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Our Ref: CG.2018.0031
Your Ref:
Date: 20 February 2018

BY HAND

LITEX FOUNDATION LTD.
3 Shenton Way
#14-05 Shenton House
Singapore 068805

Attention: Board of Directors

LITEX FOUNDATION LTD. (THE COMPANY) – INITIAL TOKEN OFFERING FOR VIRTUAL CURRENCY

1. Background and scope of opinion

1.1 We refer to the proposed "initial token offering" project (**ITO**) to be conducted by the Company (and/or its affiliates). We are informed that pursuant to the ITO, contributors will exchange virtual currencies in exchange for a new virtual currency (**LXT**), which is intended to be utilised on a network to be developed and operated by the Company (or its affiliates). Further details in relation to the background are set out in Annex A.

1.2 We have been instructed to provide an opinion solely on the question of whether the design of LXT would cause it to be considered a "security" under the Securities and Futures Act (Chapter 289 of Singapore) (the **SFA**).

1.3 In connection with the ITO, we have been provided with the draft whitepaper, which is a non-binding document that sets out, *inter alia*, the proposed design of LXT to be issued. We are informed that the version of the whitepaper which will be finally released to contributors will be in substantially the same form as that provided in Annex A.

1.4 For the purposes of this opinion, we have relied only on the relevant facts and documents as informed to us in Annex A and we have not considered any other issues other than that set out above. We have also not conducted any independent enquiries or due diligence in respect of the ITO and the operation of the Company (or its affiliates).

1.5 This opinion is based on Singapore law as at the date hereof, and is limited to the matters specified herein. We have also not examined or expressed any views on, nor will we be deemed to have examined or expressed any views on, any regulatory requirements, restrictions or prohibitions (a) under the laws of any other jurisdictions that may be applicable or (b) in connection with the Company's (or its affiliates') activities, the network, or the circumstances or conduct of the ITO (other than that relating solely to the design of LXT). Please also note that our advice does not cover tax advice or (save as mentioned at paragraph 2 below) any regulatory advice, and we do not assume any responsibility to update this opinion after the date hereof. This opinion should be read together with the annexes appended hereto, which form an integral part of this opinion and will be governed by, and construed in accordance with, Singapore law.

1.6 As of the date hereof, to our knowledge there has been no court case, no formal notice or regulations published by the Monetary Authority of Singapore (the **MAS**) which directly address

the issues raised in this opinion, save for various releases and papers. Accordingly, the MAS or a court may reach an alternative conclusion different from the one provided in this opinion.

2. Opinion

2.1 Solely considering the design of LXT as set out in Annex A, we are of the view that, in itself, the design of LXT:

(a) would not cause the issuance of LXT to be considered an issuance of a debt instrument within the meaning of "debenture" under the SFA;

(b) would not cause the issuance of LXT to be considered the operation of a collective investment scheme; and

(c) accordingly would not cause the issuance of LXT to be deemed a "security" for the purpose of the licensing requirements under the SFA.

2.2 Our detailed analysis is set out in Annex B.

3. Benefit of opinion

Our opinion herein is addressed solely to yourselves solely for your benefit, and may be relied on solely for the purpose of listing LXT on a virtual currency exchange. It is not to be relied upon by any other person or quoted or referred to in any public document or filed with any governmental authority or agency or disclosed in any way to any other person without our prior written consent.

Yours faithfully,

Clarence Guo
DIRECTOR | Advocate & Solicitor
TZEDEK LAW LLC

Annex A

Background and relevant documents

1. We understand that the Company is working on developing the "LITEX" network (**LITEX**), which is planned to be a compound decentralised peer to peer virtual currency payment and exchange network based on cryptographic proof, which is customised to cater to micropayments, exchange and settlement application scenarios.

2. Pursuant to the ITO, LXT will be issued in exchange for virtual currency from contributors. We are informed that LXT is designed to have the following features:

   (a) The purpose of LXT is to provide the economic incentives which would encourage users of LITEX to contribute towards the maintenance of the ecosystem on LITEX (when fully completed and deployed).

   (b) LXT would have the following specific features:

      (i) LXT would be paid as service fees when a payment passes through a channel opened and maintained by a user;

      (ii) LXT would be paid as incentives for users to make payments through the LITEX network;

      (iii) LXT incentives would be paid to encourage users to provide various necessary services for the LITEX network, such as billing, exchanging, and network maintenance;

      (iv) LXT incentives would be paid to users for opening channels and maintaining channels on LITEX, so as to ensure network connectivity; and

      (v) the flow of LXT incentives would be moderated in order to discourage certain behaviour, such as the occurrence of excessive centralised nodes on LITEX.

   (c) LXT is non-refundable and cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Company or any affiliate.

   (d) LXT does not represent any shareholding, participation, right, title, or interest in the Company or any other company, enterprise or undertaking.

   (e) LXT is not for speculative investment, and (although LXT may eventually be traded on virtual currency exchanges), there is no guarantee or representation of value or liquidity for LXT.

   (f) LXT is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument or any other kind of financial instrument or investment.

   (g) LXT is not intended to constitute securities in Singapore or any relevant jurisdiction, and will not entitle token holders to any promise of revenue, fees, profits or investment returns.

2. We also understand that contributions from the ITO will be applied towards the Company's objects, which include *inter alia*, promoting the research, design and development of, and advocacy for a new blockchain based decentralised payment network which solves many of the problems with existing networks and excels in the micropayments area (instant transfer of small amounts of money at a low cost).

3. Further, it is indicated that to the extent a secondary market or exchange for trading LXT does develop, it would be run and operated wholly independently of the Company (or its affiliates),

the sale of LXT and LITEX. The Company will not create such secondary markets nor will it act as an exchange for LXT.

NOTICE

NOTHING IN THIS WHITEPAPER CONSTITUTES LEGAL, FINANCIAL, BUSINESS OR TAX ADVICE AND YOU SHOULD CONSULT YOUR OWN LEGAL, FINANCIAL, TAX OR OTHER PROFESSIONAL ADVISER(S) BEFORE ENGAGING IN ANY ACTIVITY IN CONNECTION HEREWITH. NEITHER LITEX FOUNDATION LTD. (THE FOUNDATION), ANY OF THE PROJECT TEAM MEMBERS WHO HAVE WORKED ON LITEX (AS DEFINED HEREIN) OR PROJECT TO DEVELOP LITEX IN ANY WAY WHATSOEVER (THE LITEX TEAM), ANY DISTRIBUTOR/VENDOR OF LXT (THE DISTRIBUTOR), NOR ANY SERVICE PROVIDER SHALL BE LIABLE FOR ANY KIND OF DIRECT OR INDIRECT DAMAGE OR LOSS WHATSOEVER WHICH YOU MAY SUFFER IN CONNECTION WITH ACCESSING THIS WHITEPAPER, THE WEBSITE AT HTTP://LITEX.IO (THE WEBSITE) OR ANY OTHER WEBSITES OR MATERIALS PUBLISHED BY THE FOUNDATION.

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This Whitepaper does not constitute any offer by the Foundation, the Distributor or the LITEX team to sell any LXT (as defined herein) nor shall it or any part of it nor the fact of its presentation form the basis of, or be relied upon in connection with, any contract or investment decision. Nothing contained in this Whitepaper is or may be relied upon as a promise, representation or undertaking as to the future performance of LITEX. The agreement between the Distributor and you, in relation to any sale and purchase of LXT is to be governed by only the separate terms and conditions of such agreement.

By accessing this Whitepaper or any part thereof, you represent and warrant to the Foundation, its affiliates, and the LITEX team as follows:

(a) you will and shall at your own expense ensure compliance with all laws, regulatory requirements and restrictions applicable to you (as the case may be);

(b) in any decision to purchase any LXT, you have not relied on any statement set out in this Whitepaper;

(c) you acknowledge, understand and agree that LXT may have no value, there is no guarantee or representation of value or liquidity for LXT, and LXT is not for

speculative investment;

(d) none of the Foundation, its affiliates, and/or the LITEX team members shall be responsible for or liable for the value of LXT, the transferability and/or liquidity of LXT and/or the availability of any market for LXT through third parties or otherwise; and

(e) you acknowledge, understand and agree that you are not eligible to purchase any LXT if you are a citizen, national, resident (tax or otherwise), domiciliary and/or green card holder of a geographic area or country (i) where it is likely that the sale of LXT would be construed as the sale of a security (howsoever named) or investment product and/or (ii) in which access to or participation in the LXT token sale or LITEX is prohibited by applicable law, decree, regulation, treaty, or administrative act, and/or (including without limitation the United States of America, Canada, New Zealand, People's Republic of China and the Republic of Korea).

The Foundation, the Distributor and the LITEX team do not and do not purport to make, and hereby disclaims, all representations, warranties or undertaking to any entity or person (including without limitation warranties as to the accuracy, completeness, timeliness or reliability of the contents of this Whitepaper or any other materials published by the Foundation). To the maximum extent permitted by law, the Foundation, the Distributor, their related entities and service providers shall not be liable for any indirect, special, incidental, consequential or other losses of any kind, in tort, contract or otherwise (including, without limitation, any liability arising from default or negligence on the part of any of them, or any loss of revenue, income or profits, and loss of use or data) arising from the use of this Whitepaper or any other materials published, or its contents or otherwise arising in connection with the same. Prospective purchasers of LXT should carefully consider and evaluate all risks and uncertainties (including financial and legal risks and uncertainties) associated with the LXT token sale, the Foundation, the Distributor and the LITEX team.

The information set out in this Whitepaper is for community discussion only and is not legally binding. The agreement for sale and purchase of LXT and/or continued holding of LXT shall be governed by a separate set of Terms and Conditions or Token Purchase Agreement (as the case may be) setting out the terms of such purchase and/or continued holding of LXT (the Terms and Conditions), which shall be separately provided to you or made available on the Website. In the event of any inconsistencies between the Terms and Conditions and this Whitepaper, the Terms and Conditions shall prevail.

This is only a conceptual whitepaper describing the future development goals for LITEX to be developed. This Whitepaper may be amended or replaced from time to time. There are no obligations to update this Whitepaper or to provide recipients with access to any information beyond what is provided in this Whitepaper.

All contributions will be applied towards the Foundation's objects, including without limitation promoting the research, design and development of, and advocacy for a new

blockchain based decentralised payment network which solves many of the problems with existing networks and excels in the micropayments area (instant transfer of small amounts of money at a low cost).

All statements contained in this Whitepaper, statements made in press releases or in any place accessible by the public and oral statements that may be made by the Foundation, the Distributor and/or the LITEX team may constitute forward-looking statements (including statements regarding intent, belief or current expectations with respect to market conditions, business strategy and plans, financial condition, specific provisions and risk management practices). You are cautioned not to place undue reliance on these forward-looking statements given that these statements involve known and unknown risks, uncertainties and other factors that may cause the actual future results to be materially different from that described by such forward-looking statements, and no independent third party has reviewed the reasonableness of any such statements or assumptions. These forward-looking statements are applicable only as of the date of this Whitepaper and the Foundation and the LITEX team expressly disclaims any responsibility (whether express or implied) to release any revisions to these forward-looking statements to reflect events after such date.

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LITEX- A Decentralized Instant Payment Solution for Virtual Currency

1. ABSTRACT

Micropayments are a big challenge for Bitcoin. Bitcoin is separated from daily consumption due to overly long confirmation times and disproportionate service charges. Thus, Bitcoin is now treated as a kind of “Digital Gold” for wealth accumulation or a wholesale settlement tool. On the other hand, tracking technology focusing on blockchain is becoming increasingly mature. Multiple relevant companies have signed contracts with government to jointly develop blockchain technologies and supervise Bitcoin transaction, which has greatly damaged the anonymity of Bitcoin.

In order to solve these problems, several upgrading schemes were proposed by the community. In the meanwhile, divergence from the community pushed Bitcoin to the dangerous fringe of hard fork once. Successful activation of SegWit (block height 481, 824) five months ago marked that the whole network has reached a consensus on a soft fork, which not only relieved emergency network capacity of Bitcoin, but has also helped Lightning Network, the most promising upgrading scheme at present, be carried out more smoothly.

Application scenarios of Bitcoin in real life are quite limited all the time and commercial parties face big obstacles to receiving payment in Bitcoin. Since Bitcoin mostly adopts knowledge in the fields of profound cryptology, distributed computation and other profound knowledge, it is quite difficult to understand how Bitcoin works and is even harder to know the advantages of payment in Bitcoin. Once commercial parties accept Bitcoin payment, they will face huge market risk. Although some teams could offer payment gateway solutions for legal currency (ie fiat money) settlement (like Bitpay, the largest Bitcoin commercial payment gateway at present), systemic risk still exists for commercial parties (for example, Mt. Gox event, the largest exchange Mt. Gox lost 0.85 million BTC in 2014) still exists due to extremely centralized operation mode and dependence on main chain transaction. By adopting lightning network technology, a prominent project, TenX, realizes efficient transfer of virtual currency but its settlement terminal completely depends on Visa, which is ironically a centralized organization. Moreover, the process of converting virtual currency into legal tender also requires interaction with exchanges. In other words, these products all diverges from the core value of virtual currency, so they cannot become a dominant solutions for payment of virtual currency in future.

LITEX is a solution for virtual currency payment with a complete decentralized system, and it excels in the micropayments area. With LITEX, instant transfer of small amount of virtual currency at a low cost would potentially become reality for the first time ever. LITEX is based on the leading project of YeePay which adopts the business model of non-bankcard payment and realizes “Compound Decision Lightning Network” of itself on the basis of BOLT protocol. Besides, LITEX not only pioneers a way to avoid centralized nodes rooted in the base protocol of lighting network, but also improves the

current Bitcoin payment method through the following aspects:

Micropayment: supports extremely tiny amount of BTC micropayment, like payment of 0.001 mBTC;

Instant payment: concurrent processing capacity reaches multimillion payments per second (the capacity of Bitcoin major network is about 7 per second ,and peak capacity of Visa is 80,000 per second) and each payment can be finished within seconds;

#Free transactions: the transactions are off-chain, which avoids excessive service charge of main chain and consumers paying with LITEX wallet can enjoy service charge exemption;

#Anonymity in transaction: all transactions involved in the network cannot be tracked because the off-chain feature and HTLC, and encryption protocol based on and similar to those utilised by Tor;

#Easy acceptance for commercial parties: placing process of LITEX to commercial tenant is completely the same as the process of current payment gateway. With LITEX it is even possible to convert Bitcoin to legal currency in T+0;

#Currency exchange: LITEX has the ability of Atomic Swaps, and users may can exchange and circulate BTC, ETH or LTC and other virtual currencies freely with low cost and zero risk on LITEX.

There is every reason to believe that the virtual currency system will lead to a revolution in current financial ecosystem, and an era of free capital flow around the world is coming. Virtual currency will be integrated into every aspect of our daily life, although it may be a long process. By taking technology as a motive force and persisting in the idea of decentralisation, LITEX devotes itself to expanding application scenarios and attracting holders of virtual currencies rapidly through improving efficiency and user experiences.

