



# CarLive Chain

Tens of Millions Users IOV-Block Chain

## CarLive Chain White Paper v4.1.1



**AUH Foundation**

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## I. Overview

Automobiles are the most important means of transportation, and the auto industry is the world's largest consumer industry. Through going to auto shows, learning to drive, purchasing vehicles, driving, customizing and upgrading their cars, car users are forming the largest car user community in the world. Statistics from the International Organization of Motor Vehicle Manufacturers shows that global car ownership will exceed 1.3 billion by end of 2017, and according to statistics from the Ministry of Public Security of PRC, car ownership in China has reached 217 million and the number of car drivers has reached 342 million.

| Items                                     | Year 2017 | Year 2018<br>Projection | Year 2019<br>Projection | Year 2020<br>Projection |
|---|-----------|-------------------------|-------------------------|-------------------------|
| World Car Ownership                       | 129371.04 | 134301.66               | 139406.86               | 144695.43               |
| China's Car Ownership                     | 21048.75  | 23043.36                | 25100.02                | 27223.33                |
| Car Ownership in other Asian<br>countries | 25659.51  | 27175.95                | 28758.86                | 30411.96                |
| Car Ownership in Europe                   | 38096.63  | 38784.14                | 39488.36                | 40209.53                |
| Car Ownership in Americas                 | 40268.24  | 40971.07                | 41696.33                | 42444.27                |

*From Navigant Research Report*

*Data Source: Public data*

According to Roland Berger's market report, the transaction volume of China's consumer car products reached 1 trillion CNY in 2017, of which, e-commerce retail, with a penetration rate of 8%, accounted for 100 billion CNY, representing a 20% increase from last year. And the online advertising market of China's automotive industry also exceeded 30 billion CNY. It is estimated that by 2020, China's automotive consumer market will reach 1.8 trillion CNY. The E-commerce penetration rate will grow to 30% with a transaction volume of 550 billion CNY.

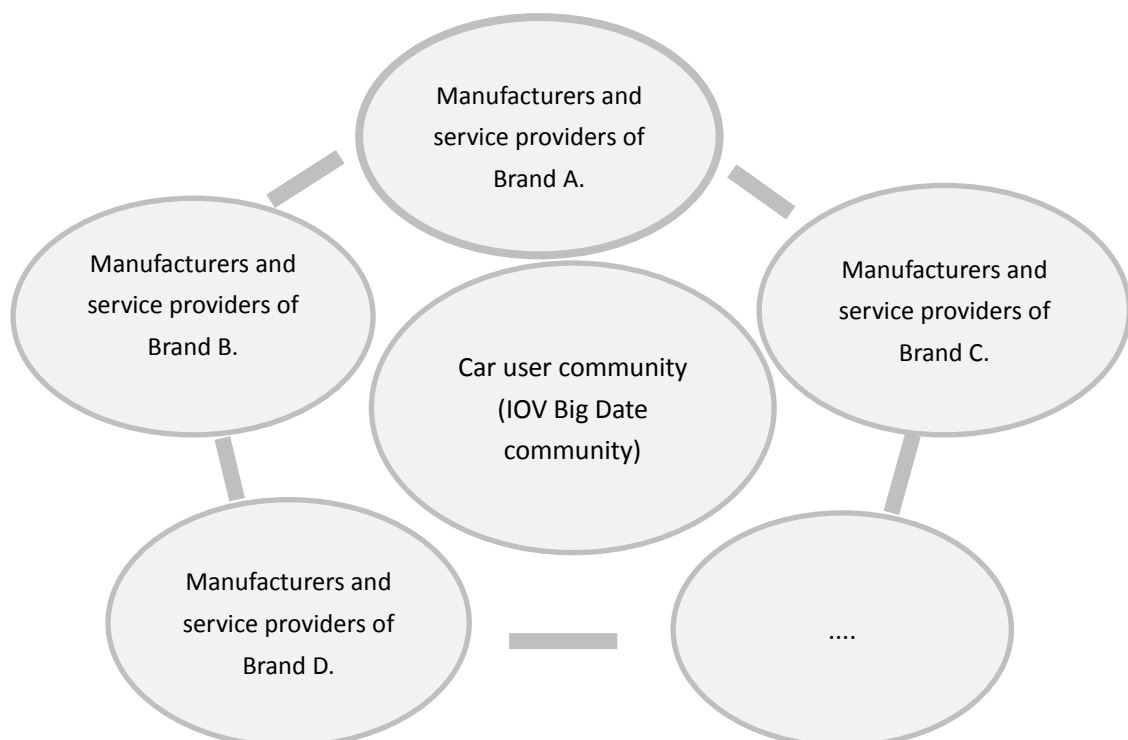
Car users have become representatives of China's rapidly expanding middle class. Individual automotive-life expenditures have significantly increased.



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Apart from car parts and accessories, transactions on other auto-life centered consumables have also exceeded 1 trillion. According to statistics from China National Tourism Administration, 2.664 billion self-driving tours were made in 2016. High-frequency, in-depth participation and experimental spending are the main features of China's self-driving tours. The self-driving tour market has reached 600 billion. According to research data on the world market, the value of world car consumer market has exceeded one trillion US dollars.

Accompanied by the development and popularized adoption of automatic-driving technology, the world's car consumer industry will go through a thorough revolution. There will be two camps in world car consumer market in 3 to 5 years. One is the camp formed by finished automobile manufacturers that feature intelligent manufacturing and technological innovation. This camp will become the largest car rent company in the world. The other camp is communities form by car users, which emphasizes driving entertainment and socialization. The two camps will coexist and share IOV data and information.



Block chain technology is revolutionary. Through 3 years of operation of mobile Internet community and adoption and innovative testing of block chain



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technology, YUTU is rapidly promoting a zero-cost market transaction rapidly, bringing a revolution to car consumer industry. IOV block chain has not only hastened the formation of two camps among car manufacturers, car service providers and car consumers, but also built up reliable and safe technology adoption market ecosystem. On the one hand, block chain technology achieves value re-balance between car providers and car users in terms of big data operation, adoption of entertainment applications or tools, e-commerce and online advertisement. On the other hand, it encourages consumers to contribute to the prosperity of the community. CarLive Chain's goal is to become an IOV block chain that has tens of millions users.

CarLive Chain will play a decisive role between car users, manufacturers, service providers and advertisers. CarLive Chain will focus on the following aspects:

1. Set up an IOV block chain community with over tens of millions of users.

Based on YUTU's more than 60 million users, we can quickly create a block chain with tens of millions of users, thus obtaining big data on users, cars, and scenarios brought about by the chain. Based on these, we will build a community system where people can gain mining value by contributing to the big data. This community will be gradually opened to 1.3 billion car users worldwide.

By storing and fairly distributing user's behavior data via block chain technology, CarLive Chain will return the value of big data to users themselves, bringing about an industry revolution. The big data on users' behavior include existing social behavior on YUTU's platform (live broadcast, video, shopping guidance, online stores, IM tipping, community, LBS, fan interaction, user contextualization location, AI location, etc.), e-commerce spending behavior (car maintenance, roadside assistance, settlement of traffic violation, automotive insurance, car transaction, etc.) and car performance data (driving data, car settings, engine condition, etc.). CarLive Chain can achieve digital bookkeeping of big data on users' car-life behavior and create a consensus of the data in the block chain ecosystem. By doing this, the value of the big data can be accumulated and be returned to the users.

Build up a dynamic pricing system and formulate a rewarding algorithm in



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terms of community mining for data contributors to encourage car users around the world to use CarLive Chain wallet in block chain community as well as participating in reliable social behaviors, auto-life spending and car performance data recording. This way we can cement YUTU's leading place in IOV market through CarLive Chain Token.

### 2. Set up a transparent, reliable and prosperous IOV commercial ecosystem

Based on YUTU's current clients, which include BYD and other famous enterprises in car industry, and over 10, 0000 car service providers, YUTU is going to set up commercial application scenarios for block chain technology in areas such as car entertainment service, car tools service, contextualized e-commerce, online advertising, car enterprise We-Media, Online celebrity fans economy. At the same time, YUTU is making efforts to promote efficiency in business operation and service in auto industry, pushing the transaction cost to zero.

### 3. Set up 10-million-user level IOV block chain common chain and super nodes

CarLive Chain will focus on the research of underlying block chain technology in vertical areas in the auto industry and establishing IOV block chain technology research centers and laboratories. It will open and share the big data based on YUTU's community of 60 million users. It will also create an ecosystem of scenarios for the adoption of IOV block chain, gradually forming an IOV common chain and cross chain application technology service system and deployment of super nodes.

We believe that in the near future, any car user can enjoy a quality, reliable, high-efficiency and low-cost auto-life while gaining community rewards inside the CarLive Chain community. Any quality car service provider can set up a multidimensional and transparent spending scenario to gain customers' trust and play on a global scale. Any advertiser can share their marketing contents in CarLive Chain community fairly and fully obtain the trust from customers.

CarLive Chain will become the engine of a happy auto life.

CarLive Chain is co-founded by a group of world famous and well-positioned



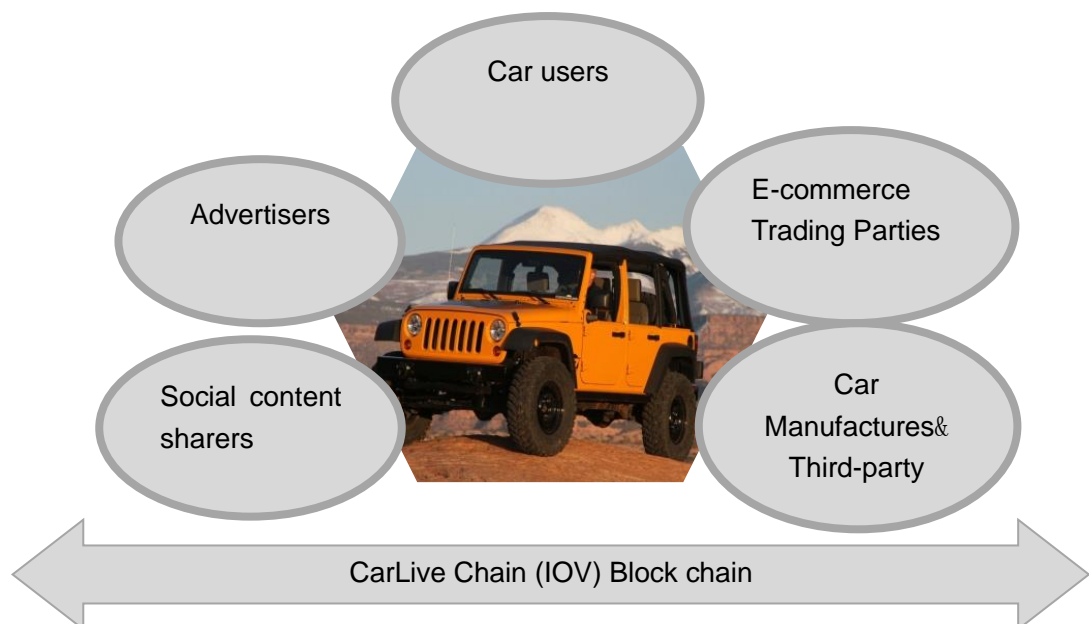
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investors, scientists, digital economists, industry leaders with rich experiences in international Internet and block chain technology. CarLive Chain also has deep strategic cooperation with YUTU (owner of AYocar APP and YUTU E-commerce platform), which is China's largest auto-life sharing platform which gathers together China's the most active middle class, to jointly build a global block chain auto-life social community ecosystem.

YUTU is a star spinout from Alibaba. It has received several rounds of dollar funds and is developing rapidly. YUTU owns Ayocar App and YUTU E-commerce platform. In the past three years, YUTU has grown into an automobile user community with more than 60 million active users and a business E-commerce community with more than 100,000 car service providers and more than 1000 advertisers. YUTU has a mature business value system and an enormous community data base. CarLive Chain is to lead a thorough revolution in vertical area in the car consumer industry through block chain technology.

