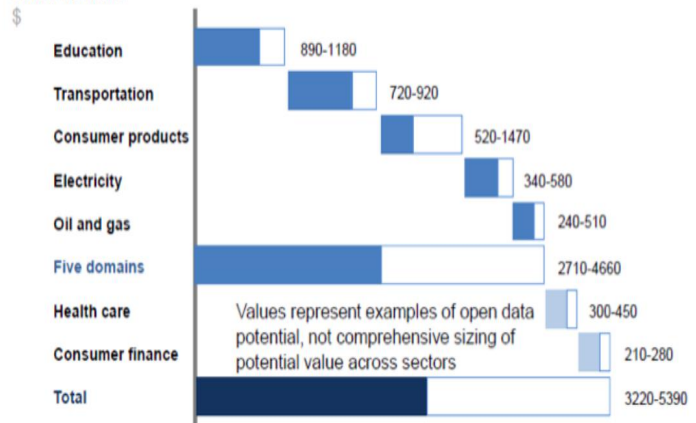# XCT white paper

➢ **Project description**

◆ Target

Our team aims to help offline SMBs discover and reevaluate the usage of data, and our team is committed to creating a decentralized data exchange platform that enables the data information of such companies to be circulate quickly, effectively, and legally. Our goal is to help offline SMBs generate higher returns, by better utilizing their data information.

◆ Current Situation and Problem

With the rapid development of technology progress, data has become the core asset of an enterprise. For example, internet giants such as Google, Facebook, Tencent, and Alibaba have acquired most of the user traffic, and obtained data on corresponding user activities. According to McKinsey's evaluation on seven major

Open data can help unlock $3.2 trillion to $ 5.4 trillion in economic value per year across seven"domains"

Education	890-1180
Transportation	720-920
Consumer products	520-1470
Electricity	340-580
Oil and gas	240-510
Five domains	2710-4660
Health care	300-450
Consumer finance	210-280
Total	3220-5390

Values represent examples of open data potential, not comprehensive sizing of potential value across sectors

fields such as transportation, retail, and consumer finance, the circulation of data has created 4 trillion dollar values each year, which is equivalent to the GDP of the fourth largest economy in the world. However, the majority of traditional enterprises are not fully utilizing the data they own.

Better utilization of data will help firms allocate their resources more efficiently. Therefore, small and medium-sized enterprises should take advantage of using their data, which is a precious asset that they possess.

◆ Solution

Xchain Studio aims to build a Secure Data Exchange Platform (SDEP) based on blockchain technology. The advantage of SDEP is that the blockchain technology it uses prevents the transaction history to be modified, therefore it ensures the openness, fairness, and transparency of the transactions. Moreover, the use of elliptic curve encryption and the homomorphic encryption algorithm protects the confidentiality of the

transaction, because it removes private information from each transaction. In addition, Xchain Studio uses a data sandboxing mechanism to solve the problem of information asymmetry, therefore it dramatically increases the efficiency of negotiation, and reduce the cost of cooperation, when multiple parties are needed to collaborate with each other.

◆ Future

The potential of digital economy is worth tens of trillion dollars, but half of the digital information and data is currently occupied by internet giants. Therefore, if the data of the offline SMEs can be gathered and shared legally and efficiently, it helps to break the monopoly power of internet giants. Xchain studio aims to help SMEs enter, and benefit from the huge potentials of digital economy.

➢ **Project Ecology**

The SDEP uses smart contracts and distributed ledger technology to build a credible data exchange platform for both parties of a transaction. In a peer-to-peer task, SDEP makes a request to the seller according to buyer's requirements, and the seller's data is first desensitized and then sent to the buyer. In a point-to-multi-task, the buyer finds N sellers according to their specific demand, and sends a purchase request to the sellers. After the data is desensitized, the data is sent to the sandbox created on another non-involved seller's node. When the result is obtained, the result is fed back to the buyer. Meanwhile, the sandbox initiates the self-destruction mechanism to ensure the confidentiality of the original data .

➢ **Methodology and Principles**

Xchain Studio aims to promote exchange of data, and make transactions transparent and legal, thus eliminating the gray area of illegal data transactions. The SDEP will bring the following changes to the industry: First, reduce cost of data acquisition; Second, improve efficiency of data acquisition; Third, promote industry standards to facilitate data exchange; Fourth, protect data assets, and bring sustainable benefits to data providers; Fifth, to achieve "sample ➔ population" change, hence data analysis would be more accurate.

◆ The Advantages of SDEP

● Reduce cost of data acquisition. Traditional data transactions are usually by the buyer of the data to find the owner of the relevant data, and then negotiate the required data one by one, the data is not transparent, the acquisition cost is high. The data in the SDEP system is markedly priced, making data transactions transparent and simple, greatly reducing data acquisition costs.

● Improve efficiency of data acquisition. The SDEP sums up the data, allowing data buyers to find the data they want quickly and with more options to dramatically increase data retrieval efficiency.

● Promote industry standards and facilitate data exchange. Traditional data transactions exist in different data formats provided by the seller of the data inconsistency, impeding the flow of data. The SDEP system classifies the data and standardizes the data format to make data flow more open and promote the formation of industry specifications.

● Protect data assets and bring sustainable benefits to data providers. The traditional data transaction is the purchase and sale of source data. The data buyer usually stores the purchased data and makes the data transaction "one-shot deal". This behavior not only keeps the data price high but also reduces the seller's will. The XID generalization technology provided by the SDEP encrypts the data and ends the trading mode of the source data. In addition, the SDEP also provides a data sandbox mechanism to solve the trust problem of multi-source data collaborative computing so that data providers can continue to enjoy digital assets Bring the benefits.

● Realize the "sample → overall" change, so that data analysis more scientific and accurate. Traditional data analysis is based on sample estimates, the result of which is limited by the accuracy of the data samples. The SDEP allows data analysts to obtain comprehensive data, from sample analysis into full data analysis, get more scientific and accurate conclusions.

