses the future.

Such information is based on current and specific assumptions about the VroomGo coin, and much of the information may not be directly related to the future performance of VroomGo coin. The Information (including information contained in the white paper) is highly subject to risks, uncertainties, and other factors. Recognition of one or more of those risks or uncertainties acknowledges that the expected situation may not occur or that there could be a mistake in the assumptions used to predict the situation. This means the actual results or outcomes of the VroomGo coin will be significantly different from the forward-looking information mentioned explicitly or implicitly.

VroomGo Team has no obligation to update or revise these forecasting information in the circumstances other than anticipated.

Ⅱ. O2O Sharing Economy Platform and Blockchain

1. Prologue

ICT technologies such as smart phones, internet of things (IoT), and big data have been changing various aspects of our lives. One of the changes is that it is getting harder to distinguish between online and offline boundaries. O2O, which is gaining popularity all over the world, is the result of online and offline convergence.
As offline services are presented through online platforms, orders and payments are made immediately, and offline services are provided to users. Most notably, transportation, food, accommodation, and beauty services are combined online and offline. It is a big change in how services are provided and consumed. The proliferation of O2O services which combine the advantages of both offline and online is expected to help consumers gain access to the variety of services more easily and use the services more conveniently.

O2O services go through several steps - making contract and payment done online and fulfillment done offline. The trust that these contracts, payments and service fulfillments will be guaranteed and safely completed is vital to consumers and suppliers. So far, these contracts, payments, and service fulfillments have been carried out by large financial institutions using government-issued currency, credit cards, and money transfer services to ensure trust. However, it also means users have to pay a lot of fees such as affiliation fees, transaction intermediary fees, and purchase commissions. In other words, the O2O service is not safe due to the exposure to the risk of hacking, which requires a lot of investment to prevent it, and eventually all theses costs are a burden on users in the name of fees.

Our team's mission is to combine Blockchain technology with O2O services to provide the safest and most cost-effective way to reduce the burden on the fast growing O2O services in recent years.

The blockchain technology is a distributed data storage technology that transparently records transaction details in a distributed ledger where anyone can check agreed contract, payment history and service execution process, which is

replicated and stored to multiple computers. So, the distributed computers verify the record to prevent hacking and ensures that the transaction is carried out safely. In other words, it is a distributed data storage technology that stores data in a block and connects it in a chain form, and replicates it to many computers at the same time. Instead of keeping a record of transactions on a centralized server, it sends transaction records to all users participating in the transaction, and every transaction participant shares and compares the records to prevent forging or falsification.

Blockchain technology, one of the hot areas of the fourth industrial revolution, is not often used in the real world economy. Our team plans to enter the O2O service market based on blockchain technology and has come together to create the practical cryptocurrency that can be practically and conveniently used in the real world economy.

Our team has been designing the blockchain based VroomGo O2O service platform. With blockchain technology, our goal is to create a platform upon which O2O services - smart contract - cryptocurrency - mobile pay function work in one and, is to create an O2O sharing economy ecosystem to allow all market participants to use VroomGo Coin.

Among the representative O2O services, GO-JEK, the most successful unicorn company in Indonesia, is offering "Go-Ride" service that users can hail motorcycle and taxi, Go-Mart service that motorcycle driver shops for the user and Go-Food service that motorcycle drivers deliveres the goods and others. In addition, the global companies such as Amazon and Uber are also engaged in food ordering and payment service and also are jumping into the food tech which helps restaurants with reservation and payments and provides food and recipe of famous chefs.

VroomGo will be the simplest, safest and fastest service-oriented platform for connecting O2O services with blockchain technology. Easier, Safer, and Faster is **VroomGo**'s motto.

By combining blockchain technology with the rapidly expanding O2O service, our team not only lowers transaction fees that are one of the issues in O2O services, but also enables secure and easy access to transactions using mobile to provide transparent O2O service ecosystem through blockchain and to innovate the supply chain ecosystem related to our services.

We plan to start this business in the Philippines and expand it to Southeast Asia. Our business model will leverage other successful O2O services such as

Indonesia's GO-JEK and China's food delivery service like Ele.me, and incorporate blockchain technology into O2O. Manila's living environment, transportation environment, financial environment, labor environment, and mobile communication environment are very similar to those of Jakarta, Indonesia. Manila has population of 25 million people with population density that is 6 times the world average which resulted in infamous traffic congestion often referred to as "Manila Time." The financial structure is not yet mature and only 30% population has bank accounts and 3% has credit card accounts. However, a mobile communication environment with a mobile penetration rate of 110% and a younger generation of an average age of 23.5 will be very important base for O2O service expansion.

Our team plans to list VroomGo coin (VRG) at the major crypto coin exchanges through the ICO. It will allow for VroomGo coin to be traded at major coin exchanges and be exchanged with other cryptocurrencies. Users will be able to manage and store VroomGo coins with ease using VroomGo wallet without having to have other wallets.
In addition, our team plans to develop cryptocurrency DApp that allows users of **VroomGo** O2O services to convert key cryptocurrency such as Bitcoin, Ethereum, Litecoin, Dashcoin and ERC-20 tokens into **VroomGo** token (**VGD**). Furthermore, we plan to make VroomGo cryptocurrency to become a virtual payment vehicle using VroomGo-pay function.

2. Business Vision

■ O2O Sharing Economy and Blockchain

O2O Sharing Economy

O2O sharing economy service is a big stream in the world economy. O2O stands for Online to Offline and is a form of innovation that enables connecting online technologies with offline services. These O2O services are highly economical because they provide services tailored to the time and space of users on-demand. Sharing economy is the movement to save the ecosystem leveraging the high economic efficiency of O2O

The definition of sharing economy is economic activity that maximizes the utilization efficiency by sharing the underutilized resources. The key is the collaborative consumption of products so that those products are not owned by one person but are shared and used by many to optimize resource utilization. With O2O, more and more people now have been sharing the resources with others, creating a new area of sharing economy. Eventually, both the sharing economy and O2O can be said to be in the same context.

Airbnb is a leading O2O service that provides brokerage services for house sharing. Airbnb makes it possible to share the houses with others at cheap cost using the global online platform. Of course, the success of Airbnb is not just about renting someone else's house for a cheap price but also about sharing the local culture and traditions on the value of "trust of sharing."

A Core Company Leading Sharing Economy

According to the release of “The Billion Dollar Startup Club” of 2017 by CB Insights, a global market research firm of the US, O2O based sharing economy companies were included among the 10 start-up companies that have been leading the change in the world, which is very interesting.
Among the O2O companies of the top ten start-up companies 'Uber' ($68 billion) ranked first, ‘Didi Chuxing' in China ($50 billion) ranked second, Airbnb ($29.3 billion) ranked fourth, and China Internet Plus Holdings ($18 billion) ranked ninth. Uber and Airbnb currently dominating the O2O market in transportation and accommodation are likely to become comprehensive O2O portals in the future and dominate the sharing economy like Google dominating ICT industries.

Future trend of Sharing Economy

The first trend of key companies in sharing economy is they are evolving into O2O comprehensive portal. Firstly, there will be an attempt to integrate categories such

as transportation and travel, and then to change into the O2O comprehensive portal covering all categories.
Uber is transforming from the vehicle sharing services to more comprehensive O2O portal. Uber has launched the "UberRush" delivery service which delivers packages to the designated point and Uber continues to expand the scope of their O2O services leveraging the current vehicle sharing platform to food delivery service through "UberEATS". Uber also unveiled its O2O software, making it easy for businesses such as Hyatt Hotels, Starbucks, and United Airlines to use Uber's brokerage platform.

Airbnb is also pursuing a strategy to become a comprehensive O2O portal. Airbnb has acquired Vamo, a travel planning company to provide travel planning services such as travel by walking, travel by biking, information on local restaurants, etc. to travelers. They also have entered into the Business to Business (B2B) area to help business travelers on their business trips.

The second future trend is the globalization of O2O services.

Didi Kuaidi known as China's Uber, occupying more than 80% of the taxi hailing market in China, is moving into the global market beyond China. Didi Kuaidi is seeking to enter the global market through partnerships with Lyft (US), Ola (India) and Grab Taxi (Singapore). The global O2O alliance which is being led by Didi Kuaidi is expected to serve as a rival to Uber.
The O2O company which has chosen a global expansion strategy like Didi Kuaidi is Delivery Hero, a German food delivery company. Delivery Hero transformed into a global O2O company by acquiring delivery start-up companies in 34 countries around the world.

A New Paradigm of converging Sharing Economy and Blockchain
As shown above, the O2O service is experiencing explosive growth and most O2O services goes through a process of making a contract via online with offline service providers, paying online through payment system and delivering the service to the user. The trust that online contract, billing, and offline service delivery can be guaranteed and safely completed is important and vital to both users and suppliers. Until now, payments have mainly relied on international remittance procedures using credit card or financial institutions. These payment methods require a high fee for users, and the users also face the risk of disclosing personal information. Moreover, the fact that access to bank services and credit card is not easy in Southeast Asia, it can be a major obstacle to the spread of O2O services.

The challenging task for our team is to embed blockchain technology as the safest and most cost-effective way to reduce O2O service burdens

The O2O service platform which uses blockchain will overcome bank-centric settlement barriers in Southeast Asia, where the potential is great but financial infrastructure is weak. It also has the advantage of using cryptocurrency tokens that enables safe transactions with very little or no commission compared to using the traditional bank transfer and credit card in financial transactions.

If the O2O service platform is a combination of online and offline, **VroomGo's** combination of blockchain technology with those O2O service platforms will provide easier, safer, and faster services, which will present a new paradigm for the subsequent Fourth Industrial Revolution.

■ The Vision of Our Business (What To Do)

√ *VroomGo* is O2O service platform
√ *VroomGo* is a service utilizing motorcycles

■ *VroomGo*- Rider Service: Motorcycle and Taxi Hailing Service

VroomGo*-Rider** Service is a motorcycle-taxi (motorcycle or tricycle) hailing service that connects offline riders and customers through the ***VroomGo O2O platform. In other words, when a customer calls a motorcycle-taxi through the ***VroomGo*** O2O platform using a mobile phone, the nearest motorcycle rider picks up the customer and safely transport the customer to the destination.

■ *VroomGo*- Food Service: Food Delivery Service

Food delivery service is a representative O2O service that is sensational around the world. The ***VroomGo-Food*** service allows customers to order and have the food delivered to the desired location quickly by ***VroomGo*** riders.

■ *VroomGo*- Delivery Service: Goods Delivery Service

VroomGo-Delivery service is a service that delivers documents and small packages on demand using motorcycle.

■ *VroomGo*- Mart Service: Food Purchasing Agent Service

VroomGo-Mart service is a shopping service that allows users to buy online and have the purchased goods be delivered. If you choose a store to buy from DApp, or select a category of goods to order, *VroomGo-Rider* motorcycles will pick up the purchased items from nearby marts and deliver them within 60 minutes (Metro area).

■ *VroomGo*- Life Service: Life Style Convenience Service

VroomGo-Life service is a service that provides the convenience of daily life and health care services that customers order through VroomGo platform and are conducted by offline experts or specialty shops. *VroomGo-Life* has four lifestyle services: *VroomGo-Massage*, *VroomGo-Clean*, *VroomGo-Glam*, and *VroomGo-Auto*

√ We will build an easy, fast, and secured 'global mobile payment service'.