## II. Pain points of IOV users

CarLive Chain believes that there are four pain points for IOV user in the current auto-life social community ecosystem.





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## 1. Internet unicorns in automotive industry occupy users' data equity

The development of Internet that features centralized platform in the world generates data on users' social behaviors. But for a long time, these data has secretly become assets of centralized Internet platforms. In the auto consumer area, only block chain technology can record genuine user social behavior and automotive behavior information and return the data value to users.

The social behaviors include: live broadcast, video creation, graphic texts, shopping guidance, E-commerce commodities and service information, IM, tipping, LBS, community activity, self-driving, car races, auto exhibition and so on.

The car-life spending behaviors include: purchasing new cars or used cars, car insurance transaction and settling, car rescue, car maintenance, car accessory and product purchasing, car wash and decoration, traffic violation and settlement.

Meanwhile, car performance data that are obtained by finished automobile manufacturers is gradually made open by the manufactures to their partners as well as car users in exchange for revenue. Such data includes: vehicle condition, vehicle monitoring, driving data, vehicle settings, engine conditions, speeds, energy and modes, camera surveillance, air conditioning, air quality, gear boxes, vehicle lights, car door locks, charging status, radar readings, safety belts, meter readings, time, etc.

As auto-life market develops, many Internet unicorn platform about auto life appear around the world, such as car related E-commerce trading websites and car information Media and so on. When it comes to the ownership of data that generated by users' behavior on the platform, most of these platforms store it in their operation centers and exchange such data for value with car service providers and finished automobile manufacturers. These data are never truly opened to car users. Based on such practice, many Internet unicorn platforms were born, gaining 100 billion dollars in profit while users who contribute data do not gain any value at all.

According to statistics, there are more than 100 large Automotive Internet





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platforms in the world. Together, they can gain 600 billion US dollars through online advertisement and E-commerce every year. The number of active car user has reached 100 million and they contribute 6000 US dollars to centralized platforms on average every year. However, these car users never get their share of reward from those platforms.

CarLive Chain will record car users' data regarding people, vehicles and scenarios in a meaningful manner through block chain technology. As users start their car or participate in car life social activities, they will contribute to the big data and gain rewards accordingly. Each participants in the IOV ecosystem can make better use of the big data to perfect their services, improve product quality so as to encourage more users to contribute to the big data and finally achieve fair value distribution.

2. There is a lack of trust between car manufacturers and third-party car service providers.

Due to the monopoly of auto consumer markets by third-party service providers and the lack of a transparent transaction environment, car users were never able to directly deal with finished automobile manufacturers and the third-party service providers are thus labeled as “profiteering”.

65% of car users think that the service provided by third-party lacks transparency and the price is unreasonably high due to the lack of a reliable tool application based on big data and the contextualized shopping guidance.

For a long time, the lack of effective market supervision system and immoral business conducts such as overseeing and copycatting has made it difficult to attract customers through traditional marketing

国内五大4S店暴力案件，场面似黑帮火拼，第一个竟是4S店胜诉

2017-08-06 06:59

4S店

买车

想必近年来，大家都听说过消费者和4S店之间大打出手的新闻。确实，4S店与车主之间的矛盾层出不穷，经常因为车主买了有质量问题的汽车，而打着横幅堵在店门口，甚至与店员直接动手演变为群架火拼。当然了，不仅是顾客与4S店之间有矛盾，4S店与4S店之间的争吵可能更加激烈，往往在车展上两家店为了订单而出现黑帮对阵一般的场面。那么二师兄就带大家看看国内那些典型的4S店火拼事件。





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methods. Third-party service providers begin to look to the Internet to gain customers, but they lack We-Media tools. Also, some quality service providers are not able to gain fair reviews in the Internet community. A fair commercial credibility system could not be formed under this circumstance. As a matter of fact, under the impact of E-commerce, competition between finished automobile manufacturers is becoming fiercer and fiercer. And third-party service providers are struggling to stay afloat. The value of IOV cannot be fully exploited because of the lack of a user review system based on big data, customized adoption of contextualized E-commerce and socialized communication channels.

According to statistics, 95% of third-party service providers hope to secure orders by building up their brand images in the internet community. They are willing to be part of the application scenarios, and are eager to build mutually reliable relations with car users.

Only block chain technology can record spending behaviors in IOV applications objectively and build a transparent consumer environment. The adoption of block chain technology in IOV changes the way of accounting between car users and car service providers, making both sides willing to take part in the construction of an open, transparent, fair, reliable and standardized service environment. Therefore, car users and service providers are both clear of their own interests and accountabilities. This way service quality can be improved and the auto market revitalized.

The third pain point for car users is the high cost of car maintenance.

The main reason people spend so much on cars is due to various layers of middlemen, who shared in the profits in the industry and often impose unnecessary costs on car users.

The E-commerce penetration rate has become an important factor to measure an industry's vitality. By late 2017, E-commerce in auto life was still lagging behind, with a penetration rate of only 8%. It was very low compared with the rates in other consumer industries.

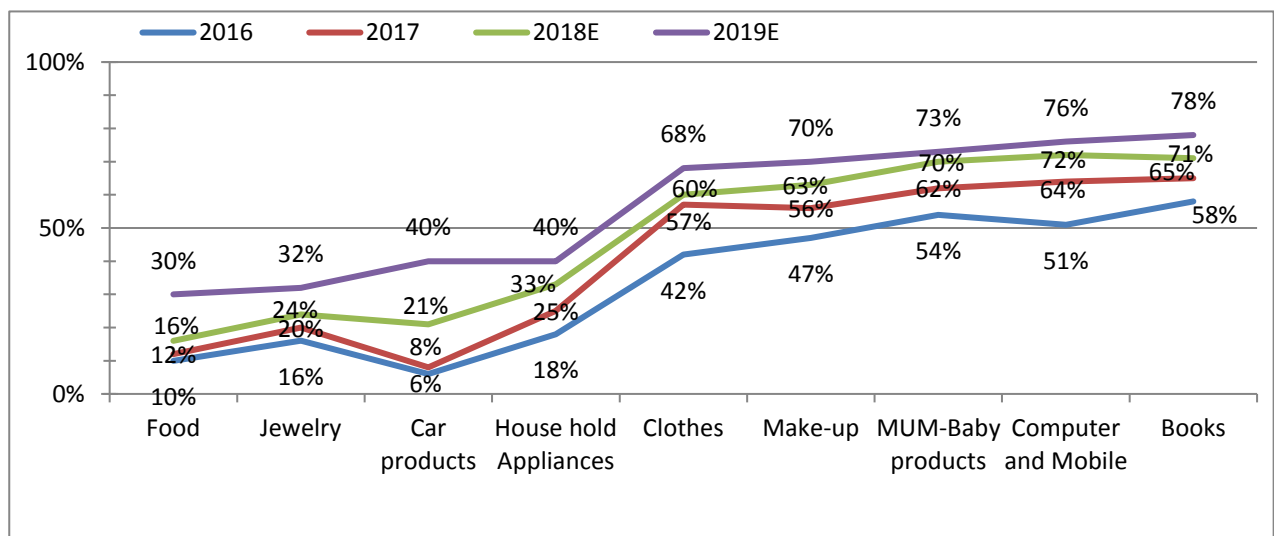
Traditional shelf-styled E-commerce is unable to move away the centralization



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of goods nor to match users' demands with socialization, content creation and digital operation. Traditional transactions are very inefficient and the profits are mostly divided by the high cost of advertisements, multi-level channels and centralized platforms. YUTU was the first to come up with a service framework that is user-specific, car-specific and scenario-specific in 2014. For example, there are scenarios for self-driving tours, or when babies are in the car. YUTU has also explored scenarios using block chain technology.

Predictions of E-commerce penetration rates are as follows:



(From IResearchInc. yutu. taobao )

Only block chain technology can remove middlemen, lower costs, vitalize the market and push transaction costs to zero. CarLive Chain will record users' spending in block chain, keep account of suppliers and the service capacity of service providers. It will then use token, assets generated by users' data, as a means of value circulation. This way we can generate and accumulate the wealth of big data on car users behavior, which in return will encourage more spending and raise the penetration rate in car consumer industry to about 40% in the next two years.

The forth pain point is car safety risks.

Various entertainment applications that are connected to cars through the Internet pose a great threat to car safety.

The most infamous incident is White Hat's hacking into a moving Jeep,



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causing instant failure of Jeeps' various parts. With the adoption of unmanned driving technology, more and more control signals are being transmitted between control centers and vehicles, vehicles and vehicles. Traditional encryption method that are adopted in the signal is easily hacked.

**Fiat Chrysler Recalls 1.4 Millions Vehicles After Hackers Sent Email Stating They Can Control Vehicles Via The Internet**

By Joanne Miller | Posted on July 25, 2015

and Dodge Viper sports cars. Also covered are 2014 and 2015 Dodge Durango and Jeep Grand Cherokee and Cherokee SUVs, as well as the 2015 Chrysler 200 and 300, and the Dodge Charger and Challenger.

All the vehicles have a certain type of radio, indicating that the company may have found and patched another area that's vulnerable to hackers. The recall covers about 1 million more vehicles than the company had originally believed were affected.

Fiat Chrysler says it also has taken security measures on its own vehicle network to prevent hacking. Those measures require no customer action and became effective on Thursday.

The company said it knows of no incidents involving hacking of its vehicles except for the one unveiled this week. Initially the company didn't issue a recall, but said it would contact all affected customers.

The fix is a response to a recent article in Wired magazine about two well-known hackers, Charlie Miller and Chris Valasek, who remotely took control of a Jeep Cherokee through its UConnect entertainment system. They were able to change the vehicle's speed and control the brakes, radio, windshield wipers, transmission and other features.

2015年7月22日，美国知名科技媒体《连线》

一辆在美国密西里州圣路易斯以70码时速正常行驶行驶的Jeep切诺基在驾驶员没有进行任何操控的情况下，刹车、变速器失灵，接下来该车的制冷系统、收音机、雨刮都纷纷失去控制，差点引发一场车祸。

这个事件在美国掀起轩然大波，随之克莱斯勒公司宣布召回140万辆切诺基车型，而这个事件的始作俑者竟然是两位“白帽”黑客。首先他们利用无线网络将伪装码植入车载系统内部，之后通过软件向车机娱乐系统发送指令代码，从而控制汽车的大部分操控

According to an international research report, 70% of vehicle manufacturers in the world do not pay attention to safety problem that are resulted from internet connection.

CarLive Chain will use block chain technology to make signals received by vehicles safer and more efficient. Car users will be able to fully enjoy data information protected by block chain as well as safer driving experiences.

All these pain points above is caused by a lack of value system in auto life social ecosystem. The value generated by big data on car users' behavior are not returned to users. Therefore, no greater rewards are given to users, credibility and efficiency in the community could not be built, cost are unable to be cut down, and safety issues are not addressed. Block chain technology can easily solve these problems as it is middlemen-free, tamper-proof and features distributed storage. It will revolutionize the traditional Internet and centralized operation mode, quickly build up world auto-life block chain communities and create a new value system for car spending.



### **III. The New World for Car Life Brought by Block Chain**

Trust is the basis of the IOV. Block chain technology uses new cryptographic authentication techniques and decentralized consensus mechanisms to maintain a complete, distributed, non-tampered ledger. It builds a technical trust framework at a broader level, which is based on decentralized multiparty cooperation. On a equal footing, the multiple parties will protect the data, conduct data cooperation, reach consensus and reliably control and protect data and digital assets in various cooperation.

Therefore, the new technical competition brought by the block chain system is not just the trust change on a single business line or a single point, but a systematic ecologically-based change, which is also exactly why block chain technology is revolutionary. Block chain can assure the security of information about content, marketing, e-commerce by utilizing a unified accounting system. This generates trust between all the community participants, who do not need to know each other and allows for a trusted and secured transaction between groups of users. This credible environment allows for the matching of car users, vehicles, and different scenarios. This is of great significance to content sharers in the social ecosystem of car life such as car users, third-party service providers, e-commerce transaction parties, advertisers and so on.