◆ SDEP Business Process
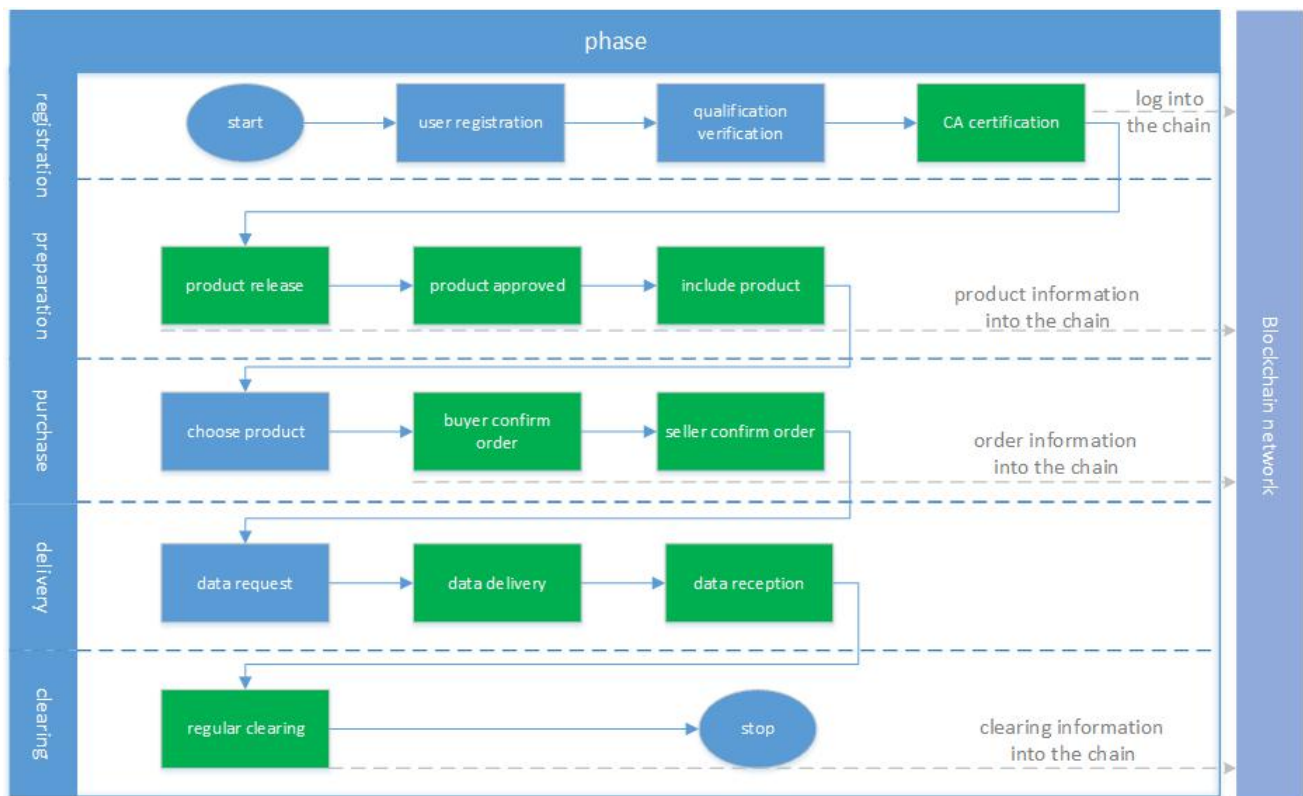
The SDEP business process covers 5 steps, in which the part highlighted in green represents the steps where the information needs to be uploaded to the blockchain.

In the user registration step, user qualifications will be assessed, including business licenses, business operation status, etc. After the assessment, the user needs to obtain CA certification and upload the verified information to the blockchain, which will be used as proof of identity in the future.

Before allowing the product to be put on the shelf, the platform will assess the quality of data provided by the sellers. Only when data quality reaches the basic requirements of the platform can the product be put on the shelf. In doing so, we can guarantee the quality of data on the platform and provide good data exchange experience. Please refer to Technology Realization for data quality assessment plan.

The above mentioned step, plus product purchase, data delivery and transaction settlement comprise the entire end-to-end exchange process. Furthermore, in terms of collaborative computing of multi-source data, SDEP adopts the data sandbox mechanism to effectively solve the security issue of multi-source data and the trust issue between various parties involved in the exchange.

◆ Data Flow Process
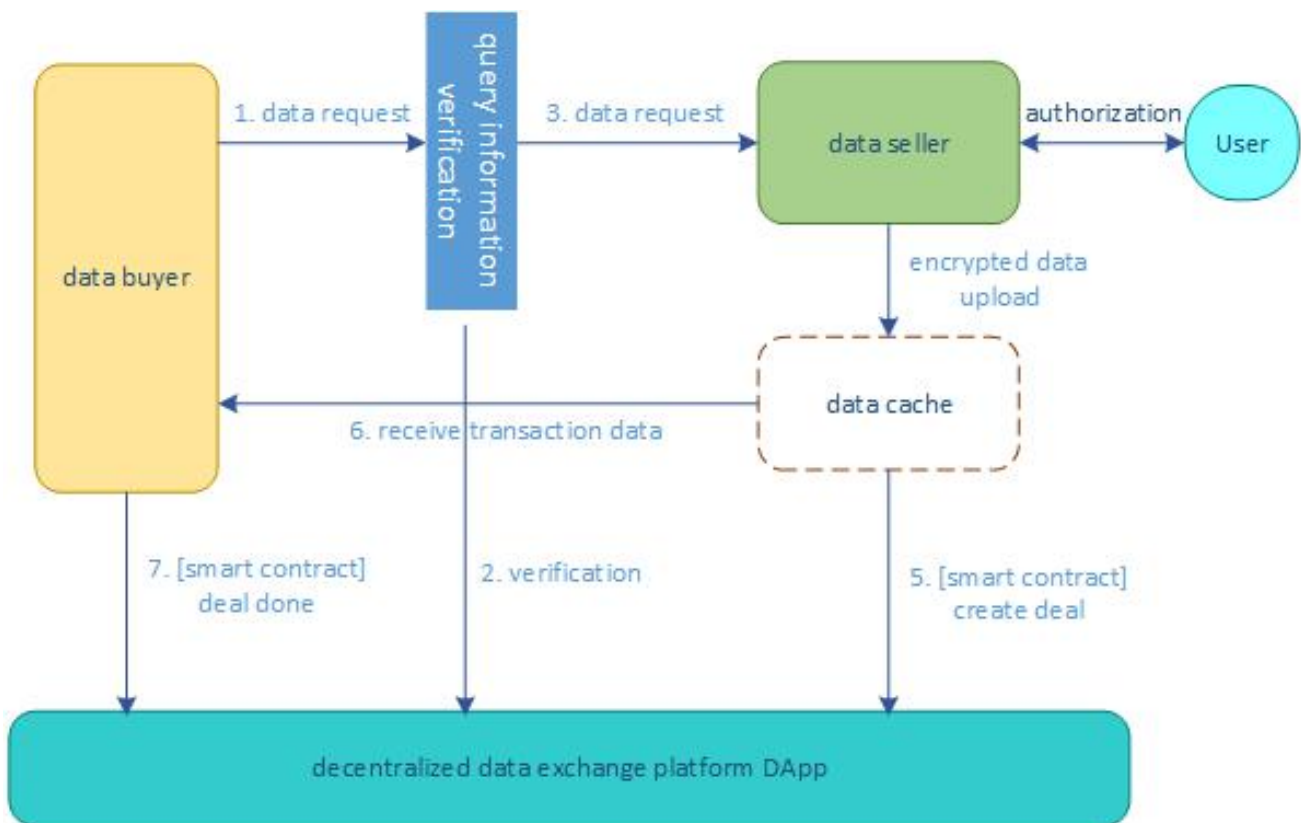
XChain team believes that in the bigdata era, privacy protection should shift its focus from obtaining individual consent to ensuring accountability of data users. In doing so, we can press the data users to conduct rigorous assessment of the impacts that the use of personal data may cause.Therefore, data should be exchanged in the SDEP system in the following way:

When a data buyer sends data requests to a data seller, the requests will be verified first to determine whether the buyer is a certified user, whether the requests are legitimate, etc. If the verification goes through, the requests will be sent to the seller. After receiving the requests, the data seller will prepare data accordingly and store the data in a cache. Then, the data seller will trigger the smart contract to create a transaction and send the transaction data to the data buyer who, after receiving such transaction data, will also trigger the smart contract to complete the transaction. Then the entire data exchange is completed.