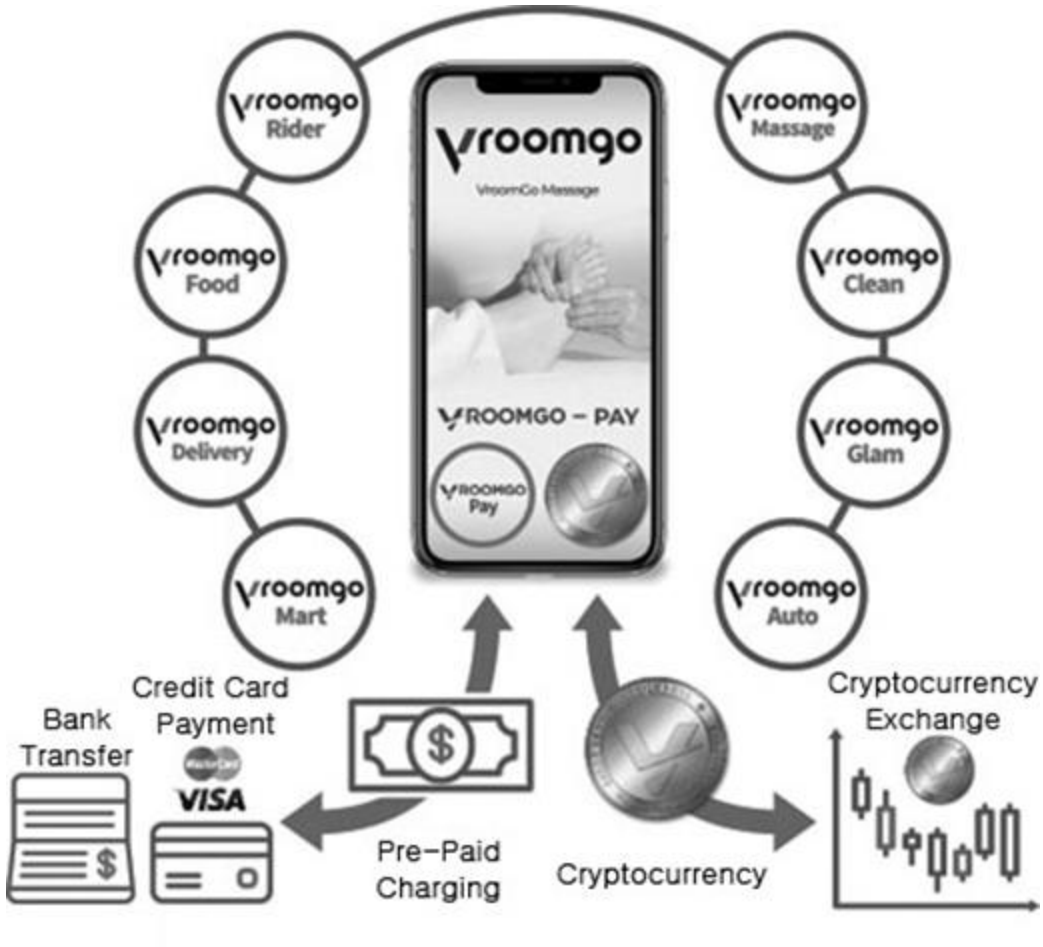
■ *VroomGo*- Pay Service

VroomGo-Pay service is a prepaid mobile payment service based on FinTech technology. You can load the fund by using a variety of payment methods such as credit card, wire transfer, mobile phone banking, and cryptocurrency. You can use VroomGo-Pay as a payment method for all VroomGo services as well as at the *VroomGo* affiliates.

VroomGo-Pay will be used in conjunction with cryptocurrency. *VroomGo* plans to issue a cryptocurrency called *VroomGo* coin (*VRG*) and *VroomGo Token* (*VGD*) to create a system that enables easy and secured exchange, transfer, prepayment and payments between *VroomGo-Pay* and *VroomGo Token*. VroomGo Coin will be exchanged and settled in conjunction with various virtual currencies such as Bitcoin and Ethereum through a DApp that will be developed separately.

VroomGo will solve the payment problem through blockchain technology and issuing cryptocurrency. *VroomGo* will enable a variety of O2O services such as motorcycle ride hailing, vehicle sharing, food delivery, small goods delivery, etc. to be paid through *VroomGo Token*. *VRG* will be the "key currency" in the VroomGo ecosystem and users will be able to exchange VRG freely with other

cryptocurrencies such as Bitcoin, Ethereum, etc. using DApp.



VroomGo–Pay Mobile Payment Service

√ We will start in the Philippines, expand to South Asia and eventually to the world

VroomGo Service will start in the Philippines

Firstly, the economy growth rate close to 7% per annum, which is one of the highest in ASEAN countries, is expected to bring unlimited business opportunities.
Secondly, population of 100 million with average age of 23.5 is jumping directly to the smartphone-dominated mobile era beyond the information era represented by the internet. In addition, the geographical environment of Philippines, which is made up of 7,000 islands, is further driving the importance of mobile infrastructure and the development of mobile-based industries such as mobile communications and mobile payments

Thirdly, the situation of Metro Manila of which population density is world's fourth highest with about 25million people and one of the worst traffic congestions in the world will play as an opportunity for *VroomGo* O2O service. The infamous traffic congestion called 'Manila Time' calls for the fast transportation means such as motorcycles and the absence of public security call for a reliable service that can be used with trust.

Fourthly, Philippines' financial infrastructure is not mature yet with only 30% of bank account holdings and 3% of credit card holdings. In the Philippines, mobile phone penetration is more than 110% and majority of mobile phone is rapidly switching to smartphones. With those two factors above, the mobile simple payment service using prepaid mobile phones will have big potential to be adopted by the younger generation and through the small-scale payment-transfer service for the financial underprivileged.

Fifthly, the convergence of mobile pay and blockchain technology will show a new paradigm in the 'global mobile payment service' market. The *VroomGo-Pay* service plans to use block-chain technology. In addition, *VroomGo* plans to issue a *VroomGo* coin to build a system that allows *VroomGo* coins to be exchanged, charged, and paid safely and easily through *VroomGo-Pay*. *VroomGo* coin (VRG) will be made to be exchanged and paid with various virtual currencies such as Bitcoin and Ethereum through the VroomGo cryptocurrency DApp.

As will be explained in detail in the next chapter, Indonesia has a very similar living environment to that of the Philippines, including high economic growth rates, large populations and high population densities, terrible traffic conditions, and poor financial infrastructure. Indonesia's GO-JEK has grown explosively into a unicorn company in just six years. In addition, Malaysia's Grab, a car-sharing O2O service, is rapidly expanding beyond Malaysia to Southeast Asian countries such as Singapore, Thailand and the Philippines.

The Philippines is the starting point for the *VroomGo* O2O service business and will be the gateway to the global market beyond Southeast Asia.

3. The World in going for O2O Sensation

■ The General Overview of 'O2O Service'

The O2O service is a service that connects online and offline. O2O services are becoming a new business model that connects mobile information such as marketing, payment, and coupon offerings with offline purchases as the use of mobile devices spreads rapidly with the high-speed networks and heightened popularization of smartphones and tablets. The O2O service is rapidly evolving into a smartphone driven mobile service, so this mobile-oriented O2O service is often called M2O service (Mobile to Offline).

One of the biggest reasons why O2O service is quickly becoming popular is that O2O services become more and more relevant to real life needs such as accommodation, taxi, food delivery, product delivery, housekeeping, laundry, etc. as mobile devices are becoming more popular. So, when using O2O service, it is not required to search separately for a business for the service you want to receive. According to the survey conducted by several research institutes, it was found that the main reason for using O2O service is that it is quicker and more convenient than the conventional method and real-time information on offline stores and offline services can be provided.

O2O (Online to Offline) is a service connecting and expanding Online and offline. It is a new service concept that enables offline activites such as purchasing, payment, and marketing offerings like coupons are done via online systems (web, smartphones, tablets)

In recent years, the O2O service platform has evolved into a concept of bundling multiple services in a single application from the concept of providing only one service.

Currently, the most commercially available O2O service applications in the world are AirBnB, Uber, Grab and Ele.me, chinese food delivery service which is bought by Alibaba. Transportation and delivery applications are already in use by a lot of people, and according to the research of professional organizations, the O2O services that have been most widely used are food delivery, accommodation, and transportation.

O2O service can be classified into four categories: daily life service, recurring service, information service and professional service. The daily life service such as food delivery is the fastest in the market, and the periodical service of massage and housework assistance has started by a small number of companies in Southeast Asia. Recently, information related O2O services for fitness, companion animals, and translation, and professional O2O service for medical and legal matters have appeared.

■ O2O Service Trend in the Global Market

Amazon.com is the largest online distribution network in the world. Amazon.com which began as an Internet bookstore in July 1995 has grown to become the world's largest online shopping mall which currently accounts for half of the US online retail market. The reason Amazon emerged as a global leader in the O2O service business is through the introduction of the "Dash" service. Amazon's "Dash" service is an O2O service that allows customer to purchase and pay simultaneously with smart device just by reading the barcode printed on the product packaging such as shavers and beverages. In addition, Amazon has launched food delivery services as one of the 'Amazon Local' services, and is planning to launch O2O services for car repair in the future.
Amazon.com which has a solid position online has recently announced to launch an offline store called "Amazon Go". Amazon's public disclosure of Amazon Go is described as a historical event that has made the desperate sense of the destructive power of online companies' offline entry in the United States and other parts of the world.

Amazon Go is an offline mart that sells groceries and miscellaneous goods. But if the Amazon Go is an ordinary offline mart, it will not be a historical event. As a part of Omni-Channel, there have been many cases which successful online stores have gone for offline business. The biggest difference between the Amazon and the existing Mart is that there is no cash register at the entrance. Just install the Amazon Go app and create a QR code with the app when entering the shop. Then, when the customers bring the goods out of the store, the payment will be carried out automatically from the Amazon.com account information, and the receipt will be delivered through the app.

Amazon.com's innovation through Amazon Go
is a great inspiration for the online and mobile service
industries around the world including O2O services

Alibaba, a global provider of O2O services, has been making a leading role in B2B business. Alibaba has built an O2O service platform in 2014 along with 'Myjin Fu', a financial services company affiliated with Alibaba, and now is targeting the Chinese O2O service market. Alibaba established Kubei, an O2O service company related to daily life service by co-financing with MY Finance Co., Ltd., and this KUBEI has started O2O service business which integrates both on-line and off-line markets such as restaurant reservation and medical service.

Alibaba announced that it acquired 43% of its mother's equity through Ant Financial, its financial subsidiary, and plans to acquire 57% of its remaining stake for $9.5 billion in April 2018.

Alibaba's taking over Eleme, a food delivery App, is a part of Alibaba's strategy for new distribution system. Ma Yun, Chairman of Alibaba has been expanding its products lineup to including household appliances, fresh products, apparel and miscellaneous goods since its introduction of the concept of "new brokerage" in 2016 and integrated online and offline services. Alibaba has been reborn as the biggest O2O service company in China.
The acquisition of Alibaba's Eleme is becoming a good opportunity to expand its core business of payment services. Alipay offers a variety of payment services such as taxi, hotel reservations, financial products, payment of utility bills, and holds a 50% market share in the huge Chinese market. Alibaba's O2O service which has begun in e-commerce are expanding into life services by merging with financial functions such as food delivery App and Ali Pay.

■ Sensational Trend of O2O in Southeast Asia

It is worth noting that the growth of the O2O market has recently been seen in the Southeast Asian market. The main axis is Grab of Malaysia and GO-JEK of Indonesia. In less than 10 years, they have grown into a unicorn enterprise worth more than $6 billion.

Taxi-hailing O2O service is valued $6 billion

In the Southeast Asian market, Grab is referred to as the "Southeast Asian edition of Uber" and is ahead of US Uber, the world's largest car call service provider. Grab which the headquarters is located in Singapore and has started its car call service in 2012, takes 1st place in the Southeast Asian car call market with the population of 600 million, and now has surpassed Goliath Uber.

Grab's idea came from a young man at Harvard Business School. Anthony Than who was 35 years old from Malaysia designed the Taxi Call App to call a taxi easily which was based on his experience of difficulties to catch a taxi at hometown. Grab which was established for O2O service for Taxi Calls in 2012 attracted $4 billion investments from Japan's Softbank and China's GGV Capital, and now the total enterprise value is estimated to reach $ 6 billion.

Grab currently has been operating in 30 cities of six countries including Southeast Asia such as Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. It is twice as many as Uber which serves 15 cities. Grab has already reached 13 million downloads and is leading the O2O service market as a car sharing service application in the Southeast Asian market.
'Grab' brand name was originally 'Grab Taxi '. But early this year, they changed its brand name to 'Grab' and are working on expanding its business. Chief Executive Officer Anthony Tan explaining the change of brand name is “the action to put a lot of service in one brand"

The grab which has started and grown explosively as a means of transportation is now expanding into the O2O area. Recently, Grab Car has been providing various O2O service such as Grab Car of a freight transport service using private cars, Grab Bike of motorcycle taxi service, Grab Express of delivery service, and Grab Hitch of carpool service.

Indonesian 'GO-JEK' O2O service valued $5 billion

On the other hand, GO-JEK is considered to be the starting point of Indonesia O2O service. GO-JEK is originated from Ojek which can be said to be a motorcycle-based Über service

Go-JEK which started as a means of transportation is expanding into all areas of O2O services such as shipping, food delivery, shopping, moving, cleaning and massaging. According to Real Foods, Indonesia has a population of 255 million people and has the Internet population of about 75 million. 52 million people among the population are using SNS through mobile devices, which is driving the explosive growth of GO-JEK service.

'GO-JEK', a representative O2O service company in Indonesia has grown into a unicorn company since its staring business for six years. It has attracted investment of USD 1.75 billion and its value is estimated of USD 5 billion.

If most O2O service markets in the US and China started their business on the online and mobile platforms, Go-JEK is the opposite to that. Go-JEK started O2O service business by bringing offline motorcycle transportation into online. In other words, they have moved their personal motorcycle transport to the official mobile platform. In Indonesia, the number of consumers using Go-JEK for shopping and food delivery has increased dramatically, and this is bringing about the change in the life pattern so that it will pay attention to how it will affect the pattern of food consumption in the future in Indonesia.

Like this way, the O2O service market in Southeast Asia has been forming a new market trend within the existing market. In Malaysia where the oil is cheap relatively, the car is the common means of transportation.
By using this car, they have been providing various services such as vehicle-sharing O2O service. Due to the severe traffic congestion in Indonesia, O2O service using the motorcycle that best suits for the local traffic conditions has been shaping a new market by shaking the existing public transportation frame. It is worth noting that this powerful O2O service market is expanding explosively enough to change the way of life, and it will be an unlimited new business opportunity.