2. PROJECT BACKGROUND

2.1. Current situation of virtual currencies

According to incomplete statistics, the number of virtual currencies listed at various exchanges have exceeded 1600 by now, while Dorian S. Nakamoto put forward the concept of Bitcoin just 9 years ago. These virtual currencies include competitor currencies of BTC (such as XRP), application platform tokens based on blockchain technology (such as ETH , and various Tokens generated by DApp developed based on Ethereum), and self-defined coins based on side chain technology, etc. The prosperity of virtual currencies therefore reflects acceptance and expectation of blockchain technology in society.

However, application scenarios for virtual currencies are quite limited. Circulation of virtual currency is mainly from currency transaction and legal currency exchange because of various varieties and unstable currency value. Comparing with fiat currencies in circulation, nowadays virtual currencies is more like an investment. Undoubtedly, blockchain technology is well known to the public thanks to the overheated investment market, but this will not be the future path for virtual currencies. Virtual currencies should eventually return to its essence of being currency in circulation. The maximum value of virtual currency can be realized only when people begin to consume with virtual currency, commercial parties are paid with virtual currency, and the whole society slowly turns into a virtual currency driven world.

Some external factors like lack of comprehension from the society and impediment from traditional interest groups have lead to limited application scenarios of Bitcoin. However, some internal factors can't be ignored as well, such as imperfect technology for virtual currency, large divergence from technical solution of community and so on. BTC, as the footstone of global virtual currencies, still cannot be used as currency in circulation. To be specific, it cannot meet daily use requirements due to insufficient design capacity, slow processing speed and increasingly impairment of anonymity.

2.2 Dilemma of BTC – Micropayment

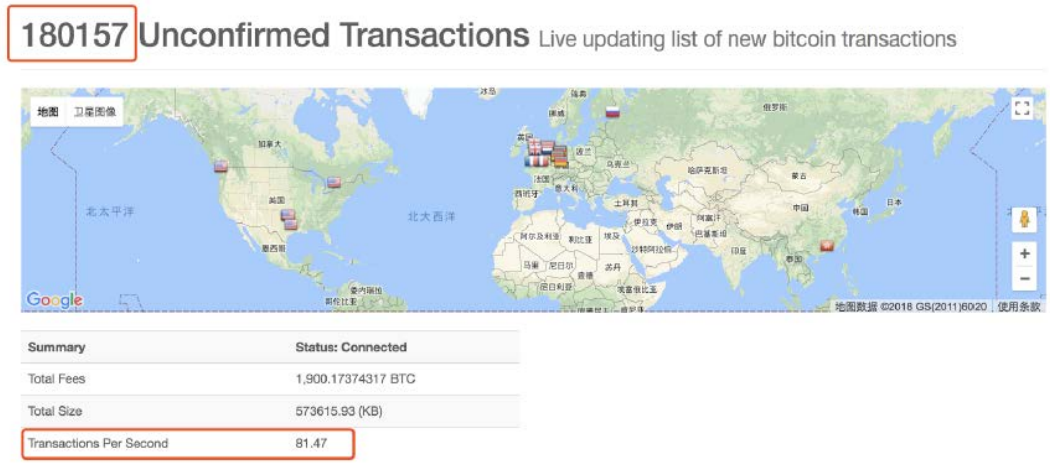
A qualified currency in circulation shall meet the needs of micropayment and instant payment. From this view, virtual currency has innate advantages over cash. However, the BTC network is gradually losing the ability to process micropayments promptly. After 9 years, Bitcoin has become a symbol of value and a channel for transferring large amount of assets, just like gold at that time. The reason why micropayments have become a problem for BTC is that the Bitcoin framework sacrifices efficiency to guarantee consistency and stability of the distributed accounting system.

At the beginning, a distributed accounting system was adopted to make sure irrevocability of transaction and to increase attacking cost of malicious nodes. The system stores data in the manner of list structure after packing data, and it guarantees that all computational nodes in the net reach a consensus spontaneously at all time via a POW (Proof of Work) system. An asymmetric cryptographic algorithm is adopted for each data packet called as "Block" to make sure transactions recorded cannot be

modified. It is known as blockchain technology today.

Blockchain technology has become an advanced technology researched and developed by giant companies. Even governments of various countries joined in it. Along with immense potential value, BTC limits blockchain technology of itself greatly due to its intrinsic monetary attribute. On one hand, to guarantee safety & stability and storage efficiency of the system, the upper limit of one block size is 1MB. On the other hand, for balancing earnings among miners, the system is equipped with a dynamic difficulty adjusting mechanism to keep yield speed of blocks at 10 minutes per block. However, each transaction costs 226B on average. Thus, the transaction processing speed of BTC network basically is constant, about 7 transactions per second. Considering that actual transaction volume often reaches 500B and the processing capacity of system reduces to 3 transactions per second. Congestion of BTC main network is increasingly severe along with the increase of BTC transaction. The following figure is real time data cited from *blockchain.info* on January 16th, 2018.

180157 Unconfirmed Transactions



It is observed that average transactions generated by the network per second reaches 81.47, nearly 11 times of processing speed. The unconfirmed transactions reach 0.18 million. The system needs 6 more hours to deal with these transactions even if all new transactions are cancelled immediately. Thus, BTC main network is very congested already.

Congestion of BTC main network further aggravates time delay of micropayments. Transfer fees of BTC is constant and not collected based on proportion of funds moved, thus the service charge offered by penny payers is not competitive at all. Further, the miner will preferentially record a transaction with higher service charge in order to gain mining income. As a result, the accounting priority of penny payment is always lower than that of wholesale payment. In fact, currently some payments of small amounts may only be remitted in the account ledger on the next day. In other words, if you buy a cup of latte in Starbucks with BTC payment directly, you may not be able to enjoy it until the next day.

Besides, BTC system set an amount limit for micropayments. In 2013, BTC core team

presented a function called “Dedusting Patch” to forbid BTC transaction under certain amount to relieve main network congestion. At present, the dust threshold is 5.46μBTC, about 14cent mark to market. Transfer lower than the threshold will be ignored directly (*won’t be relayed, won’t be mined*). Transactions lower than 14 cents are usual in real life in different parts of the world. These transactions, however, are regarded as “Uneconomic dust” in BTC system.

High service charges hinders penny transaction by Bitcoin as well. Transaction service charge of BTC in December of last year rose to 1000μ/byte. Service charge for one transaction reached up to 30 dollars (assuming transaction volume is 226 bytes and current price of 1 BTC≈15000 USD. Obviously, penny consumption cannot afford such a high service charge.

In conclusion, BTC network cannot meet the inherent requirements for micropayments, including instant transactions, low service charge, etc. Now BTC network even directly filters out small amount under certain circumstances. Therefore, BTC cannot expand its application scenarios to daily consumption, which severely restricts development of virtual currency.

2.3. The dilemma of Bitcoin - Pseudo anonymity

An important reason why the Bitcoin gains wide popularity is its anonymity. In Bitcoin transaction, addresses are anonymous and freely created, and there is not a third-party intermediary involved. Although the transaction is recorded by all nodes, the true identities of both parties cannot be identified, ensuring the privacy perfectly. However, evolution of data mining technologies and the tremendous regulatory demand from governments, some technology companies (eg: Chainalysis and Elliptic have signed cooperative contracts with local governments) have made advances in the forensics technology of tracking blockchain transaction. As a result, anonymity is impaired. Moreover, as soon as an owner of the address is identified, free access to irrevocable transaction record makes it easy to list all the previous transactions. Hence, it will cause privacy risk. In other words, the anonymity of bitcoin transactions on the main web is likely to fail in the future, contrary to that of traditional cash transactions.

2.4. The dawn of Bitcoin - Lightning Network

Since the Bitcoin advocate Gavin Andresen pointed out the urgency of scaling up in 2015, the Bitcoin core team and the whole community have been debating on how it can be realised in the future. One side proposed to directly expand the capacity of the block (2MB, 8MB or even no upper limit), but the price is that the stability of system will be inevitably weakened by a hard fork The other side insist that Block size be unchanged, meanwhile solve the scaling up problems by outer chain method in a longer period. Instead of a hard fork, a smooth transition would be realized, accompanying by a soft fork. After fierce bargaining process, the SegWit2x hard fork program, originally

scheduled in November 2017 (block height 494,784), comes to an end, while SegWit, featuring a soft fork, which was successfully activated 3 months ago was determined that a smooth and sustainable road was chosen for Bitcoin eventually.

The principle of **SegWit** is to adjust the storage mode of the witness information (about 40% of the transaction capacity) used to verify the transaction in the block. When verifying the block size, the node does not have to calculate all the data in a block. Actually when witness information is ignored, actual block scale increases to about 2MB while the logical block scale is under 1MB limit simultaneously. Moreover, SegWit perfectly solved the Transaction Malleability problem, where a transaction ID (TxID) is likely to be changed by a third party before final confirmation. Although Transaction Malleability will not cause systemic risk, its resolution paves the way for the most anticipated upgrade of Bitcoin - Lightning Network.

Lightning Network is so-called the "second tier" to the Bitcoin network, which also brings the Bitcoin network to a higher dimension in some way. Its basic mechanism is guaranteed by two smart contracts, RSMC and HTLC. These two contracts ensures outer chain transfer of bitcoin payments are as safe as the on–chain transaction. In summary, Lightning Network has the following advantages in solving the bitcoin dilemma:

● Funds Security: Users can close the trading channel at any time and apply for withdrawal. This process is guaranteed by smart contract.

● Promptness: Both parties only need to submit one transaction to main network when they open or close the channel. When the channel keeps open, all transactions are conducted out of the main net. Each transaction can be completed in milliseconds regardless of the amount, and the system processing speed can reach to several millions per second;

● Low service charge: It is well-known that the main network relies on professional miner organizations to record transactions. On the contrary, each node in the lightning network can be used as a transfer link, which is fully automated and economical. This means that transactions can be executed quickly in lightning network with a very small amount of service charge.

● Privacy protection: Since the transaction information in the channel is not sent to the main network, each node on the main network can only obtain the aggregate data of its upstream and downstream nodes. That is to say, the node cannot grasp the details of the transactions conducted in lightning network (such as sponsor, payer, total amount of transactions), which protects the privacy of both parties.

However, lightning network is still at the infancy stage of its program development, and is far away from being widely used. Combining with small micro-payment

scenarios, one can see that currently there are issues with lightning network:

● Cross-link channel: with an increase in the number of other main networks compatible with lightning network, the more influential the lightning network is;

● Smart routing: The upper limit of the payment channel is determined by the smallest link in the channel. Each transaction needs to find a channel with a higher limit than the former one to reach the receiver.

● Complete anonymity: there is a need for additional encryption protocol;

● Light node: each node on lightning network have to run a full bitcoin network node, which will undoubtedly limit the applicability of lightning network. Hence, a light node which can run on the mobile device needs to be designed to meet daily use requirement.

● Centering tendency: It will cost a certain amount of service charge to open and close the lightning network channels. The channel capacity varies in sizes, there exists a risk of node centralization. Some mechanisms such as feedback regulation can be added by customizing the protocol to maintain a healthy topology and decentralized network by using adaptive algorithms. LITEX uses a two-tier network architecture that enables self-conditions for complex routing and network health, minimizing the risk of centralization.

Lightning Network is currently the most promising evolution, and some technology companies invested in lightning network R&D About one month ago, Blockstream's announced that the lightning network RC1 was successfully tested on the main network. The Foundation expects more teams to join in improving virtual currency ecosystem.

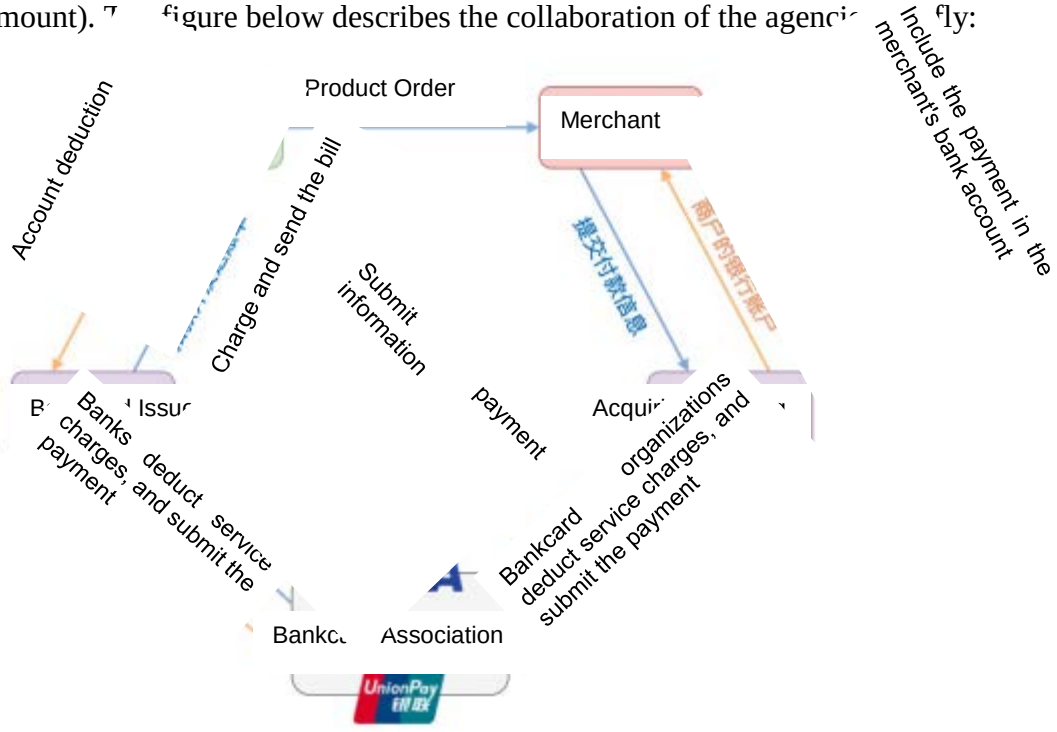
3. KEY ISSUE: IMPLEMENTATION

For a long period of time, merchants were not willing to accept virtual currency payment directly. On one hand, they need a deep technical knowledge to accept virtual currency, which merchants have neither ability nor motivation to learn; on the other hand, the frequency and magnitude of currency fluctuations of virtual currencies are still very high and cannot thus virtual currencies could not be incorporated in the cost-benefit analysis. Therefore, for virtual currency payments, a key issue is to exchange virtual currencies to legal tender and to settle transactions with merchants efficiently with low risk at the same time.

First, the exchange process for virtual currencies may still be optimized. At present, virtual currencies are converted to legal tender currency in exchanges, which are completely centralized institution. The risk of theft of funds along with the poor effectiveness of the transaction restricts the feasibility of directly linking an exchange's API as part of the payment scheme. Some projects based on usage of exchange's API introduced self-financing pools, but this approach has also brought new problems, such as the capacity of the pool, and volatility risk. Only when conversion to legal tender

could be realized smoothly, can virtual currencies be used in daily life.