Blockchain and smart contract technology can ensure that all the transaction records are open, transparent, immutable and traceable, and can adequately reflect the status of data exchange. It also ensures the execution of contracts and help build trust.

➢ Technology Realization

◆ Platform technology structure
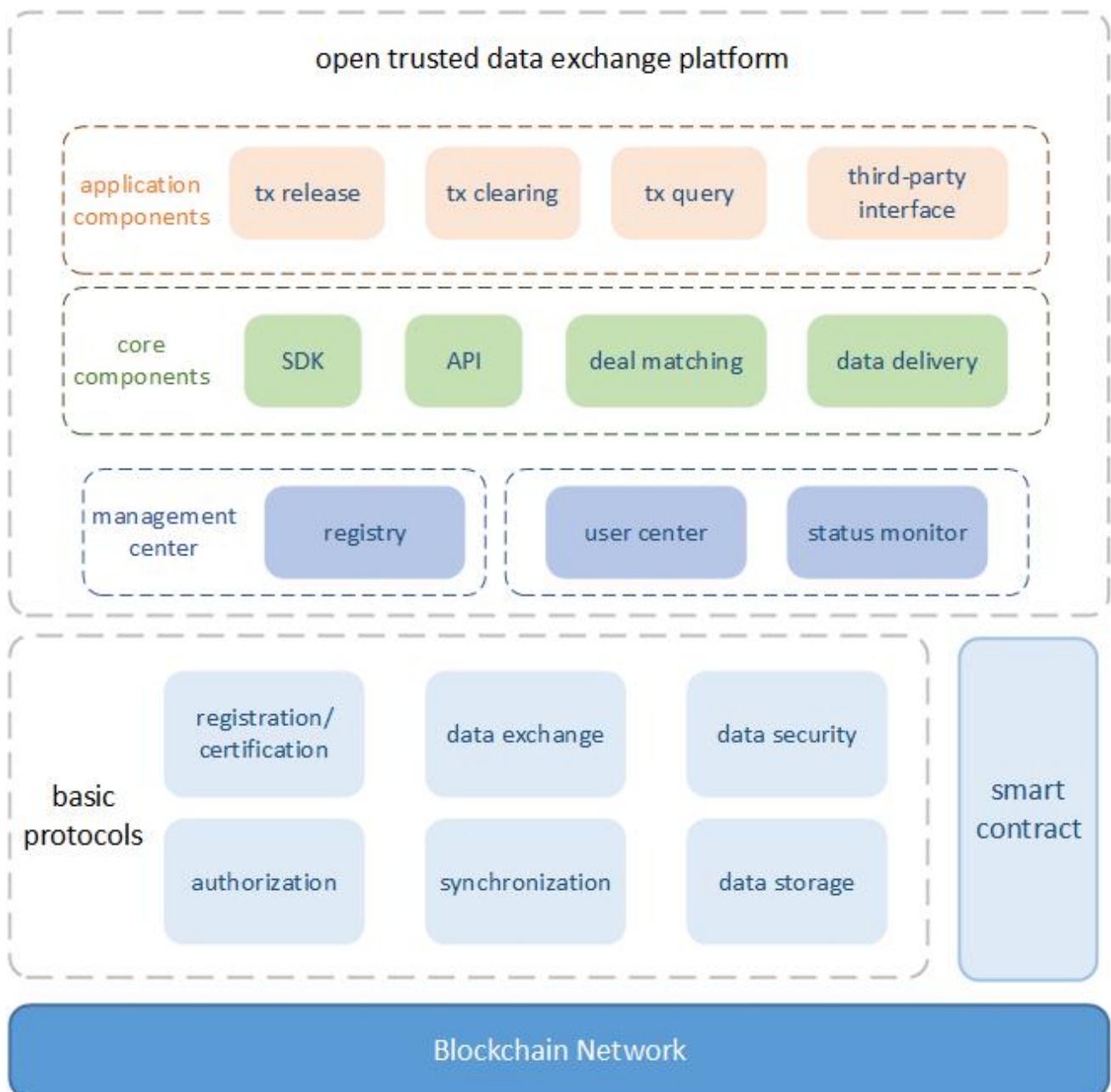
The SDEP system consists of 3 parts: blockchain, base protocol and data exchange platform.
 The blockchain at the bottom layer comprises a distributed ledger and smart contracts. The distributed ledger is used for recording transaction data and serves as evidence for transaction inquiry, settlement and account reconciliation, while the smart contract is used to trigger the automatic execution of transaction orders and settlement, and more importantly, to create a disposable sandbox for data isolation and to ensure data security in

the collaborative computing of multi-source data.

The base protocol makes sure the data exchange and data storage process is legitimate and secure and is used to create services in the application layer. The open-end trustable data exchange platform is the application layer, which provides various actual services related to data exchange and also offers open access to components such as API and SDK to support communication between third party functionalities and the system.

➢ System module structure
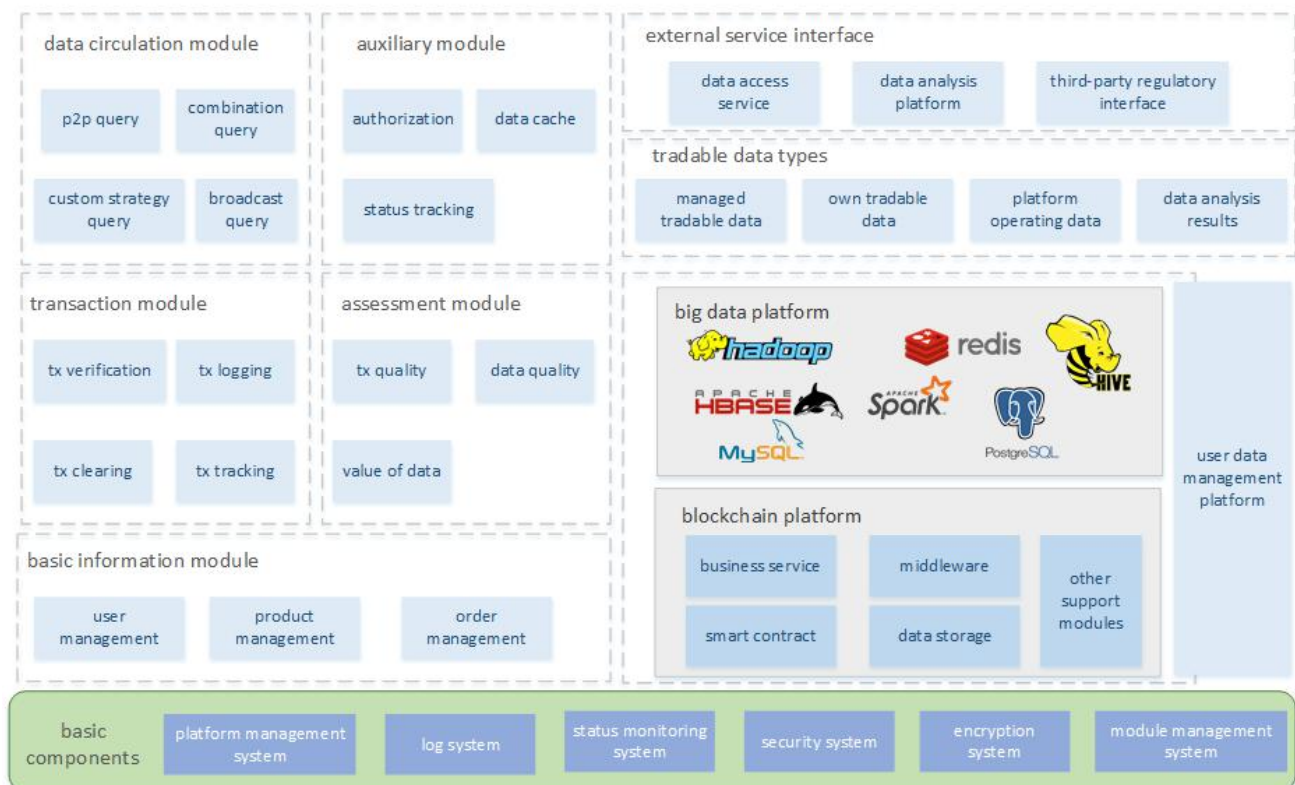
The SDEP system has 4 modules: underlying components, the data exchange module, the data processing module and the service platform module. The underlying components are responsible for platform management, status monitoring and security protection, etc. and provide support to the stable functioning of the entire platform.