#### 3.1 Block chain will reduce trust risks.

Block chain technology is open-source and transparent. Participants in the system can know the operating rules of the system and can verify the authenticity and integrity of the account book and historic structures of the ledger. This can ensure that users in the auto-life community are reliable and not modified. Block chain improves the traceability of the system and reduces the overall risk for users.

3.2 Block chain can increase the operation, transaction and settlement efficiency for car users' content producing, increase e-commerce deals, and advertising traffic flows.



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Block chain uses distributed storage and checking, all transaction data are displayed real-time in a sort of global accessible spreadsheet platform. Any settlement is real-time, making the transaction data more transparent and the efficiency is greatly improved, thereby effectively reducing costs for E-commerce transactions, advertisement and systematic risks.

3.3 Block chain can significantly reduce management costs of auto-life big data.

A large amount of complicated and multidimensional big data computing are need among different community modules of the auto-life social ecosystem, such as operations between different layers of users, socialized and content-based tools, roadside assistance, traffic violation settlements, online 4S stores services. This could be very complex and expensive to manage by traditional techniques as they will face a long process, multiple rounds of computing, and information asymmetry. Block chain can simplify the operation process, and reduce the exchange of information between different big data elements. Therefore, block chain can save significant amounts of manpower, material resources and time, which contributes significantly to improving the overall efficiency of operation and big data computing of the overall community.

3.4 Block chain can effectively prevent failures and malicious attacks.

Information is an asset, a valuable asset. The information associated with vehicles, back-office operations, big data, web celebrity business service, E-commerce data, online advertisement and the like all need to be private and secured from tampering. Such valuable information faces an increased risk of being attacked or stolen. Block chain has numerous distributed nodes and computer servers in a point-to-point network. This allows for resilience, so problems in any part will not affect the overall operation of the system. Each node has a copy of the block chain data. As a result, the system has a high reliability and high fault tolerance.

3.5 Block chain can help car service providers establish a credible business environment.



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All file or data assets of service providers and their product information can be embodied in the form of codes or ledgers. By pre-defining data processing procedures on the block chain, credible, quality-assured goods and services information can never be maliciously copied or modified. The data integrity of goods and services will go through data matching and monitoring. Records generated and stored on the block chain are mathematically transparent, absolutely traceable, and absolutely not changeable. Any record, once written on the block chain, is permanently stored and cannot be tampered with. Any form of data exchange can be tracked and queried and audited with precise mathematical certainty.

3.6 In addition to meeting the above needs for existing systems and business models, block chain can also bring about new business models.

On the one hand, through block chain technology, we can achieve business models that are difficult to achieve in a centralized mode. On the other hand, through opening source code to all, block chain greatly encourages car users' socialized behavior and increases chances for live broadcasters to be sponsored by advertisers. The creation of a social-ecological system of auto-life based on block chain will subvert and disrupt the existing modes of automobile media and e-commerce, and establish a new model of car networking among car users, manufacturers, service providers and scene-based community situations. It is of epoch-making significance.

## IV. Market Situation in China and Overseas

In the overseas vehicle market, automobile manufacturers have already begun working on block chain technology.

In February 2017, Block chain first, together with BMW, announced plans to launch a "car wallet" to accommodate block chain security technology. It requires an integrated cellular modem keep the car online in real time and achieve direct human-to-car interactions via API technology.



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In March 2017, German energy giant EnBW SE joined the "Share & Charge" block chain platform to enable drivers to handle all the operations associated with clean energy vehicles, including allowing drivers to share their charging stations, make toll payments and charge their cars.

In May 2017, Toyota Research Institute, a subsidiary of Toyota Motor North America, announced a partnership with five technology companies, including MIT Media Lab, to jointly develop block chain technology for autonomous vehicles.

### US automotive industry increases investment in block chain technology

In May 2017, Frost & Sullivan's mobile team in the U.S. announced plans to fund block chain technology over the next eight years. As digital trends extend into the vertical industry, financial analysts have realized that block chain technology has begun to take a bigger share of the IT budget. Frost & Sullivan predicted that by 2025, the technical expenditure of the automotive industry will reach 168.8 billion US dollars, of which investment in block chain technology will account for 0.6%. Frost & Sullivan explained that the decision to invest in block chain technology was based on the positive value of block chain technology in smart manufacturing, supply chain logistics, retail and leasing, Internet of Things and mobile services. The company also mentioned that OEMs were using block chain technology primarily in financial applications, but in the long run, block chain technology would expand into areas such as smart manufacturing and automotive automation.

The increasing investment in block chain by global automakers and US automakers has provided CarLive Chain with an insight into the best global practice and industry experience, as well as the feasibility of using block chain in the auto-life social ecology. In the future, CarLive Chain will establish contact and cooperation with these companies to jointly explore Internet community management and business development based on block chain techniques.





### **V. The Progress of CarLive Chain Project**

The CarLive Chain project established a comprehensive partnership at the very beginning with YUTU (Ayocar APP, YUTU e-commerce platform - www.iyutu.cn) China's first auto-life social community and the most active community for the China's middle class. YUTU has committed to enroll all core businesses to the CarLive Chain ecosystem to thoroughly revolutionize traditional centralized operation mode and become an important part of CarLive Chain automotive social internet block chain ecosystem.

Firstly, CarLive Chain will build up unique smart contract wallet based on YUTU's huge app user system. Over 10 million of car users will become the community user when the project technology is launched. The Token issued by CarLive Chain will be included in YUTU's social sharing and car ecosystem community's motivation system, being stratified and anchored with YUTU's present credits system, eventually establish a dynamic pricing system. CarLive Chain will form a positive community motivation mechanism (mining mechanism) through accumulation of value generated from users' participation in live broadcast, sharing and other mobile interactive behavior. The more the user's behavior data is accumulated, the bigger the value is and the more profit users can gain.

Besides, CarLive Chain will establish big data consensus environment for individual users and enterprise users in online advertisement, enterprise We-Media application, finished automobile manufacturers, e-commerce and other aspects, based on YUTU's present commercial mode. The Token issued by CarLive Chain will act as motivation method to encourage reliable commercial behaviors and build up block chain community ecosystem which possesses characters such as user-own data, reliable online behaviors and safe transactions between YUTU's commercial partners.

The application of CarLive Chain has simultaneously promoted the rapid development of YUTU's community, flourishing of user social interactive behavior and the gaining of bigger market share. YUTU will also grow to be CarLive Chain's global IOV ecosystem platform.



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Founded in 2014, YUTU is the leader in China's mobile Internet business model and China's largest scenario-based E-commerce and social community for car users. YUTU owns Ayocar App which is a social live broadcast media and YUTU E-commerce platform. It has laid a solid, credible and trusted foundation for the implementation of the CarLive Chain project, in particular in:

- YUTU is a star enterprise in China Internet industry. The founding team are former senior executives and core staff from Alibaba. It has been awarded as “company with the greatest investment potential” and “Mobile Internet Unicorn” for three consecutive years by Alibaba. Over the past three years, YUTU has gained several rounds of USD investments from famous investors and investment institutions from Wall Street, and its market value has exceeded hundreds of millions of USD.
- By December 2017, the number of active users on the platform reached 68.2193 million. The users of YUTU will become CarLive Chain project's initial users.



(Ayocar APP download volume has reached 6,530,000 on Baidu APP Store alone)



(Ayocar APP user data real-time information)



(Advertisers, enterprise users, individual users of YUTU will be the initial token community users of CarLive Chain)

- YUTU has become the leader of scene-based E-commerce platform. YUTU has a close business partnership with global auto-life service providers such as BYD, Maodou New Car. The platform owns an online 4S store system with tens of thousands of car parts and accessories. Its offline maintenance shops cover more than 300 cities.



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(YUTU E-commerce platform)

- The CarLive Chain project is being interfaced with YUTU big data architecture to upgrade the scene-based E-commerce trust system and establish the world's first and largest block chain based social E-commerce platform.

Typical partners of YUTU in auto-life chain are as follows:





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YUTU has built a complete mobile Internet technology application architecture, the world's leading matrix, and big data algorithm system. Ayocar App 5.4.0 which form an integral part of the CarLive Chain project has been officially released. YUTU uses big data computing to match people's styles, occupations, geographical locations and other attributes with auto show models, auto parts, usage scenarios and other scenarios. YUTU will create live broadcast, video, shopping guide, malls, and IM, rewards, fan bases, fans interactions, LBS positioning, KOL interaction, AI scenes and other multi-matrix multidimensional computing systems. In terms of mobile Internet socialization, content-based, computing of digital features and scenario building, YUTU's scenarios and big data computing will be optimized via CarLive Chain.



- YUTU has nearly 100,000 auto show models, maintenance technicians and car professionals. During the past three years, live broadcasts from them has covered scenarios from drive learning, car purchasing, car use and car upgrading, and car entertainment such as self-driving tours and car races. YUTU launched enterprise-class We-Media marketing services in July 2017, providing enterprises with live broadcasting, news distribution, mall services, social networking, online and offline traffic introduction and digital backstage service, forming a mature new media system integrating social contents such as live broadcasts with commercial advertisements.
- In 2017, YUTU provided service for 1, 000 brand advertisers and 300 advertising agencies. The advertising business has served the following businesses: Greenland, DidiChuxing, Yuean Driving School, Dida Chuxing, guazi.com, PPMoney, and other famous auto brands in the world. Based on the strategic cooperation agreement between YUTU and CarLive

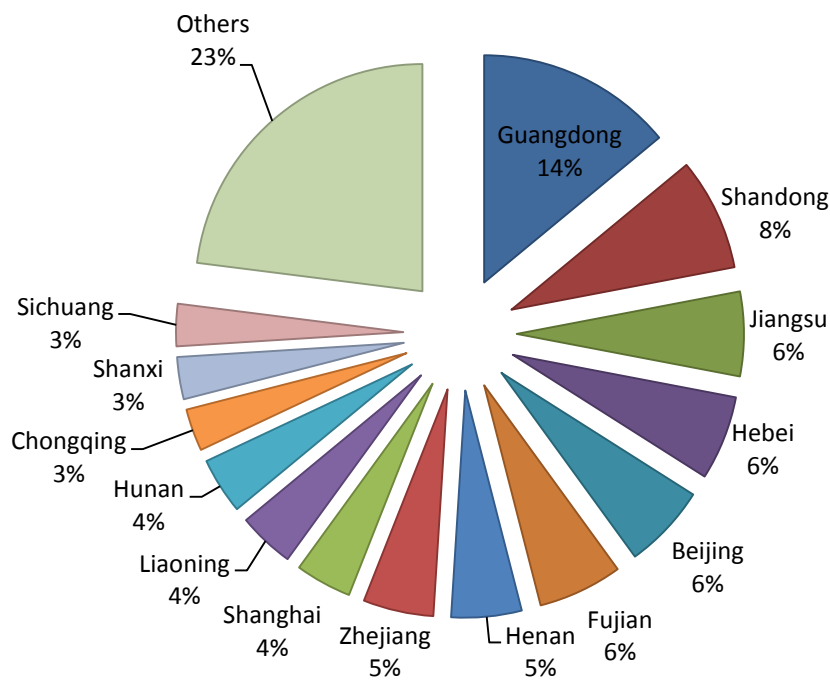


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Chain, CarLive Chain will continue to deepen the use of a live social platform and promote credible online advertising service systems.



(YUTU Advertising marketing platform)



(YUTU user regional distribution)



(work platform for authenticated enterprise users)

Car users from YUTU's internet community participate in the construction and usage of content, socializing, digital platform. This empowers CarLive Chain project with leading advantage and unique competitiveness at the initial stage, which will enable CarLive Chain to gain great success in the global car-life social ecosystem block chain.