Second, inconvenience in settlement is the most important problem. The settlement of a legal currency requires coordination among many payment agencies, of which the merchants bear the full cost (the international average fee is 2% to 3% of the transaction amount). The figure below describes the collaboration of the agencies briefly:



In the payment industry, "acquiring bank" actually represents an industry ecosystem and is mainly composed of the acquiring bank, acquiring institution and service provider. The acquiring bank itself refers to the bank whose POS machine is adopted by merchants. The acquiring institution refers to a professional company with a third-party payment license, such as YeePay, WeChat payment, Alipay, etc. They directly cooperate with the bank to complete the quick payment and other agreements as well as risk control. Service provider refers to the service company that assists the acquiring bank to provide the merchants with software and hardware systems, such as Duolabao, which mainly involves interacting directly with consumers and merchants and maintaining merchant relationships.

Back to the issue of currency settlement, it can be seen from the figure above that the easiest way is to cooperate with bankcard organizations directly because bankcard organizations have been cooperating with global issuing banks and acquiring banks. But it leaves two problems: one is that card organizations' charge relatively high rates (above 2%), which increases the cost; the other is that the global nature of virtual currency, to a certain extent, is in direct competition with card organisations' function

of cross-border settlement, which means that card organisations are likely to stop supporting or even ban companies which deal in virtual currencies, and this has already happened -- Visa and MasterCard have announced that they will stop the functions of all their encrypted currency (i.e. virtual currency) co-branded cards, and their CEOs have also criticized Bitcoin publicly, stating they would neither recognize Bitcoin as money nor provide Bitcoin payment and exchange service. Most of the existing virtual currency payment companies have relied on the services rendered by card organizations in the last few years, but now they have to find another way.

It is not stable, sustainable or feasible to rely merely on card organizations to complete payment. The LITEX team, with a deep background in the payment industry, will go further in the area of global payments in future, and use its best efforts to independently cooperate with local acquiring organizations all over the world, which will make virtual currency payments more stable at an even deeper level, so as to compete with each card organisation in a fair manner, and snatch market share from them one day.

4. EVOLUTION OF SOLUTIONS

In order to improve the acceptance of virtual money in transactions by consumers and merchants, a qualified solution shall be able to solve these basic problems:

Slow transfer;

High service charges;

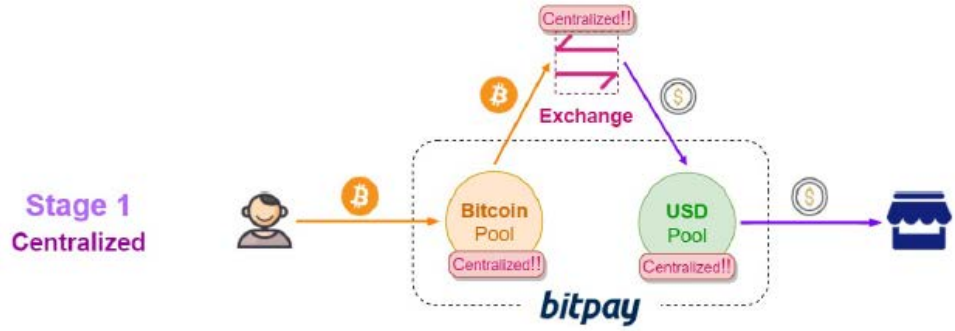
High threshold to use the virtual currency;

High volatility for virtual currency;

The best way to deal with the first two problems is to avoid trading on the main network, which brings some security issues. The last two problems are relatively easy to solve, as long as merchants can exchange virtual currency to legal tender easily, making direct settlement of legal tender possible. However, the degree of adherence to the concepts of decentralization and anonymity, the core values of virtual currencies, determines its viability. That is, only the fully decentralized solution will thrive in future and others will merely be regarded as an expedient product. According to this criterion, we classify the solutions into three categories: centralization, semi-centralization and decentralization. And next we will focus on which scheme is more viable after the digital money circulation is fully realized.

4.1. Phase I: a centralization solution – representative product BitPay

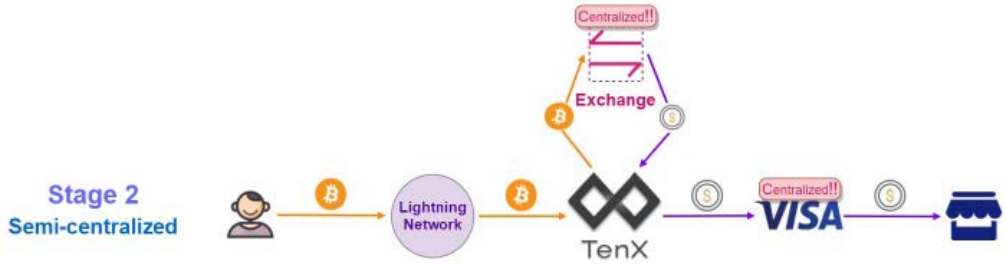
BitPay is the world's largest virtual currency (mainly Bitcoin) payment solution provider, known as the "PayPal" of the Bitcoin industry. It provides a way for merchants to settle in legal tender, and consequently encourages more merchants to use Bitcoin payment. Since its foundation in 2014, BitPay has formed business relationships with tens of thousands of partners around the world.



BitPay's service mode is as following: merchants transfer their Bitcoin to Bitpay first, and Bitpay converts the Bitcoin received to legal tender. However, this service mode has been gradually out of time. The increasing high fees have crowded out Bitcoin users. Besides, BitPay raises the minimum withdrawal threshold of merchants to $100 to gain economies of scale, which in turn makes its service less attractive. Above all, BitPay's fully centralized operation mode damages the assets safety. To be specific, in order to save fees, users tend to transfer a large amount of Bitcoins to BitPay wallet, while merchants could only withdraw money over the threshold If BitPay is hacked then the corresponding users and merchants will lose their money. Such tragedy has repeated for several times, leaving victims broke and helpless after such attacks.

4.2. Phase II: semi-centralization solution – representative product TenX

After the Bitcoin community has reached a consensus on SegWit, the prospect of the lightning network is also brighter. Many teams are starting to build solutions based on the lightning network. The most prominent of them, TenX, has collected 100,000 ETH within 36 hours at its initial token offering, which is also a reflection of the industry's great expectations.



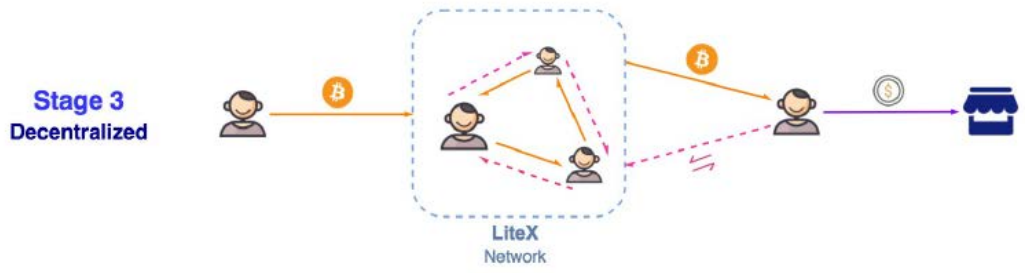
TenX adopts lightning network to transfer virtual currencies, which greatly avoids the centralized risk caused by centralized storage in the official account. Even when TenX is attacked, users can still use RSMC, the smart contract, to withdraw the money to their own wallet on the main chain, without worrying about losing them. But this is only completes half of the payment process, since the virtual currency still needs to be exchanged to legal currency for merchants' settlement. At this step TenX chose to cooperate with Visa to issue a co-branded credit card. However, Visa has officially announced that Visa itself does not render service in the field of converting virtual

currency to legal tender. So conversion is executed by the issuer or its program administrator through a virtual currency exchange program. That is to say, Visa is just a settlement channel to help TenX to be incorporated into the merchants' settlement process. Moreover, its so-called support for virtual currency consumption is very similar to that of users with credit card points. In summary, TenX does not conduct business of exchanging virtual currency to legal currency; so it can only finalize the transactions with the help of exchange centers.

Besides, settlement with merchants through bank organizations like Visa means entrusting half of its core business to a partner. Moreover, as a virtual currency payment network, TenX will definitely develop into a competitor of Visa. This definitely leads to a very unstable partnership. On January 6th 2018, Visa announced to cease its cooperation with Wave Crest, a debit card supplier. Wave Crest has issued virtual currency co-branded cards with TenX, CryptoPay, Bitwala, Wirex and so on Upon the announcement by Visa, the debit card jointly issued by TenX and Visa cannot be used anymore. Alfred Kelly, CEO of Visa, also stated that Visa would not render service to any Bitcoin transactions any more that day.

4.3. Phase III: Decentralized solution – LITEX

Both the BitPay and TenX solutions are highly dependent on card organizations like Visa and centralized exchange, which has brought potential risk and strike to its own business mode. This problem is only to be solved once and for all by designing a fully decentralized payment model, and LITEX is exactly such a solution.



There is not even one centralized node in LITEX framework. Both the virtual currency transfer and the legal currency settlement are done independently and coordinately by Internet users' node. This incredible process is carried out by LITEX network nodes using complicated matching mode and routing algorithm. In this process, customers complete payment with virtual currency immediately even when the amount is small; merchants get the corresponding amount (less certain fees) of legal currency, without being restricted by withdrawal threshold; changers also get virtual tender they need with low cost, which can be used for consumption or any other purpose then.

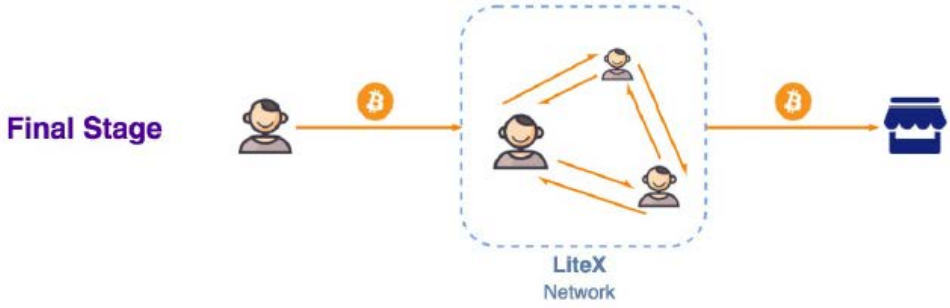
LITEX does not only solve the problems in virtual currency payment, but also guarantees security of the users and merchants' funds in a maximised way. During the above transaction process, if any problem happens to the node, the transaction can be automatically switched to other paths to continue; even if most nodes are paralysed and

leads to failure of the transaction, the users' funds will be withdrawn automatically the account in the main chain or refunded to the legal currency account in accordance with RSMC and HTLC protocol, without the risk of theft or loss.

In addition, the node in the transaction channel of LITEX network can only reach adjacent node rather than all nodes. Since there is no central node, and there is multi-level encryption security in the protocol, users' transfers and transactions in LITEX are completely anonymous. No other centralized or semi-centralized solution can reach such levels of privacy.

4.4. Final phase: complete the transaction circle with virtual currency

Users pay with virtual currency, merchants settle with virtual currency, and the demand for exchange between legal currency and virtual currency is greatly reduced or even disappears, all of which is the new ecosystem of virtual currency expected.



LITEX will definitely play a very important role in marching towards this new ecosystem. However, it does not mean that the value of LITEX is only limited in the transition stage. Even in a completely virtual currency trading scenario, the large-scale and multi-connected lightning network that LITEX has established ensures that it still be the most efficient and economic payment channel with. If this first mover advantage can be maintained, LITEX is likely to be users' best payment choice.

5. DECENTRALIZED PAYMENT SOLUTION – LITEX

5.1. Definition

- LITEX Network, LTXN: The payment and exchange network system of LITEX. It is a compound decentralized network based on BOLT protocol, which is customized to the needs of virtual currency payment, exchange and settlement. LITEX Network is combined by decision network and executing network (lightning network);
- LTXN nodes: Each user or organization participating in LTXN is a LTXN node:

  Customer: Users that pay by virtual currency;

  Merchant: Users that accept payment by virtual currency and provide product

/ service;

Exchanger: Users that exchange legal currency to virtual currency;

- Matching Engine: The request for virtual currency payment and currency exchange through complex strategy matching and routing network;
- Last Hop: The last step linked to merchants in LTXN payment channel.

5.2. Core values

LITEX has built a decentralized virtual currency payment system. Based on the frontier Bitcoin network upgrading technology, the project combines with cooperation mode of multi-matching strategy and payment gateway in the "Non-bank card payment system" of YeePay, to minimize the cost of users to access to virtual currency payment, and meanwhile to ensure complete anonymity of transactions. LITEX ecosystem will also distribute all service fees and charges charged by the system to all users who have contributed or provided services in the ecosystem, to form a sustainable development mode with positive incentives, and broaden the application scenarios of virtual currency payment.

Seeing from the daily consumption scenarios:

Customers: The payment results are confirmed in real time with no fees; the virtual currency in the channel can be withdrawn at any time (back to their own Bitcoin wallet through the network transactions), guaranteed by the intelligent contracts, with no centralization risk; and the transactions are completely anonymous, with privacy protected;

Merchants: There is no need to understand, the theory or mechanism of virtual currency. The accessing and using processes are highly similar to the existing payment gateway. Legal tender settlement and real-time transfer are supported, to avoid volatility risk and settlement risk;

Exchangers: Legal tender conversion to virtual currency will become very simple and fast. Users can join LTXN without knowledge and no balance, and they can exchange the legal currency to virtual currency for use at any time.

Seeing from meeting the multi-level requirements:

Customers: they can meet not only the demand for legal currency payment in daily consumption in their home country, but also the demand for overseas shopping payment, including global online shopping payment;

Merchants: If the merchants' acceptance of virtual currencies is low, they can choose legal currency for real-time settlement; after they know and accept the virtual currency in the future, they can switch to virtual currency settlement seamlessly, and can directly enjoy the experience of high-efficiency and low-cost money collection brought by LITEX;

Exchange: It can meet not only the exchange demand of ordinary individuals, but also

the demand of institutions like exchanges; it can meet not only the demand for fast exchange with high cost, but also the demand for entry orders with low cost. In the future, it may be able to meet the exchange demand between different virtual currencies through cross-chain atom transactions;

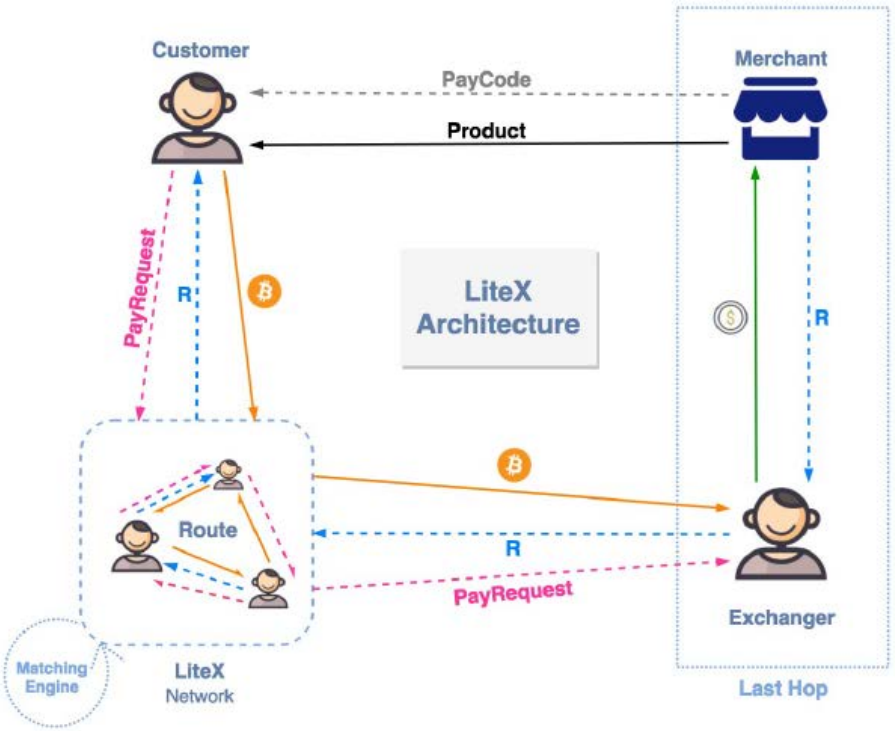
5.3. Instruction to architecture

5.3.1. Overview

The main application scenarios of LITEX are the consumption scenarios with small and micropayment by virtual currency, and the participants are consumers and merchants. Since merchants' acceptability of virtual currency is relatively low, LITEX introduces another application scenario -- currency exchange, to include the legal currency transactions into the whole payment channel through smart contracts in the last hop, avoiding the risk of centralization. These two application scenarios complement each other, and complete the system's business circle together.