The data exchange module covers the major steps of data exchange, including basic information of the users and products, data quality assessment, transaction process management, data delivery and other auxiliary modules.

The blockchain component in data processing module is mainly responsible for transaction bookkeeping and settlement, while the big data component is mainly responsible for the collaborative computing of multi-source data

and the assessment of data quality, etc.

◆ Assessment of data quality

The data quality assessment mainly focuses on data accuracy. The mathematic model used to assess data accuracy is Bayesian Vote. To take gender information as an example, below is the basic logic that is used to assess gender information:
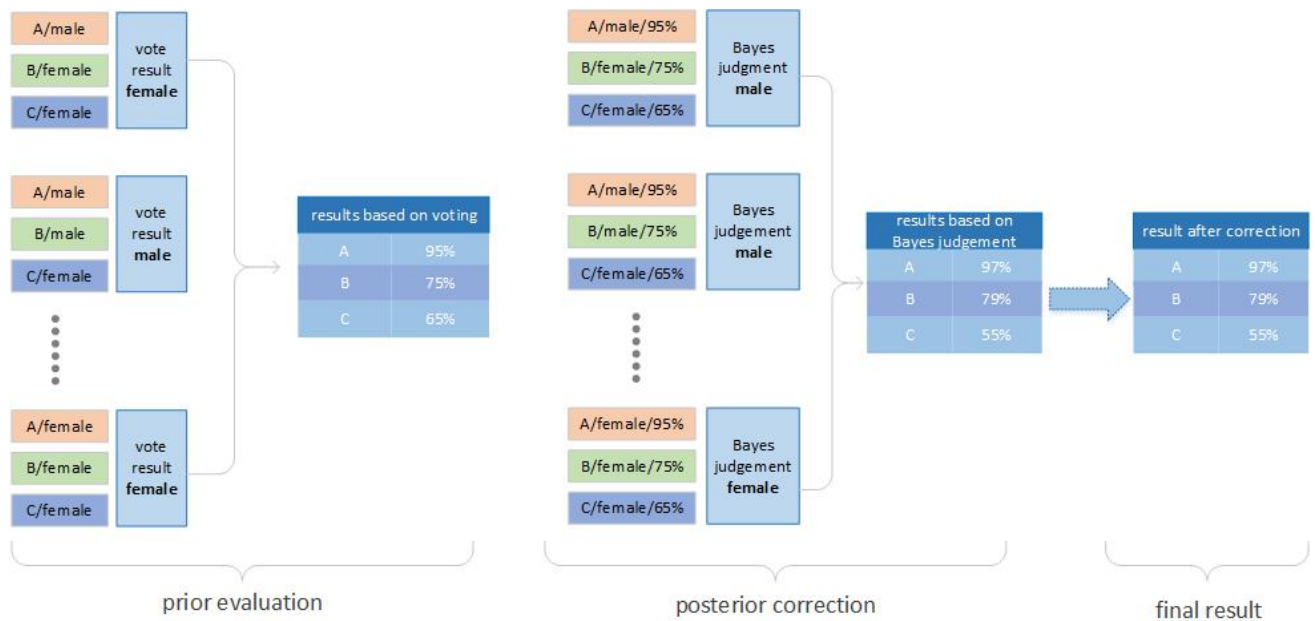
A, B and C represent 3 different data sellers. First of all, an initial assessment result will be generated based on their votes. Then, Bayes discriminant analysis is used to modify the result. The modified result will be the final assessment result.

◆ XID generalization mechanism
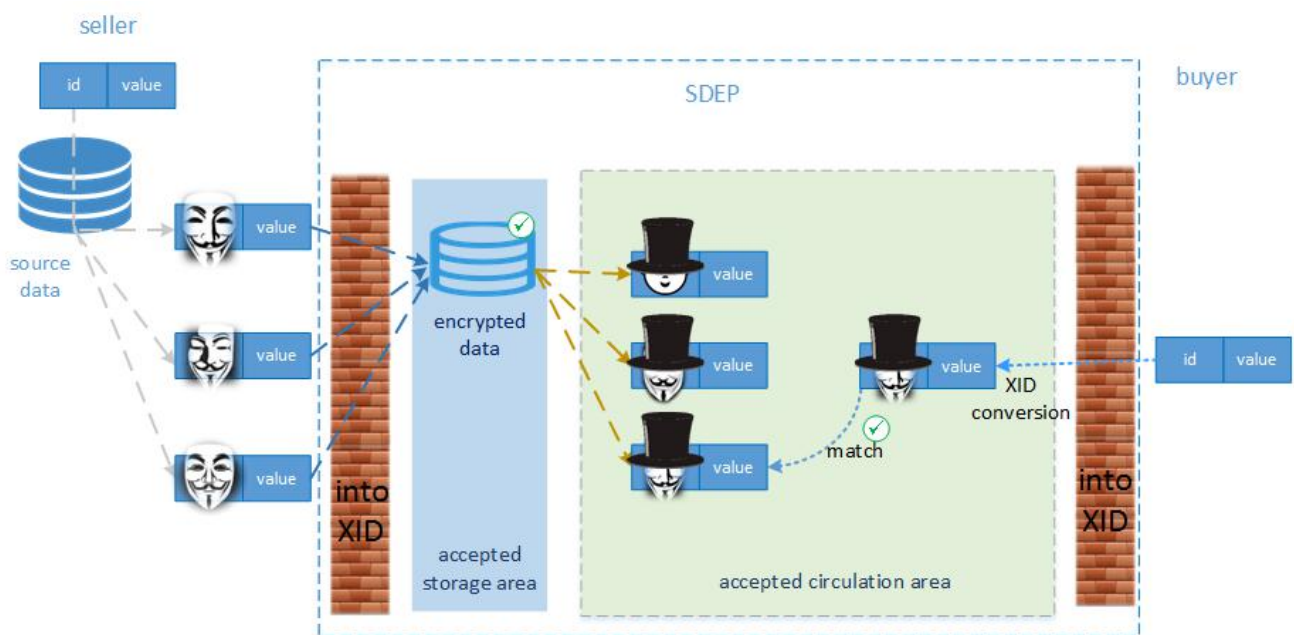
XID generalization is based on the popular eid technology, which convert data into hash values first and then use Base64 encoding to encode them. After that, a unique tag that contains information such as version number, user ID and reservation bit will be attached to these data. Such tags are irreversible and different users will get different results when decentralizing the same set of data; therefore, even if the data is lost, no information will be leaked. Below is how data is exchanged using the XID technology:

First of all, the data sellers mask their data through XID generalization and convert the data into encrypted data that can be exchanged; while the data buyers, after masking the data that need to be verified through XID generalization , will convert their XID into identifiable XID tags according to the token provided by the data sellers, and then initiate a request for verification to the data sellers. If the data sellers successfully match the data, a message of successful verification will be sent back to the data buyers, otherwise, a message of verification failure will be sent.

XID generalization can effectively protect data security as well as the privacy of the inquired entities.

◆ Sandbox mechanis
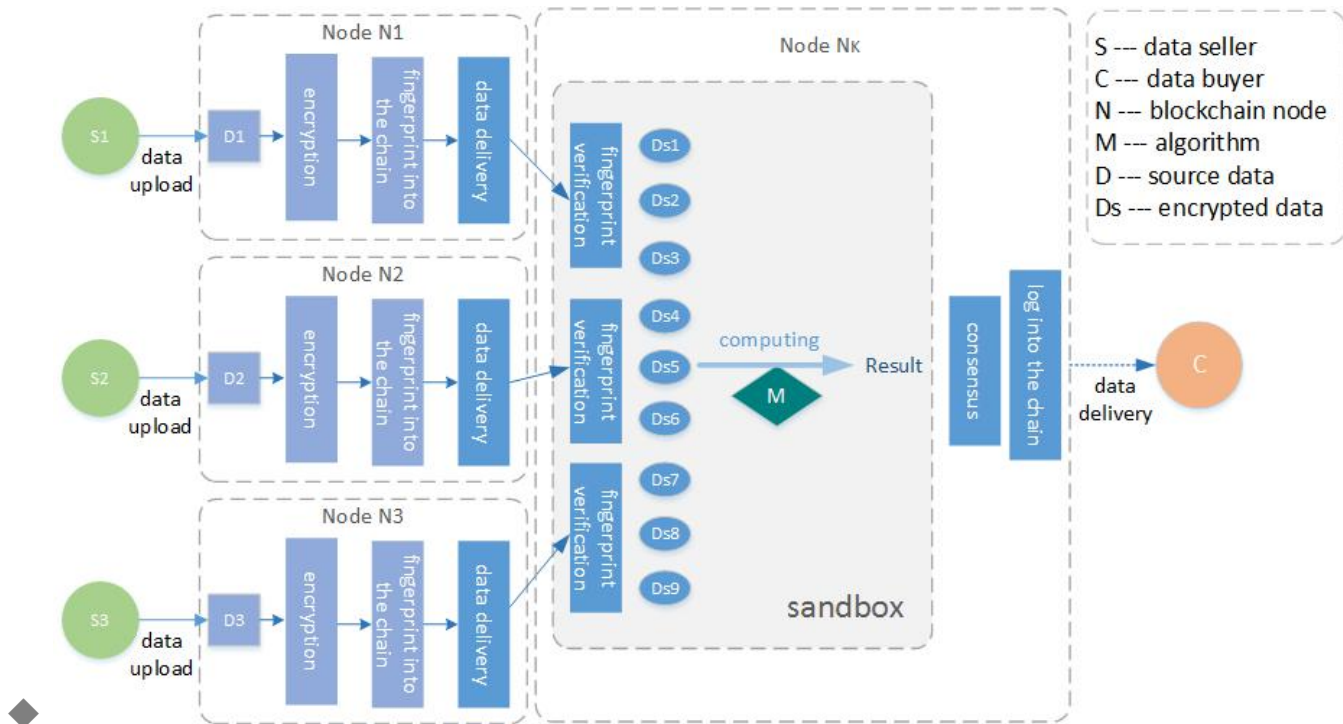
The sandbox is used to solve data security issue in collaborative computing of multi-source data and the trust issue among various parties involved. The process is as follows: to begin with, the data buyer C will reach agreement with various data seller including S1,S2 and S3. This incident will trigger the smart contract to choose the third party node Nx as a vehicle, and create a sandbox upon it. Then, the data sellers S1, S2 and S3 will upload the data that they have already locally encrypted to the sandbox at the node Nx, and record the data fingerprints in the blockchain. In the sandbox, after the data fingerprints are verified, such data will be translated into the format that the computer can read. Now, the data sellers' work is completed. The data buyer C determines the algorithm that it needs (either the default algorithm provided by the platform or a user-defined algorithm uploaded to the system by itself) to compute the prepared data. Finally, the agreed output will be recorded in the blockchain and sent to the data buyer C. In the meantime, the sandbox will be destroyed along with the data inside it. Then the transaction is completed.

➢ **Token economy and application scenarios**

◆ Token economy design

XCT (cryptocurrency) is only used as a means of payment for the services

in the SDEP system and as a reward to users on this platform, and will not be used in the pricing of products and settlement of transactions. All the transactions will be settled in the local currency of the product sellers. XCT is used in the following ways:

The data sellers will get XCT as a reward when they connect to the SDEP system. Data exchange market is a seller market, which means that one of SDEP's priorities is to attract all sorts of high quality data. XCT will be disbursed as a reward for uploading high quality data onto the SDEP platform, with the amount determined by the quantity, quality and type of the data.

The data buyers have to pay XCT when connecting to the SDEP system. As the biggest beneficiaries in the process of data exchange, the data buyers are the clients of the SDEP system. The amount of XCT they need to pay is proportionate to the quantity of data available on the platform, i.e. the earlier the data buyers sign in to this platform, the fewer XCT they need to pay.

The data exchange process also costs XCT. The SDEP platform provides technical support to the buyers and sellers, including protection of their privacy and data security, etc. Therefore, the platform will charge a certain amount of XCT as service fees. It is worth to mention that XCT will only be used to pay for the services provided by the SDEP system. The actual data exchange transactions will be priced and settled using legal tender.

Users who contribute storage capacity and computing power to the data sandbox will be rewarded with a certain amount of XCT. The collaborative computing of multi-source data requires relative large storage capacity and computing power, and in this model, the data buyers and seller consumes more XCT than in normal data delivery. The XCT paid by the two parties involved in the transaction will be primarily used to reward participants who contributed resources to the sandbox services, and a small remaining part of XCT will be paid as service fee to the SDEP system.