4. Why Philippines?

■ Targeting Southeast Asia from the Philippines

Up to now, we have already seen that the O2O service market has been expanding in Southeast Asia. Grab which began in Malaysia started a variety of car-related O2O services such as 'Grab Car' for taxi, 'Grab Taxi', 'Grab Bike' for motorcycle taxi booking, and 'Grab Hitch' for carpool. Furthermore, they are extending the range of O2O services to daily life services by launching "Grab Express" for delivery service

Grab has been currently operating in 30 cities of six countries of Southeast Asia including Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. It is twice as many as Uber which provides service to 15 cities. Uber is struggling in Southeast Asia because of the grab.

There is GO-JEK in Indonesia. With the explosive growth of GO-JEK which started as a means of transportation, they have been expanding to all areas of O2O such as delivery, food delivery, shopping, moving services, cleaning, and massages.

GO-JEK became the first unicorn start-up company in Indonesia since the establishment in 2010 and attracted the investment of $550 million from eight institutional investors in 2016. In May 2017 GO-JEK attracted the investment of $1.2 billion from Tencent Holding and JD. And also was invested $ 1.2 billion from Google in early 2018. By attracting approximately $ 3 billion, the corporate value of GO-JEK is estimated of approximately $ 5 billion

GO-JEK is planning to expand into the Southeast Asian market based on its successful history in Indonesia. The Philippines with a population of over one hundred million and Vietnam with its population of about 93 million are considered to be the best places for O2O service.

VroomGo has set the goal of targeting the Southeast Asian market from the Philippines. Our team is planning to carry out the O2O service business through localization in the Philippines. We plan to fully understand the culture, environment and business ecosystem of the Philippines, and complete the O2O service platform that is closest to the Philippines. Our team will build the fastest online service platform by combining Korea's advanced O2O service platform and Fin Tech technology, and will cooperate with Philippine subsidiary directly and if necessary, we will cooperated with the local affiliates and create an offline service base.
We plan to provide simpler, safer, faster O2O service that we could not imagine until now by combining blockchain technology and pay function in O2O service business.

Easier, Safer, Faster is the motto of VroomGo

This will be our competitiveness in the Philippines market where *VroomGo* can compete with Grab in Malaysia and GO-JEK in Indonesia

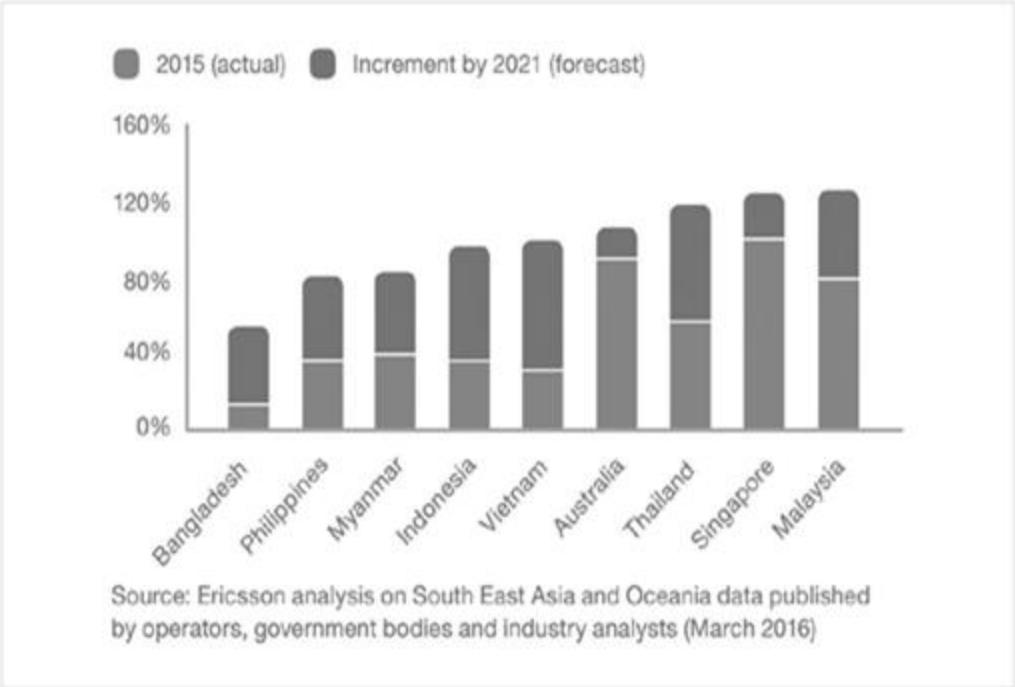
■ Mobile Market and O2O Business Environment in Southeast Asia

Southeast Asia is one of the fastest-growing markets in recent years with the highest growth rates. Unlike China where there are market-leading operators, there are no fast-growing and market-driven operators. In recent years, Grab in Malaysia and GO-JEK in Indonesia have been leading the O2O service business in less than a decade and became a unicorn enterprise.

Southeast Asia is emerging globally with a large population and high mobile penetration

The most representative indicators of the potential of the Southeast Asian market are the population and the average age of the population. Indonesia has a total population of about 255 million, Philippines has about 122 million people and about 93 million people in Vietnam.
Besides, Thailand has 65 million people and Malaysia has about 30 million people. The total population of Southeast Asia is about 640 million people. It is similar to that of Europe and it is twice that of the United States except for China and India of a population of over a billion people.
The reason why the Southeast Asian is highly evaluated is not only the number of people but also the fact that they are young. According to the CIA World Fact Book, as of 2014, Japan which is belonged to the Northeast Asian region has the largest average age of 46.1 years, and Korea has the average age of 40.2 years. China, emerged as a G2 country is the youngest country in Northeast Asia as the average age of 36.7 years. However, it can not be compared with that of Vietnam and Southeast Asia (29 years old).
Especially in Southeast Asia, young people under the age of 34 account for 70%, so the young and purchasing population will become the mainstay of society for the next 20 years. Therefore, it is expected to become a steady growth market in the future.

In addition, "young" means adapting best to the mobile environment not only in the internet and online market, but also in the smartphone, and it means that it is the generation that can reach the fourth industry such as blockchain and cryptocurrency as soon as possible. The feature big population of Southeast Asian regions means that the mobile penetration rate is high.
In the Southeast Asia region, the number of mobile subscribers reaches 690 million compared to 200 million of internet users. According to the International Telecommunication Union (ITU), a global average penetration rate of mobile is 96.1% while Southeast Asia has 119%, and also there are many people using more than 2 mobiles in Southeast Asia.



Smartphone Penetration Rate in South Asia (%)

In the meantime, Southeast Asia has been using feature phones mainly, but it is entering a very attractive market as smartphones have been growing rapidly since 2016. In Vietnam, most have been using smartphone to connect internet. In the Philippines, 87% of mobile users are rapidly switching to smartphones, so accordingly the mobile payment market is growing rapidly.

E-commerce market in SEA has a big potential with a big room to grow

Currently, in Southeast Asia, it is very common that sellers sell the products through online and offline in a form of ‘blog shops‘ and it is expanding beyod fashion products. KASKUS, Indonesia's leading Internet community service, can also be understood as a development of blog shops.
Southeast Asia still accounts for as low as 7.9% of the total retail market as of 2014. However, the e-commerce market of Southeast Asian is expected to grow rapidly. In 2013, the Wall Street Journal estimated the e-commerce market of Southeast Asia was around $7 billion and predicted that it would grow from $67 billion to $89 billion by 2017. Alibaba has invested a total of $4 billion for Lazada in Southeast Asia with the interested in the possibility of this development. Alibaba took 83% stake by investing by $1 billion in 2016 and $1 billion in 2017. Lazada, opened in 2012, has operated a specific platform specific to each market in six

Southeast Asian countries: Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. As of 2017, there are about 135,000 domestic and international sellers and over 3,000 brands. In addition, they are pursuing strategic mutual marketing activities with the partnership with O2O service companies on the Lazada Platform.

The Growth in the Southeast Asia e-commerce market is consistent with Southeast Asia's overall economic growth. According to a report released by UBS in January 2014, worldwide per capita income has grown at an average annual rate of 2.0%.
It is estimated to increase by 1.5% between 2014 and 2019 and by 1.2% per year from 2019 to 2024. However, during the same period, Southeast Asian countries have shown the growth rate of per capita income of up to two to three times, and are expected to show a higher growth rate than the world average in the future. This increase in income is expected to lead to an increase in consumption in the Southeast Asian market.
But, the "payment" matters needs to be resolved for the growth of mobile services, including e-commerce. Southeast Asian countries have lower credit card penetration and settlement rates except for Singapore. According to the recent FTCR survey, the most popular non-cash payment method in the Philippines and Vietnam last year was credit cards. However, in the countries where mobile payment applications issued by banks has been activated such as Indonesia, Malaysia and Thailand, credit card usage has been declined significantly. In these regions, the use of mobile payment system such as Grab-Pay and Go-Pay has been increasing rapidly.

The increase in smartphone users has also positively affected the spread of mobile payments. In Indonesia, one of ASEAN's best economies, the number of people using mobile payments without using credit card has been increasing.

The application of blockchain technology in the e-commerce market breaks down payment barriers in potential markets such as Southeast Asia and Brazil. In addition, there is the advantage which can be provided with very little or no commission.by using a cryptocurrency token compared to the existing market. Furthermore, in the current system that banks hold the keys of value transfer, they are not interested in small amounts and also users of bank have a burden of commission, but in a blockchain network, the currency manager qualification model can be fundamentally changed so that a small payment can be made without any commission.

For example, there has appeared many innovative projects for applying this blockchain technology. The German start-up 'Slowkit' which created a blockchain

for accommodation service made it to sign a “smart contract” to specify their ownership and force contract rules if there is agreement between landlord and lessee after checking the transaction conditions registered in the block. Users do not need to pay the fees separately because they do not need an intermediary. Israel's start-up "Rajes" which is offering a blockchain for vehicle sharing service also developed cryptocurrency called "Jouez" to be used for vehicle sharing.

■ Philippine is the New Hope for Southeast Asia Market

87% of mobile phone users switched to smartphones and usage of mobile payments is fast growing

The Philippines is the nation that the internet users have grown fastest for the last five years and 87% of cell phone users have quickly switched to smartphones. Furthermore, the market scale of mobile payment also has been growing rapidly. Philippines is the world's third largest recipient of foreign currency remittances. Approximately $26 billion annually is being sent to the Philippines from overseas. However, when the workers in foreign countries send foreign currency to their families in Philippines, they face a high burden of exchange, brokerage and collection fees, and it takes several days to complete the process.

In 2014, the banking law was amended to allow foreign banks to enter, but the total number of banks is limited to prevent entry. Currently, foreign capital is able to hold 100% of the bank's stake in the bank, and it is possible to enter into the Fin Tech by eliminating the scope of business. This year, the Philippine central bank has announced the regulations on preventing foreign money from laundering by using mobile foreign currency remittance.
However, since August 2017, two cryptocurrency exchanges have been licensed to improve overseas remittance and transfer services, and the remittance service has started with reduced processing time and fees based on Bitcoin. Furthermore, start-up owned by Globe Telecom has been operating a mobile micro payment and micro loan service.
It is required to consider the situation that the financial institutions are operating under the regulation of strong government and GDP has not grown yet. It should be taken into that most large banks belong to conglomerated group, which make it difficult to enter the market.

The Philippines has been growing at a high rate of 7% over the past two years. In addition, due to geographical requirements, there are many islands and many people living in the outskirts of the country. However, this means that there are

big potentials for mobile-based Fin Tech technology due to the spread of smartphones. In 2016, the number of internet user of Philippines ranked 15th in the worldwide. In this rapidly growing and changing Philippine IT world, O2O services can also be reborn into endless potential markets.

Still, the poor Internet environment in the Philippines is also a factor that hinders the growth of the O2O service or e-commerce market. The cost of data is expensive 3.5 times than the other country and the internet speed is as low as 3Mbps. The lack of secured payment platform is the one of the reasons for hindering the spread of O2O services.

Indonesia has the similar environment to the Philippines. There are also a lot of islands and undeveloped areas, which makes it difficult to access to the banks. Go-JEK, a motorcycle-sharing service company that has been a unicorn company in Indonesia's O2O service business, offers payment integration services using prepaid mobile phone payment, and they have been expanding their services by establishing partnership with the derivative service companies such as restaurants, beauty salons, spas and hospitals. GO-JEK is the payment integration service that enables the payment at restaurants, beauty salons, hospitals, etc. and has grown explosively in the O2O service market by combining Go-Pay functions.

But, the Philippines has been paid less attention than the neighboring Southeast Asian countries such as GO-JEK, the leading O2O service provider in Indonesia, and Grab, a car-sharing O2O service provider in Malaysia. Therefore, the Philippines is showing new hope in O2O service and e-commerce market.