5.3.2. Overall LITEX architecture

The diagram above shows the overall architecture of LITEX. The solid arrow represents the flow direction of real elements of transaction, like currency and products; the dotted line represents the flow direction of data and controlling information in the LITEX system, in which *R* can be simply understood as a code. Users with this code can ask for virtual currency from their upstream. This is the mechanism of HTLC smart contract that guarantees the automatic transactions in the whole chain.



There are mainly two processes that drive the LTXN network to operate. In the main

process, consumers pay by virtual currency, which basically runs counter clockwise like in the above diagram; in the side process, exchangers exchange legal currency to virtual currency, which runs basically clockwise like in the above diagram – except that exchangers pay cash to merchants in the last hop. The two processes will get the optimized configuration and interaction through the coordination of Decision Network and Matching Engine, then meet the demand for multiple payment scenarios and exchange scenarios together.

In the main process, after consumers get the collection payment code from merchants (including information about channel address, collection authentication code and other key details), they launch a pay request through the wallet App (light node) of LITEX. The request is broadcast to LTXN, and gets a pay route through the matching engine. This route will send consumers' pay request to the best matched exchanger (into the side process), and then the exchanger will pay the legal currency to merchants. After the merchants confirm the collection, they will send an R code to exchangers. The exchangers will receive the corresponding virtual currency amount as soon as they send the R code to LPTN. At last, R is sent back to consumers through node link in LTXN. Consumers then check R and the collection code. If they match each other, consumers are obliged to pay the virtual currency to the corresponding node in LTXN. The entire transaction process is then finished.

The system design would meet all the following requirements:

● Fund security

Ensuring security of transaction fund is the premise of off-chain transaction. An off-chain transaction solution is qualified only if it can avoid trust risk of centralization through technical scheme. LTXN is based on lightning network technology, and it can ensure fund security through two types of smart contract: RSMC and HTLC. Even when LITEX's official nodes are attacked, LTXN can automatically complete transaction, withdrawal and other operations. Furthermore, if network paralysis occurs due to breakdown of the network nodes, users' digital assets will be automatically submitted to the main chain for withdrawal by the smart contracts after a certain period of time, and then returned to users' digital wallet safely.

● Payment and collection experience

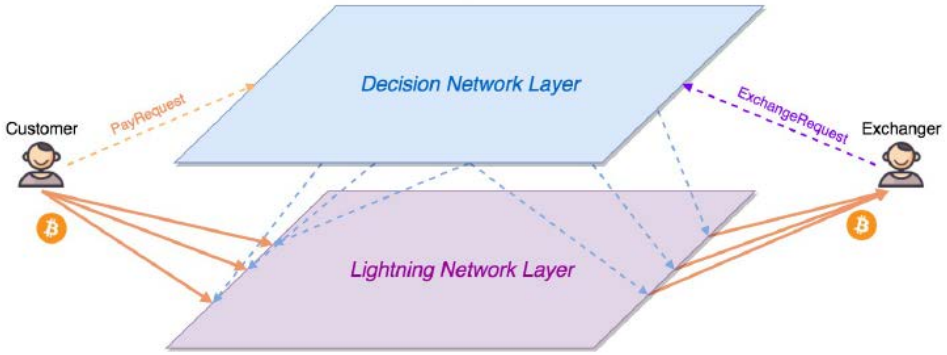
In instant micropayment scenarios, consumers need to pay quickly and smoothly, so that merchants can easily confirm the collection. Due to the extremely high volatility, if virtual currency is measured at mark-to-market price, both consumers and merchants will be adversely affected by rapidly changing commodity prices. In LITEX's clients, users could input prices in legal currency, and determine the corresponding virtual currency price with the assistance of matching engine. Therefore, consumers only need to know that they have paid for a particular legal currency price by virtual currency. At the client, merchants can choose to record an account with legal currency in real time. Therefore, the user experience is not inferior to other payment gateways (such as Visa), and even better for less time consumed in transfer.

● Exchange efficiency

The system can provide corresponding product schemes for different exchange demands, and the specific schemes are chosen by exchangers freely. If exchanges have stable demand for currency exchange, and the requirement in timeliness is not high (for example, money can enter the account one day or even one week later, and can bear the risk of currency fluctuation), the system can meet this demand with relatively low service charge. If the exchanger has a very urgent demand for currency exchange, the system can also match the corresponding order at the top speed through matching engine, but the exchanger may have to pay a slightly higher service charge.

5.4 Technology innovation

5.4.1 Complex decision lightning network model



Lightning network is a common name of distributed network based on BOLT protocol. The most basic lightning network can only realize the off-chain point-to-point transaction and transfer of virtual currency. It would be helpless once involving the matching of legal tender transactions. The "complex decision lightning network". The design of LITEX intends to merge a decision network layer and lightning network layer into the same distributed system, which can share the nodes and achieve deep linkage. As a result, the lightning network is more intelligent. Advanced routing functions such as matching the exchange request and payment request. At the same time, it can also make the whole network topology efficient and decentralized by rule design and feedback system, to avoid the emergence of centralized nodes.

5.4.2. Matching engine

Matching engine is the collection of a series of distributed intelligent algorithms, which is the most complex core component of LTXN. Due to space limitations, the following description is mostly based on the simplest business categories in the system when citing an example. It neither involves the specific data structure nor discusses the core strategy set - how "non-bank card payment" business logic is applied to complex business processing and to enhance system stability.

There are many payment requests and exchange requests in LTXN system at the same time. Payment request is characterized by relatively small amount and very high real-time requirement, while the exchange request varies with the circumstances. To be more specific, in order to achieve lower exchange costs, some users can accept an exchange process with lower timelines or can even just set an upper limit to end the exchange at any time as required; other users, in order to obtain virtual currencies immediately, can choose to pay a higher exchange service charge to complete exchange in a very short time. In the actual design, the timeliness / cost ratio required by users may be somewhere between the ratios computed in the two situations mentioned above. We will find a way to quantize the preference of users in a certain way to serve as the reference data for the self-adapted matching decision of the node.

In addition to timeliness / cost matching, the matching of the two parties' amount is also very important. Generally the amount of exchange request is greater than that of payment request. LTXN nodes need to match multiple requests that meet the requirement in the whole network to form the optimal solution. The factors that need to be considered include, but are not limited to, currency, amount, channel time cost, channel transfer loss, etc. If the amount of payment request is larger than that of exchange request, the payment demand is greater. In this situation, in addition to the above-mentioned factors, the timeliness and cost of the main chain channel should also be considered comprehensively. If the amount is too large, users are advised to make payment in the main network.

Finally, the matching strategy also needs to consider the cost of connectivity. If the two parties to collection and payment are in two separate networks, the cost of establishing inter-network channels also needs to be considered. This part is to be discussed in the intelligent routing section below.

5.4.3. Intelligent routing

Chain transaction is needed for both the opening and closure of a lightning network channel, which would result in higher costs of time and money. Consequently, there is no direct channel between consumer and exchanger in most cases. They usually carry out transaction and conduction through an intermediate node according to the HTLC contract. Intermediate node may be a single node or multiple nodes that are directly interconnected. In order to find the shortest path (or path with minimum cost) quickly, each node of LTXN has a set of independent negotiation algorithm and cache synchronization for node information, so as to find the path and complete the transaction as soon as possible when demand appears.

The payment channels have to be closed for the withdrawal operation in lightning network, which makes the topology of the whole network change all the time. On one hand, the channels may be closed or opened at any time. Some transactions would be denied accidentally if the original legal channel chosen be closed. In this circumstances, a new channel needs to be found immediately. On the other hand, due to the different demands of payment, the channel capacity (like the diameter of a tube) between nodes

is also different. In addition to considering the channel capacity in the initial routing stage, it may be necessary to split and merge payment in the whole process. This business logic beyond the traditional routing algorithm problem model needs to be realized with more developed strategies.

5.4.4. Full anonymity

In order to increase the privacy and security of the lightning network, we have developed a solution based on Sphinx to conceal all the data from the intermediate routing. In the lightning network, besides the, nodes cannot view any transactions in the network except for those executed through adjacent nodes. Meanwhile, authentication mechanisms are used between the nodes of the lightning network to prevent attack from intermediaries.

5.4.5. Light nodes

According to the BOLT protocol, the lightning network nodes are designed as complete Bitcoin network nodes, which means that users joining the network have to maintain a complete data backup with a volume of dozens of GB. But this is not realistic in practice. LTXN nodes are designed based on Simplified Payment Verification (SPV) and only adds part of the data records needed by business on this basis. In this way, LTXN nodes neither need to maintain a full node, nor store all users' transactions in the whole network. Specifically, they only need to store the related transactions via channel with this node. Once the channel is closed and the transaction is confirmed in the main chain of blockchain, the balance of the nodes at both ends of the channel would be submitted to the main chain. In this occasion, users can choose to delete the previous transaction data to optimize the storage space. The optimized LTXN node would not occupy too much storage space, which can be fully run on general smartphone.

6. APPLICATIONS SCENES

6.1. Daily consumption scenes

First of all, set out below is the consumption scenario of digital money without LITEX:

Supposing that Alice only has Bitcoin and wants to buy a cup of coffee from Bob, a cafe owner. However, Bob is just an ordinary businessman who does not know much about technology, then the chance he has a Bitcoin wallet is almost zero. This means that Alice is not able to pay Bob until she converts Bitcoin into legal currency. In this situation, Alice should log in to a digital money exchange to sell her Bitcoin. But in order to get the legal currency as soon as possible (Bob may have started grinding coffee beans), she has to hang out at a lower price and pays a relatively high transaction charge. Since the transaction amount is small, even if Alice sells her Bitcoin successfully, the payment time could be as long as a few hours, and the coffee has been cold by then.

After experiencing the last failed deal, Bob has learned something about Bitcoin. He appreciated the idea of Bitcoin, but he does not want to take the risk of volatility by accepting payment from Bitcoin directly. So he joins up a provider of Bitcoin payment

gateway. In this way, when he accepts Bitcoin payment, what he receives in the end is the legal currency exchanged by the payment gateway. For the sake of convenient payment, Alice also recharges in advance to the payment gateway (the main network transaction requires higher service charge and longer time). So far, the Bitcoin payment experience is satisfactory, so that Alice gets her fresh coffee. Bob logs in to the background of the network gateway and is going to withdraw the $5 he just received. But it turns out that the payment gateway has raised the withdrawal threshold to $100! Then Bob has to wait for the withdrawal when Alice buys 20 cups of coffee, which would take at least 20 days---providing that Alice comes every day. But on 19th day, Bob finds that the payment gateway has lost a lot of Bitcoins and cash because of hacker attack and the payment gateway company has declared bankruptcy (centralizing risk). Consequently, the $95 he fails to withdraw ends in naught. Alice also complains to Bob that the Bitcoins that she has not used is also stolen by the hackers.

Now let us introduce LITEX, and you could feel the convenience and security brought by this decentralized payment network.

Bob suffers a loss, but he does not give up on Bitcoin. He introduces LITEX, a brand-new solution. The transaction process is the same as other payment gateways (such as Visa), very smooth. Then Bob tells Alice that he can accept Bitcoin payment. In order to avoid the centralization risk mentioned above, Alice has also become a LITEX user and sets up her own payment channel. She opens LITEX's client and scans Bob's receipt QR code, and then directly inputs $5, the equivalent amount of a cup of coffee in legal currency. Clicking on payment, 1 second later, Bob's cashier asks him to confirm a a $5 of payment. After clicking the enter button, Bob finds that the $5 has entered directly in his account. Alice's phone also alerts her that the payment has completed and the Bitcoin equivalent to $5 has been deducted from the channel balance with no service charge. With the help of LITEX, Alice buys a cup of coffee easily with Bitcoin and pays no service charge; Bob, on the other side, receives the legal currency converted from Bitcoin immediately. He finally can continue to accept Bitcoin payments. Actually, even if LITEX is attacked and some of its nodes are lost, the established LTXN can still meet Alice's payment demand; even if most nodes are damaged and the transaction fails to be executed, both Alice and Bob's existing assets wouldn’t suffer a loss.

6.2. Outlook

Since opening and closing of the channel require cost and keeping the channel open can get the benefit of service charge, the users have a great willingness to keep the channel open all the time. On one hand, this is very beneficial to connectivity of the whole network; on the other hand, it also creates a "pool of money" for users. If the blockchain wealth management projects based on smart contracts flourish, LITEX may display the high-quality financial products to users through the LITEX wallet. These financial products may provide additional revenue to users and further enhance their willingness to keep the channels open, making the network healthier.

7. TOKEN SYSTEM DESIGN

7.1. Name and objectives

As an ecosystem built by many parties, LITEX needs a series of incentive rules to ensure the healthy operation and rapid development, whereby all the value generated by the ecosystem would accrue to all the participants who had actively contributed to the maintenance and operation of the ecosystem. For this purpose, LITEX will incorporate its native digital cryptographically-secured token, LITEX Token (**LXT**), to carry this function. LXT is a major component of the ecosystem on LITEX.

LXT is a non-refundable functional utility token which would provide the economic incentives which would encourage users of LITEX to contribute towards the maintenance of the ecosystem on LITEX. LXT does not in any way represent any shareholding, participation, right, title, or interest in the Foundation, its affiliates, or any other company, enterprise or undertaking, nor will LXT entitle token holders to any promise of fees, revenue, profits or investment returns, and are not intended to constitute securities in Singapore or any relevant jurisdiction. LXT may only be utilised on LITEX, and ownership of LXT carries no rights, express or implied, other than the right to use LXT as a means to enable usage of and interaction with LITEX.