The data buyers and sellers will be rewarded with a certain amount of XCT if they participate in the data quality assessment. For certain types of data sellers, before they connect to the SDEP system, a quality assessment will be conducted on their data. In this process, a certain amount of XCT needs to be paid as assessment fee. The more reference data one uses in the data quality assessment, the more accurate the assessment results would be. The

data sellers who provide the reference data will be rewarded with a certain amount of XCT depending on the quantity and quality of data they provide.

There is a reputation and deposit mechanism in the SDEP system. The data sellers at the SDEP platform have their own reputation scores. When the sellers connect to the SDEP system, they will have an initial score for their reputation and as they successfully complete a transaction, the score will increase, or decrease if there is any failed transaction. When the reputation score is below the threshold, the data seller need to pay a certain amount of XCT deposit in each transaction, and will be repaid if the data buyers confirm that a transaction is successfully completed. In doing so, the data sellers will be prevented from providing fake data. When the reputation score of a data seller is below the minimum level set in the system, it will be added to the blacklist permanently, which will be also notified to all the users in the SDEP system.

◆ Application

SDEP platform services clients in all walks of life, including but not limited to consulting firms, advertising agencies, research institutes, financial institutions, government agencies, universities / research institutions, individual users. The following desensitization data directly transactions, XID generalization data matching collision, multi-source data collaborative computing three different scenarios to explain the SDEP system, the specific mode of operation.

[Desensitization data direct transactions] shop investment consulting SDEP operation form:

Role: Business Investor A, Consulting Firm B, Regional Business D, E, F, G ...

Background:

1. Commercial Investor A wants to examine the flow of people in a certain area to decide whether or not to invest large sums of money in the area.

2. Consulting firm B commissioned by investor A for market research.

3. There are D, E, F, G and other N shops in this area.

Ready:

1. N shops, such as D, E, F, G, put their own human traffic monitoring data on the SDEP platform for sale. The N shops will receive a certain amount of XCT tokens for their data access process. The specific amount and store size Was positively correlated.

2. Consulting Firm B is registered as an SDEP user and the process requires payment of the XCT Token to the platform.

Process:

1. After consulting firm B receives the demand of investor A, he finds on the SDEP platform that there are N anonymous shops D *, E *, F *, G * (D, E, F, G) Anonymous code) and so on;

2. Then B chooses to buy the N store sales flow monitoring data. During the transaction, buyers and sellers need to spend a certain amount of XCT tokens as a platform service fee, and judge whether they need to pay a certain amount of XCT tokens for deposit according to the seller's credit standing value. The transaction price of buyers and sellers in accordance with the seller listed price, using the seller's local currency denominated, XCT tokens have nothing to do.

3. B get the data from these N shops to get the accurate flow of people in the region report, in order to suggest whether Investors A investment here.

[XID generalized data matching collision] advertising precision put in SDEP operation form:

Roles: Game Company A, Advertising Company B, Data Vendors C, D, E, F.

background:

1. Game Company A has developed a novice tour of 18-25 year-old male players in M-City that now requires precision marketing of advertising.

2. Advertising company B is entrusted by the game company A responsible for advertising.

3. Data Seller C has a large number of user IMEI numbers, data seller D has a large number of users' IMEI numbers and age information, E has a large number of users' IMEI numbers and gender information, and F has a large number of users' IMEI numbers and resident places information.

Ready:

1. Ad company B and data seller C, D, E, F become SDEP platform users, the process is the same as Case A.

2. Data Vendors C, D, E, F generalize the data through the XID and become the data that can be traded on the SDEP platform.

Process:

1. After receiving the demand of the game company A from the advertising company B, the advertising company B finds four anonymized data providers C *, D *, E *, respectively providing the IMEI number, the user's age, the gender and the place of residence on the SDEP platform, F *.

2. Then B purchases the IMEI number from C *, which is the same as Case A data purchase process.

3.B After the IMEI number purchased is generalized, the generalized IMEI numbers are respectively converted into D *, E *, F * according to the token information provided by D *, E *, F * And then respectively match the data of D *, E *, F * to screen out the IMEI numbers that can match the three data vendors, that is, the IMEI numbers that meet the requirements.

4. Advertising company B for the screening out of the IMEI number for precise advertising, the completion of the client A's request.

This model of comprehensive multi-source data to achieve accurate advertising, so that precision advertising is no longer the master of the full amount of data Internet giants, is expected to break the monopoly of the industry place, the market becomes more fair and transparent, give customers more choices .

[Multi-source data collaborative computing] personal travel planning SDEP form of operation:

Role: travel company A, big data analytics company B, airline ticket service provider C, hotel service provider D, attraction information provider E

Background: Travel Company A has a client who wants to travel to Europe for a week in December with a budget of 20,000 U.S. dollars. He hopes that travel agencies can formulate a set of optimal travel plans.

Preparation: Travel Company A, Big Data Analytics B, and Data Vendors C,

D, E become SDEP platform users, the same as Case A.

Process:

1. After the travel company A receives the client's request, it locates the 4 anonymized sellers C *, D *, E *, B * providing the air tickets, hotels, attractions and big data processing on the SDEP;

2. Then A initiates a multi-source data collaboration request to C *, D *, E *, B *, hoping that C *, D *, E * will provide all air ticket information, hotel information, B * provides space and computational power for big data analytics algorithms and data sandboxes, and ultimately outputs a set of optimal solutions;

3.A, C *, D *, E *, B * trigger an intelligent contract upon agreement to create a data sandbox, C *, D *, E * three parties to upload their data to the data sandbox to be provided by S The process A, C *, D *, E * are required to pay a certain amount of XCT tokens as a service fee, and B * to provide data sandbox required space and calculate the power will get a certain The number of XCT tokens.

4. After the data is analyzed in the sandbox, the result will be sent to Travel A, and the sandbox will be destroyed and the data will be deleted. Finally, A returns the result to the client and the whole transaction is over.

In addition to paying for SDCT platform and sandbox provider XCT tokens, the rest of the data purchase and data analysis service purchases are settled according to the service seller's local currency, regardless of the XCT tokens. Data flow allows individuals without data and big data processing capabilities to easily make and plan big data, enjoy the benefits of the digital economy and make the world a flatter and smarter place.The SDEP platform serves clients from all sorts of sectors, including but not limited to consulting firms, advertisement agencies, industry research institutions, financial institutions, government agencies, universities/research institutes, individual clients, etc. Below are 3 use cases in the scenarios of direct exchange of masked data, collision of XID decentralized data and collaborative computing of multi-source data to illustrate the actual application of the SDEP system.

[Direct exchange of masked data] The application of SDEP in the investment advisory service:

Roles: investor A, consulting firm B, shops D、E、F、G in a certain area …

Background:

1. Investor A would like to understand the pedestrian volume of a certain area, so as to determine whether to make a large sum of investment into this area.。

2. Consulting firm B is commissioned by investor A to carry out a market research.

3. There are N shops including D, E, F, G etc.

Preparation:

1. Shops D, E, F, G, etc. list their pedestrian volume monitoring data on the SDEP platform for sale. When these shops submit their data onto the platform, they will be rewarded with a certain number of XCT (a surrogate currency), proportionate to the size of the shops.

2. The consulting firm B registers as a SDEP platform user, in which process the consulting firm B is required to pay XCT currency to the platform.