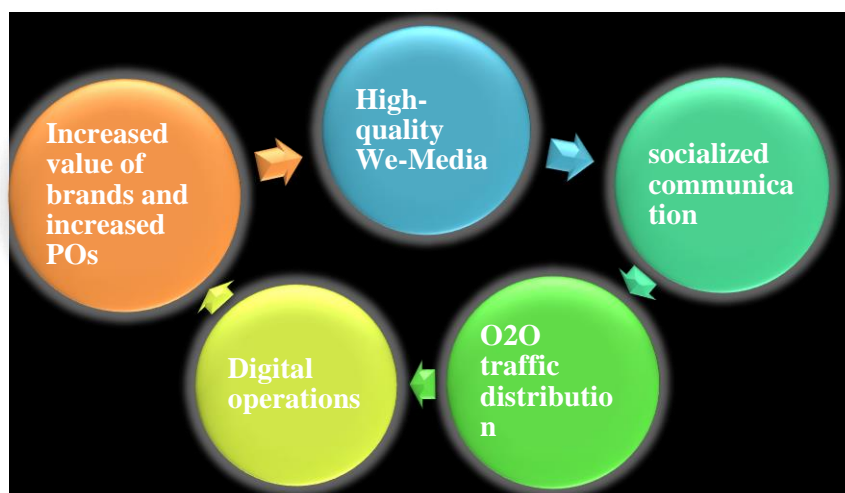
## VI. CarLive Chain Business Solutions

### 6.1 Business solution overview

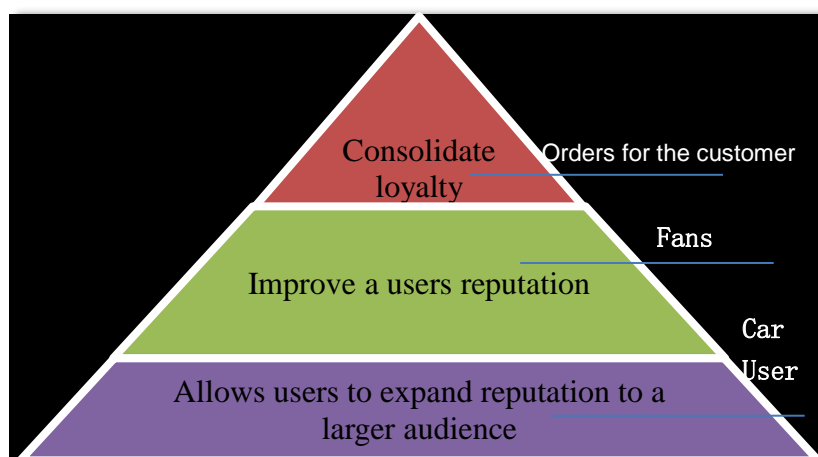
CarLive Chain is a block chain based auto-life social ecosystem platform. Its business vision is to fundamentally revolutionize the present fragmented market and create a secure and feature-rich comprehensive environment which will solve the present problems facing car users, web celebrities using live broadcast, e-commerce transaction parties, advertisers and third-party service providers through the creation of a decentralized, tamper-proof and auditable system capable of smart contracts. Achieving an integrated content-based, socialized market with digital entertainment and numerous credible business applications in that environment. By making payments with tokens, it will become the world's largest and most trusted auto-life social ecology platform.



## CarLive Chain



(Car users can produce quality content for sharing on the platform)



(Car users in the community: strangers socializing -> acquaintances)

In CarLive Chain system, any car user can become the user of the CarLive Chain community by binding personal car information, selecting frequently-met scenes, preferences, locations, car roles and other tag information, entering into a smart contract which is digitally signed. Once launching the APP or starting the car, user can gain big data value generated by user behaviors and thus attain corresponding rewards. Besides, users can enjoy the content-based media and use digital tools provided by CarLive Chain, which includes live broadcasting, posting videos, sharing service experiences, and using social tools such as IM, tipping, location-based services (LBS), interacting with fans, and acquiring personalized content based on big data. This will creating value in the virtual Internet community

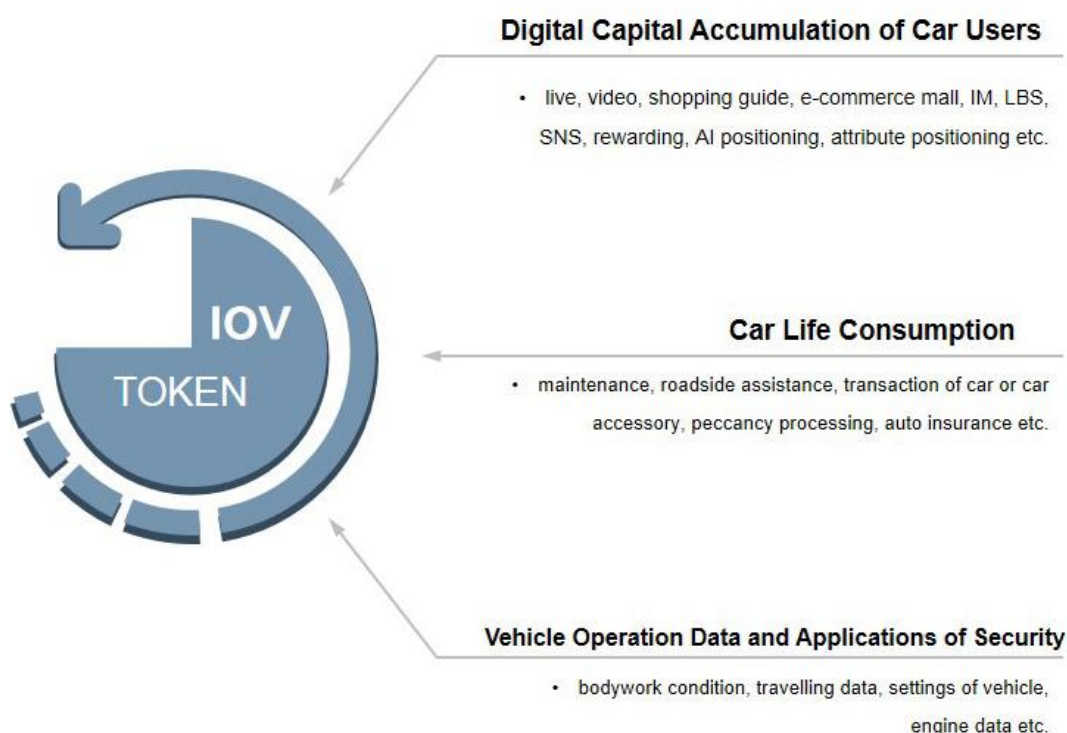




# CarLive Chain

based on distributed storage and bookkeeping.

In the CarLive Chain system, any user whether they are car users, auto show models, technicians, self-driving tour team leaders, or car coaches can establish for themselves a public reputation rating for quality service through a community user growth plan. With the possibility to become web celebrities in the CarLive Chain community, users just need to complete the smart contract and then become a community-authenticated professional in one area of auto-life. As producers and sharers of quality content, you will be open to more sponsor opportunities. Under the multidimensional incentive mechanism, users can acquire incentives of the CarLive Chain community commercial advertisements scheme and earn tokens, all of which is kept securely tamperproof in a completely distributed bookkeeping system inside the block chain.



In the CarLive Chain system, any third-party service provider can get corporate identity authentication and key encryption. They can use corporate We-Media backstage account tools to promote their enterprise marketing media, promote their product and services through social networking, engage in different scenarios and complete their E-commerce credit accumulation and



# CarLive Chain

distributed accounting. At the same time, any advertiser can precisely match the user's needs through the CarLive Chain system, enabling independent delivery of non-harassing advertisements, AI robot customer service and customer interaction in the promotion process. CarLive Chain system will record credit on the advertising content to ensure the authenticity of the advertising and content is not overstated.

## 6.2 CarLive Chain Platform

The CarLive Chain platform is based on the block chain technology and consists of the mobile Internet APP positioning matrix, social matrix, content matrix, user matrix, digital matrix, and online advertising matrix.

CarLive Chain social APP positioning matrix layer is to provide user location orientation, APP orientation, device orientation, attribute orientation, AI



orientation, and scene orientation to establish a precise orientation matrix. CarLive Chain content matrix layer will allow live broadcasting, video posting, news dissemination, shopping guidance, E-commerce transactions, automotive data interface operation, and tools for producing contents, content storage, content delivery to establish a strong content matrix. The E-commerce architecture adopts scene-based data and transforms traditional shelf-based E-commerce using big data computing. It places customer at the core, and features smart push notification based on big data computing, and combine functional spending with tools, personalized spending with big data computing. This guarantees the credibility, accuracy, and security of E-commerce supply and demand through the use of smart contracts.

CarLive Chain user matrix is to establish a multi-user, multi-authority matrix system consisting of ordinary users, registered individual users, authenticated



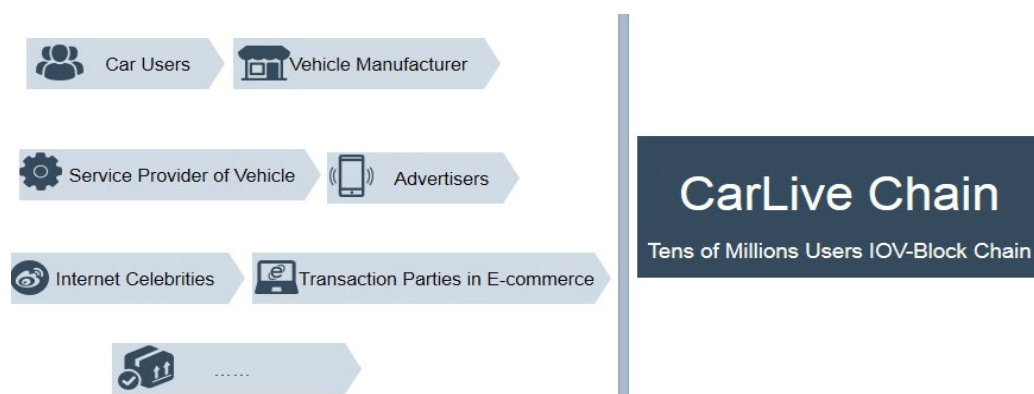
# CarLive Chain

web celebrity users, certified enterprise users, advertisement users and community platform administrators.

CarLive Chain digital matrix is used to create a multi-dimensional user data warehouse matrix, consisting of individual car users, vehicle manufacturers and third-party service provider enterprise users, advertisement users and platform managers to achieve data modeling and data mining application value of digital operation from receipt collection, screening, cleaning, encryption, authentication, desensitization, and distribution to BI application.

CarLive Chain online advertising matrix is to establish the world's leading three-dimensional marketing advertising matrix system. Through different forms of advertising including live broadcasting, fan promotion, Teletext, video, AI push of customized contents, scene-based push service, the matrix is to achieve digital value standardization and an advertising environment of fair advertising revenue distribution, to revolutionize traditional marketing methods of Internet advertising, and to bring credible and shareable value to CarLive Chain community participants.

## VII. CarLive Chain Ecosystem



### 7.1 Management Team of Block chain

The management team is the initiator, the builder, and promoter of the CarLive Chain project.

For the healthy development of block chain project, CarLive Chain team will build an IOV Block chain community environment in three aspects. On the one



## CarLive Chain

hand, CarLive Chain will improve block chain technology and work with YUTU to in technology frame, user ecosystem, practical application in car life ecosystem as well as recording and distribution of Token. On the other hand, CarLive Chain is working with international finished automotive manufacturers, car exhibition institutions and other institutions to share car information and community user information. Build up cross-chain, cross-system, cross-industry, cross-application, cross-terminal, trust-based system application through marketing, big data application, API technology and other methods. At the same time, CarLive Chain will enhance its research capability of block chain technology and set up multiple international block chain technology research laboratories.

### 7.2 Authenticated users including car users and web celebrities.

Car users are at the core of CarLive Chain's service. At present, CarLive Chain has over 60 million users from YUTU and will quickly provide services to 1.3 billion car users over the world. Car users have different stages in the growth circle, including enthusiasm for cars, learner drivers, first-time IOV owners, car purchasing, driving enthusiasts and upgrading cars. CarLive Chain will build a credible next-generation mobile Internet community environment in order to provide both personalized services and applications using reliable tools for car users through content-based and social time-based management for customers in all these different stages. CarLive chain will promote the development and service quality of the community, cultivate potential KOL to provide quality contents and positively influence active users through big data computing of the car user activities while at the same time providing a token based incentive mechanism.