In particular, you understand and accept that LXT:

(a) is non-refundable and cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Foundation or any affiliate;

(b) does not represent or confer on the token holder any right of any form with respect to the Foundation (or any of its affiliates) or its revenues or assets, including without limitation any right to receive future revenue, shares, ownership right or stake, share or security, any voting, distribution, redemption, liquidation, proprietary (including all forms of intellectual property), or other financial or legal rights or equivalent rights, or intellectual property rights or any other form of participation in or relating to LITEX, the Foundation, the Distributor and/or their service providers;

(c) is not intended to be a representation of money (including electronic money), security, commodity, bond, debt instrument or any other kind of financial instrument or investment;

(d) is not a loan to the Foundation or any of its affiliates, is not intended to represent a debt owed by the Foundation or any of its affiliates, and there is no expectation of profit; and

(e) does not provide the token holder with any ownership or other interest in the Foundation or any of its affiliates.

7.2. LXT system

7.2.1. Generation of LXT

LXT is generated based on an ERC20 standard of Ethereum Smart Contract. The Distributor of LXT shall be an affiliate of the Foundation. The Distributor shall issue a total number of 2 billion LXT (2,000,000,000). It is configured by the system in one time, and will be never issued additionally. LXT has no destruction mechanism.

7.2.2. Incentive program

All transactions generated in the LITEX ecosystem would require payment of a service fee in LXT.

Set P as the payment amount, E as the exchange amount, and F as the function of service charge, then:

- Merchants' service charge：$F_M = P * 2.5\%$
- Exchange charge：$F_E = E * 1\%$

Since the total exchange amount is consistent with the total payment amount in the ecosystem (that is, the sum of all payments is equal to the sum of all exchanges, which is recorded as T), the formula for calculating total ecosystem incentives is as follows:

Ecosystem incentives = $F_M + F_E = T * 3.5\%$

Following the above settings and adding an incentive function B (refers to the equivalent LXT amount of its calculated results) and channel flow FL, then:

- Consumption incentive：$B_C = P * 0.1\%$
- Acquiring bank incentive：$B_A = P * 1.5\%$
- Service provider's incentive：$B_{SP} = P * 1.0\%$
- Channel incentive: $B_{CH} = FL * 0.2\%$
- Exchange incentive: $B_E = E * 0.7\%$

Since the total amount of P, E and FL in the ecosystem is the same, the sum is still recorded as T. And then the formula for calculating total ecosystem incentives is:

$B = B_C + B_A + B_{SP} + B_{CH} + B_E = T * 3.5\%$

All ecosystem incentives in LXT will be distributed according to the contributions of parties in the ecosystem. Holders of LXT which did not contribute to the maintenance of ecosystem or provide any network services would not be entitled to this system incentive.

7.3. LXT issuance programme

Quantity	Proportion	Purpose	Illustration

700,000,000	35%	Pre-sale	For early contributors in the early stage, later used in research and development, recruitment, market promotion and so on of LITEX project. The use of this part of fund should be disclosed periodically.
500,000,000	25%	Users incentives	Used to incentivise ecosystem participant to download, use, and promote downloading of the LITEX wallet and behaviors such as payment and money transfer within the ecosystem.
400,000,000	20%	Development fund	Used for ecosystem development of LITEX and development of partners in various countries, the use of this part of fund should be decided by the Foundation, and disclosed in advance.
300,000,000	15%	Founding team	Allocated to the founding team to incentivise its exploration and development in the field of virtual currency, and the effort to maintain the products, technologies, operation and development such as LITEX. This tranche of LXT is locked by smart contract on issuance, with 1/36 unlocked each month, over a total period of 36 months.
100,000,000	5%	Cooperation institute	Used to maintain the relationship with existing cooperators and establish cooperation with relevant enterprises. This tranche of LXT are locked by smart contract when they are issued, with 20% to be unlocked after the expiry of 1 month after the first exchange listing of LXT, with the entire amount unlocked in 5 months.

The contributions in the token sale will be held by the Distributor (or its affiliate) after the token sale, and contributors will have no economic or legal right over or beneficial interest in these contributions or the assets of that entity after the token sale. To the extent a secondary market or exchange for trading LXT does develop, it would be run and operated wholly independently of the Foundation, the Distributor, the sale of LXT and LITEX. Neither the Foundation nor the Distributor will create such secondary markets nor will either entity act as an exchange for LXT.

8. PROJECT PLAN

Procedure	Time frame	Plan
1st stage	2017Q4	Design the system structure; Carry out and test the basic functions of the BOLT protocol Consult with acquiring parties
2nd stage	2018Q1-2018Q2	Launch LITEX payment APP Complete the LTXN structure Bill-to parties and service providers are connected to test
3rd stage	2018Q3-2018Q4	Launch test of LTXN's Alpha version LITEX payment APP is upgraded with cross-link capability Merchants are connected to test system Expand cooperative acquiring parties Test run of transaction
4th stage	2019Q1-2019Q2	Launch LTXN's Beta version, complete safety test Fully open LITEX payment APP's capacity Further expand acquiring parties
5th stage	2019Q3-2019Q4	Constantly upgrade the APP and LTXN Merchants are connected in large scale Constantly expand acquiring parties cooperation to enhance the stability of service

9. INTRODUCTION OF THE ORGANIZATIONAL STRUCTURE

LITEX Foundation Ltd. (the **Foundation**) was established in Singapore, which is the legal entity responsible for technology development, business operation and market promotion of LITEX, community management, and at the same time, it undertakes all the legal liability of LITEX.

The Board of Directors of the Foundation is the highest decision-making organ, exercising the right of managing and restraining the subordinate executive departments. The term of the decision-making committee is 3 years, and the successor is elected by members of the Foundation after the term is up.

The community of LXT token holders may be comprised of a diverse field of professionals and supporters of the project to develop LITEX (including without limitation experts in blockchain technology, cryptography, artificial intelligence, law or finance), which will provide balanced views on the overall direction of the project. For the avoidance of doubt, while the views of the community would be acknowledged, ultimately the assets and funds of the Foundation remain under the control of the Board of Directors.

Subordinate executive departments:

- Technical department

  Mainly responsible for the work such as technical route enacting, scheme selection, structure design, project development and management, Github codebase updating and maintenance of the open source project of the LITEX community.

- Operation department

  Mainly responsible for operation and management of the LITEX user community, including community activity planning, activity execution and carrying out community incentive plan, etc.

- Marketing department

  Mainly responsible for brand communication and business expansion of the community, and improving the ecosystem development of the community.

- Human resources and financial department

  Mainly responsible for recruiting volunteers for the Foundation, and managing daily finance related affairs of the foundation members.

9.2 Core team

- **Wang Shuobin**

  Bachelor (2003-2007) and master (2007-2010) in Computer Science of Peking University, former product operation director of the leading product "Non-bank card payment" of Yeepay, serial entrepreneur, executive director of CEO club in Peking University, revivalist and practitioner of blockchain technique.

- **Zhang Huaqiang**

  Bachelor (2003-2007) and master (2007-2010) in Computer Science of Peking University, expert in blockchain and network security, full stack engineer, designer of the "Composite decision lightning network" model, used to work as an senior research and development engineer in platforms such as IBM and Sina weibo.

- **Lou Huanqing**

  Bachelor (2007-2011) and master (2011-2014) in Computer Science of Peking University expert in blockchain, project structure engineer, full stack engineer, with abundant project experience, good at designing solutions by combining product demands and cutting edge technology.

- **Chu Tianshu**

  Founding partner and vice president of Duolabao, former product operation director of the non-bank card payment project of Yeepay, former product manager of the founding team of Baidu Shen Bian, Bachelor and master in computer science and technology, Beijing University of Aeronautics and Astronautics.

  Duolabao is a domestic leading offline payment and marketing enterprise, top three Wechat payment service provider. The payment and transactions exceed 2 million each day.

9.3 Early constributors and advisors

- **Yu Chen - contributor**

  Graduated from computer science, Peking University, he is a co-founder and the president of Yeepay. With 20 years of experience in Internet, E-commerce and software, he was awarded the title of the “100 most influential people in the Circle of Mobile Phone” in China and also the “100 outstanding E-commerce marketers of 2013 in China”. Additionally, he is the author of the best-selling book called “See People Who Will Change The World of The Internet in Future”.

- **Chang Dawei – contributor**

  Chang Dawei, founder and CEO of Duolabao. former founder and CTO of Yeepay. He also worked for Riverside Company in Silicon Valley as a former senior software engineer. He has a bachelor’s degree in Physics from Beijing University, a master’s degree in computer engineering from Maryland University. He is also a member of the Association of Ethnic Chinese Engineer in the U.S..

- **Chen Bin - advisor**

  He is the former architect of Paypal. In 1989, he obtained a master’s degree from Jilin University. Afterwards, he once worked as director of integration for Hitachi U.S. system, chief architect of Abacus, chief engineer of the Nokia U.S. network application, which provided him with rich oversea experiences and years of experience in architecture of payments industry. He has translated and published many works such as

“The Architecture and Its Future”, “Scripture of Architecture”, and “Big Data Is The Future - Road of King”, which makes him a practitioner and evangelist of the cutting-edge network technology.

10. RISKS

You acknowledge and agree that there are numerous risks associated with purchasing LXT, holding LXT, and using LXT for participation in LITEX.

10.1 Uncertain Regulations and Enforcement Actions

The regulatory status of LXT and distributed ledger technology is unclear or unsettled in many jurisdictions. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including LXT and/or LITEX. Regulatory actions could negatively impact LXT and/or LITEX in various ways. The Foundation (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction.

After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, the Foundation will apply a cautious approach towards the sale of LXT. Therefore, for the crowdsale, the Foundation may constantly adjust the sale strategy in order to avoid relevant legal risks as much as possible. For the crowdsale, the Foundation is working with Tzedek Law LLC, a boutique corporate law firm in Singapore with a good reputation in the blockchain space.

10.2 Competitors

It is possible that alternative networks could be established that utilise the same or similar code and protocol underlying LXT and/or LITEX and attempt to re-create similar facilities. LITEX may be required to compete with these alternative networks, which could negatively impact LXT and/or LITEX.

10.3 Loss of Talent

The development of LITEX depends on the continued co-operation of the existing technical team and expert consultants, who are highly knowledgeable and experienced in their respective sectors. The loss of any member may adversely affect LITEX or its future development.

10.4 Failure to develop

There is the risk that the development of LITEX will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline

in the prices of any digital asset, virtual currency or LXT, unforeseen technical difficulties, and shortage of development funds for activities.

10.5 Security weaknesses

Hackers or other malicious groups or organisations may attempt to interfere with LXT and/or LITEX in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, there is a risk that a third party or a member of the Foundation or its affiliates may intentionally or unintentionally introduce weaknesses into the core infrastructure of LXT and/or LITEX, which could negatively affect LXT and/or LITEX.

10.6 Other risks

In addition to the aforementioned risks, there are other risks (as more particularly set out in the Terms and Conditions) associated with your purchase, holding and use of LXT, including those that the Foundation cannot anticipate. Such risks may further materialise as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Foundation, its affiliates and the LITEX team, as well as understand the overall framework and vision for LITEX prior to purchasing LXT.

Annex B

Analysis

Meaning of "securities"

1. The SFA contains several definitions of "securities". The two material definitions are set out below:

Section 2(1)	Section 239(1)
"securities" means: *(a) debentures or stocks issued or proposed to be issued by a government;* *(b) debentures, stocks or shares[1] issued or proposed to be issued by a corporation or body unincorporate;* *(c) any right, option or derivative in respect of any such debentures, stocks or shares;* *(d) any right under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss by reference to fluctuations in:* *(i) the value or price of any such debentures, stocks or shares;* *(ii) the value or price of any group of any such debentures, stocks or shares; or* *(iii) an index of any such debentures, stocks or shares;* *(e) any unit[2] in a collective investment scheme;* *(f) any unit in a business trust [within the meaning of the Business Trusts Act, Chapter 31A of Singapore];* *(g) any derivative of a unit in a business trust; or* *(h) such other product or class of products as the Authority [i.e. the MAS] may prescribe,* *but does not include:*	*"securities" means:* *(a) shares or units of shares of a corporation;* *(b) debentures or units of debentures of an entity;* *(c) interests in a limited partnership or limited liability partnership formed in Singapore or elsewhere; or* *(d) such other product or class of products as the Authority may prescribe,* *but does not include such other product or class of products as the Authority may prescribe as not being securities;*

[1] The term "share" means shares in the share capital of a corporation and includes stock except where a distinction between stocks and shares is expressed or implied.

[2] A "unit", when used in the context of a collective investment scheme, means a right or interest (however described) in a collective investment scheme (whether or not constituted as an entity), and includes an option to acquire any such right or interest in the collective investment scheme).

(i) futures contracts which are traded on a futures market; *(ii) bills of exchange;* *(iii) promissory notes;* *(iv) certificates of deposit issued by a bank or finance company whether situated in Singapore or elsewhere; or* *(v) such other product or class of products as the Authority may prescribe as not being securities;*	

2. Pursuant to the Securities and Futures (Prescribed Securities) Regulations 2012, various real estate investment trust (**REIT**) related securities have also been prescribed as "securities" (which do not appear relevant for the purposes of this opinion).

3. The definitions of the terms "debenture" and "collective investment scheme", which are referred to in the definitions of "securities", are also relevant for the purpose of this analysis.

Meaning of "debenture"

4. Section 2(1) of the SFA provides that:

"*"debenture", except for the purposes of Part XIII* [of the SFA, relating to offers of investments]*, includes any debenture stock, bond*[3]*, note and any other debt securities issued by a corporation or any other entity, whether constituting a charge or not, on the assets of the issuer but does not include:*

(a) a cheque, letter of credit, order for the payment of money or bill of exchange; or

(b) for the purposes of the application of this definition to a provision of [the SFA] *in respect of which any regulations made thereunder provide that the word "debenture" does not include a prescribed document or a document included in a prescribed class of documents, that document or a document included in that class of documents, as the case may be;*"

5. Section 239(1), Part XIII of the SFA presently contains a similar definition, but with an additional carve-out for promissory notes as follows:

"*"debenture" includes any debenture stock, bonds, notes and any other debt securities issued by a corporation or any other entity, whether constituting a charge on the assets of the issuer but does not include:*

(a) a cheque, letter of credit, order for the payment of money or bill of exchange; or

(b) subject to the regulations made under [the SFA]*, a promissory note having a face value of not less than $100,000 and having a maturity period of not more than 12 months; or*

[3] A "bond", which would be considered a debenture, is defined (in the Securities and Futures (Licensing and Conduct of Business) Regulations, issued pursuant to the SFA) as including:

a. any note, bond or Treasury Bill (issued pursuant to the Local Treasury Bills Act (Chapter 167 of Singapore));
b. an option in respect of any note, bond or Treasury Bill; and
c. such other securities or class of securities as the MAS may from time to time, by a guideline issued by the MAS, determine.

(c) *for the purposes of the application of this definition to a provision of* [the SFA] *in respect of which any regulations made thereunder provide that the word "debenture" does not include a prescribed document or a document included in a prescribed class of documents, that document or a document included in that class of documents, as the case may be;*".