Process:

1. When the consulting firm B receives request from the investor A, shops D*, E*, F* and G* (code names of shop D, E, F and G) in this area will be identified in an anonymous way.

2. Then, B chooses to purchase the pedestrian volume monitoring data offered by these shops. In the transaction process, the buyer and the sellers have to pay a certain amount of XCT currency as service fee to the platform, and the sellers may have to pay a certain amount of XCT currency as a deposit depending on their business reputation. The transaction prices between the two sides will be recorded according to the listed prices, which are denominated in the local currency of the sellers instead of XCT currency.

3. With these data from the shops, B can generate an accurate report about the pedestrian volume in the area, and advise the investor A on whether to make investment in this area based on these data.

[Collision of XID decentralized data] the application of SDEP in precise advertising:

Roles: gaming company A, advertisement agency B, data sellers C, D, E, F

Background:

1. The gaming company A developed a mobile game targeting at male players aged at 18-25 in city M and now needs to do precise advertising.

2. Advertisement agency B is commissioned by the gaming company A to do advertisement placement.

3. The data seller C has a large quantity of user IMEI codes. The data seller D has a large amount of user IMEI codes and age information. The data seller E has a large amount of user IMEI codes and gender information. The data seller F has a large amount of user IMEI codes and residence address information.

Preparation:

1. The advertisement agency C, D, E and F register as the SDEP platform users through a similar process as described in case A.

2. The data sellers C, D, E and F process the data through XID decentralization into something that can be traded on the SDEP platform.

Process:

1. After receiving the request from the gaming company A, the advertisement agency B will find anonymised data providers C*, D*, E* and F* who provide user IMEI codes, age information, gender information and residence address information.

2. The company B purchases IMEI codes from C* through a process similar to the process described in case A.

3. B decentralized the IMEI codes it purchased, and then convert the decentralized IMEI codes according to the token provided by D*, E* and F* into a format that D*、E*、F* can read. Then B will match such data with the data provided by D*, E* and F* to select the IMEI codes that successfully match with all three data sellers. Such IMEI codes should be the ones that meet their requirements.

4. The advertisement agency will place precise advertisements according to the selected IMEI codes to meet the requirements from its client A.

By consolidating data from multiple sources, this model helps with precise advertising, and makes precise advertising not something exclusive to Internet giants with huge amount of comprehensive data. It helps to break the monopoly in the industry and make the market a fairer, more transparent place and offers more options to the clients.

[Collaborative computing of multi-source data] the application of SDEP in travel planning:

Roles: travel agency A, bigdata analytics firm B, air ticket service provider C, hospitality service provider D and tourist information provider E

Background: the travel agency A has a client who wants to travel to Europe during December for a week, with a budget of USD 20K. This client hopes that the travel agency can design an optimal travel plan for him/her.

Preparation: the travel agency A, the big data analytics firm B and the data sellers C, D and E register as the users of SDEP platform, through a similar process as described in case A.
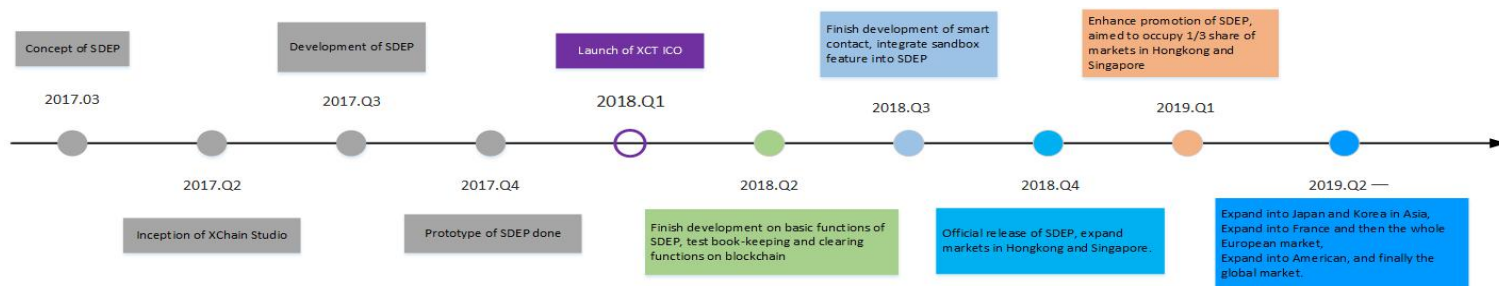
Process:

1. After receiving clients' requests, the travel agency A will find C*, D*, E* and B* who provide air ticket, hospitality and big data analytics services on the SDEP platform;

2. Then A will initiate a request for collaborative computing of multi-source data to C*, D*, E* and B*, hoping that C*, D* and E* can provide all the air ticket, hotel and hot tourist attraction information in December, and that B* can provide big data analytics algorithm as well as the storage capacity and computing power needed for data sandbox, so as to develop a final and optimal travel solution;

3. When A, C*, D*, E* and B* reach an agreement, smart contract will be triggered to create a data sandbox. C*, D* and E* will upload their respective data to the sandbox and then such data will be analyzed by the algorithm .In this process, A, C*, D* and E* will all need to pay a certain amount of XCT as service fee, while B* will be paid a certain amount of XCT for providing the storage capacity and computing power needed for the data sandbox.

4. When data analysis is done in the sandbox, the results will be sent to then travel agency A, and in the meantime the sandbox will be destroyed with data inside it deleted. Finally, A sends the results to the client to complete the whole transaction process.

Apart from the payment to the SDEP platform and to the sandbox provider, which is done by XCT, all the other transactions including data purchase and data analysis services will be settled in the local currency of the service providers. The exchange of data enables individuals, who do not have big data or the capability to process bid data, to be able to use big data in decision making and planning in an easy way and to enjoy the benefits brought by digital economy. It also makes the world flatter and smarter.

➢ **Development path**

➢ **Core team members and advisors**

◆ Core team members

Shawn Lee Chief Scientist	Shawn is a Research Fellow and visiting scholar at University of California at Berkeley/Lawrence Berkeley National Laboratory. He has a Ph.D. in Physics at Institute for Advanced Study at Tsinghua University. He is an expert in numerical method and mathematical modeling.
Louis Wang CEO	Louis has a Master Degree in Computer Science from Ecole des Mines de Saint-Etienne. He worked at the terminal software development department in Huawei, the development center of EMC, and also served as the full stack developer at Shanghai Data Exchange Center, responsible for blockchain related development work.

Roy Chen **Chief Economist**	Roy has a Ph.D. in economy from Duke University, and a bachelor degree in finance and mathematics from Hong Kong University. He worked in Resources for the Future (RFF) as data analyst. He has profound knowledge about data exchange.
Zheng Liu **CTO**	Zheng worked as a system architect in dianping.com and he was an algorithm engineer in R&D of Baidu. He has extensive experience in big data analytics and athematical modeling.
Sisi Chen **CFO**	Sisi has a master degree in financial accounting from University of Bristol and is a CPA. She worked in KPMG and has rich experience in IPO, auditing and risk management.
Zhipeng Jiang **Chief Architect**	Zhipeng has a Master Degree in Software Engineering from Ecole des Ecoles de Mines de Nancyhas.He was a software development engineer of Facebook and also worked for Microsoft Azure SDE II.He is experienced in distributed computing and big data development.
Yujia Zhai **COO**	He was former director of Meritco Servicesand provided consultation service for many top 500 companies.He has extensive management experience in big data, TMT , medical companies and is particularly good at corporate operations.