### 7.3 Vehicle manufacturers and third-party service providers

As CarLive Chain's credit collaborators, vehicle manufacturers and third-party service providers will provide CarLive Chain community users with full range of services regarding car spending and safety. At the same time, car users in CarLive Chain community become target customers of car manufacturers and third-party service providers, including existing users and new users. They are the core elements of establishing ecological trust and the major generators of



## CarLive Chain

business value. CarLive Chain has the value to manufactures and third-party service providers in providing standardization, car safety network, quality service and platform for interaction between the end users.

### 7.4 advertisers

On CarLive Chain auto-life social ecosystem platform, advertisers will be a core player of the platform's rapid realizing of its commercial value. CarLive Chain community has a strong ability to gather large numbers of car users and retain those users through targeted service offerings. This is especially valuable because car users are the middle-class consumers, and as such have the prime spending power. Hence they will be advertisers' preferred target audience. The presence of advertisers on CarLive Chain platform will also improve the quality of user content and their social behavior through sponsorship and can encourage users to be more active, thus improving the overall vitality of the platform.

## VIII. CarLive Chain Business Prospects

### 8.1 IOV block chain user community with over 10 million users.

CarLive Chain will build up an IOV block chain user community that provides services for over 10 million users. It will become the demonstration project which rely on physical Internet commercial ecosystem and block chain technology application assignment. CarLive Chain will play an important role in global block chain application ecosystem and be the leader of world block chain application in the auto area.

### 8.2 Prosperous IOV commercial ecosystem platform

CarLive Chain has community internet celebrity users, enterprise We-Media, E-commerce platforms, community advertisements and other car consumer scenarios since its foundation. It has a close-circle service ecosystem from individual customers to enterprise customers. CarLive Chain is bound to become one of the most prosperous IOV commercial ecosystem platforms that has most commercial value.

### 8.3 Super data point of IOV block chain



# CarLive Chain

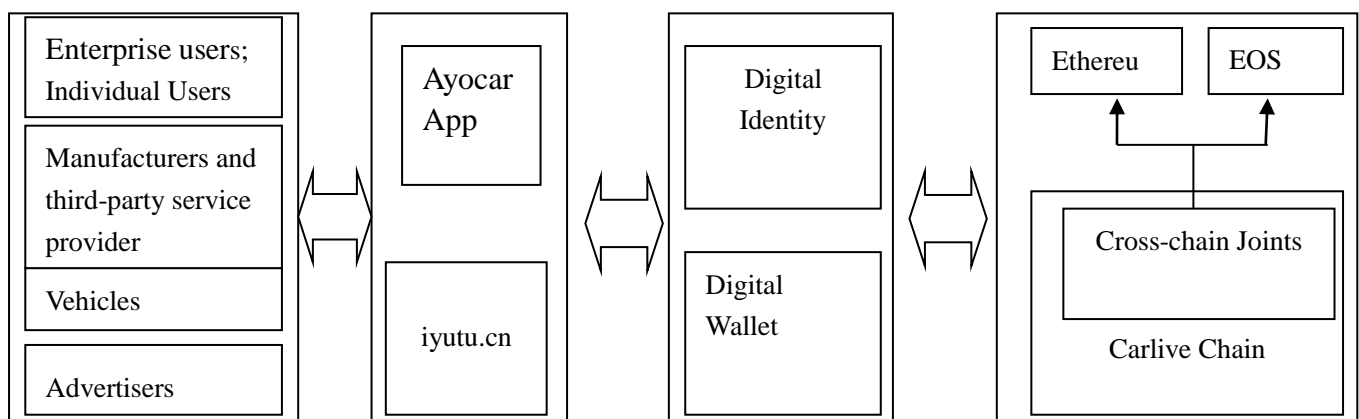
CarLive Chain will become one of the important world block chain data points as it has huge user groups and prosperous commercial ecosystem smart contract ledger. With the access to YUTU's huge user group, CarLive Chain IOV will have the opportunity to first deal with the technical challenge of block chain application scenes. At the same time, it will possess technical application view and ability to provide services for over 10 million users, gradually deploy IOV block chain common chain in car user's social big data value, vehicle operation data property value, spending behavior value, commercial confidence, vehicle safety and other aspects, thus gaining a wider market application value.

In the foreseeable future, the 20 billion US dollar market formed by Chinese 30 million cars and car users will expand to the world's 1.3 billion cars. Car users and data property in the ecosystem that are accumulated by CarLive Chain will be shared with participants to encourage more car users to join in the project.

## IX. CarLive Chain Technical Solutions

### 9.1 Technical solutions to the integration of Live Chain and YUTU users.

CarLive Chain, based on YUTU social platforms such as IOV related APP Ayocar and optimized E-commerce platform, is going to launch new functions of digital wallets and user's digital identities. Through this digital wallet users could use digital currency like BTC, ETH, EOS, IOV and so on. CarLive Chain is an IOV block chain project that combines with an existing and mature auto-life E-commerce platform.



(The integrated structure of CarLive Chain and YUTU)



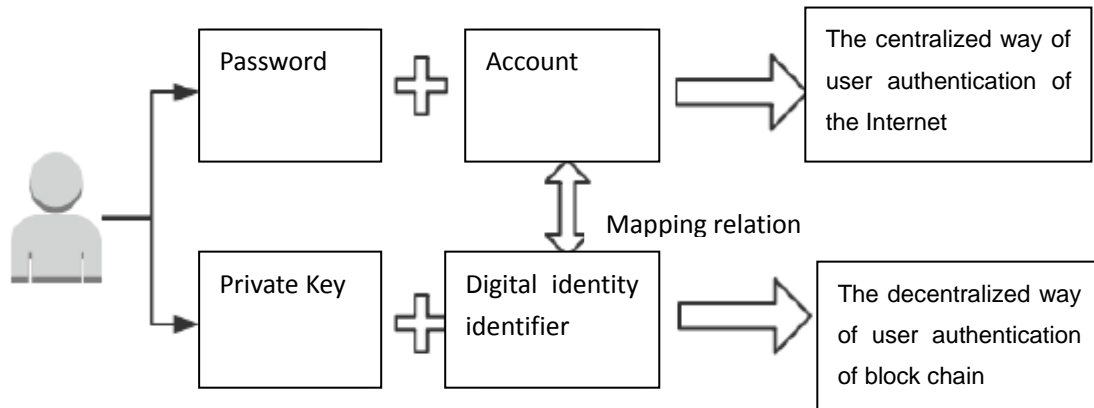
## CarLive Chain

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On the basis of digital identity, CarLive Chain is a platform, which integrates centralization into decentralization, and the digital identity serves as a bridge between them. The centralized way of user authentication of the Internet and the decentralized way of user authentication of block chain could achieve coexistence through the mapping relation of account and digital identity identifier. This way, the users of YUTU could be transferred to CarLive Chain.

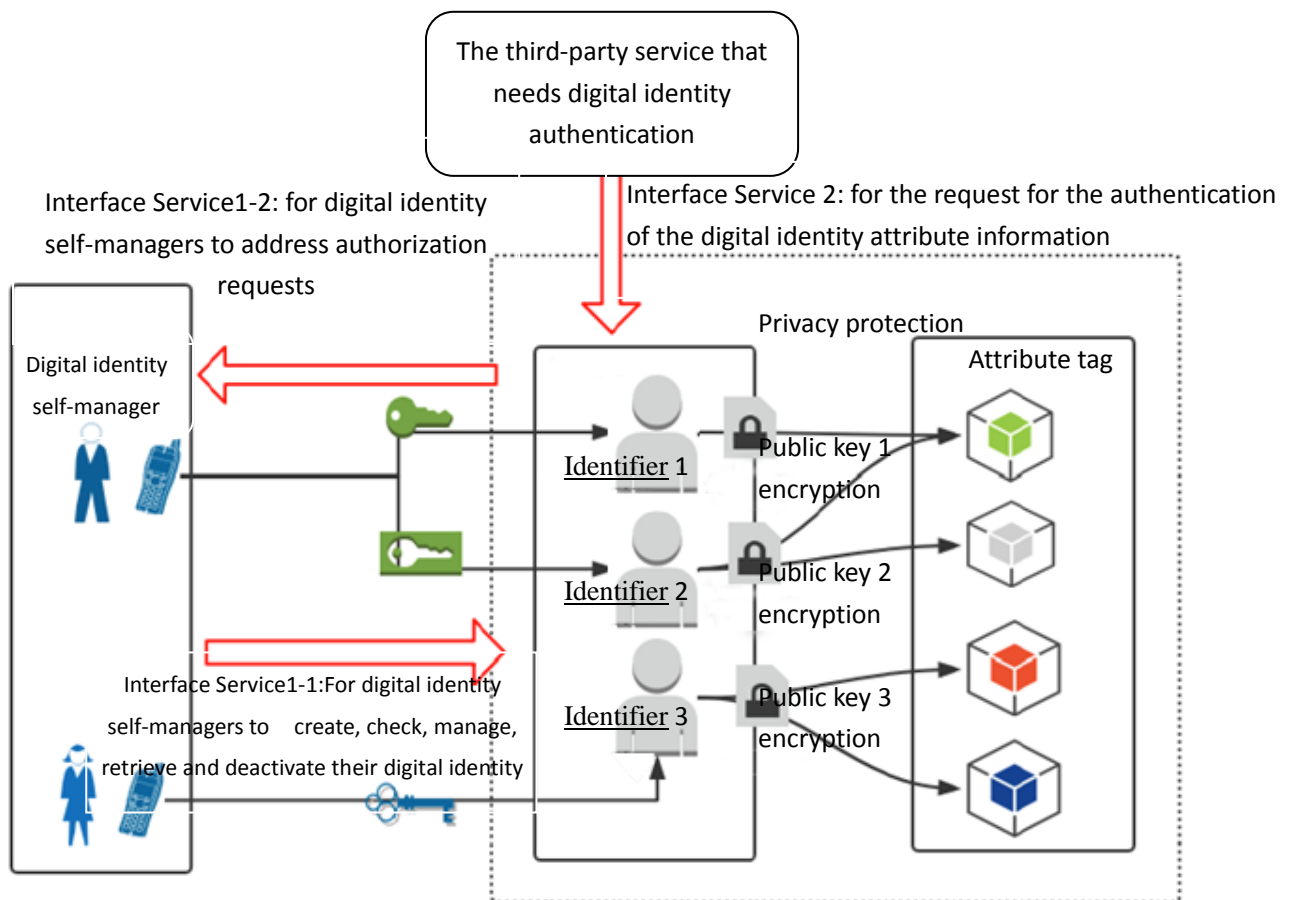


# CarLive Chain



(Both authentication ways are supported)

The technical solution to digital identity is as follows:



(The technical solution to digital identity)





## CarLive Chain

The realization of self-management of digital identities brings about self-managed digital identity for users of iyutu.cn or Ayocar App, and the identifier is stored in decentralization block chain. This digital identity system could achieve coexistence with iyutu.cn or Ayocar App, improving users' experience of digital identity self-management and digital wallets, thus realizing the value of users' own information data.

Based on the combination of smart contract system and consensus accounting technology, digital identity system on block chain managed to operate digital identity and record status. Every single digital identity has only one identifier since it was created and bound to the public key of its self-manager. Manager could also bind it to attribute tags, then the owner of these attribute tags also owns the information contained in them. Digital identity self-managers are able to encrypt identity information and protect their privacy with the use of public key.

The digital identity system includes three Interface services and could achieve two main functions.

Function one: Digital identity self-managers are able to create, check, manage, retrieve and deactivate their digital identity on black chain digital identity system through interface 1-1 (an interface for digital identity self-managers to create, check, manage, retrieve and deactivate their digital identity ) block chain digital identity system of decentralization enables users 'autonomy and unified management of digital identity.