6. However, pursuant to the Securities and Futures (Amendment) Act 2017, passed on 9 January 2017 (the **SFA Amendment Act**), the second definition of "debenture" (in section 239(1) of the SFA) has been deleted. This, in effect, means that the promissory note exception has been removed. While the SFA Amendment Act has been passed, it is not yet in force.

7. In addition, it should also be noted that under section 239(3) of the SFA, it is stated that:

"*For the purposes of this Division* [i.e. Division 1 – Shares and Debentures – of Part XIII]:

(a) *any invitation to a person to deposit money with or to lend money to an entity shall be deemed to be an offer of debentures of the entity; and*

(b) *any document that is issued or intended or required to be issued by an entity acknowledging or evidencing or constituting an acknowledgment of the indebtedness of the entity in respect of any money that is or may be deposited with or lent to the entity in response to such an invitation shall be deemed to be a debenture.*"

Meaning of "collective investment scheme"

8. At present, the term "collective investment scheme" under the SFA means:

(a) an arrangement in respect of any property:

(i) under which:
(A) the participants do not have day-to-day control over the management of the property, whether or not they have the right to be consulted or to give directions in respect of such management; and
(B) the property is managed as a whole by or on behalf of a manager;
(ii) under which the contributions of the participants and the profits or income from which payments are to be made to them are pooled; and
(iii) the purpose or effect, or purported purpose or effect, of which is to enable the participants (whether by acquiring any right, interest, title or benefit in the property or any part of the property or otherwise):
(A) to participate in or receive profits, income, or other payments or returns arising from the acquisition, holding, management or disposal of, the exercise of, the redemption of, or the expiry of, any right, interest, title or benefit in the property or any part of the property; or
(B) to receive sums paid out of such profits, income, or other payments or returns; or

(b) an arrangement which is an arrangement, or is a class or description of arrangements, specified by the MAS as a collective investment scheme by notice published in the Gazette.

9. The following are not considered collective investment schemes under the SFA (each an **Excluded Arrangement**):

(a) an arrangement operated by a person otherwise than by way of business;

(b) an arrangement under which each of the participants carries on a business other than investment business and enters into the arrangement solely incidental to that other business;

(c) an arrangement under which each of the participants is a related corporation of the manager;

(d) an arrangement made by or on behalf of an entity solely for the benefit of persons, each of whom is:

(i) a bona fide director or equivalent person, a former director or equivalent person, a consultant, an adviser, an employee or a former employee of that entity or, where that entity is a corporation, a related corporation of that entity; or

(ii) a spouse, widow or widower, or a child, adopted child or step-child below the age of 18 years, of such director or equivalent person, former director or equivalent person, employee or former employee;

(e) an arrangement made by or on behalf of 2 or more entities solely for the benefit of persons, each of whom is:

(i) a bona fide director or equivalent person, a former director or equivalent person, a consultant, an adviser, an employee or a former employee of any of those entities or, where any of those entities is a corporation, a related corporation of the entity which is a corporation; or

(ii) a spouse, widow or widower, or a child, adopted child or step-child below the age of 18 years, of such director or equivalent person, former director or equivalent person, employee or former employee;

(f) a franchise;

(g) an arrangement under which money received by an advocate and solicitor from his client, whether as a stakeholder or otherwise, acting in his professional capacity in the ordinary course of his practice, or under which money is received by a statutory body as a stakeholder in the carrying out of its statutory functions;

(h) an arrangement made by any co-operative society registered under the Co-operative Societies Act (Chapter 62 of Singapore) in accordance with the objects thereof solely for the benefit of its members;

(i) an arrangement made for the purposes of any chit fund permitted to operate under the Chit Funds Act (Chapter 39 of Singapore);

(j) an arrangement arising out of a life policy within the meaning of the Insurance Act (Chapter 142 of Singapore);

(k) a closed-end fund (see below) constituted either as an entity or a trust; or

(l) an arrangement which is an arrangement, or is of a class or description of arrangements, specified by the MAS as not constituting a collective investment scheme by notice published in the Gazette.

10. A "closed-end fund", as referred to above, means an arrangement referred to in paragraph (a) or (b) in the definition of "collective investment scheme" in paragraph 8 above, under which units that are issued are exclusively or primarily non-redeemable at the election of the holders of units, but does not include:

(a) an arrangement referred to in paragraph (a) of that definition:

(i) which is a trust;
(ii) which invests primarily in real estate and real estate-related assets specified by the MAS in the Code on Collective Investment Schemes; and

(iii) all or any units of which are listed for quotation on a securities exchange; or

(b) an arrangement referred to in paragraph (a) of that definition which is, or which belongs to a class or description of arrangements which is, specified by the MAS, by notification published in the Gazette, to be an arrangement that is not a closed-end fund, or a class or description of arrangements that are not closed-end funds, as the case may be. In this regard, the MAS (by way of the Securities and Futures (Closed-End Fund) (Excluded Arrangements) Notification 2013) has specified that an arrangement referred to in paragraph (a) of the definition of "collective investment scheme" which has all the following characteristics, is specified to be an arrangement that is not a closed-end fund:

(i) the arrangement is constituted on or after 1st July 2013;
(ii) all or most of the units issued under the arrangement cannot be redeemed at the election of the holders of the units;
(iii) under the investment policy of the arrangement, investments are made for the purpose of giving participants in the arrangement the benefit of the results of the investments, and not for the purpose of operating a business;
(iv) the arrangement has one or more of the following characteristics:
(A) the investment policy of the arrangement is clearly set out in a document that is provided to each participant in the arrangement before, or at the time, the participant invests in the arrangement;
(B) there is a contractual relationship between the entity in which the investments are made and every participant in the arrangement, which requires the entity to comply with the investment policy, as amended from time to time, of the arrangement;
(C) the investment policy of the arrangement sets out the types of authorised investments, and the investment guidelines or restrictions, that apply to the arrangement.

11. The SFA Amendment Act has also amended the above definition. In summary:

(a) whereas the current definition of collective investment scheme covers arrangements in respect of property that satisfies all the following elements – (i) participants have no day-to-day control over the management of the property (the “control limb”); (ii) property is managed as a whole by the manager (the “management limb”); (iii) participants’ contributions, profits or income are pooled (the “pooling limb”); and (iv) the purpose or effect (or purported purpose or effect) of the arrangement is to enable participants to participate in profits arising from the scheme property (the “purpose limb”) – the pooling limb is now no longer essential for an arrangement to be considered a collective investment scheme and it is now sufficient that the control limb and either the management limb or the pooling limb are present for the arrangement to be a collective investment scheme;

(b) the purpose limb will be met whether or not the purpose, purported purpose or purported effect is realised, or whether or not the arrangement provides for the participants to receive any benefit other than such profits, income or other payments or returns in the event the purpose, purported purpose or purported effect is not realised;

(c) the following would not be considered a collective investment scheme:

(i) an arrangement where the whole amount of each participant’s contribution is a deposit (as defined in the Banking Act (Chapter 19 of Singapore)) (the **Banking Act**); and
(ii) an arrangement of which the predominant purpose is to enable participants to share in the use or enjoyment of the property or to make its use or enjoyment available gratuitously to others and where the property does not consist of any currency, capital markets products (as such terms is defined in the SFA, which

would include securities), any life insurance policy, any deposit (as defined in the Banking Act) or any credit facilities (as defined in the Banking Act); and

(d) the definition of "closed-end fund" was also amended to clarify the requirements under paragraph (a) of that definition (as to when an arrangement that invests in real estate would not be considered a closed-end fund).

Analysis

12. Besides the statutory provisions, statements made by the MAS in relation to the definitions of "debentures", "collective investment schemes" and "digital tokens" are instructive.

13. In a statement made on 1 August 2017 ("MAS clarifies regulatory position on the offer of digital tokens in Singapore"), the MAS observed that:

> "*…the function of digital tokens has evolved beyond just being a virtual currency. For example,* ***digital tokens may represent ownership or a security interest over an issuer's assets or property. Such tokens may therefore be considered an offer of shares or units in a collective investment scheme*** [including under the revised definition of a collective investment scheme proposed in the in the Enhanced Safeguards Consultation Paper] *under the SFA. Digital tokens may also represent* ***a debt owed by an issuer and be considered a debenture*** *under the SFA.*" (emphasis added)

Further, in "A Guide to Digital Token Offerings" (published on 14 November 2017), the MAS has stated that offers or issues of digital tokens may be regulated by the MAS if the digital tokens are capital markets products, citing the following as (non-exhaustive) examples of capital markets products that a digital token may constitute:

(a) a share, where it confers or represents ownership interest in a corporation, represents liability of the token holder in the corporation, and represents mutual covenants with other token holders in the corporation *inter se*;

(b) a debenture, where it constitutes or evidences the indebtedness of the issuer of the digital token in respect of any money that is or may be lent to the issuer by a token holder; or

(c) a unit in a collective investment scheme, where it represents a right or interest in a collective investment scheme, or an option to acquire a right or interest in a CIS.

14. In the "Consultation Paper on Proposals to Enhance Regulatory Safeguards for Investors in the Capital Markets" issued by the MAS dated 21 July 2014 (the **Enhanced Safeguards Consultation Paper**), the MAS described debentures as:

> "*2.1 Debentures are debt securities regulated under the SFA. Broadly, debentures are* ***instruments representing indebtedness****. These are* ***capital-raising instruments****, under which the* ***debenture issuer offers to pay interest in lieu of money borrowed for a certain period****. These may be:*
>
> *(i) unsecured – backed by general creditworthiness of the debenture issuer; or*
>
> *(ii) secured – backed by assets, which the debenture holder would have legal claim to if the issuer defaults on its payment obligations under the debenture. Examples include asset-backed securities and collateralised debt obligations.*" (emphasis added).

15. In the Enhanced Safeguards Consultation Paper, the MAS contrasted debentures with buy-back arrangements, in particular, of non-financial assets, which are considered normal economic transactions, entered into in the ordinary course of business, examples of which

include arrangements allowing consumers to trade-in products after use for a portion of the initial purchase price, or where the purchaser has the right to sell the product back to the seller at the prevailing market price in future.

16. The above was in the context of the (then proposed) regulation of buy-back arrangements involving previous metals (gold, silver and platinum). In its September 2015 response to the Enhanced Safeguards Consultation Paper, the MAS announced that the regulatory regime for debentures under the SFA (and Financial Advisers Act, Cap 110) would extend to arrangements which display the following characteristics as debentures:

    (a) Buy-back structure – Party A purchases gold, silver or platinum ("precious metals") from Party B for an agreed sum of money or money's worth, with Party B being under an obligation to re-purchase the precious metal back from Party A at a future time; and

    (b) Debenture effect – The purpose or effect of the arrangement is to enable Party A to receive a "financial benefit" from Party B. The main risk that Party A is exposed to is the credit risk of Party B, and not fluctuations in market value of the asset.

17. As to the requirement and interpretation of "financial benefit", it was stated in the Enhanced Safeguards Consultation Paper that the "*right to receipt of a financial benefit* ***must be agreed upon at the point in time that the parties enter into the arrangement, although the actual amount received may vary according to pre-determined factors*** [including where the pre-determined factors move against Party A such that at the end of the transaction, Party A is in a net financial loss position]" (emphasis added). Examples provided by the MAS of commercial transactions where there would not be deemed to be a financial benefit would include trading contracts, storage contracts, consignment arrangements and sale and lease-back arrangements, whereas there would be a financial benefit where the effective re-purchase price that Party B agreed to pay for buy-back at the time the arrangement is entered into is higher than the initial purchase price that Party A paid for the asset.

18. At this juncture, it is worthwhile to note that it does not appear to us that the design of LXT, in itself (as described in Annex A), results in any stocks or shares in the Company or its affiliates being issued or subscribed for. It is expressly stated that LXT does not represent any shareholding, participation, right, title, or interest in the Company or any other company, enterprise or undertaking. Once issued, it does not appear that holders of LXT incur any liability to the Company (or any other company, enterprise or undertaking), nor do they enter into mutual covenants, or agree to rights and obligations, with other LXT holders *inter se*. Consequently, it is unlikely that there would be any dealing in "securities" in the form of stocks or shares arising solely out of the design of LXT in itself.

19. As to whether LXT may be considered to be a debenture, LXT does not appear to be a "debenture" under the SFA for the following reasons:

    (a) the sale of LXT is non-refundable and LXT cannot be exchanged for cash (or its equivalent value in any other virtual currency) or any payment obligation by the Company or any affiliate;

    (b) LXT is not a loan to the Company or any of its affiliates and there is no expectation of profit;

    (c) LXT is not intended to represent a debt owed by the Company or any of its affiliates (and in this regard there does not appear to be any payment obligation on the part of the issuer, payment of coupon and/or invitation to deposit money with or to lend money to the Company or any of its affiliates);

    (d) LXT may have no value and there is no guarantee or representation of value or liquidity for LXT;

    (e) LXT may only be utilised on LITEX (when fully completed and deployed) as the economic incentive for participants to maintain the LXT blockchain (e.g. provision of

necessary services, opening and maintaining channels, as well as ensuring network connectivity).

For completeness, we would mention that LXT does not appear to constitute a buy-back arrangement as the sale of LXT is non-refundable.

Analysis of the token issuer's activity under the current definition of "collective investment scheme"

20. In relation to collective investment schemes, in the Frequently Asked Questions Specific to Collective Investment Schemes issued by the MAS (the **CIS FAQs**) a collective investment scheme is an arrangement where money from investors is pooled together with a view to deriving profits or income from the scheme. The scheme may invest in all kinds of assets, be they financial, real estate, precious metals or commodities. Whether or not exotic schemes (such as commodity investment schemes and schemes which involve virtual currencies or some other digital token) fall within the scope of that definition depends on the structure of each scheme. Where money invested in the scheme and profits or income from it are pooled, the scheme would be subject to the MAS' approval process. If a commodity is sold directly and separately to individuals, such sales would not be subject to any regulation. Schemes whose objectives are not to generate profit or income but for consumption (e.g. time-sharing schemes and memberships in golf or country clubs) would not fall within the regulatory scope of collective investment schemes under the SFA.

In the Enhanced Safeguards Consultation Paper, the MAS further mentioned that it:

"…has observed a number of arrangements offered to retail investors that fall out of the statutory definition of a CIS [i.e. collective investment scheme], simply by offering investors direct interests in underlying physical assets. This is in spite of an arrangement providing that while investors obtain legal title of the asset, they will cede day-to-day control over management of their property to the scheme operator to be managed collectively with assets of other scheme participants, for the purpose of enabling them to participate in profits of the scheme (**collectively-managed investment schemes**).

The key distinguishing characteristic of such schemes is that investors' contributions are not initially pooled. Apart from this, such collectively-managed investment schemes do not differ from regulated CIS…". MAS has announced plans to extend the scope of collective investment schemes to include schemes which are in substance similar to traditional regulated investment funds but do not pool investor's contributions. The proposed legislative amendments have, in fact, been passed by way of the SFA Amendment Act.