■ Philippine Economic Environment and Future Outlook

Overwhelming Growth Among Southeast Asian Nations

The Philippine projections for growth in 2018 are expected to be very high at 6.8% for the IMF and 6.9% for the World Bank. As the global economy and trade are gradually recovering and domestic remittances foreign workers and exports in the Philippines are expected to increase, finally leading to consumption growth and economic growth. It is also expected that the public infrastructure investment of the Duterte's government will be greatly expanded and the financial expenditure will increase accordingly.

< Main Philippines Economic Indicators >

Main Index	Unit	Year 2015	Year 2016	Year 2017	Year 2018
Population	Million	101.7	103.3	104.9	106.5
Nominal GDP	$Billion	292.3	304.5	312.7	335.5
Nominal GDP / Person	$	2,874	2,948	2,981	3,150
Real Growth Rate	%	6.1	6.9	6.6	5.7
Total Export	$ Million	43,197	43,444	53,472	57,347
Total Import	"	66,507	77,524	90,654	-95,561
Trade Balance	"	-23,309	-34,079	-37,181	-38,215
Current Balance	"	7,266	602	450	1,660
Foreign Direct Investment	$ 100 Million	57	79	36(Jun)	N.A.

* Source: IMF, World Bank, EIU, National Statistical Office of Philippines, and etc.

As can be seen above, the GDP growth rate of the Philippines is 6.6% in 2017 overwhelming the ASEAN competitors, and is expected to continue to grow at a high rate in line with the government plan to increase public spending ($ 71 billion in 2018-2020).

From an industrial point of view, the emerging core industry in the Philippines is the outsourcing business which is accounting for 12.6% of the global outsourcing market. The BPO industry in the Philippines is attracting attention in a variety of outsourcing areas including call centers, data entry, and software development. The driving force for this steep growth is based on their high English language abilities, rich and talented workforce, low and stable wage levels, and active government support.

On the other hand, the DuterteNomics of the Philippines is the economy policy aimed at the revival of the Philippines thorough the infrastructure development as a major driving force during the term of President Duterte. During this period, the total of $ 168 billion will be invested in improving infrastructure.

SWOT Analysis for Philippine Market

Strong Points	Weak Points
- Huge domestic market of 100 million population - ASEAN's highest level of solid economy growth - Rich natural resource - English speaking high quality personnel and low labor costs - Stable labor cost growth rate - Smartphone generation mainstream of average age 23.5 year - Mobile penetration rate of 110% and smartphone penetration rate of 87%	- Government corruption and ineffective administration - High logistics costs due to the land condition of 7000 islands - Especially, serious Metro Manila transportation - Poor public institution computer system - Maintain restriction on foreign direct investment

Opportunity	Risk
- Active agreement with FTA as a member of ASEAN - Expansion of market opening with the launch of AEC - High dependence on foreign companies due to the vulnerability of weak infrastructure such as manufacturing, financial infrastructure and logistic service - Active government leading infrastructure improvement for traffic and communication	- Trend to protect domestic industry - Increase of infrastructure cost with poor roads - Unstable security situation such as taxi - Frequent natural disasters

Utilizing weakness and threat factors as an opportunity for O2O service business

As we have seen above, it is expected that the economic growth of the Philippines will be the highest level of ASEAN and the unlimited opportunities for business. In addition, the young generation with an abundance of 100 million people and an average age of 23.5 years are entering into the mobile era centered on smartphones beyond the information age represented by the Internet. In addition, the Philippine environment of more than 7,000 islands is becoming the driving

force on the basis of mobile infrastructure and the development of mobile-based industries such as mobile communications and mobile payments.

We have seen in Indonesia that GO-JEK have developed into a unicorn enterprise in just six years in the field of O2O services. In Malaysia, we know well that Grap, a car-sharing O2O service is rapidly expanding its business to Southeast Asian countries such as Singapore, Thailand, and the Philippines beyond Malaysia.

Classification		Indonesia	Philippines
Basic Environment	Population	260 million	140 million
	Capital	Jakarta	Manila
	Metropolitan Population	- 30 million (including metropolitan satellite city) - 2nd Population density in the world	- 2.5 million (including metropolitan satellite city) - 4th population density in the world
	Average Age	30.2 years	23.5 years
	Mobile Penetration Rate	- Supplied quantity : 385 million - Penetration Rate : 150% - Smartphone : around 80 million	- Supplied quantity : 113 million - Penetration Rage : 110% (Smartphone penetration 87%)
Business Environment	Traffic Environment	- World's worst traffic hell - Poor public transportation facilities - Mixed used of Motorcycle and private car	- Severe traffic congestion (called Manila Time) - Poor public transportation facilities - Extreme security concerns (lack of taxi security)
	Financial Communi cation	- Fintech is still in its infancy - Expansion of wireless communication network and smartphone application due to the islands land characteristics	- Account holding rate : 30% - credit card penetration rat : 3% - Embryo stage in electronic finance - Fast spread of smartphone - Permission of mobile payment service for telecommunications

< Business environment comparison of O2O service between Indonesia and Philippines >

As we have seen above, we can see that the basic environment and business conditions of Indonesia and the Philippines are very similar. The metropolitan cities are mainly composed of metropolitan satellite cities, and the huge population and high population density are very serious and eventually traffic conditions are

the worst. Although the financial and communication infrastructure has not developed, the communication environment has been rapidly shifting to a smartphone-oriented mobile environment in a short period of time. In addition, the financial environment is skipping the middle stage of development such as credit cards and immediately skipping to mobile payment methods.

In Indonesia, the background that the GO-JEK motorcycle brokerage O2O service platform has developed dramatically is can be said as following.
First is severe traffic congestion, and second is the high population density, rich population, labor force, young age group, and third is the mobile penetration rate of 150% and the expanding smartphone usage ratio. On the other hand, consumers have been reluctant to use Ojek because of the uncomfortable feeling for Ojek from the disorganized taxi fare of motorcycle taxi, anxiety of safety such as kidnapping, and insufficient insurance even if there are many accidents. From the standpoint of a motorcycle taxi drivers, they will be in poor environment where income is unstable, and finally, they will not be proud of their job.

By combining these inferior off-line motorcycle taxis with mobile online and motorcycle taxi brokerage O2O service platform (Go-Ride), it is possible to give the confidence to motorcycle taxi users by confirming the fixed fare rate system, pre-fare check, identified rider, and uniformed dress, As a result, consumers have been able to rely on GO-JEK drivers, and the drivers have been able to secure customers close to the O2O platform, a steady income, a sense of belonging and pride in their jobs, and they have quickly become firmly established.

Based on this success of GO-JEK's Go-Ride service, it has evolved into an O2O service platform in a variety of fields such as food delivery, courier service, shopping, errand services, and massage service. In a start-up company, it has developed into a unicorn enterprise in six years.

The core factors that have led GO-JEK’s service platform into the successful business are GO-JEK’s prepaid payment service which is called Go-Pay. The GO-PAY's prepaid charge can be easily recharged by bank transfer, credit card, cash, and etc. GO-PAY's prepaid electronic money is a breakthrough idea that integrates financial, telecommunications and IT into one, offering all GO-JEK service fees as well as payment services available to banks and affiliates.

The business environment in the Philippines is very similar to that of Indonesia. GO-JEK is a good benchmark for us and our goal is to build a new blockchain based O2O service platform by integrating VroomGo coin and Korea’s advanced Fintech technology. Go-Jek.

5. Business model of *VroomGo* O2O

VroomGo O2O service platform is a life-friendly service using motorcycle as a medium. By combining the offline life cycle-related services with online and mobile platforms, orders and payments will be made on-line or on mobile platforms, and services will be provided from offline. The payments for these services will be made through *VroomGo-Pay*. *VroomGo-Pay* will be designed to provide easier, safer, faster service by smart contract with blockchain technology and *VroomGo* coin.

■ *VroomGo* Rider Service

VroomGo-Rider service is a brokerage service for motorcycle taxi (motorcycle or tricycle) that connects offline riders and customers through the *VroomGo* O2O platform. In other words, when a customer calls a motorcycle taxi on the *VroomGo* O2O platform using a mobile phone, the nearest motorcycle rider picks up the customer and deliver them safely to the destination.

Philippines Manila is a region of extreme traffic congestion that is called 'Manila Time'. It is very difficult to use Taxis due to the fare bargain and the security of taxi is very anxious.

From the customer's stand

√ Need the transportation means to move quickly through the blocked road

√ High risk of burglary and kidnapping

√ Every time need negotiation for the fare

√ Difficult to be covered by insurance in case of accident

From the motorcycle driver's (or Tricycle) stand

√ Just wait the customer without any means to collect customers

√ No job ethics without guaranteed stable income

√ Repeated complaints and customer avoidance phenomenon

***VroomGo*-Rider service is designed to address these problems as business opportunity**

√ We built brokerage platform for online and mobile motorcycle taxi

√ The user launches *the VroomGo-Rider* app and sets the destination. The user location is set automatically by GPS, but the customer also can set the location.

√ Rates are automatically calculated once the departure and destination are set. The user chooses the payment method of cash or *VroomGo*-Pay service and then clicks the order.

√ If user enter the verification number to has been sent to his mobile phone into his App, the nearby driver will be called.

√ While waiting for the pickup, the driver and the customer will be

communicated by SMS or phone.

√ After the customer arrive at the destination, he can evaluate his satisfaction for the driver.

All the problems described above are has solved through *VroomGo*-Rider.

√ The complaints of customers have been eliminated by making the fare system transparent.

√ Secure the safety by enabling to check the driver identity by customer and by mandatory driver safety education and insurance coverage.

√ *VroomGo* driver should wear uniform and helmet to give the confidence to the customers

√ By securing the customers through online, the income of the drivers can be improved and by securing the local offline base (resting place), the welfare of drivers and the self-esteem can be improved.

The drivers belonging to *VroomGo* O2O platform will not be limited to *VroomGo*-Rider service.
VroomGo-Messenger and *VroomGo-Mart* services as well as *VroomGo-Food* delivery services will be provided to the drivers, which will make more income opportunities in all services.

GO-JEK, a motorcycle taxi hailing service in Indonesia, recorded 20 million app downloads and registration of 250,000 motorcycle drivers for the first six years of its establishment. With a motorcycle, it gained public transportation in Indonesia and became a unicorn enterprise.

■ *VroomGo*-Food Service

Food delivery service is a leading service in the O2O sharing economy service market that is gaining worldwide popularity.
China's “Eleme" began in 2008 with 10 member of part-time worker and has grown into the company with 15,000 employees in more than 2,000 cities of China for 10 years, which valued at about $ 9.5 billion.
The 'Deliveroo' in the UK was founded in 2013 and established a web-like transportation network. With this network, it systemized the delivery management through the big data analysis for food preparation, delivery time and satellite GPS. It has 13,000 employees and 20,000 riders in 84 cities of 12 countries. And has grown to become a unicorn enterprise with value of $ 1.5 billion for just four years after its foundation.

GO-JEK in Indonesia introduce Go Food on its homepage saying that "the hundreds

of thousands of GO-JEK deliverers will deliver the food you want within 60 minutes." Today, Go Food has established partnership with more than 30,000 restaurants in Indonesia to provide food delivery services.

VroomGo-Food service is a service that allows you to order in online and to be delivered food to the desired location quickly through the offline *VroomGo* riders. When customer connects to *VroomGo*-Food via the *VroomGo* app and turn on GPS, his current location will be tracked automatically and provided a list of available restaurants. When the user selects a restaurant and menu, the order is completed.

VroomGo-Food service is designed as following

√ Customers enter the *VroomGo*-Food App and select the restaurant and menu based on available categories.
√ Otherwise, customer can designate and input the restaurant and menu as he want
√ Select the food and quantity and enter the amount of the order
√ Input the address to be delivered and select the payment method of cash or *VroomGo*-Pay and the click the order.
√ When the order completed, the rider registered in *VroomGo*-Rider near the restaurant will pick up the food and inform the customer the estimated arrival time and will deliver the food to the designated address as quickly as.

■ *VroomGo* Delivery Service

VroomGo-Delivery service is *VroomGo's* documents and freight forwarding service. *VroomGo* cargo service is a quick service for packages or documents by motorcycle at an early stage (According to the business growth, trucks will also be available for bulky cargo)
The goods or document will be picked up and delivered as quickly as by the driver locating nearest distance, and the delivery charge will be paid according to the distance. All the process information including driver and estimated time will be provided to the user. So the users can use this service safely.

■ *VroomGo* Mart Service

The VroomGo-Mart service is a shopping service that purchases and delivers a variety of products as well as fresh food from shopping centers and Marts. If the customer choose a shop to purchase through the App or select a category of good, *VroomGo* -Rider motorcycle riders pick up the fresh foods from nearby

marts and deliver them in the shortest time.