Function two: Third-party service which needs to verify digital identity should send an identity authentication request to digital identity system on block chain through interface service2 (for the request for the authentication of the digital identity attribute information), then the block chain digital system gets an authenticated signature from digital identity self-managers through interface service1-2(for the use of sending authorization request of digital identity to digital identity self-managers)

Three Interface services are illustrated in detail as follows:

Interface services1-1: Interface services1-1 is for digital identity self-managers



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to create, check, manage, retrieve and deactivate their digital identity and for the systemic interaction of manager terminal and digital identity system on block chain

Interface services1-2: Interface services1-2 is for digital identity self-managers to address authorization requests when they receive identity authorization requests from third-party services digital identity system on block chain and interface 1-2 transfers authorization requests to the user terminal, so that users could authorize through the private key on their terminals.

Interface services2: Interface services2 is used in the request for attribute information of digital identity. When the third-party service requests digital identity authorization from users, it will send the request to digital identity block chain system through Interface services2

### 9.2 CarLive Chain's technical path

Technological development of CarLive Chain includes two stages:

The first stage is to develop a complete incentive system for CarLive Chain on the basis of Ethereum and EOS. The second stage is to exploit the underlying chain of CarLive Chain and develop an application with high concurrency to better support vertical fields of IOV. At the same time, connect CarLive Chain to universal block chain platforms so that CarLive Chain could be more concentrated on vertical fields of IOV and better transfer the value of users to popular public chains.

At the first stage, CarLive Chain develops Token value system based on Ethereum and develops incentive systems based on EOS. It is technically more innovative and features a well-developed governance structure and has a wide range of applications, which facilitate the more flexible use of block chain for mobile users. CarLive Chain implements point-to-point value transfer based on public chain platform EOS and builds a network that supports multiple industries including finance, IOV, supply chain, social networking, gaming and more decentralized application development platform ("DApp Platform").

Based on the quantum chain application ecosystem, CarLive Chain deploys



## CarLive Chain

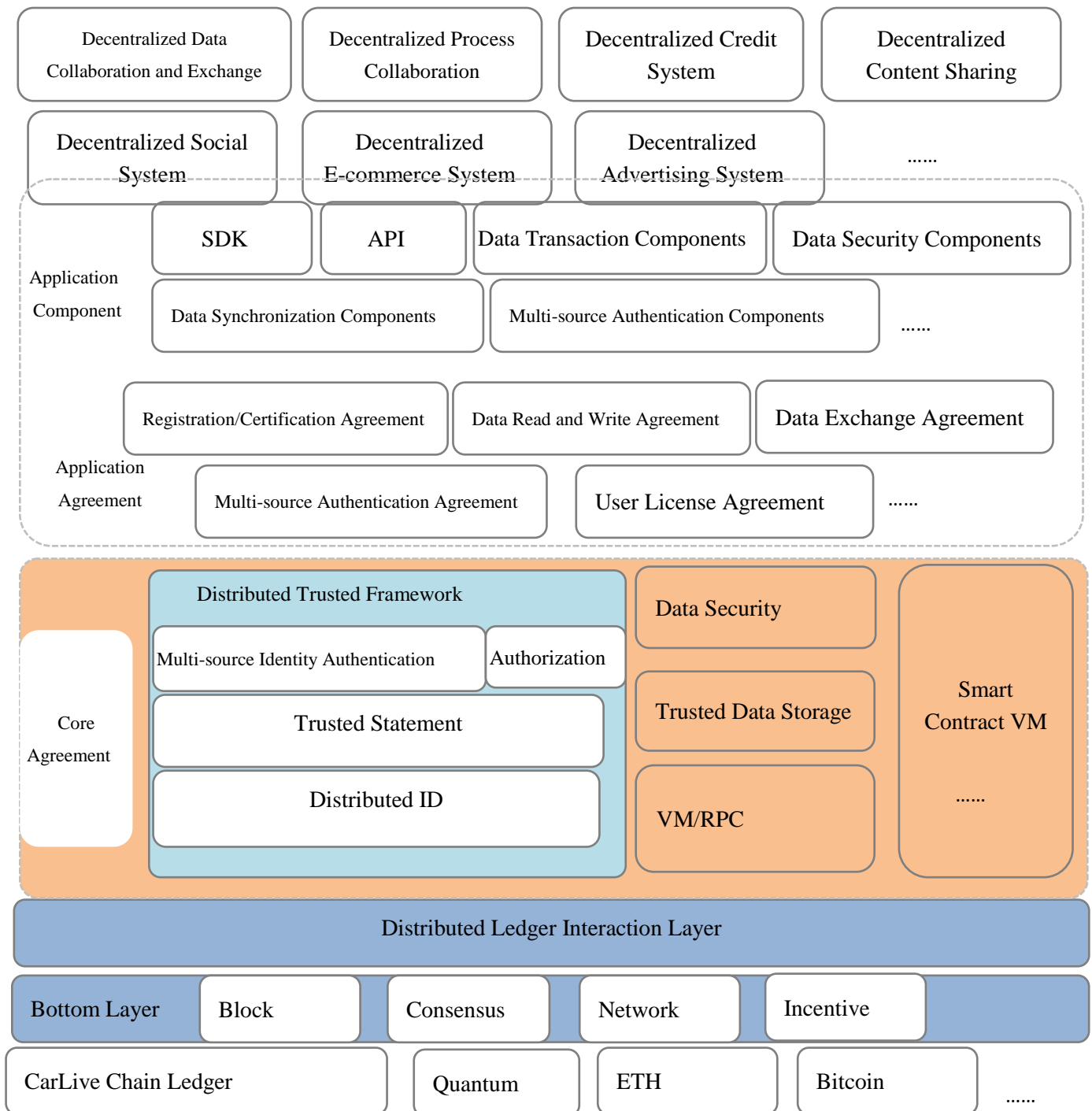
YUTU DASHare mobile Internet technology matrix from the technical architecture, including mobile wallet, mobile DApp application, and mobile smart contract service, and based on the new operation of Ethereum Symbol and API interface of EOS for block chain technology iteration.

At the second stage, CarLive Chain will develop an underlying block chain platform of car networking vertical fields. This platform includes a complete smart contract system and distributed ledger system. Meanwhile, by using cross-chain technology, it will achieve interactions with other public block chains, such as Ethereum, EOS, Qtum to achieve cross-chain value transfer and trust-free transactions.

The technical structure of CarLive Chain is as follows:



# CarLive Chain



(The technical structure of CarLive Chain)

CarLive Chain provides a complete system for checking the social ecology of auto-life and includes a complete smart contract system and security system built in through block chain technology. At the same time, CarLive Chain abstracts the underlying responsible technical and heterogeneous systems to



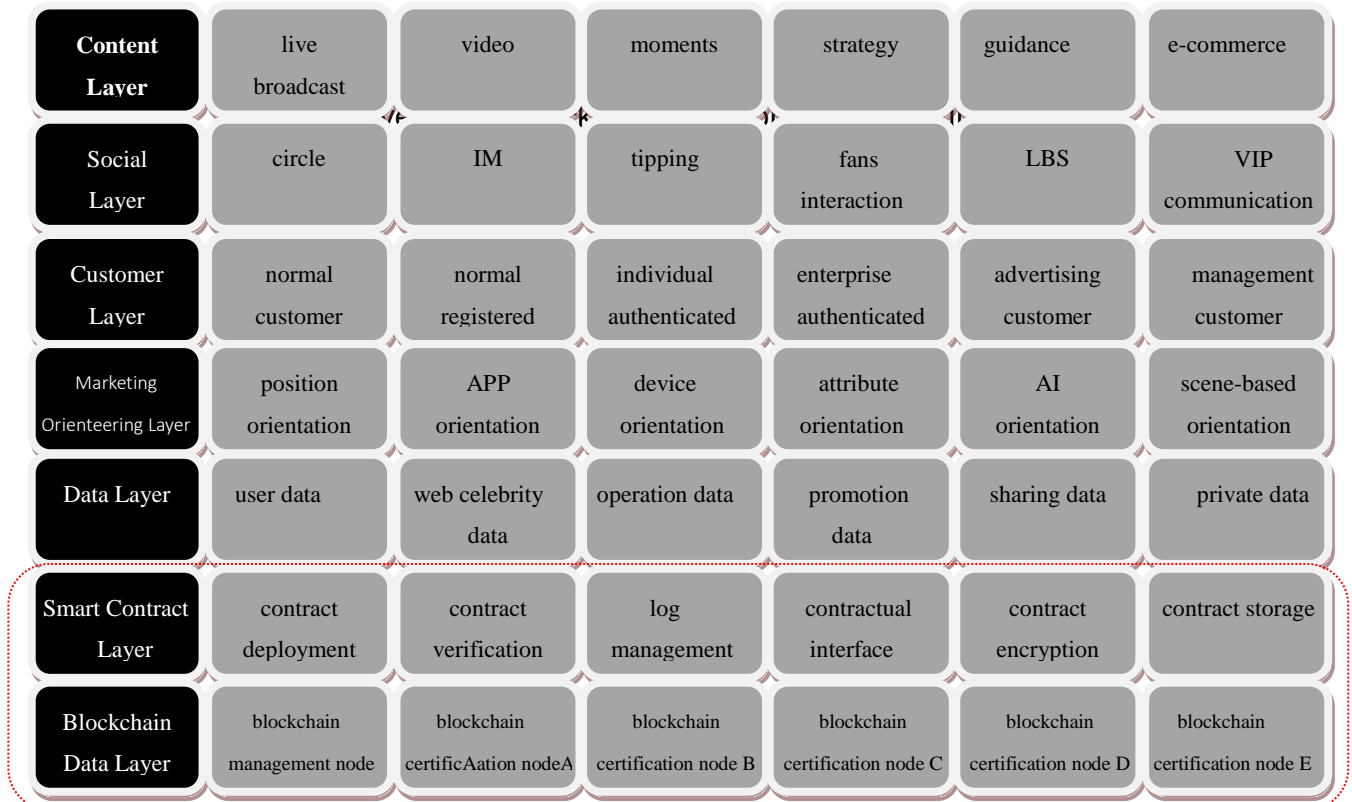
# CarLive Chain

support distributed entity management and multidimensional authentication protocols that are compatible with all major protocol and cryptographic criteria and supports future heterogeneous block chain and legacy information system of cross-chain, cross-system interaction mapping. It also provides technical systems with secure data storage, heterogeneous smart contracts, hardware key management, and cryptographic techniques.

CarLive Chain provides support to a wide range of application services, especially decentralized applications. In the application framework, it provides a distributed digital exchange protocol, distributed process management protocol, through the application of functional components to further support the implementation of various types of upper-level applications.

## 9.3 CarLive Chain architecture design

CarLive Chain architecture is based on the full technology matrix of the mobile Internet and is implemented on the basis of block chain technology.



(CarLive Chain Block chain Platform Architecture Model)



## CarLive Chain

Content layer: mainly to meet the need for users to generate car-life contents, including live broadcasting, video, scene-oriented E-commerce.

Social tools layer: mainly to serves as a tool to help users in the community to establish social relations with strangers and acquaintances.

User layer: mainly to meet the different roles of the car life ecological chain application permission configurations, and different user layers have different operating authority.

Marketing Orienteering layer: mainly to meet the precise online marketing of advertisers, accurately match users through multidimensional orienteering.

Data layer: mainly used to accommodate operational data of different users to meet the needs of different levels of users of large data modeling applications.

Smart Contract Layer: mainly used to sign intelligent contracts such as content exchange, data transmission, incentive system, E-commerce transactions, and advertising promotion between different users, and to establish a set of commitments defined in digital form, which allows contractual parties to fulfill these commitments above, etc. When we design a smart contract, firstly, we logically compare the data and services in this user-level and content-based social application modules to ensure that their rules and conditions are in scope. Then, after the introduction of the script code, the platform system of the block chain will compare again to confirm whether the rules related to the contract in the platform business process conform to the data specification in the business component. Finally, it ends with the closed-end behavior to issue and apply smart contracts.