21. The above suggests that currently, an arrangement would fall outside the scope of regulation if the factual matrix indicates that (a) there is no initial pooling of assets, or (b) there is no expectation of deriving profits or income from the scheme.

22. From the various pronouncements from the MAS, it appears that the MAS is shifting its focus towards the fundamental purpose of transaction, and this should be analyzed in detail. A "utility" token by itself, once issued, with genuine functionality and circulating on its network, would rarely be construed as a "security". In the present case and under the current definition, it does not appear that the design of LXT, in itself, would be construed as a collective investment scheme.

23. For the following reasons, the management and control limbs of the definition of a collective investment scheme are not fulfilled:

    a. Contributions are not "managed" for the purpose of generating returns or other benefits (pooled or otherwise) to be paid to LXT token holders, but it is expressly indicated that contributions will be applied towards, *inter alia*, promoting the research, design and development of, and advocacy for a new blockchain based decentralised payment network which solves many of the problems with existing networks and excels in the micropayments area (instant transfer of small amounts of money at a low cost);

b. the whitepaper states that none of the Company and/or the team members shall be responsible for or liable for the value or liquidity of LXT;

c. we understand that there is no promise by the Company or any of its affiliates to pool, manage any asset and/or return contributions to contributors to the project;

d. there does not appear to be any economic benefit, beneficial interest or legal title conferred on contributors over any property, and LXT will not entitle token holders to any promise of fees, revenue, profits or investment returns;

e. the nature of digital tokens is that they are inherently transferable to other parties, and the mere fact (or even any hope) that LXT may be resold at a price that is potentially higher than the original purchase price does not change the fact that the intention and goal of the token sale is so that LXT is to act as a basic unit of account in the currency system on LITEX. In this regard, purchasers are required to acknowledge that they are purchasing LXT to participate in LITEX and to participate in the LITEX network; and

f. even if LXT holders are able to obtain additional LXT, this would not occur through the action or activities of any person or manager, but only through that token holder's participation in the ecosystem on LITEX (e.g. provision of necessary services, opening and maintaining channels, as well as ensuring network connectivity).

24. It should be noted that the law in this space is developing rapidly and we expect that the definition of "collective investment scheme" will be amended in time to come. To this end, the MAS has issued the "Response to Feedback Received – Proposals to Enhance Regulatory Safeguards for Investors in the Capital Markets" dated 22 September 2015 (the **Response to the Enhanced Safeguards Consultation Paper**), in response to the Enhanced Safeguards Consultation Paper and the SFA Amendment Act (which has been passed) has proposed certain amendments to the definition of "collective investment scheme". Among other things, the MAS proposed that the definition of "collective investment scheme" be amended (which is further discussed at paragraph 26 of this Annex B below). The MAS' response is also noteworthy because of its discussion of the meanings of the "management" and "control" limbs found in the definition of "collective investment scheme", which may be summarised as follows:

a. in relation to the "management" limb, whether there is management "as a whole" will depend on the investment objectives of the arrangements and the collective or individual nature of the arrangements made in order to produce the intended profits. Indications of whether there is collective management appear to be:

i. whether the scheme operator is likely to look after the essential profit-generating activity under the instructions of, or at least in consultation with, individual owner/investors, or whether it may do so without having regard to individual investors' interests or preferences; and/or

ii. whether management on an individual basis is likely to be impracticable – e.g. even where returns are generated from ownership rights to specific property, the returns are generated as a result of the operators' management of activities collectively on the property as a whole; and

b. in relation to the "control" limb, the MAS is of the view that for investors to be considered as having day-to-day control, they should have direct and on-going power to decide on operational matters relating to management of the scheme property. The greater the extent of reliance on the particular scheme operator's professed expertise in managing the scheme property, the less likely it is that investors have effective day-to-day control. It is also significant that the MAS considers that "if expectations created between the parties in the arrangement are such that investors would not be involved in the day-to-day management of the property, having contractual rights to be consulted on or to give the manager direction from time to time will ***not*** be considered as effective day-to-day control" (emphasis added).

While this discussion was in the context of a proposed amendment of the current definition of "collective investment scheme", it nevertheless remains relevant to, and instructive in relation to, the current definition, because the statutory wording applicable to these limbs is found in the existing definition and does not appear to change with the proposed amendment to such definition. We would mention that the MAS has issued a further "Response to Feedback Received on Amendments to the Securities and Futures Act and related regulations to implement Proposals to Enhance Regulatory Safeguards for Investors in the Capital Markets" on 7 November 2016 but this further document does not alter the position set out in the Response to the Enhanced Safeguards Consultation Paper.

25. Based on our understanding of the token issuer's activities relating solely to the ITO for LXT set out in Annex A, it appears that the element of pooling of contributions and profits, which is required for an arrangement to fall within the current definition of a collective investment scheme, is not present for the following reasons:

    a. the contributions are pooled but there is no promise of any profit or return on the contributions back to the contributors (i.e. the sale of LXT is non-refundable and LXT cannot be exchanged for cash or any payment obligation); and

    b. the contributions will be held by a separate entity after the ITO and contributors will have no economic or legal right over or beneficial interest in these contributions or the assets of that entity after the ITO.

26. Our view is that the design of LXT, in itself, will not be considered the operation of a collective investment scheme even after the proposed amendments to the definition come into effect. The relevant excerpts from the Response to the Enhanced Safeguards Consultation Paper are set out below:

    a. the MAS' intent is to extend capital markets regulatory safeguards to investors in arrangements which are in substance made and managed on a collective basis and hence pose similar risks to investors as traditional collective investment schemes. In particular, the MAS has noted that a number of such schemes currently avoid regulation as a collective investment scheme by offering investors direct legal title to individual assets (i.e. no pooling of investors' contributions). Nonetheless, investors' assets are effectively managed collectively by a third party such that their payoff is the same as the payoff that they would have obtained had their contributions been pooled; and

    b. the MAS is of the view that no pooling of investors' contributions or the profits of a scheme is necessary for a scheme to be caught as a collective investment scheme. MAS will move to amend the definition of "collective investment scheme" such that the "management" limb will be an alternative to the "pooling" limb. The two limbs are to be assessed independently of each other, and the absence of the pooling of contributions or profits will not preclude a finding that there is management as a whole.

27. Given the above, the MAS is working on expanding the collective investment scheme regulatory regime to also cover collectively-managed investment schemes (as referred to in paragraph 20 of this Annex B, i.e. where the management and pooling limbs are in the alternative). In this regard, the SFA Amendment Act has been passed. In principle and in substance, if there is no change to the requirement for an element of "profit", hence for the reasons set out at paragraph 25, it is not likely that the design of LXT, in itself, will be considered the operation of a collective investment scheme even after the proposed amendments to the definition (assuming they are carried out as discussed) come into effect.

28. There is a potential residual risk that pursuant to the powers granted under section 2(1)(h) of the SFA, the MAS may prescribe virtual currencies / digital tokens to be "securities" for the purpose of the SFA. However we would mention that as at the date hereof, there is no indication that the MAS intends to exercise its power to make such a declaration. Public statements released by the MAS have indicated that it would avoid taking such a broad brush approach towards the regulation of virtual currencies / digital tokens.

29. For completeness, we will briefly consider whether any of the Excluded Arrangements will apply to the design of LXT, in itself, such as to take it out of the scope of regulation. For the present fact pattern, the only Excluded Arrangement that appears relevant is that of a "closed-end fund" (as referred to in paragraph 10 of this Annex B). According to the CIS FAQs, closed-end funds such as venture capital funds and private equity funds would not fall to be regulated under the SFA.

30. The key characteristic of a closed-end fund is that units in such a collective investment scheme are not redeemable at the option of the investor. Closed-end funds typically take the form of investments in the shares of an investment company (such that the investor may not realise its investment until the shares have been redeemed) – for such closed-end funds though, because shares of a company are involved, this may trigger prospectus requirements under the SFA's regime in respect of offers of shares or debentures. One further important requirement is that the closed-end fund must be constituted as an entity or trust in order to qualify as an Excluded Arrangement.

31. It is unlikely that the investment arrangement offered (if applicable) may be deemed to be a closed-end fund because in the first place, for the reasons set out above, it is not likely that the design of LXT, in itself, will be considered the operation of a collective investment scheme. Further, we note that between the contributors and the entity holding the contributions, there is no contractual obligation which indicates that the contributors have any type of claim to the contributions after the token sale.

32. To date, it is unclear whether the scope of Excluded Arrangements will be amended following the amendment of the definition of "collective investment scheme" under the SFA, or in view of the MAS' "Consultation Paper on Facilitating Securities-Based Crowdfunding" (the **Crowdfunding Consultation Paper**) issued on 16 February 2015 (consultation on which has since been closed). The later issued Response to Feedback received on Facilitating Securities-Based Crowdfunding issued by the MAS on 8 June 2016 (the **Response to** the Crowdfunding Consultation Paper) and the SFA Amendment Act which has been passed however does not appear to propose to expand the scope of Excluded Arrangements.

Conclusion as to whether a licensing obligation is triggered

33. Considering the factors in their entirety, our view is that the design of LXT (as set out in Annex A), in itself, would not be considered the operation of a collective investment scheme, the management of which (in the context of the authorisation requirements for a collective investment scheme – see Annex C), or dealing of interests in which, would trigger an obligation to obtain a CMS licence.

34. It is however important to note that even if LXT would not be considered a security by design, it may be considered in a security in the manner in which it was sold, and/or how it is treated. Where LXT is eventually sold and held by purchasers for investment purposes, there is an increased risk that LXT will be considered a security.

Exemptions

35. For completeness, we now turn to consider the various exemptions from the CMS licensing requirement.

36. While there is a general exemption available to financial institutions (e.g. banks) that are regulated by the MAS, specific exemptions also apply to certain categories of persons carrying on business in regulated activities.

37. The criteria to qualify for such exemption from the requirement to obtain a CMS licence applicable to dealing in securities is set out in Appendix I of this Annex B. Based on our understanding of the design of LXT (even if the Company or its affiliates were considered to be operating a collective investment scheme) the relevant entities at present would not qualify for any of these exemptions.

38. Presently, there are no specific exemptions or exclusions under the SFA for activities relating to virtual currencies or for companies dealing with virtual currencies (except to the extent that such activities do not fall within the scope of any of the regulated activities). It is unclear if any new exemptions will be introduced, but it is likely that it will be some time before such exemptions would come into effect (if at all).

Appendix I to Annex B

Exemptions from the requirement to obtain a CMS licence in respect of dealing in securities

1. In relation to the regulated activity of dealing in securities, each of the following persons is exempted from the requirement to hold a CMS licence for such dealing, subject to the conditions and restrictions specified:

    a. a person carrying on business in dealing in securities for his own account, or an account belonging to and maintained wholly for the benefit of a related corporation, and with or through:

        i. the holder of a CMS licence to deal in securities;
        ii. a bank licensed under the Banking Act (Chapter 19 of Singapore) (the **Banking Act**);
        iii. a merchant bank approved as a financial institution under the Monetary Authority of Singapore Act (Chapter 186 of Singapore) (the **MAS Act**);
        iv. a bank licensed, registered, approved or otherwise regulated under the laws of a jurisdiction outside Singapore to conduct banking business, but only in relation to securities that are not quoted on a securities exchange;
        v. a corporation or firm licensed or registered to carry on business in dealing in securities under the laws of a jurisdiction outside Singapore, but only in relation to securities that are not quoted on a securities exchange; or
        vi. the Central Depository (Pte) Ltd pursuant to its securities borrowing and lending facility;

    b. a person whose dealing in securities is solely incidental to his carrying on business in:

        i. fund management;
        ii. providing custodial services for securities; or
        iii. securities financing;

    c. an investment company when dealing in securities solely in connection with its acting as an underwriter or sub-underwriter of the issue of those securities for its own account;

    d. the Central Depository (Pte) Ltd in respect of its dealing in securities:

        i. that is solely incidental to its business of providing depository services for securities; or
        ii. that is done by reason only of its entering into a transaction pursuant to its securities borrowing and lending facility, and in compliance with conditions specified in writing by the MAS;

    e. a person when carrying on business in dealing in bonds with:

        i. an accredited investor (please refer to Annex D for definition); or

        ii. a person whose business involves the acquisition and disposal of or holding of securities (whether as principal or agent);

    f. a corporation when subscribing for securities on behalf of a customer as nominee, provided that such corporation:

        i. has no interest in the securities subscribed for other than as a bare trustee; and

        ii. is a wholly-owned subsidiary of:

            (A) the holder of a CMS licence to deal in securities;
            (B) a bank licensed under the Banking Act;

(C) a merchant bank approved as a financial institution under the Monetary Authority of Singapore Act;
(D) a finance company licensed under the Finance Companies Act (Chapter 108 of Singapore);
(E) a securities exchange (as defined in the SFA);
(F) an exchange holding company (as defined in the SFA); or
(G) a clearing house (as defined in the SFA);

g. a person approved by the MAS when, pursuant to the establishment and promotion of an aircraft leasing business in Singapore, he deals in the shares of a special purpose corporation with:

i. a bank licensed under the Banking Act, a merchant bank approved as a financial institution under the MAS Act, or such other financial institution as may be approved by the MAS; or

ii. a corporation with total net assets exceeding $10 million in value or its equivalent in value in a foreign currency as determined in accordance with the most recent audited balance-sheet of the corporation or, in the case of a corporation which is not required to prepare audited accounts, a balance-sheet certified by the corporation as giving a true and fair view of the state of affairs of the corporation as at the end of the period to which it relates, (referred to in this sub-paragraph as a designated institution) if, and only if, such dealing in shares is subject to a prohibition that the designated institution may not subsequently dispose of the shares of the special purpose corporation except to another designated institution;

h. a trustee of a "qualified arrangement" (which term refers to certain prescribed arrangements under the SFA) in respect of securities whose dealing in securities is solely incidental to the management and administration of such arrangement;

i. a designated market-maker when carrying on business in dealing in designated securities for its own account or for the account of any of its related corporations;

j. a financial adviser licensed under the Financial Advisers Act (Chapter 110 of Singapore) (the **FAA**), or a person exempted under section 23 or 100 of the FAA in respect of the marketing of any collective investment scheme, when marketing, or redeeming units of, any collective investment scheme; and

k. any responsible person (a "responsible person", in relation to a collective investment scheme, means (i) in the case of a scheme which is constituted as a corporation, the corporation, or (ii) in the case of a scheme which is not constituted as a corporation, the manager for the scheme) for a collective investment scheme:

i. that is authorised under section 286 of the SFA;

ii. that is recognised under section 287 of the SFA; or

iii. where the units of the scheme have been, is or will be, offered in reliance on an exemption under Subdivision (4) of Division 2 of Part XIII of the SFA, in respect of his dealing in securities being:

(A) units of that scheme or the underlying securities that comprise the investment of funds under that scheme, provided that such responsible person is also the holder of a capital markets services licence, or an exempt person, in respect of fund management; or

(B) units of that scheme, provided that the dealing is effected through any of the following persons:

(BA) the holder of a CMS licence to deal in securities;

(BB) an exempt person in respect of dealing in securities being units of any collective investment scheme;

(BC) a financial adviser licensed under the FAA to market collective investment schemes; or

(BD) an exempt financial adviser as defined in the FAA in respect of marketing of collective investment schemes.