VroomGo-Mart Service Flow
√ Select the store according to the available categories
√ Enter the desired store or items
√ The amount of order will be possible within a certain amount (about $ 2,000)
√ Enter the address and payment method and click order
√ The purchased items will be delivered in 60 minutes within metropolitan by the motorcycle drivers registered in *VroomGo*-Rider

■ *VroomGo*-Life Service

VroomGo-Life service provides convenience and health care for daily life
VroomGo-Life has four life-friendly services such as massage, cleaning, beauty, and car management

VroomGo-Massage - Massage service must register a massage therapist who is identified and has no criminal records with at least three years of experience after interviews and background checks, and should pass the highest quality massage training course at the *VroomGo*-Life office. Visiting service to house or any place will be provided for 24 hours a day and 7 days a week

Design of Massage Service
√ Download *VroomGo*-Life App and install and select *VroomGo*-Massage.
√ Select massage type (body massage, body massage+scrub, body massage + acupressure)
√ Enter the favorite scrub products, service time, gender, and etc.
√ Enter the service date, time, and address, then click order
√ Check the massage therapist name and ordered massage service list
√ After massage, evaluate the satisfaction for the service and can register favorite massage therapist.

VroomGo-Clean - Clean service is a variety of daily life and residential hygiene services such as home and office cleaning, washing and ironing. Clean services are available only with the reservation in advance of one day, and a cleaning specialist will be available safely who has been trained by specialist. Fee is set in advance according to the services such as sweeping, refrigerator, laundry machine and other services.

The Design of Clean Service
√ After download *VroomGo*-Life App and click *VroomGo*-Clean

√ Select the type of cleaning tool
√ Enter the type of room (living room, bathroom, etc.) and approximate cleaning time
√ Select additional service such as refrigerator, stove, cabinet, and kitchen utensil)
√ Select the gender and number of people and specify the details.
√ After entering and checking date, time, and address, click order
√ When the cleaner is found, select the cleaner
√ The cleaning time can be extended
√ Evaluate the satisfaction after service is completed

In addition, ***VroomGo-Life*** service will design ***VroomGo-Glam*** service to provide a variety of cosmetic services such as hair care, nail care, make-up, waxing, and etc. In addition, ***VroomGo-Auto*** will provide total services for automobiles and motorcycles such as maintenance services for automobiles and motorcycles, regular parts replacement, oil exchange, cleaning, emergency service, and etc.

■ *VroomGo*-Pay Service

VroomGo-Pay service is a prepaid charging - payment service

√ *VroomGo*-Pay service is a prepaid mobile payment service and all *VroomGo* O2O services can be paid via VroomGo-Pay.
√ *VroomGo*-Pay fund can be loaded via ATM, mobile banking, internet banking or SMS banking system.
√ *VroomGo*-Pay fund can be loaded by paying cash to VroomGo riders without fee.
√ *VroomGo*-Pay fund can be loaded by paying at the affiliated marts and convenience stores.
√ *VroomGo*-Pay fund can be loaded by paying cash at the affiliated pawn shops.
√ *VroomGo*-Pay fund can be loaded with cryptocurrencies such as Bitcoin and Ethereum.
√ *VroomGo*-Pay balance can be transferred directly to the other users.
√ *VroomGo*-Pay balance can be transferred to bank account in fiat or cashed at banks.

In the Philippines, only 30% of people have bank accounts, and issuance of credit cards is very demanding, so the penetration rate of credit cards is only 3%. Mobile penetration, on the other hand, has reached 110%, and recently smartphones are being adopted rapidly. In such an environment where the payment methods such

as bank transfer or credit card is not widely available yet, the development of payment means using mobile is most needed for the business success.

VroomGo-Pay service will be a very useful payment system for the people who have difficulties in using bank transfer or credit card. *VroomGo*-Pay, a Fin Tech service, is an attractive alternative for the financial underprivileged because it allows them to use financial services such as remittance, transfer, and payment settlement without using a bank.
VroomGo-Pay will greatly help bring users onto the VroomGo lifestyle platform.

6. *VroomGo*-Pay Service and Blockchain

■ **Integration of cryptocurrency with payment system**

VroomGo-Pay will come out with a robust security system to prevent hacking and fraud.

VroomGo-Pay will protect customer assets by applying the following security measures.

1. When login *VroomGo* app, users must go through authentication process of entering the OTP / 1-time password code sent to SMS.
2. *VroomGo* will install and use PIN (Personal Identification Number) to identify the user.
3. Security status from time to time will be updated by notifying to registered primary e-mail when problem occurs.

The *VroomGo-Pay* service, based on FinTech technology, can be used for the payment for all *VroomGo* services as well as at various *VroomGo* affiliates and the fund can be charged using various payment methods such as credit card, bank account transfer, mobile phone billing, cryptocurrency, etc.

VroomGo-Pay will be used in conjunction with cryptocurrency

VroomGo-Pay service will incorporate blockchain technology on top of FinTech technology base. In addition, *VroomGo* plans to issue a *VroomGo* coin to create a payment system for easy and secured exchange, transfer, prepayment and payment between *VroomGo*-Pay and VroomGo coin. *VroomGo* will develop a DApp that will help users to easily and conveniently exchange VroomGo coin with other crypto currencies such as Bitcoin and Ethereum.

This payment method of connecting cryptocurrency DApp with *VroomGo*-Pay

eliminates the need to go through network of banks or credit card companies.
When the user decides to pay with cryptocurrency using the cryptocurrency DApp, corresponding amount of fiat currency and/or *VroomGo* Coin (**VRG)** is determined based on the exchange rate of given cryptocurrency posted at cryptocurrency exchanges at that point and the same amounts in fiat currency and/or VRG are converted to VroomGo utility token, VGD for final use for the service. This conversion process of user's cryptocurrency to fiat/VRG to VGD is to eliminate the risks and confusion caused by fluctuations of the market price.

VroomGo Coin (**VRG**) is a cryptocurrency created by moving real-world fiat cash to smartphone for use anywhere in the world. *VroomGo* Coin acts as a key currency with stable currency value. The adoption of cryptocurrency in the real economy is not a distant future. It has already entered in our lives and have been being used as a means of payment on the Internet. *VroomGo Coin* (**VRG**) will provide the means of exchanging stable currency value for P2P, O2O, B2B and B2C transactions as well as cross border transactions.

VroomGo-pay is the pay function in *VroomGo* platform which can not be hacked, pirated or illegally withdrawn even by the world's best supercomputer. The blockchain has been adopted eagerly by financial institutions around the world as a financial security system. The safety net of blockchain is a huge network of people sharing transaction records. To hack this system, hackers should hack all of the users making up the network.

VroomGo-Pay is Global Mobile Easy Payment Service

VroomGo Coin is a mobile easy payment service based on blockchain that eliminates the inconvenience of carrying real money and is free from interstate control and interference. When the *VroomGo-Pay* App is on everyone's smartphone, the economy territory will expand limitlessly. If *VroomGo* Coin is listed on the cryptocurrency exchange and the base of *VroomGo* service is expanded in the future, it will become a truly global payment system.

The current cryptocurrencies like Bitcoin or Ethereum, has been used mainly for the limited purposes such as small amount overseas remittance, investment, smart contract, etc. but it is not available for use in the real economy market. Furthermore, it is difficult to confirm the monetary value immediately in the P2P transaction due to its technical limitation and it is cumbersome to use because it should be converted into cash only through the exchange. *VroomGo-Pay*'s *VroomGo* Coin is free to charge, settle, transfer and withdraw cash from my *VroomGo-Pay* account, *Since VroomGo* token and cash have 1 : 1 value, it can be used widely in the real market.

In particular, the Philippines is the world's third largest recipient of foreign currency remittances, with about 10 million overseas workers sending around $ 28 billion annually. However, it is very inconvenient for overseas workers to pay the transfer, brokerage, and exchange fees during the process of transferring foreign currency to their home country using SWIFT. *VroomGo-Pay*'s blockchain base remittance and transfer platform will provide easier, safer, faster international transfer and transfer services to Philippine overseas workers.

In a credible economy society where credit is the driving force for economic value, we are living in the world where transactions are made only in numbers and cash is disappearing and not seen, and we live in a digital financial era that is dominated by a simpler, safer and faster payment system. Credit card, Internet banking, and mobile banking payment systems are subject to the control and management of traditional financial institutions, and new payments based on FinTech technology still have the issue of 'security'.

But in the world where everything is connected and borderless and the transactions that have been thought to be normal and safe through traditional banking system could be no longer normal and safe, it means time has come to require a way to solve this problem without disclosing fund and personal information to a third party. It's not about introducing a service that simply changes security features or activates small transactions, but it's about moving to a new level of transaction structure. In other words, it is a time to change into a mobile payment system based on blockchain. And we will continue to lead the paradigm shift in the digital financial era by providing mobile payment services based on blockchain through *VroomGo-Pay*'s *VroomGo* Token.

From O2O service to M4O (Mobile for Offline) service

In line with the mobile age, online and offline service platforms are evolving at an explosive rate. Most of the new services that have been rapidly growing and attracting market attention are O2O (Online to Offline) services and M2O (Mobile to Offline) services that take into consideration only the usability in the mobile environment. Mass media has been overwhelmed by the advertisement of new O2O services, and most of the companies attracting massive investments in the market are O2O service providers. O2O services, which have grown rapidly with online and mobile as their base, are required to look for a new direction after the age of growth. O2O service that we will pursue will be oriented to M4O (Mobile for Offline) sharing economy service instead of O2O based on blockchain technology, which is the core of 4th industrial revolution in the mobile age and digital financial era.

Ⅳ. *VroomGo* Blockchain

The *VroomGo* Blockchain System (*VroomGo* System) is a platform based on a blockchain under development that operates a smart contract and a crypto coin called *VroomGo* Coin (**VRG**) and utility token called *VroomGo* Dollar (**VGD**). The *VroomGo* O2O system provides a variety of *VroomGo* O2O services such as **VroomGo**-Rider, *VroomGo*-Food, *VroomGo* -Delivery, *VroomGo*-Mart, and *VroomGo*-Life by the **VRG** and **VGD** cryptocurrency, smart contract and blockchain technology. It's a revolutionary platform designed to make it easier, faster, and safer to run in the real-world economy.

The **VroomGo** system connects service users and service providers through a simple and easy DApp (Distributed Application). It simplifies the process for users and provides various integrated services to make **VRG** and **VGD** easy to use.

- ✓ Development of various O2O services that are directly related to real life needs and development of network between O2O service providers
- ✓ Built-in Wallet for easy storage and use of **VRG** and **VGD** plus Transfer and Remittance System
- ✓ Trading system that can exchange or encash the major cryptocurrencies such as Bitcoin and Ethereum with **VRG**, **VGD**
- ✓ Smart contract system that makes O2O service easier, faster, and safer to use
- ✓ Data and personal information recorded in a smart contract using a blockchain can be tokenized, distributed, encrypted and viewed only by the parties involved in the transaction. Therefore, the immutability of the data prevents future fraud and realizes the transparent settlement of small payments. This helps to verify smart contracts between the two parties and to manage the payment of services between them without a financial intermediary, saving on transaction fees.

1. The necessity of VroomGo Blockchain

VroomGo is a blockchain based O2O service platform targeting the Southeast Asia and global markets with the Philippines as its first business base. *VroomGo* will be the simplest, safest and fastest service-oriented platform by combining various O2O services and blockchain technology. Easier, Safer, Faster is *VroomGo*'s value.
The *VroomGo* blockchain is a new type of blockchain that combines blockchain technology with O2O services in various real-world economies. In other words, the *VroomGo* blockchain is used not only for issuing and trading coins but also for recording *VroomGo*'s service contract, payment, and other important data in this

blockchain to ensure the transactions are safe and prevents hacking.

To complete the *VroomGo* service platform and to complete its own independent blockchain and to run it smoothly, a significant amount of funding is required. *VroomGo* intentionally did not choose the token-based ICO based on ERC-20, which anyone can access easily. Instead, it builds its own *VroomGo* blockchain to give more credibility to all participants and aims to raise funds by selling the coin issued from *VroomGo* blockchain.

A blockchain is simply a means of storing text data. However, data once stored can not be forged or tampered with. All blockchain, both unknown and well known blockchain such as Bitcoin and Ethereum share the same goal of preserving the integrity of the data. Blockchain means that the block, the minimum unit containing the data, is connected in the form of a chain. Chained blocks are connected verifying each other in the form of hashcash. So when each block is created, the new block is verified for the connection with the previous block.

The data in the block can be defined according to the purpose of each blockchain. Since the main purpose of these blocks is the issuance of coins which have economic value, the transaction records of these coins are basically stored. Coin transactions are also verified using hashcash, and this verification is accomplished by mutual monitoring on multiple nodes rather than by one computer node. These nodes can simultaneously store and verify backups in real time while exchanging data by P2P method.

VroomGo will build the simplest, safest and fastest *VroomGo O2O* service by building its own *VroomGo* blockchain.

2. Principles of VroomGo Blockchain

Generally, a blockchain consists of two main principles.

- Hashcash
- P2P

Also, the blockchain needs a wallet to issue and store cryptocurrency as a coin.