Block chain Data Layer: As the core underlying technology of CarLive Chain auto-life social ecosystem, it is used for block chain management of each node. It sets up distributed authentication system to meet the calculation application requirements of block chain in multidimensional computing. The block chain data layer contains the following functional components: Account Manage, Intelligent Routing Service, Consensus, Ledger Service, etc.

### 9.4 CarLive Chain Business Logic Reconstruction



## CarLive Chain

CarLive Chain will revolutionize the auto-life social ecosystem, redefining the auto-life ecology by using block chain technology, and establish a complete big data-driven business model to be used in the mobile Internet business era, creating a whole new generation of new business processes and models.

### The first stage: user registration

At this stage, we will digitally encode/transcode for different types of users, re-assign the tag <Met-Tag>, and restore and re-encrypt the user's basic information through various types of proxies. This is the preparation at first stage for users' basic information and the circulation and transfer on block chain platform.

### The second stage: content management

Set Metadata <Metadata>, relevant views <View>, and enhance access to content management<Access control>, introduce workflows <Workflow>, tags <icon>, rights management <DRM>. Then the classification, retention, and dissemination of content can be effectively controlled by the process. The content objects for non-transactional goods and service information units, tradable goods and service information units, the advertising information and finally the matching of rights management to these objects so that all data can be distinguished from each other.

### The third stage: E-commerce

At this stage, tradable goods and services can be traded on a block chain E-commerce environment. In the previous two steps, the meta-information of the digital asset has been entered into a secure storage space <Store> and assigned to an application scenario <e-view>. Therefore, at the time of publication, this meta-information will be transferred to the block chain environment along with the same line item and transferred simultaneously with the application scenario, and the actual physical delivery process of the transaction will be tracked. Once completed, the transfer and ownership of goods and services will be realized <At this point, the information will be stored on the block chain in the appropriate places>. Upon arrival at the



## CarLive Chain

transferred object, the process of recapturing, identifying and processing user contents will be returned to the first stage, and the entire process will continue to be recycled.

In this way, the original meta-information on tradable goods and services information has been redefined and embedded into a smart contract to define the owner and ownership.

The fourth stage: advertising services

At this stage, we will build the trading environment for advertising user information to be accurately matched in the block chain and create an <ads> meta-information tag. When advertisement content is released, the matching tag meta-information is stored in a secure storage space <Store> for further big data computing.

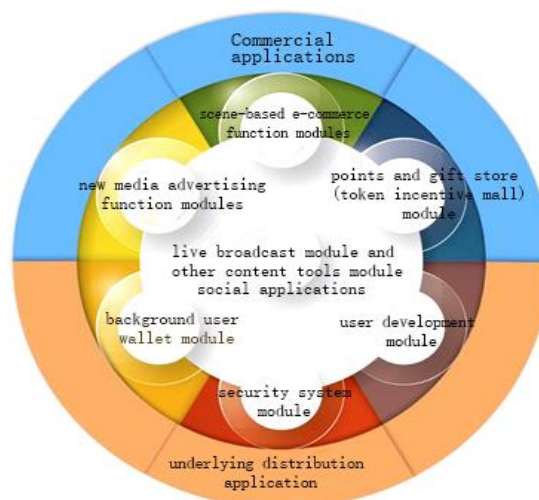
At the time of publication, the meta-information will be matched with the calling user tag <icon> and pushed to arrival. The arrival methods include live broadcast browsing, station letter, fan interaction, click and many other forms. The system will automatically match the specific target data of the advertisement promotion to push intelligently and at the same time generate a smart contract order with the receiver user.

Once the user receives the advertising pushing, the advertisement service is completed, and the data result is returned to the advertiser.

The advertiser can use limited amount of token as incentives or single-item token incentive as a way to allow the CarLive Chain system to publish incentive rules and distribution to ensure that each user who can receive the message can share tokens issued by the platform to encourage participation in suitable advertising behavior.

### 9.5 CarLive Chain main function modules





(CarLive Chain function modules)

Based on the platform architecture, CarLive Chain function modules include: Commercial applications (new media advertising function module, scene-based E-commerce function module, points and gift store (token incentive mall) module); social applications (live broadcast module and other content tools module); underlying distribution application (background user wallet module built on the underlying block chain technology, user development module, and security system module).

## 9.5 CarLive Chain technical features

- Decentralized, safe and tamper- proof.

Every user's content and publishing activity, social behavior, and all messaging and credential files such as E-commerce and marketing advertising via CarLive Chain are stored in the block chain for distributed storage and cannot be tampered with.

- Privacy Protection

CarLive Chain enhances the security of all the information in the system by including tag attribution, multiple user signatures and asymmetric encryption technology to ensure that unauthorized third parties cannot access private information in the system while e-commerce, advertisement initiation and reception participants trade anonymously and the third party cannot obtain the information without authorization.

Storing data on block chain with asymmetric encryption provides a perfect balance without any major changes to block chain attributes. In other words,



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the block chain is still the public block chain, but the data on the block chain will be encrypted, thus taking care of the privacy of the public block chain. Asymmetric encryption technology makes give public block chain privacy protection which is unique to private block chain.

- High security

As it is related to content copyright, e-commerce transaction and advertising systems, the security and compliance requirements of CarLive Chain data are very strict. With many years of experience in the Internet industry, our team has meticulously designed, planned the security system by applying asymmetric encryption technology, distributed data accounting, smart contracts, etc.



## X. Core team, advisors and investors

CarLive Chain project is administrated and operated by AUH foundation, whose core members include former Alibaba executives, internationally renowned block chain experts. An international technical advisory board and financial advisory board of famous industrial leaders were also set up to spearhead CarLive Chain's globalization.

### 10.1 Core team



Dr. Alan G. Miller

Asia Pacific CEO & Chief marketing officer of CarLive Chain, fellow from British Chartered Management Institute, Senior Member of IEEE, and IET Member. Seasoned international investor of block chain. Dr. Miller has participated in large and complex projects in dozens of countries around the world and served as a member of the board of directors in several TOP 500 Companies, actively taking part in the research and investment of block chain-related technology. Dr. Miller obtained his bachelor degree from Chinese University of Hong Kong and master degree from University of Edinburgh.



Ansel.Qi

Ansel Qi, chief strategy consultant, founder of YUTU with 15 years of E-commerce management and operation and many years of experience as an Alibaba executive. He once served as the general manager of Strategic Cooperation Department and general manager of South China region in Alibaba.



Tony Mo

Tony Mo, chief technology officer of CarLive Chain, has 10 years of management experience in the field of internet and IT technology as well as operation and management. He once served as CIO of two listed companies. He started to lead the R&D of the underlying applications of block-chain technology and the development of application scenario of YUTU; Tony Mo graduated from University of Science and Technology of China with a bachelor degree in management ,and University of New Haven with a master degree in management.



Ardeshir Takaki

Ardeshir Takaki, head of CarLive Chain's R&D Center in Japan, is proficient in software engineering (Python, Java, c++, JavaScript/HTML5) and is keen on artificial intelligence applications. With a bachelor's degree in computer science from Tokyo University, he leads the technical team of CarLive Chain research and development center in Japan.



Derek Topper

Topper, head of CarLive Chain's R&D Center in Silicon Valley, holds a



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bachelor's degree in computer science from the University of California, Berkeley and has also developed multiple courses in the field of Data Science that the university currently offers. Before this position, Topper served as a software engineering intern as a part of various multinational corporations, such as the National Basketball Association, where he directed the process improvement of regional data science initiatives. He currently leads the technical team of CarLive Chain research and development center in Silicon Valley.



Andrew Snider

Chief researcher of CarLive Chain. Computer Science Major and Undergraduate Researcher at UC Berkeley. Focus in engineering data-processing and visualization software as a tool for predictive analytics. Current work focuses on the implementation of sorting algorithms into databases to create a universal set of users data that enables service providers to better understand user behavior patterns and provide services.



Michael Huang

Chief Operation officer of CarLive Chain project. Michael once served as a senior marketing director in Alibaba with more than 7 years of experience in market operation and management. He has also led several influential events during his time in Alibaba.



Min Zhu

Operation partner of CarLive Chain project. She once served as a senior account manager in Alibaba with more than 5 years' experience in operation and management of Alibaba website. She was also a part of Alibaba's "Project Cloud" and "Projects Storm". She graduated from Yangtze University with a bachelor's degree.

## 10.2 CarLive Chain Investors and Advisors

### **CarLive Chain technical advisor committee**



Dr. Shipeng Li

Dr. Shipeng Li is Chairman of CarLive Chain Technical Advisory Committee. He is the former deputy dean and chief researcher of Microsoft Asian Research Institute, fellow and secretary general of IEEE. Dr. Shipeng Li graduated from Lehigh University with a doctoral degree and holds a bachelor degree and a master degree in electronics and telecom engineering.



Dr. Sean Xiang

Dr. Sean Xiang is an internationally famous expert in information security. He is also an early investor of YUTU. Dr. Sean Xiang obtained his PhD from The



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Chinese University of Hong Kong (CUHK) and has worked in Beckman Laser Institute & Medical Clinics and Hong Kong University of Science and Technology.



Dr. Zorro

Dr. Zorro ( Jiang Luoluo ) is a renowned scholar in international information economy. He has published more than 30 SCI research papers. He is the co-founder of British Quantum Capital as well as a columnist of Golden Finance. Dr Zorro holds a Ph.D. from USTC.

### **CaLive Chain financial advisor committee**



Professor Geng XIAO

Chairman of CarLive Chain's international advisor board; professor at College of Business and Economics at HKU; founding Fellow and President of the Hong Kong Institution for International Finance; deputy Chairman of the Academic Council of China and World Economy; member of academic committee of the Institute of International Monetary Affairs of Renmin University of China. Professor Xiao has played important roles such as Head of Research and Advisor to Chairman at Securities and Futures Commission of Hong Kong, independent and Non-Executive Director and Chairman of Risks Committee of HSBC Bank China. Geng holds a B.S. in Management Sciences from the University of Science and Technology of China, MA and PhD in Economics from UCLA.



Dr. Huadong Pang,.

Huadong Pang, Ph.D.in MIT Mathematicians , Bachelor of Science in University of Science and Technology of China(USTC), entered university at 14 years old; MIT presidential fellowship; Vice President of JP Morgan New York; Chief Quantitative Strategy Officer Manager of Quantitative ;Risk Group at Ernst & Young New York; Partner and Chief Strategy Officer of Qiantai Capital Beijing; Reviewer of Risk Magazine, a top journal at Wall Street.



Chuan Wang

Early investor of YUTU. Seasoned investor. Enrolled in the prestigious Special Class for the Gifted Young program at the University of Science and technology of China in 1987. MS degree in material science from University of Rochester and MS degree in computer science from Georgia Inst. Of Technology. Studied at the master's program in financial engineering in UC Berkeley.



Jacques Borremans

The world's earliest player of Bitcoin, a legendary currency investor with a Bachelor of electrical engineering from the University of Brussels in Belgium, a





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master's degree in nuclear physics, a master's degree in electronics engineering, and an MBA from Rutgers University, New Jersey. He has also obtained the BGS Award of International Business Elite Organization.

He is a important cooperation parterin the government and businessfieldof European countries and China. Currently, he is the managing director of the Greater China Region of Wyatt and Wang Co., Ltd., Jacques Borremans is often be seen in various international auctions.

### 10.3 Partners

The AUH foundation has reached an exclusive and strategic partnership with YUTU. It has also built partnership with enterprises from auto consumer industry, traditional investors, new digital currency investors.

Some of our important partners are as follows:





## **XI. Governance Mechanism**

The encrypted digital currency Token collected by CarLive Chain project should be kept and operated under the principle of transparency and be subject to audit. All funds and digital assets raised are controlled by AUH foundation.