Annex C

Authorisation Requirements in relation to Offers of Collective Investment Schemes and Exemptions

Authorisation Requirements

1. Offers of investments in collective investment schemes are regulated under Division 2 of Part XIII of the SFA.

2. Section 285 of the SFA states that no person shall make an offer of units in a collective investment scheme if it has not been authorised under section 286 of the SFA or recognised under section 287 of the SFA. A person makes an offer of units in a collective investment scheme if, and only if, as principal:

    a. he makes (either personally or by an agent) an offer to any person in Singapore which upon acceptance would give rise to a contract for the issue or sale of those units by him or another person with whom he has made arrangements for that issue or sale; or

    b. he invites (either personally or by an agent) any person in Singapore to make an offer which upon acceptance would give rise to a contract for the issue or sale of those units by him or another person with whom he has made arrangements for that issue or sale.

3. Authorisation under Section 286 of the SFA is required for collective investment schemes constituted in Singapore and would be the relevant approval framework in the present case (the recognition framework applies to collective investment schemes which are constituted outside Singapore). Contravention of this requirement is a criminal offence which, upon conviction, would be punishable by a fine not exceeding S$150,000 or to imprisonment for a term not exceeding 2 years or to both and, in the case of a continuing offence, to a further fine not exceeding S$15,000 for every day or part thereof during which the offence continues after conviction.

4. It should be noted that a licensing and "fit and proper" requirement applies to the manager of a collective investment scheme seeking authorisation. In this regard, it is a condition for the authorisation of a collective investment scheme that:

    a. the manager of the scheme is:

        i. in the case of a collective investment scheme (A) that is a trust, (B) that invests primarily in real estate and real estate-related assets specified by the MAS in the Code on Collective Investment Schemes, and (C) all or any units of which are listed for quotation on a securities exchange (i.e. a REIT), a holder of a CMS licence for real estate investment trust management; and

        ii. in all other cases, a holder of a CMS licence for fund management or a person who qualifies for any of the relevant exemptions in respect of fund management; and

    b. the manager of the scheme is a fit and proper person in the opinion of the MAS (guidelines on the criteria of which have been issued by the MAS, but are outside the scope of this opinion).

5. In addition, where a collective investment scheme is constituted as a unit trust, the MAS has the discretion to authorise the scheme if and only if it is satisfied that:

    a. there is a manager for the scheme which satisfies the requirements set out in paragraph 4 above;

    b. there is a trustee for the scheme approved under section 289 of the SFA;

c. there is a trust deed in respect of the scheme entered into by the manager and the trustee for the scheme that complies with prescribed requirements; and

d. the scheme, the manager for the scheme and the trustee for the scheme comply with the SFA and the Code on Collective Investment Schemes (the **Code**).

As an aside, the Code is Issued pursuant to section 284 of the SFA, which provides that the MAS shall issue such code "for the more effective administration, supervision and control of collective investment schemes". The Code sets out details of the best practices on management, operation and marketing of schemes that managers and approved trustees are expect to observe. Further details of the authorisation requirements relating to (among other things) the approval criteria for trustees, requirements for approved trustees, trust deed requirements, which are requirements that apply to collective investment schemes constituted as unit trusts, and the application procedure for authorisation of collective investment schemes, may be found at Part II of the Securities and Futures (Offers of Investments) (Collective Investment Schemes) Regulations 2005. Note that non-compliance with the Code shall not of itself render a person liable to criminal proceedings but such failure may, in any proceedings whether civil or criminal, be relied upon by any party to the proceedings as tending to establish or to negate any liability which is in question in the proceedings.

6. The MAS' discretion to authorise collective investment schemes extends to schemes which are not constituted as unit trusts. However, in such cases, the MAS will only do so if and only if it is satisfied that the scheme and the manager for the scheme comply with such requirements as may be prescribed.

7. The MAS also has the following powers:

   a. it may refuse to authorise any collective investment scheme where it appears to the MAS that it is not in the public interest to do so. Where refusal is based on reasons other than public interest, the MAS must give the person who made the application an opportunity to be heard;

   b. it may exempt (by order published in the Gazette) any offer of units which would otherwise fall within the scope of regulation from the requirements of Division 2 of Part XIII of the SFA;

   c. it may revoke, suspend or withdraw any authorisation granted in respect of a collective investment scheme, and issue consequential directions on the dealings in relation to such scheme; and

   d. prescribe other requirements from time to time in relation to the authorisation of collective investment schemes.

8. An application must be made to the MAS for the authorisation of a collective investment scheme. An application to the MAS for authorisation of a collective investment scheme under section 286(1) of the SFA is made by way of Form 1 which requires (among other things):

   a. information on the collective investment scheme;

   b. information on the manager;

   c. relationship between the manager and trustee/custodians;

   d. information on investments in other collective investment schemes; and

   e. information on sub-managers.

Exemptions from the Authorisation Requirements

9. There are various exemptions from the above requirements in respect of offers of collective investment schemes under the SFA. Broadly, these are:

    a. issues or transfers for no consideration;

    b. small offers;

    c. private placements;

    d. offers made to institutional investors;

    e. offers made to accredited investors and certain other persons; and

    f. other limited exemptions for offers made using offer information statement and in certain other circumstances.

    Each will be dealt with in further detail below.

Issues or transfers for no consideration (section 302A of the SFA)

10. An exemption from the authorisation requirements applies if no consideration is or will be given for the issue or transfer of units in a collective investment scheme or the underlying units of the collective investment scheme. Where the offer relates to an option to subscribe for or purchase such units, it is a requirement for the exemption to apply that no consideration is or will be given for the issue or transfer of the option, as well as for the issue or transfer of the underlying units on the exercise of the option.

Small offers (section 302B of the SFA)

11. This exemption, which provides for an exemption from the authorisation requirements, relates to "personal offers" of units in a collective investment scheme, and where (among other things) there is a cap on the amount of funds raised.

12. A "personal offer" is defined under the SFA as one that:

    a. may only be accepted by the person to whom it is made; and

    b. is made to persons that are likely interested in the offer, having regard to:

        i. any previous contact before the date of the offer between the person making the offer and that person;

        ii. any previous professional or other connection established before that date between the person making the offer and that person; or

        iii. any previous indication (whether through statements made or actions carried out) before that date by that person to the person making the offer or any of the specified persons permitted to promote the offer that he is interested in offers of that kind.

13. The other conditions to qualify for this exemption are as follows:

    a. the total amount raised by the person from such offers within any period of 12 months does not exceed S$5,000,000 (or its equivalent in a foreign currency), or such other sum as may be specified by the MAS;

    b. in respect of each offer, the person making the offer must give the person to whom he makes the offer:

i. a statement that the offer is made in reliance on an exemption under the SFA and is not made in or accompanied by a prospectus that is registered with the MAS, and the scheme is not authorised or recognised by the MAS; and

ii. a notification in writing of reselling restrictions that apply to the units to which the offer relates;

c. no offer is accompanied by an advertisement (an "advertisement" for this purpose means (i) a written or printed communication, (ii) a communication by radio, television or other medium of communication, or (iii) a communication by means of a recorded telephone message, that is published in connection with an offer of units in a collective investment scheme, but does not include certain prescribed documents) making an offer or calling attention to the offer or intended offer;

d. no selling or promotional expenses are paid or incurred in connection with each offer other than those incurred for administrative or professional services, or by way of commission or fee for services rendered by any of the following:

i. the holder of a CMS licence to deal in securities;

ii. an exempt person in respect of dealing in securities;

iii. a personal licensed under the FAA in respect of marketing of collective investment schemes;

iv. an exempt financial adviser under the FAA; or

v. a person who is license, approved, authorised or otherwise regulated under the laws, codes or other requirements of any foreign jurisdiction in respect of dealing in securities or marketing of collective investment schemes, or who is exempted therefrom in respect of such dealing or marketing; and

e. no prospectus in respect of any offer has been registered by the MAS (or where registered, such prospectus has expired or the person making the offer has before making the offer informed the MAS of its intent to make the offer in reliance on the small offer exemption).

14. It should also be noted that in determining whether the amount raised by a person from offers within a period of 12 months exceed the applicable cap referred to in paragraph 13(a), each amount raised by that person from any offer of units in the same collective investment scheme, or by that person or another person from any offer of securities which is a "closely related offer" (as determined by considering such factors as the MAS may prescribe), within that period in reliance on the small offers exemption or other prescribed exemptions, shall be included.

15. Reselling restrictions also apply on units in a collective investment scheme acquired pursuant to an offer made in accordance with the small offers exemption, in that the authorisation and prospectus requirements will apply unless various conditions are complied with.

Private placements (section 302C of the SFA)

16. This exemption, which provides for an exemption from the authorisation requirements, relates to offers of units offered to no more than 50 persons within any period of 12 months.

17. Similar conditions as those found in the above paragraphs 13(c)(restriction on advertisements), (d)(restrictions on selling or promotional expenses) and (e)(no subsisting prospectus) under the small offers exemption apply to the private placement exemption (with some slight variation), such that there must be effectively no publicity of such offer in order to rely on this exemption. Offers in the same collective investment scheme or which are "closely related" (similar to the condition referred to at paragraph 14 above) are also relevant in determining whether or not

offers have been made to no more than 50 persons within the 12 month period, together with the various rules on how a "person" is counted under this exemption (which effectively also imposes certain restrictions on the reselling of units offered under this exemption).

Offers made to institutional investors (section 304 of the SFA)

18. Where an offer of units in a collective investment scheme is made to an institutional investor (please refer to Annex D for definition), whether or not such units have been previously issued, there is an exemption from the authorisation requirements.

Offers made to accredited investors and certain other persons (section 305 of the SFA)

19. An exemption from the authorisation requirements is also available for offers of units that are offered to:

    a. any of the following persons (described as "relevant persons"):

        i. an "accredited investor" (please refer to Annex D for definition);

        ii. a corporation the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor;

        iii. a trustee of a trust the sole purpose of which is to hold investments and each beneficiary of which is an individual who is an accredited investor;

        iv. an officer or equivalent person of the person making the offer (such person being an entity) or a spouse, parent, brother, sister, son or daughter of that officer or equivalent person; or

        v. a spouse, parent, brother, sister, son or daughter of the person making the offer (such person being an individual); or

    b. a person who acquires the units as principal if the offer is on terms that the units may only be acquired at a consideration of not less than S$200,000 (or its equivalent in foreign currency) for each transaction, whether such amount is to be paid for in case or by exchange of securities or other assets.

20. As with the other exemptions above, the conditions connected with this exemption include restrictions (similar to those referred to in paragraphs 13(c), (d) and (e) above) on advertisements, promotional and selling expenses and there being no subsisting prospectus in respect of the offer (again, with some slight variation).

21. Various re-selling restrictions also apply to units acquired by relevant persons pursuant to this exemption, non-compliance with which would trigger the authorisation and prospectus requirements.

Other exemptions

22. Under section 303 of the SFA, an exemption is available from the prospectus requirements (only) where an offer is made of units in a collective investment scheme that have been previously issued, are listed for quotation or quoted on a securities exchange and are traded on an exchange. In addition, where an offer is one to enter into an underwriting agreement relating to units in a collective investment scheme, the exemption applies to cover both the authorisation and prospectus requirements.

<u>Conclusions on exemptions from authorisation requirements</u>

23. The conditions to qualify for the exemptions from the authorisation requirements make it difficult for the Company or its affiliates to rely on any of them. The conditions clearly limit the scope of persons to whom offers of a collective investment scheme may be made (e.g. by requiring

offers to be personal offers, to limiting the types of investors to certain classes of investors who are deemed sophisticated, and imposing advertising and other publicity restrictions). These would preclude the Company's activities, given that the ITO is targeted at the general public at large, and the Company appears to also engage in advertising and other publicity to this end.

Annex D

Specific classes of investors

1. Institutional investor

An "institutional investor" means:

a. a bank that is licensed under the Banking Act (Chapter 19 of Singapore);

b. a merchant bank that is approved as a financial institution under section 28 of the Monetary Authority of Singapore Act (Chapter 186 of Singapore);

c. a finance company that is licensed under the Finance Companies Act (Chapter 108 of Singapore);

d. a company or co-operative society that is licensed under the Insurance Act to carry on insurance business in Singapore;

e. a company licensed under the Trust Companies Act (Chapter 336 of Singapore);

f. the Government;

g. a statutory body established under any Act;

h. a pension fund or collective investment scheme;

i. the holder of a CMS licence for:

   i. dealing in securities;
   ii. fund management;
   iii. providing custodial services for securities;
   iv. real estate investment trust management;
   v. securities financing; or
   vi. trading in futures contracts;

j. a person (other than an individual) who carries on the business of dealing in bonds with accredited investors or expert investors;

k. the trustee of such trust as the MAS may prescribe, when acting in that capacity; or

l. such other person as the MAS may prescribe, which as at the date hereof, are the following:

   i. a designated market-maker;
   ii. a headquarters company or Finance and Treasury Centre which carries on a class of business involving fund management, where such business has been approved as a qualifying service in relation to that headquarters company or Finance and Treasury Centre under section 43E(2)(a) or 43G(2)(a) of the Income Tax Act (Chapter 134 of Singapore), as the case may be;
   iii. a person resident in Singapore who undertakes fund management activity in Singapore on behalf of not more than 30 "qualified investors" (within the meaning of the SFA); and
   iv. a Service Company which carries on business as an agent of a member of Lloyd's.

2. Accredited investor

An "accredited investor" means:

a. an individual:

i. whose net personal assets exceed in value S$2 million (or its equivalent in a foreign currency) or such other amount as the Authority may prescribe in place of the first amount; or
ii. whose income in the preceding 12 months is not less than S$300,000 (or its equivalent in a foreign currency) or such other amount as the Authority may prescribe in place of the first amount;

b. a corporation with net assets exceeding S$10 million in value (or its equivalent in a foreign currency) or such other amount as the MAS may prescribe, in place of the first amount, as determined by:

i. the most recent audited balance-sheet of the corporation; or
ii. where the corporation is not required to prepare audited accounts regularly, a balance-sheet of the corporation certified by the corporation as giving a true and fair view of the state of affairs of the corporation as of the date of the balance-sheet, which date shall be within the preceding 12 months;

c. the trustee of such trust as the MAS may prescribe, when acting in that capacity; or

d. such other person as the MAS may prescribe, which, as at the date hereof, are the following:

i. the trustee of a trust of which all property and rights of any kind whatsoever held on trust for the beneficiaries of the trust exceed S$10 million in value (or its equivalent in a foreign currency);
ii. an entity (other than a corporation) with net assets exceeding S$10 million in value (or its equivalent in a foreign currency);
iii. a partnership (other than a limited liability partnership within the meaning of the Limited Liability Partnerships Act 2005 (Act 5 of 2005)) in which each partner is an accredited investor; and
iv. a corporation, the sole business of which is to hold investments and the entire share capital of which is owned by one or more persons, each of whom is an accredited investor.