- *VroomGo* Coin: **VRG** (*VroomGo* Coin)
- *VroomGo* Utility Token: **VGD** (*VroomGo* Dollar)
- *VroomGo* Coin Wallet: SPV

Hashcash

Hashcash is a technology used to verify data stored in a block, or to connect and verify a chain of links between blocks. At this occasion, hash function is used to verify cross-validation of multiple values and mathematical encryption is used for this verification.

P2P

P2P means that the blockchain exists across multiple nodes rather than a single node. Each node has its own version of the blockchain, and in theory, these blockchain must match instantaneously. When blockchain are distributed in P2P format, the overload can be reduced, and real-time backup can be performed, and the integrity of the blockchain can be maintained while verifying against each other.

The **VroomGo** blockchain is also based on the same principles. A node of a server is configured and blockchain is stored distributed in a format of P2P on a node. In addition, the core program running on the node operates on the server. This core program creates a genesis block to start the blockchain, validates the transaction through persistent mining, writes in the block, and concatenates the blocks.

Node

A node is a computer that acts as a server. Blockchain has no concept of a server because the blockchain consists of P2P distributed system. Every node is a client and a server. However, in the ***VroomGo*** blockchain, only specific servers will be used as nodes to enhance the effectiveness of the blockchain and better support the ***VroomGo*** business. ***VroomGo*** manages and operates these nodes. These nodes build blocks and distribute them for the block containing blockchain files to grow. That's why each node will be qualified through strict ***VroomGo*** qualification process to be a node and manages the node through rigorous screening. The person who is running the node is compensated by the profits of the ***VroomGo*** business rather than being rewarded through mining. Therefore, the mining fee for the ***VroomGo*** blockchain is zero.

Each node shares, exchanges, and verifies the blockchain in a P2P way. The method has the meaning of real-time backup, complementing each other and distributing the load. It also acts as a kind of load balancing. This means real-time backup, complementing each other and distributing the load. It also acts as a kind of load balancing.

VroomGo Coin : VRG

A blockchain is a file that is physically stored on a server, but it is invisible to

the human eye. What the users actually feel is the coin recorded in the blockchain. The **VroomGo** blockchain will be sold by issuing **VRG** which is called a coin. The issued **VRG** will be listed on the cryptocurrency exchange and will be traded freely. The total of 10 billion **VRG** will be issued and one coin can be sub-divided by 8 decimal points. It works usually in a similar way to Bitcoin. **VRG**s are sold to the public through ICOs or the exchanges in accordance with the plan after keeping them as pre-issued and the unsold units may be sold through institutional investors. Users can sell **VRG**s with profit when the price rises. The initial price of **VRG** is determined by ***VroomGo*** and this price will be influenced by the future ***VroomGo*** business revenue. In other words, if the ***VroomGo*** business generates the tremendous profits, the ***VroomGo*** board can distribute profits to existing **VRG** holders by increasing the value of the **VRG** through purchasing **VRG** from the exchange and burning those **VRG**.

VRG prices in principle are freely determined by the market principle in the cryptocurrency exchange. ***VroomGo***'s business performance will affect the price of ***VRG***, which will reflect ***VroomGo***'s business performance. In addition, **VRG** prices will be determined based on the demand and supply of the exchange market and the growth of the block-chain industry.

VroomGo Utility Token : VGD (VroomGo Dollar)

VGD is the utility token of the **VRG**.

VGD stands for ***VroomGo*** Dollar. **VGD** is electronic money used for the payment inside ***VroomGo***. The value of **VGD** is set to equivalent to US dollar. ***VroomGo*** will reserve US dollar to match the value of issued **VGD** for this purpose.

1 VGD = 1 USD

The blockchain of ***VroomGo*** generates **VGD** (***VroomGo*** Dollar) which can be used for the interactions between participants and for the compensation of the node of blockchain recording and managing the transaction data.

VGD is used as a medium for free exchanges between goods and goods, services and goods, services and services among participants within the ***VroomGo*** platform.

Blockchain Wallet of *VroomGo*

VRG wallet is required to handle **VRG**. **VRG** Wallet is a general computer program that anyone can buy and install, and it will be built on Ubuntu which is based on MS Windows and Linux. Also, the explorer of ***VroomGo*** blockchain will be provided

based on this wallet.

Normally, the blockchain wallet has the following functions.
- Publish of collection address and collection handing
- Remittance
- Check transaction history

The **VRG** wallet also performs the same function. Wallet used in **VroomGo** is SPV (Simple Payment Verification) wallet. SPV wallet is a wallet that does not store its own copy of the blockchain but relies on a copy of the blockchain stored on the trusting node. In other words, the wallet should determine the node which it will trust. The **VroomGo** blockchain consists of several trusted nodes that are transparently exposed and operational. The **VroomGo** blockchain which is consists of several trusted nodes are transparently exposed and operated.

This type of wallet is also used in the conventional blockchain such as Bitcoin, Ethereum, etc. The **VroomGo** wallet has UNL (Unique Node List) in advance so that the first connection is obtained by referring to the node provided by this UNL. Once the wallet is connected to the node, the wallet makes a role of intermediary between the node and the node. If a new address is required, it can be obtained by requesting to node. Coin transfer is also requested to node.

The communication between the wallet and the node is made using API defined by the **VroomGo** blockchain. This protocol helps your wallet to function as a wallet.

VRG Wallet carries out the following key functions:
- Issuance of new address: create a new address to receive the **VRG**.
- **VRG** collection: **VRG** will be recognized when **VRG** enter into the address which is included in the wallet.
- **VRG** transfer: transfer funds from the wallet within the balance.
- Confirmation of transaction: the transaction of transfer and collection can be confirmed by anyone with txid.

VRG's transfer fee is zero. This is due to the unique mining method of the **VroomGo** blockchain.

The Mining of *VroomGo* Blockchain

Mining is the act of creating a new block and attaching it to the last block of an existing blockchain. To create a new block, there is a competition between the nodes, and the winner node has the right to create a new block and attach it to

the blockchain. When a user sends **VRG** using Wallet, this transaction is the state of the unconfirmed. Every node in the blockchain comes to know that a new transaction has occurred and competes to put this new transaction into its block. Node that wins this competition attaches its block to the blockchain by the rule. Since the **VroomGo** blockchain does not compensate nodes through mining and compensates the node in other ways, the fee of remittance is "zero". In addition, since there are not many nodes, the competition is not strong, and so the very fast blockchain deployment is possible. The blockchain is grown and maintained with node's hard work.
The mining is performed by the consensus algorithm. The **VroomGo** blockchain uses the RPCA protocol of Ripple's XRP. RPCA stands for Ripple Protocol Consensus Algorithm. The key to this method is the application of the Byzantine algorithm which is the most important means of Bitcoin's consensus method.

The Byzantine algorithm is the consensus method based on the theory of probability. The key mathematical rules are as following:

p * = d (n-1 5) e Σ i = 0 n i p i c (1 pc) n i

With this probability, the consensus of the blockchain will work.

In addition, the proof of work, the traditional consensus method of Bitcoin, is described with the following formula

F: C [O; Dmax] [0; N] ¡! fTrue; Falseg

(A; D; x) 7! F (A; D; x)

The Extension of *VroomGo* Blockchain

The **VroomGo** blockchain guarantees the security of the transaction so that users can freely use charging, payment, transfer and cash withdrawal with the **VroomGo**-Pay.

VroomGo stores important business information in blockchain. When VRG transaction occurs, user can include business information in a block. As an example, comments can be added when transfer transaction is being done. In this case the comments are written to the blockchain when this transaction is confirmed.

Once recorded in a blockchain, this record remains forever as evidence. It will

have the effect that the important transaction records of **VroomGo** business will be saved in a separate distributed DB.

VroomGo services can be operated in a reliable and secured business environment because the **VroomGo** services are operating on **VroomGo** blockchain. It will give the important motivation for more users to use VroomGo O2O services. This gives you an important motivation to increase the trust of your business and enable more users to use O2O services. Also, the **VroomGo** blockchain will carry out the function of a bank because **VGD**, a utility token of **VRG** which is the payment method to be used in **VroomGo**-Pay, is also stored in **VroomGo** blockchain.

3. The Structure and Characteristics of *VroomGo* Blockchain

All transaction information in the blockchain includes a digital signature, so user can be confident that the transaction information is authentic.

The **VroomGo** blockchain system will digitally sign all transactions used in the **VroomGo** service, including **VroomGo**-Rider, **VroomGo**-Food, **VroomGo**-Delivery, **VroomGo**-Mart, and **VroomGo**-Life. Digital signatures can use asymmetric keys and hash functions to verify the authenticity of **VroomGo** information in the following ways.

The digital signature technology of the ***VroomGo*** blockchain is the independent block-chain technology. Bitcoin has established a system to ensure the reliability as money, but the negotiation to expand and improve the system has not been made, leading to the failure of the expansion of the blockchain based technology. In other words, the development of various services using Bitcoin has been limited with that reason. In 2013, Vitalik Buterin of Russia announced a new crypto-currency called Ethereum that would overcome the limitation of Bitcoin and could implement smart contract and DApp, distributed processing application, which is called Blockchain 2.0.

The VroomGo blockchain is aimed at its own ***VroomGo*** blockchain (VVM: ***VroomGo*** Virtual Machine) based on blockchain technology to implement this smart contract DApp. The goal of the ***VroomGo*** system is to allow users to create contracts containing "arbitrary state transition functions" to transform certain state into different state according to coded rules, making users create many applications very easily.

The ***VroomGo*** system incorporates only the technology that is appropriate for the ***VroomGo*** system among the technical features of blockchain which are necessary

for our business. In addition to the exchange function as a currency like the Bitcoin, the function to execute the program has been added. In order to improve the function, some functions will be modified and complemented to create a better environment.
Firstly, the distributed system of *VroomGo* nodes is applied. Each node has the whole **VroomGo** blockchain data containing the genesis (first) block. After collecting the transaction records generated by the node (wallet) immediately after the block generation through the inter-node communication, they are shared with each other, and compared with the blockchain data of each node, which is recorded in the distributed ledger.

* Node: collect the transaction records through the communication between nodes and create block after checking with synchronized blockchain.
* Wallet UI: account creation request, transfer request, balance check.

Second, *VroomGo*'s Account will be divided into two: Externally Owned Accounts, which are controlled by private keys like Bitcoin, and Contract Accounts, which are controlled by Contract Code.

Third, the *VroomGo* system will issue a coin using POS (Proof-of-Stake) method. The total amount of coins to be issued is determined in advance upon initial issuance. The total issuance volume consists of the first issuance and the reserve token. The first issued coin in the total volume will be used to develop the **VroomGo** system blockchain and to invest in building the O2O service platform. And the remaining reserve token will be used to fund the future expansion of the **VroomGo** O2O service business. **VroomGo** will be issue **VroomGo** Coin (VRG) and **VroomGo** Dollar (**VGD**) tokens which is utility tokens based on VRG.

Fourth, *VroomGo* system combines smart contract with real economy. Smart contracts are implemented to run automatically according to pre-programmed rules and will be developed with **VroomGo** Virtual Machine (VVM) code.

The reason is that Ethereum's ERC-20 has recently implemented ICO using this method by many subjects, which has made ERC-10 Red Ocean. ERC-20 is exposed to many problems. In other words, ERC-20 has the problems such as increased GAS, which is the commission required for transactions, accumulated unnecessary data, and unnecessary code remaining forever because of unchangeable properties of the blockchain. Thus, requires a large storage space and a processing capacity. As an alternative, we would like to build our own *VroomGo* system blockchain in a way that is free from these problems without using ERC-20.
Fifth, the *VroomGo* system will realize the blockchain technology of distributed ledge function. This *VroomGo* provides the function to execute contract codes stored at *VroomGo* in user's browser. Contract ABI (Application Binary Interface) is

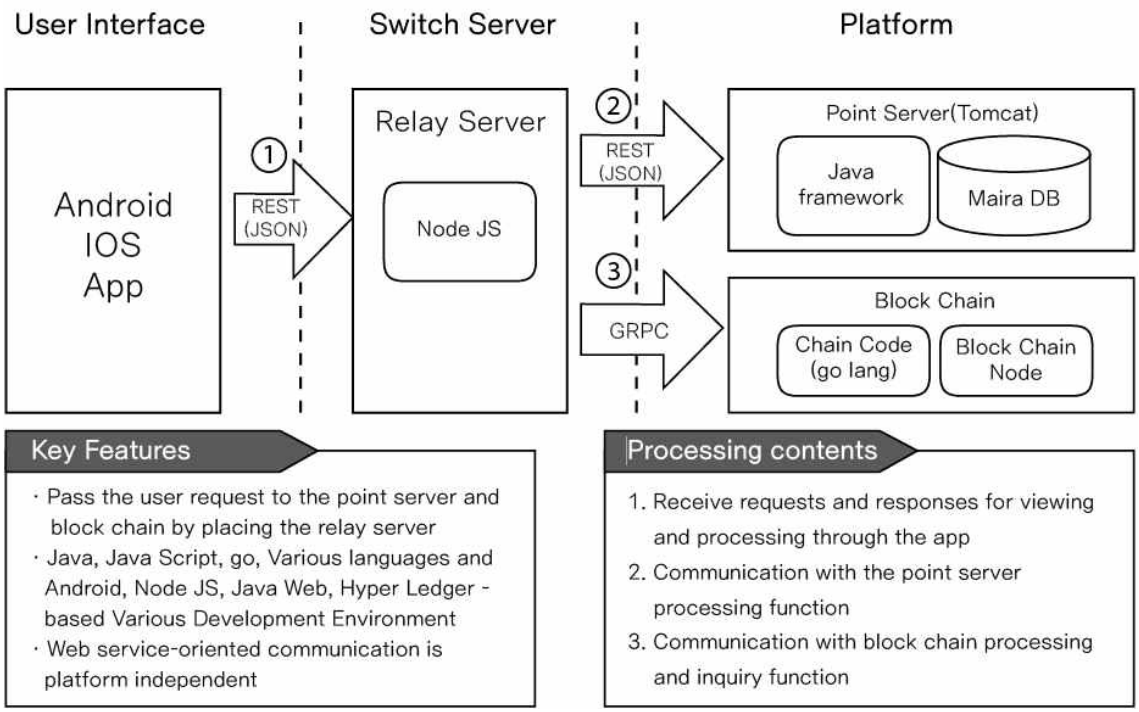
an interface protocol that guarantees binary compatibility (the nature of a program written in a machine language) to realize the portability of applications between heterogeneous computers.