CarLive Chain is operated by and under the supervision and administration of AUH Foundation established in Singapore. The funds raised from the project are mainly used for design, research, development, operation management, merger and acquisition of CarLive Chain projects and comprehensive management of CarLive Chain. The goal is to develop a globalized ecological system and application of CarLive Chain. CarLive Chain has set technical advisory committee and financial advisory committee to better monitor and guide the application and research of the super node in block chain as well as the operation of financial market. The AUH Foundation will undergo an annual audit to evaluate the operations and risks of the Foundation by leading international accounting firms. The Foundation will make decisions according to the characteristics of events, such as the extent of the impact of incidents, the scope of influence, the number of tokens and the probability of occurrence, and make decisions according to priorities. For high-priority events, the Foundation shall organize relevant committees of the Foundation as soon as possible for decision-making.

The initial source of funding for the AUH Foundation will come primarily from the sale of CarLive Chain's token IOV. IOV holders who own CarLive Chain's token IOV can purchase or redeem for relevant services, as detailed in the relevant section.

Partners of AUH Foundation have established cooperation with internationally renowned law firms as CarLive Chain project legal advisor, providing CarLive Chain project with operational compliance, legal risk control, international



legal advices and other legal services.

## **XII. Distribution and Deployment Plan**

### 12.1 Currency and purpose

CarLive Chain will be issued in the form of token:

CarLive Chain token Name: IOV

Amount: 10 billion IOV coins with no further addition

IOV purposes:

- (1) Issuing: IOV can be issued to early investors to raise funds for project development and construction
- (2) Community incentive: to stimulate user' social interaction in community
- (3) Business ecology incentive: as a positive incentive to stimulate data sharing and other business activities between merchants in community
- (4) Service payment: can be used to settle the payment of technical service, E-commerce and advertising.
- (5) Can be used for the payment to data nodes worker
- (6) Can be used for platform users to collect or to reward each other
- (7) The amount and time of tokens held will be one of the factors for assessing the qualification as a dealer
- (8) The amount and time of tokens held will be one of the factors for assessing the number of year-end awards

CarLive Chain token - IOV obtaining:

- (1)Purchase through legal channels during fund raising.
- (2) Through public sale on third-party digital token trading platforms



(3) Obtained through CarLive Chain community rewards

(4) Obtained through CarLive Chain annual dividend

(5) Obtained through the rewarding between the platform users

## 12.2 The value of IOV

CarLive Chain is a networking block chain that serves thousands of car users. The 10 billion IOV coins will be open to 1.3 billion cars worldwide. The initial IOV holders will exceed 10 million, making CarLive Chain community one of the largest scene-based applications communities of block chain in the world. IOV, as the only current TOKEN in CarLive Chain, will continue to rise in value owing to the rapid framework docking of users and the prosperity in community driven by incentive mechanism of users, thus turning into wealth and keepsake of car users

## 12.3 IOV community incentive mechanism

CarLive Chain has set up a special award fund with 3 billion Tokens to incentivize data contributors in the community. CarLive Chain is working with several research institutions, doctors and post doctors to build a community incentive dynamic pricing algorithm to ensure the scientific and sustainable implement of incentive mechanism.

### 1) Community user incentive

The points of YUTU's community users get from the incentive system now can be converted into FIOV (force of IOV, each FIOV represents a magnitude in mining power of your account). The only thing community users have to do is open Ayocar App or activate Car Unicom--- CarLive Chain, and then you could get initial rewards of FIOV value every day. Users could get rewards of FIOV through other social interactions and spending behavior like your online time, launching frequency and depth of social participation as well as spending and transaction of IOV. Also, a certain degree of YUTU's FIOV value can also be converted into TOKEN rewards.



## 2) Community incentive for business system

Now the online services of YUTU's include auto show models, We-Media for auto service enterprises, E-commerce products supply, advertising service for advertisers as well as the entertainment and equipment service provided by other service providers. During any transaction process, both service providers and customers will attain rewards of FIOV and thus attain rewards of CarLive Chain TOKEN.

## 3) Community year-end incentive

Participants, who make special contributions to the development of project, will get the deserved TOKEN according to the significance of his contributions, the amount of his coins, average age of his coins and other factors.

## 12.4 Token (IOV) distribution plan

IOV is the official token of CarLive Chain, and the total amount will be 10 billion with no further addition.

Distribution plan is as follows:

- For cornerstone investors: 10% of the total amount of tokens;
- For sale: 25% of the total amount of tokens;
- Team and early contributors: 35%;
- Mining: 30%;

In order to maintain the market value of TOKEN and protect the interests of IOV holders, CarLive Chain will lock certain IOV coins for the team, cornerstone investors and purchasers.

## 12.5 Issuance plan

Implementation: smart contract TOKEN;

Obtaining: Obtain TOKEN through smart contract immediately upon digital currency exchange;

Stop issuing: stop once the total amount raised reaches the distribution proportion or the distribution end-date reaches.



### 12.6 Deployment process and plan

- August 2016 YUTU launched block chain basic scene research
- December 2017 YUTU Ayocar APP's users exceeded 68 million
- January 2018 CarLive Chain IOV block chain founder team gathered
- February 5,2018 CarLive Chain IOV project management foundation (AUH) was set up
- February 5,2018 AUH Foundation signed an exclusive strategic cooperation contract with YUTU
- February 20,2018 CarLive Chain technology white paper was published
- February 28,2018 Professor Xiao Geng joined the block chain project
- February 28,2018 Dr. Li Shipeng doctor joined the block chain project
- March 5,2018 JP Dr. Pang Hua doctor joined the block chain project
- March 14, 2018 YUTU reached a strategic consensus with BYD on block chain technology cooperation
- March 23, 2018 CarLive Chain attended the block chain meeting organized by the counselors' offices of Guangdong's government.
- April 18,2018 CarLive Chain community completed its beta mining test, and 83602 users obtained mining value.
- April 20, 2018 CarLive Chain attended the national top academic conference of cryptography industry and made academic reports about the block chain technology of IOV
- March 03,2018, CarLive Chain completed the code update on github.com.
- March 15, 2018, CarLive Chain launched car mining field APP
- Q2,2018 be listed on encrypted digital currency exchange
- June 2018, Complete the development of CarLive Chain Community Incentive System
- August 2018, Complete the development of CarLive Chain Advertising System
- October 2018, Complete the development of CarLive Chain e-commerce



system

- December 31, 2018, make a public test on the global IOV public chain
- Q1 2019, deploy the super nodes on IOV block chain

## 12.7 Fund allocation plan

The funds gained in the public sale will be used for the R&D of the CarLive Chain and for the operation and of the CarLive Chain platform. The following is the initially approved budget scheme:

- Core Development: 10%

These funds shall be allocated towards the recruitment and training of core development team, the development and implement of block chain technology as well as the recruit and deployment of super data node. The fund will also be used in the research and cooperation of IOV block chain technology with R&D centers as well as technical research institutions in North America and Europe

- Operation Management and Security: 10%

These funds shall be used towards attracting, retaining, and motivating the management, technology, and marketing teams to operate, maintain and manage projects so that we have a professional project operation and maintenance team and keep our internationally-advanced projects from risks.

- Merger and Acquisition of Projects: 35%

These funds shall be used on the merger and acquisition of IOV block chain projects as well as the creation of “Telegram” for block chain community, and enhance CarLive Chain’s overall business value and competitiveness.

- Marketing Promotion: 30%

These funds shall be applied towards promoting CarLive Chain’s brand awareness, to build brand credibility through a variety of marketing, advertising, and public relations activities, and to drive customer growth through promotion, cooperation, and other means. We will also promote our platform and services in order to increase user group and attract international



users to register and use CarLive Chain.

- Community Operations: 15%

These funds shall be used to boost YUTU user' activity in using CarLive Chain's community wallet as well as their activity in digital exchange.

## 12.8 Exchange Listing

CarLive Chain plans to be listed on digital currency exchanges and become open for trading in the second quarter of 2018. Currently, AUH foundation is in negotiations with some top 10 exchanges.

## XIII. Contact

Official website: <http://carlive.io> E-mail address: [contact@carlive.io](mailto:contact@carlive.io)

## XIV. Risk Warning

- System risk: changes in the overall digital asset market will increase the risk for this investment. System risks also includes a series of force majeure, including but not limited to natural disasters, international widespread computer network failure, political instability, etc.
- Policy risks: we believe that the countries worldwide will come up with relevant regulatory policies and regulations governing the block-chain token in the near future. There will be a certain uncertainty for future policies. With major changes in the government policies on block chain or related policies and regulations promulgated, the market will fluctuate. The issuance and prices of tokens will be affected, which will bring risks to participants. In addition, the auto-life social community that CarLive Chain involves may probably face the risk of tightening regulation by the government in the future.
- Team risk: CarLive Chain is operated and administrated by AUH





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foundation and attracts experienced practitioners in the block chain and capital market. However, in the future development, there is still possibility of core member's leaving and conflicts within the team, which can negatively affect the overall project.

- **Technology risk:** At present, block chain technology is still at an early stage of exploration and development. Block chain industry is faced with the shortage of talented people. Technologies such as block chain, distributed ledger, decentralization and non-tampering support the development of core businesses. CarLive Chain foundation cannot fully guarantee the realization of all these technologies above. At the same time, insufficient technical testing development may have an impact on the progress of the project, leading to project interruption or termination.
- **Risk of unexpected project progress:** The CarLive Chain foundation will spare no efforts to achieve the goals described in the white paper. Although the founding team has accumulated rich network resources and experience in the social networking and car life, the project still has unexpected potential difficulty. Therefore, the project may face the risk that the progress will not be as good as expected.
- **Token risk:** The acceptance of tokens issued by projects is directly related to the user's and market's recognition. After the project has been tested and launched online, the acceptance and popularity of the final token in the chain and the entity scene still have uncertainty, thereby affecting the use and trading of tokens for holders. The project party does not assume the obligations of repurchasing the Tokens.

Users should carefully consider the above risks and use clear judgment to evaluate the project, users' own financial condition, and risk tolerance to make investment decisions, and bear all the resulting losses.



## **XV. Disclaimers**

- The contents of this White Paper are for information purpose only and do not constitute advice, solicitation or invitation for the goods and services provided by CarLive Chain and its related companies. Such invitations must be made in the form of confidential memoranda and must be subject to the relevant securities laws and other laws.
- The contents of this document shall not be construed as compelled to participate in the public launching of Token. No action related to this White Paper could be considered as participation in the public launching of Token, including a request for a copy of this white paper or the sharing of this white paper with others.
- All individuals and organizations wishing to invest in CarLive Chain-Token must be qualified investors. CarLive Chain will not accept any investment from citizens in the United States and mainland China.
- CarLive Chain team will continue to make reasonable efforts to ensure that the information on this White Paper is true and accurate.
- During the process of development, the platform may be updated, including but not limited to the platform mechanism, tokens and the mechanism, and the distribution of tokens. The white paper may be adjusted with the progress of projects. The team will release the update by posting a notice or a new version of a white paper on our website. Please be informed to get the latest version of the white paper and make adjustments to your decisions based on the updates timely.
- The team will spare no efforts to achieve the goals mentioned in the document, however, due to force majeure, the team cannot fully commit to fulfillment.
- As the official token of CarLive Chain, IOV is the important tool for platform performance, and it is not an investment product. Possession of IOV does



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not represent the ownership, control right, and decision-making right. As cryptographic tokens used in CarLive Chain, IOV does not fall into any of the following categories in any currency: (a) securities, (b) equity interest in legal entities, (c) stock, bonds, notes, warrants, certificates, or other instruments that grant any rights.

- The value added of IOV depends on the laws of the market and the application of CarLive Chain and can be affected by market participants. The team is not committed to the value added and is not responsible for the results of increased or decreased of value.
- CarLive Chain platform complies with any regulatory regulations that are conducive to the healthy development of the industry and industry self-declaration. Participants agree to fully accept and abide by such inspections by participating. At the same time, all information disclosed by participants to accomplish such inspections must be complete and accurate.
- CarLive Chain Platform has explicitly conveyed possible risks to participants. Participants agree to understand and acknowledge the terms and conditions and accept potential risks at their own expenses by participating in the public launching of Token.