Our ref: HLC/ 51548.1

Your ref: –

PRIVATE & CONFIDENTIAL

1 July 2024

ATR FOUNDATION LTD.
190 Woodlands Industrial Park E5
#08-13
Woodlands BizHub
Singapore 757516

Dear Sirs

ATR FOUNDATION LTD. – LEGAL OPINION IN RELATION TO WHETHER THE TOKENS (AS DEFINED HEREIN) ARE CAPITAL MARKET PRODUCTS UNDER PART I OF THE SECURITIES AND FUTURES ACT 2001 OF SINGAPORE ("SFA")

A.   <u>**INTRODUCTION**</u>

1.   We have been instructed by ATR Foundation Ltd. (UEN No. 202413475M), a company incorporated in Singapore ("**Company**") as follows ("**Instructions**"):

   (a)   The Company is an entity associated with the ATR Network (the "**Project**"), which is an innovative multi-modal supercomputing network for decentralized privacy data training (the "**Network**"). The Network integrates three major technical elements, namely, the trust gene of blockchain technology, the time series analysis capability of general multimodal models, and the advanced privacy computing environment, with the aim of building a new era of decentralized artificial intelligence ("**AI**") applications for the Web3.0 era. The Project is built on a Web3.0 AI algorithm market based on the Token (as defined below) and transforms AI models, data and computing resources into tradable commodities on the Network.

   (b)   in connection therewith, it is intended that 688,000,000 cryptographic tokens associated with the Project, known as "ATB Tokens" ("**Tokens**") will be sold, allocated and distributed ("**Token Distribution**") by way of, *inter alia*, as rewards for miners, sale to the Networks users ("**Users**") and allocation to the public on the ATR intelligent data public chain.

   (c)   the Tokens are intended to be used in the following scenarios to serve, exhaustively, the following functions and/or possess, exhaustively, the following characteristics ("**Token Functions**"):

      (i)   Tokens are the built-in native token and main currency of the Network and grant holders of the Token ("**Tokenholders**") the right to access channels on the Network. Tokens must be consumed to obtain these access rights, which

include but are not limited to participation in AI model training, data sharing, mining on the Network, governance voting and other activities such as joining and using the privacy trusted execution environment ("**TEE**") computing infrastructure and uploading AI models to the blockchain.

(ii)   the Token is a protocol token which has its blockchain on a new virtual engine mechanism called "AVM". Tokens allow Tokenholders to mine ("**Token Miners**") and earn Tokens as a form of reward on the Network in the following ways, with such Tokens being consumed as gas consumption for interacting with the Network:

(A)   Tokens are earned by Token Miners as a reward when they provide AI model services, participate in data annotation and cleaning, and contribute computing resources to the Network;

(B)   Through mining the blocks on the Token's blockchain by providing the algorithm of "general multimodal model" or "universal multimodal model" ("**Model**") or related high-quality data sets in the verified multimodal, Token Miners can obtain dataset fragments and reward tokens on the Network, which have a value anchored and linked to the Tokens and are exchangeable into the Tokens at a certain exchange ratio. Token Miners participate in the competition of block mining by contributing a Model that has practical benefits and excellent performance, which links the Token Miners mining capacity directly to the actual performance of the Model and ensures both the consensus of the blockchain and the provision of service products with substantial value to serve the market demand. This incentive mechanism optimises the performance of the Model and encourages the continuous improvement of performance indicators, adaptability and market competitiveness of the Model on the premise of ensuring data privacy and security.

(C)   Token Miners also earn mining dataset fragments by providing efficient and useful Models and can obtain more block rewards such as the AI model miner reward, privacy TEE computing reward or data provision reward, which are in the form of other tokens (which are not the Tokens) issued by the Model, or Token rewards should they take the block refining advanced. The Model provided by Token Miners performs tagging, data analysis, and processing based on the original data, and outputs useful data vector sets or available factor indicators, which are refined data that can be sold and packaged for application use and training AI within the Network. In addition to mining rewards, as a Web3.0 AI service provider on the Network, Token Miners can also enjoy additional service fees in the form of Tokens issued by the Model of up to 5-10% of the value generated by the Model and other sources of income, such as service fees for application programming interface ("**API**") applications, when their models are widely adopted and create value in actual business scenarios, forming a growth model driven by both mining revenue and service revenue derived from Users who pay for the Model services.