4. Application of VroomGo Blockchain

The most important features of the *VroomGo* system are Smart Contract, Distributed Application (DApp), and Initial Coin Offering (ICO). In Bitcoin blockchain, contain a code in transactions is so limited. However, the *VroomGo* blockchain can store permanently the transaction by using a smart contract inside the blockchain.

VroomGo system is a blockchain that can implement smart contract. *VroomGo* system is a blockchain structure which is utilized for *VroomGo*-Rider, *VroomGo*-Food, *VroomGo*-Delivery, *VroomGo*-Mart, and *VroomGo*-Life.

< Structure of transaction system architecture using block chain >



Advantages of VroomGo service using Blockchain

√ Increase transaction accuracy and lower physical costs

√ Record the status of delivery of goods when delivering the goods and stores the payment data securely.

√ Easy to settle and transfer small amount of remittance.

For example, in the case of consumers using **VroomGo**-Food service, they will want to order at the affiliated restaurant and to deliver food which is felt freshly made, freshness of ingredients, and at the desired time with minimum additional charge. ***The VroomGo*-Food** service can provide consumers with historical information on all distribution processes that are delivered from the order to the end consumer through distributed recordings of the blockchain.

The ***VroomGo*** system is based on block-chain technology, which means that it is impossible to manipulate the system arbitrarily and records the information related to the actual products being traded, so that complex digital transactions can be tracked safely. Blockchain technology allows a business firm to reorganize the rules for different types of transactions using smart contracts.

***VroomGo*-Delivery** service can utilize block-chain technology for registration of delivery routes, real-time communication with consumers, traffic congestion status, detail information of location, and authentication and delivery completion.

In case that the supplier of the goods uses our blockchain technology, all the information about the products supplied by each company can not be altered or forged. The producer information provided to the customer, the distribution channel of the product, the storage temperature record, and etc. can not be tampered with, so that the trust between the service provider and the consumer can be established.

When delivery begins, it is possible to track the real time signature verification and the mapping to verify that they have been successfully delivered. Also, in case that the goods delivered wrong or other goods delivered to the customers, it can be tracked directly from where it went wrong through blockchain technology, and be corrected, and it can contribute to improve customer convenience and loyalty to the supplier by implementing the best service at minimum cost.

5. Blockchain Solution

VroomGo*-Pay** is a prepaid mobile prepayment service. Prepaid mobile digital funds can be used to pay for all the ***VroomGo O2O services. The following figure shows how ***VroomGo-Pay*** is implemented. ***VroomGo-Pay*** enables the funds to be transferable to other users, be converted to cryptocurrencies for use, and be withdrawn from the bank account.

6. *VroomGo* Coin System (VRG, VGD)

The **VroomGo** coin system consists of **VRG** (**VroomGo** coin) and **VGD** (**VroomGo** dollar). **VRG** is the main currency to be issued by **VroomGo** blockchain, and **VGD** (**VroomGo** Dollar) is the utility token of **VRG** which is issued by the **VroomGo** coin system. The value of **VRG** is linked to USD in 1:1 and can be used as cash on the **VroomGo** platform. It can also be cashed at the current exchange rate.
On this VroomGo coin system, **VGD** can be used as the payment method for **VroomGo**-Rider, **VroomGo**-Food, **VroomGo**-Delivery, **VroomGo**-Mart, and **VroomGo**-Life in **VroomGo** platform services.

The **VroomGo** coin system issues a **VGD** (**VroomGo** dollars) that can be used for participant interaction processes, as well as for the compensation for block-chain nodes that record and manage transaction data. **VGD** (**VroomGo** dollars) is used on the **VroomGo** platform service as a medium for free exchanging goods and goods, services and goods, and services and services between participants, and aiming at **VroomGo** System (VVM; **VroomGo** Virtual Machine) itself based on blockchain technology implementing smart contract and DApp.

The using method of **VRG-VGD** is not difficult. **VRG** supplied through ICO will be listed on the cryptocurrency exchange. Users can buy **VRG** from the cryptocurrency exchange and convert it to **VGD** from **VROOMGO** platform DApp.

VGD can be purchased in **VroomGo** DApp in US Dollars or Philippine Pesos. **VGD** can be used for the **VroomGo** service, for small money transfers, for payments, for cashing, and for **VRG** purchases.

VRG and VGD

VRG(VroomGo Coin)

1. Definition

   VRG is an online cryptocurrency **VroomGo** coin which is issued by **VroomGo** based on the blockchain technology. The unit of **VroomGo** Coin of cryptocurrency is displayed by **VRG**. It is designed to allow individuals to freely transact such as money transfers on the online with P2P method without the central bank. Hacking is virtually impossible because trading books are stored on the server of many users across the world based on block-chain technology.

2. The issuance of **VRG**

VroomGo publishes the **VRG** in POS (Proof-of-Stake) method and records this fact in the **VroomGo** blockchain. **VroomGo** create a **VroomGo** transaction on a Blockchain and writes and stores it in Input Data. Transactions recorded in the **VroomGo** blockchain are kept forever and will be used for the verification of the **VRG** in the future.

3. Buy and sell of **VRG**

The first **VRG** issued by **VroomGo** is listed on cryptocurrency exchanges in various countries. Anyone who are interested in **VRG** can purchase it from the cryptocurrency exchange where **VRG** is listed. In case that the price of the purchased **VRG** increase and the profit is generated, the VRG can be sold at the cryptocurrency exchange. Also, **VRG** can be freely traded between individuals using P2P method and can be used as a method of financial transactions such as money transfer and remittance.

4. Price decision of **VRG**

The price of **VRG** is determined freely according to the market principle in the cryptocurrency exchange. Factors affecting the price of **VRG** will reflect the enterprise value in accordance with **VroomGo**'s business performance, and the price of VRG will be determined by the demand and supply of the exchange market, and the growth of the blockchain industry.

5. Blockchain wallet of **VroomGo**

A **VRG** wallet is required to handle **VRG**. **VRG** Wallet is a general computer program that anyone can download and install, and it will be built on Ubuntu which is an OS that is built based on MS Windows and Linux. The explorer of **VroomGo** blockchain will be provided on the basis on this wallet. The communication between the wallet and the node is made using API defined by the **VroomGo** blockchain. This protocol helps the wallet to function as a wallet.

VRG Wallet carry out the following key functions

- Issuance of new address: create a new address to receive the **VRG**.

- **VRG** collection: recognize when **VRG** is transfered into the address included in wallet

- **VRG** transfer: transfer funds from the wallet to other recipients
- Confirmation of transaction: The transfer and collection transactions can be confirmed by anyone with txid (transaction ID).

VRG's transfer fee is zero. This is due to the unique mining method of the **VroomGo** blockchain.

VGD(VroomGo Dollar)

1. Definition

VGD is utility token of VRG and is used for the payment for **VroomGo** services. The value of **VGD** is tied to the US dollar. **VroomGo** reserves US dollars as much as VGD is issued to preserve the value of VGD.

1 VGD = 1 USD

To maintain the value of 1 **VGD**, **VroomGo** records the issuance of **VGD** in the **VroomGo** blockchain. Like **VRG**, it arbitrarily creates **VroomGo** transaction and records and stores it in Input Data. The transactions are recorded permanently in the **VroomGo** blockchain and the recorded contents can be read by anyone, guaranteeing a transparent transaction of **VGD.**

2. Purchasing of **VGD**

Users can purchase **VGD** with US Dollars or Philippine Pesos. In the **VroomGo** app, users can charge (purchase) the **VGD** with USD or pesos. Charged **VGD** is used as a payment method when using the **VroomGo** services.

3. Use of **VGD**

When using the **VroomGo** service, users can pay with Philippine peso or **VGD**. **VroomGo** also plays a role of personal bank by allowing exchange of **VGD** among the **VroomGo** members.

7. Decentralized Application (DApp) of VroomGo

The blockchain can create decentralized applications based on smart contract and act as an operating system for those applications like Android acting as an operating system for smart phones. There will be a variety of decentralized applications developed to run on VroomGo blockchain. VroomGo will act as a bank in Philippines that is not owned or controlled centrally by any institutions and, beyond the concept of a bank, VroomGo will eventually become a platform for ecommerce where everything of the world can be traded. DApps that sell a variety of products and services will be hosted on VroomGo platform.

VroomGo provides infrastructure for a variety of DAapps like shopping mall does for stores. These stores are operated by smart contracts, which means the DAapps will run automatically based on pre-defined rules without any central control. The ride hailing, food delivery, and goods delivery services will be operated without central control. This is how DApp is implemented on the VroomGo blockchain.

8. Economic Value of VroomGo Coin (VRG)

Uber is a symbolic company of sharing economy. It was considered social waste that many personal vehicles are sitting idle in garage or parking lot rather than used actively in driving. Uber's idea of sharing economy is to share the cars that are not being actively used. The vision that people can be liberated from the full time work was offered to the participants in Uber's sharing economy model. Uber and Airbnb sharing economy model, however, gave the illusion that people could be guaranteed freedom through flexible work hours without an office or a boss by providing the services to people at the time when they do not use their resources (cars or empty rooms). The current business model of sharing economy that was expected to increase efficiency by sharing unused resources and boost economies by nurturing small businesses has brought a serious side effect that many of those small businesses ended up being a low income earners and only the sharing economy companies getting rich, which is direct contrast to the corporate ethics of social responsibility preached by those companies. Our team has recognized this problem and designed the sharing economy platform of **VroomGo** O2O to enable the true sharing economy business model where VRG holders, service users, and participating partners could share economic benefits as the company grows.

Firstly, **VroomGo** will raise the **VRG** value by investing 10% of the annual business profits in purchasing and burning the supplied **VRG**.

Secondly, **VroomGo** will share the profit by allowing users to earn rewards which are accumulated proportional to the use of **VroomGo** service. The earned rewards can be exchanged with **VGD**. The amount of **VroomGo** rewards will be determined as a business policy based on market conditions in the future. This profit sharing will contribute to raising the user's loyalty.

Thirdly, **VroomGo** is designed to reflect the true meaning of sharing economy by allowing 20% of profits to be exchanged for **VRG** to each service provider such as VroomGo riders of VroomGo O2O services.

Lastly, we will donate 5% of **VroomGo** profits to the countries where **VroomGo** operates to help the needy neighbors and to contribute to the development of the blockchain industry by creating the development fund for a blockchain through the industry-academia cooperation.

Ⅳ. Road Map

August to December, 2018		**Launching** ✓ Presale and launching of coin ✓ Establish enterprise for *VroomGo* O2O business in Philippines ✓ Acquisition of local remittance entity and incorporation of crypto change in Philippines
September to December, 2018		**Development** ✓ Development of *VroomGo* O2O service platform ✓ Launch of *VroomGo* blockchain main net ✓ Start establishment of *VroomGo*-Rider network
January to March, 2018		**Completion of Proto-Type** ✓ Trial operation of *VroomGo* blockchain ✓ Trial operation of *VroomGo*-Rider O2O service ✓ Trial operation of *VroomGo*-Pay service ✓ Registration of Exchange in foreign exchanges including Korea
April to Jun, 2019		**Launching** ✓ *VroomGo*-Rider ✓ *VroomGo*-Food
July to December, 2019		**Expansion** ✓ Expansion of **VroomGo** O2O Service (Delivery, Mart, Life service, etc.)
January to Jun, 2020		Overseas Expansion ✓ Expansion of **VroomGo** service to Southeast Asia including Vietnam

V. Issuance Plan of *VroomGo* Coin

■ Issuance Plan of VroomGo Coin (VRG)

Classification		Details
Symbol		VRG
Supply	Max. supply(pre-issuance)	10,000,000,000 VRG
	Initial supply	4,000,000,000 VRG
	Reserved Coin	Quantity excluding initial supply from maximum supply
Type		*VroomGo* Coin (VRG)
Private sale		Refer to homepage (vroomgo.com)
Pre-sale		Refer to homepage (vroomgo.com)
Private and Pre-sale period		1. 2018.08.27. ~ 2018.09.30. 2. 2018.10.10. ~ 2018.11.11.
Crowd sale		To be announced
Minimum limit (Soft Cap)		Refer to homepage (vroomgo.com)
Maximum limit (Hard Cap)		Refer to homepage (vroomgo.com)

■ The **VRG** coins sold in the pre-sale and crowd sale period will be initially issued in the form of **VroomGo** Convertible Rights (VCR: **VRG** Coin Voucher) through the **VroomGo** website and will be exchanged with **VroomGo** Coin (**VRG**) when the VroomGo prime net launches.