◆ Advisors

Charles Xue **Strategy advisor**	Founder of Manzi VC, Manzi Xue is a famous angel investor and also the co-founder of UTstarcom.He was the chairman of 8848, a Chinese e-commerce website and China Education Website.
Jinbo Li **Technical advisor**	Jinbo Li was the technical co-founder of Xunlei [XNET], China's biggest online crowd-sourced cloud computing services provider and a leading online downloading service provider, responsible for core projects such as Thunder and Gougou search engine. After leaving Xunlei, he founded a third party MSN software called MSNLite, which was acquired by Xiaomi after 2 years of operation. As a sophisticated internet technology expert, Mr. Li will advise the team in terms of technology solution implementation and technology development efficiency improvement.

Sead Muftic **Technical advisor**	Sead Muftic is a professor at Kungliga tekniska högskolan Royal Institute of Technology, a visiting professor at University of George Washington, and the chairman of Entegrity Solutions. As the CEO of BIESC, Sead Muftic is a global leading expert in computer network security technology. One of his greatest contributions is that he and Abdul Ghafoor co-invented and implemented a protection system that ensures confidentiality and is resistant to tamper and illegitimate copying and distribution. Sead Muftic will provide support to the team in terms of blockchain application and transaction security.
Alan Xu **Strategy advisor**	Alan Xu works in a global top 3 AMC as senior vice president, responsible for the group's strategic development and external cooperation. He has rich investment resources and practical experience. Besides, Mr. Xu worked in world-leading financial institutions such as Investment Banking Department of Deutsche Bank and J.P Morgan, responsible for core business such as business development and IPO planning. Mr. Xu started to study and invest in crypto currency since 2013, and has solid theoretical knowledge and rich investment experience. He will provide comprehensive advisory services covering foundation management, project development planning and commercial application, etc. Mr. Xu has a Master Degree in Finance from Hong Kong University.
David Kovacs **Strategy advisor**	David Kovacs is the secretary general of EuCham, responsible for the overall business management, including strategy creation and execution, project management, organizational development. He leads a team that works together with global organizations, NGOs, and the corporate sectors. All kinds of large-scale activities have been actively sponsored by the EU governments and consortia. He is the former managing director of GREENWILL, responsible for the cooperation with various international organizations such as OECD, WWF, Climate-KIC, etc. He will provide advice and support for the project's internationalization strategy.
Richard Chow **Strategy advisor**	Richard Chow worked at the Investment Banking Department of SOCIETE GENERALE in Paris where he participated in the merger and acquisition of several major enterprises in the European Union. Later, Mr. Chow worked in some top financial institutions such as the Asset Management Department of AXA and Sequoia, responsible for investment and management. He has rich experience in VC/PE investment and will provide corporate financing and pub and government relation advice to the team. Mr. Chow has a Master Degree in Finance from HEC-Paris.

Lloris Meng **Technical advisor**	Lloris Meng worked at the Big Data Center of the Strategy Department of AREVA, which is Nuclear Energy company in France. As a fortune 500 company, AREVA is a world leader in nuclear energy, with major business covering uranium mining, refining and sales, building nuclear reactors, nuclear waste recycling, etc. Besides, AREVA also produces FCI connectors for airplanes, computers and mobiles. AREVA is a huge multinational group that operates in many countries with the help of its huge employee and industry information platform. With his profound knowledge in data mining, consolidation and data economy, he will provide advisory services on the market-oriented application of XCT project and corporate partnerships.

➤ **Fund Raising and Application Plan**

◆ XCT token mechanism

XCT is issued by token sale with an upper limited set, accounting for 50% of the total tokens generated. XCT total supply will be set as: 3,200,000,000 XCT, 50% of the token will be used in token sale. 1XCT = 0.01USD.

◆ XCT supply distribution

Tokens issued will be distributed as follows:

● 50% put into circulation via the token sale

● 30% reserve tokens for the Foundation (15% for the sustained development of the foundation,15% for the ecological deployment)

● 10% is owned by all employees of the foundation

● 10% is owned by early investors

30% of foundation's reserve will be locked up for 12 months the XCT Token held by the early investors will be locked up for 6 months.employee tokens will be subject to a 6 months cliff and a tri-monthly vesting over a period of 12 months starting from token sale close.

◆ Captain usage budget

● 10% for legal fees on token sale raising

- 8% fordomestic and international publicity & Ecological Construction
- 12% for existing R&D team's operation
- 30% for recruiting new R&D operators
- 40% prepay prepaying the tokenized assets to speed up assets acquisition

◆ Compliance

◆ A non-profit foundation was set up in Singapore before the beginning of token sale raising.The main task of the foundation is to publicly, fairly and transparently operate the state of XCT, and support the development team.

◆ Token risk

XCT token has no intention of being an investment platform. XCT is the digital currency that drives users to use the products in the platform.

◆ Project risk

The same as any project, the development and execution of our platform will be delayed or even risk of failure. Although the project team members have a good record in research and development and business management experience, but this does not guarantee the success of the project. The team will strive to achieve the milestones outlined in the project roadmap and will publish our progress and challenges as transparently as possible.

◆ Digital coin risk

Compared with other assets (such as stocks, bonds, futures or other financial derivatives), the volatility of digital coin is dramatic. Please do not buy XCT tokens over the amount you can accept. The best thing to do is to diversify your portfolio and make digital coin a reasonable part of your assets. This does not constitute an investment advice, purely common sense. Like any blockchain, please take the time to understand our projects and visions.

◆ Regulatory risk

The regulatory environment for blockchain and digital coin is still at early stage of development. We will do our best to comply with all legal and regulatory developments, but we can not foresee how regulations will affect our project and platform development. Within China, XChain Studio strictly complies with the relevant laws and regulations. In the presence or occurrence of relevant registration, approval, filing and other procedures, XChain Studio will strictly follow the procedures to perform the relevant procedures. At the same time, XChain Studio will strictly comply with the current laws and regulations relating to promoters' restrictions and foreign exchange control.

In any area where XChain Studio carries out the relevant blockchain business, XChain Studio will comply with local laws and regulations, including, but not limited to, registration, approval, filing and other related procedures.

➢ **Statement**

This white paper is the launching of XCT project. The content of this white paper is just a plan of the project. It by no means be treated as a contract or an element of a contract. No relationship in this white paper can imply to a contract relationship. Its purpose is just to show the potential investors, cooperators and customers with the relevant information and progress of XCT. Nothing in this white paper shall be deemed to constitute a prospectus of any sort or a solicitation for investment, nor does it in any way pertain to an offering or a solicitation of an offer to buy any securities in any jurisdiction. XChain is a continuous developing and improving platform. Many implementations will be constantly improved in the process of development. If there is any inconsistency with the white paper in the course of implementation, the specific implementation shall prevail.