■ We will distribute the coins to **VRG** wallet securely within one week after the ICO deadline.

■ The volume of **VRG** coin (Hard Cap) for the pre-sale and crowd sale period is limited to 40 %(4,000,000,000 VRG) of maximum supply.

- Pre-sale : **VRG** coins of 2,520,000,000 will be sold in two different sessions
- Crowd Sale : **VRG** coins of 280,000,000 and the unsold coins during pre-sale period will be sold

■ Remaining Coins out of maximum VRG supply after pre-sales and crowd sales will be held as the unsold coins (Reserve 60% 6,000,000,000 **VRG**) and will only be available to institutional investors, affiliates and partners.

Ⅵ. Algorithm of *VroomGo* Coin Issuance

■ Detail information for **VroomGo** Coin

VroomGo Coin consists of VRG (main coin) and VGD token, which is a sub-coin (branch token) and all coins and tokens are used for the compensation for the platform activities and operations.

1. VroomGo Coin (Main Coin)

VroomGo coin is the main currency that can be used on all VroomGo platforms and exchanged at the major coin exchanges. It functions in the same way as conventional cryptocurrencies and can be purchased through the VroomGo platform and at the major coin exchanges. The issuance of VGD token is recorded on VroomGo blockchain and users can get VGD by exchanging with fiat currencies such as PHP or USD. VGD token will function as a currency on the VroomGo platform. VGD token will be widely used as payment for VroomGo services and by exchanging values with other cryptocurrencies, and for cashing, donation and sponsoring. When VGD is exchanged with coins, corresponding amount is automatically calculated by the exchange rate set based on current market value.

The following is the method how users acquire or dispose of a **VroomGo** coin.

√ **VroomGo coin (VRG) exchange**
The **VroomGo** coin can be exchanged with other cryptocurrencies such as Bitcoin and Ethereum through the exchange or can be purchased with cash

√ **Exchange with VGD tokens issued by VroomGo**
VroomGo coin is the main coin for all **VroomGo** platforms but there are some issues such as fluctuation of exchange value and inconvenience to use it for small payments in a real economy. To solve those issues, it can be exchanged into the **VGD** token, of which value is set at 1 **VGD** = 1 USD, as a small payment method. The **VGD** exchange value is automatically calculated based on the current market value of the **VRG** at the time of the exchange.

√ **Reimbursement for the coin holders**
In case a user holds more than a certain amount of coins in user's personal wallet at a certain point in time (e.g. December 31st of each year) the user may be paid the dividend based on the user's holding ratio, which will be determined by VroomGo administration.

2. VGD token (branch token) issued by VroomGo

VroomGo issues a **VGD** token (a branch token) as a utility token that can be used within the **VroomGo** platforms. Users can use **VGD** tokens to purchase the VroomGo O2O services, and to purchase other products and services from the **VroomGo** platforms as well as **VroomGo** partners. **VGD** can be used in real-world economy for charging, remittance, transfer, and currency exchange services through **VroomGo**-Pay.

The users can acquire and use the **VGD** tokens as follows.

√ **Purchase via VroomGo platform**
VGD can be purchased through the **VroomGo** platform and can be converted to **VroomGo** coin (**VRG**).
√ **Use on the VroomGo platform**
VGD is a crypto-token exchangeable with USD at 1:1 ratio on the **VroomGo** platform and is used to purchase the products and services sold within the **VroomGo** platform as well as by **VroomGo** affiliates.
√ **Use as the means for domestic and international payment**
VGD works as payment method such as fund recharge, micropayment, transfer, and cash conversion through **VroomGo**-Pay App and will expand the area so that it can be used not only in Philippines but freely in Southeast Asia in the future.

■ Solutions applied to VroomGo

VroomGo Wallet (web wallet / mobile app wallet)

VroomGo wallet is available in both web and app, and when user creates an ID in one of them (e.g. web), one wallet account is directly linked to user's **VroomGo** account and then the same ID is automatically created in another wallet (e.g. app). Also, the ID will be used as the public key of the corresponding wallet to reduce the inconvenience. Using the wallet, users can move, withdraw, and store their

coins.

Blockchain technology is a new type of technology that discloses transaction records transparently through distributed ledger without third party credit institutions. Only the owner of the wallet can access the wallet when the user needs to protect his/her account, and the user can see all the details of transactions in the wallet.

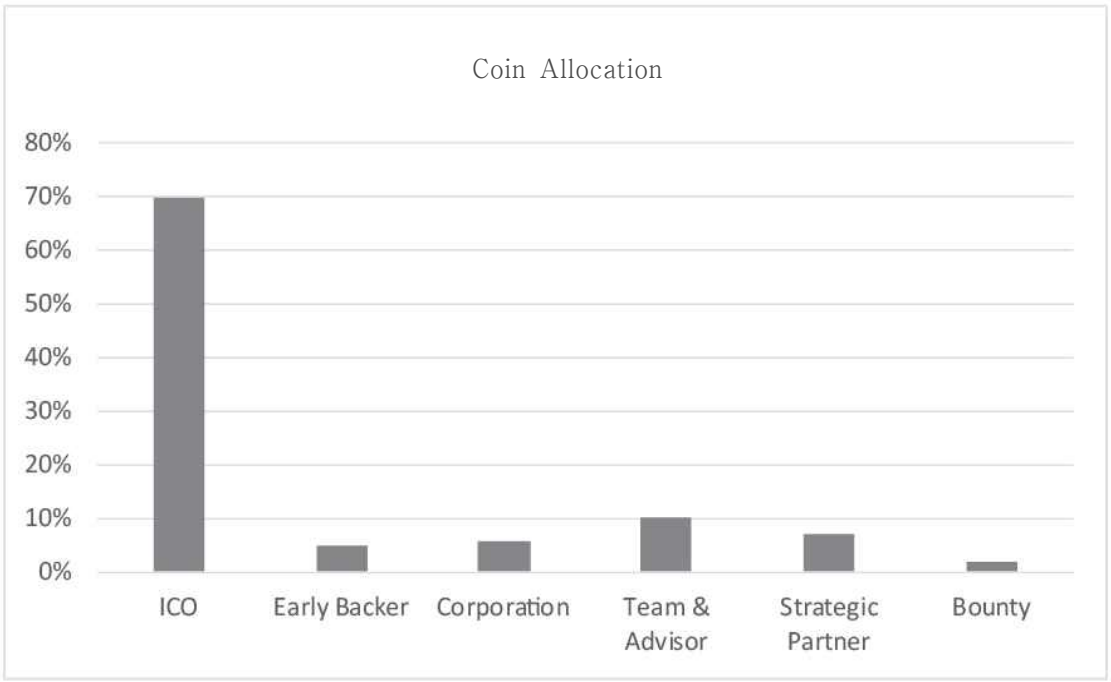
VroomGo wallet plays the role of a bank account of the user which is the storing place to keep and manage the coins. Users participating in the **VroomGo** platform can immediately transfer their coins or tokens to another user's wallet from their wallet. The P2P remittance solution will be carried out through the VroomGo cryptocurrency exchange (VroomGo plans to incorporate a cryptocurrency exchange as a VroomGo's subsidiary which will be authorized by the Philippines Central Ban).

Automatic evaluation system for maintaining the VroomGo ecosystem

When user wants to exchange VroomGo token (**VGD**) with VroomGo coin (**VRG**), the exchange rate will be decided based on the exchange market value of **VRG** at the time of the exchange request. It will be done through a system that automatically applies the market evaluation model of the **VRG** price.

The market evaluation model which will determine VGD/VRG exchange rate will be designed based on the following.

√ Multi-evaluation model that uses cryptocurrency market index as the CAPM model
√ Risk analysis using Monte-Carlo simulation



Use of Proceeds

45%	30%	10%	10%	5%
Business developments and Business operations -Development of *VroomGo* platform -Build of *VroomGo* offline organization -Affiliation of *VroomGo* business participants	**Marketing** - PR and Marketing - Coin sale and Listing	**Investment** - Incorporation of VroomGo exchange as a subsidiary	**Tax and legal advisory**	**Reserve**

< Distribution of initially issued coins >

√ ICO : 70%
√ Team & Advisors : 10%
√ Strategic Partner : 7%
√ Corporations : 6%
√ Early Backer : 5%
√ Bounty : 2%

Ⅷ. Risk

1. Technical risks

Blockchain technology continues to evolve, and the leading blockchain platforms such as Bitcoin and Ethereum also continue to evolve as more advanced platforms of the same value are emerging. Moving forward, **VroomGo** can also implement our own technology in a way which is different from what we initially thought. It will be an attempt to lead to a more advanced direction, but it may not end up that way as seen in the case of Ethereum, which is typically referred to as blockchain 2.0. There can be the following instabilities and changes which could also be applied to **VroomGo**.

√ Uncertainty of Ethereum's future development direction

The Ethereum Foundation has built the roadmap for development and upgrades, but it is not clear when those upgrades will be implemented or if they will be successful. Especially, we need to pay attention to the potential impact of consensus protocol changes from PoW to PoS, which is said to be implemented in Casper upgrade, on the current Ethereum network.

√ Alternatives to Ethereum

Currently, Ethereum platform is most widely used, but no one can guarantee that it would not be replaced by new types of blockchain protocols such as EOS. It is not certain whether the Ethereum platform will continue to be the main protocol in the global market. If the influence of the Ethereum platform reduces to be replaced, the amount of usage and applications may decrease potentially affecting the Ethereum platform.

2. Business risks

√ Business administration risks

A high level of business know-how is essential to implement the **VroomGo** business roadmap and to build technical elements. **VroomGo** team has the enough experience but there still is a possibility that the team may not be able to fully meet all the key technical requirements planned on the roadmap.

√ Uncertainty of percentage of active users

While there are many existing O2O platforms, VroomGo is the first O2O platform

that will leverage blockchain technology. While we will be providing various incentives to users to promote the use of VroomGo coins, it is not clear how actively users will be using the coins until the service is officially launched.

3. Regulation risks

√ **Coin economy risk**

VroomGo is a platform. If **VroomGo** coins (**VRG**) or tokens (**VGD**) are not widely used, it would be a significant constraint on continuous operation of the **VroomGo** platform. Depending on the situation, additional **VroomGo** coins may need to be issued to sustain the platform, and any consequences of that will not be a liability of VroomGo.

√ **Risk from cryptocurrency regulations**

Many countries are tightly regulating capital flows and owners of **VroomGo** coins may be subject to local regulatory enforcements. In such a case, it would be illegal to send coins overseas and the owners may be subject to legal restrictions.

Ⅸ. Team

Hitesh Goel / CEO

Plant engineer and marketing expert with more than 13 years of experience.

Responsible for business strategy and planning of **VroomGo** project

Key Experience

- StudyPad, India
- Zimperium, USA
- Samsung Electronics, Korea
- Alstom Power, India
- MBA(Marketing), Purdue University, USA
- B.S. Mechanical engineering, Punjab University, India

Heejae Moon / COO

E-commerce expert with over 26 years of experience, with his marketing expertise, he takes charge of the overall project and marketing part of **VroomGo** project.

Key Experience

- Sun Microsystems (US)
- Cisco Corp (US)
- eBay Asia Pacific (US)

C H. Lee / CTO

Doctor of engineering, semiconductor system engineer, project developer with over 20 years of experience. Responsible for technical part of the **VroomGo** project.

Key Experience

- Intel (US)
- NASA (US)

Kenneth C. Radaza / Philippine lawyer and CPA.

Responsible for legal and investment advice for the entire **VroomGo** project

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D Y. Ha / Advisor

KAIST, Mathematics Graduate

Key Experience

- Samsung SDS
- Search Engine
- ERP Package Development

S M. Kwak / Advisor

Master, KAIST, BS, Seoul National University.
System Dynamics, Program Remodeling

Key Experience

- MIT Doctor of Engineering in Energy Lab USA
- Massachusetts / Cambridge Researcher
- Catholic University Professor of Industry-University Cooperation

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H D. Choi / Advisor

KAIST, Department of Electric and Electronic Engineering

Key Experience

- NHN Studio 629 CEO
- NHN Entertainment Executive Director
- SK C&C

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