For the avoidance of doubt, the Tokens do not confer upon Tokenholders any right (contingent or otherwise) to participate in or receive any rewards, profits, income or other payments or returns of the Company or from the Project or any other entity by virtue of their holding, ownership or possession of the Tokens only and do not confer any right or interest on the Tokenholders to call for redemption of the Tokens by the Company or any other entity, or

require or oblige the Company or any other entity to repurchase any or all of the Tokens of a Tokenholder, or repay the Tokenholders any part of consideration paid by the Tokenholder to the Company.

(iii) Tokens are the payment currency for supercomputing network services, purchases of AI models, the rental of privacy supercomputing resources, service fees and Network fees on the Network. Tokenholders who are node members (such as decentralised app developers or data owners) can purchase these high-quality general model service capabilities provided by Token Miners by consuming the Tokens or purchase individual model service capabilities within the model using the model tokens which have a value linked to the Tokens. The verifiable market on the Network ensures that when the aforementioned services mentioned are correctly provided by a Token Miner, the corresponding payment in the form of Tokens will be paid to the Token Miner.

(iv) Tokens entitle large node Token Miners who have staked a minimum value of 3,000 Tokens on the Network and who meet the requirements for hardware devices, such as computing resources with a privacy TEE of 40G or more, to participate in the governance of the Network by voting on proposals which have an impact on the direction of ecological development of the Network such as the airdrop policy, node integration and system upgrades, as well as share the results of network value growth. The governance voting on the Network adopts a node multi-signature permission structure, which requires a minimum of 3 nodes participating in the multi-signature and permissions from more than 50% of the nodes before the execution of the vote can be recognised. Token Miners are granted rewards for successful governance voting from the results of Network value growth in proportion to the amount of Tokens staked with the Network. However, the Tokens do not and will not confer on each Tokenholder any voting rights in relation to any assets of the Company, its affiliates or any other entity.

(d) the Tokens that have been sold and/or distributed pursuant to the Token Distribution, have been sold and/or distributed on such terms and conditions governing the Token Distribution that do not revise, modify, or add to the Token Functions as described herein.

2. We have been instructed by the Company to issue this legal opinion ("**Opinion**") to advise solely on whether the Tokens fall within the ambit of "capital markets products" as contemplated under Part I of the SFA by virtue of the Token Functions ("**CMP Enquiry**") insofar as it refers to the following (each as defined in Section 2(1) of the SFA):

(a) securities;

(b) units in a collective investment scheme;

(c) derivatives contracts;

(d) spot foreign exchange contracts for the purposes of leveraged foreign exchange trading; or

(e) such other products as the Authority (as defined below) may prescribe as capital markets products.

We have not been instructed to advise on, and have not advised on, any other token or coin on the Network other than the Tokens, the sale of the Tokens (whether public sale or private sale, or whether conducted through or in connection with any digital assets or cryptographic

token exchange), any Token Distribution and/or any matters in relation thereto (including licensing or regulatory matters). We have also not been instructed to advise on the status of the Tokens from the perspective of the Payment Services Act 2019 of Singapore ("**PS Act**") or other than from the perspective of the SFA within the scope as aforestated. Without limiting the generality of the foregoing and in particular, we are also not instructed to advise, and have not advised, on the Project, the Network, the activities conducted thereunder from the perspective of the SFA or the PS Act. We have advised on the status of the Tokens purely based on the Instructions given to us as at the date hereof, and in particular, does not address the status of the Tokens arising from any future rights or features that may be added to or removed from such Tokens, or future iterations of the Token or the Whitepaper (as defined below), if any.

3.   We are duly qualified to practise law in Singapore and to advise on matters governed by the laws of Singapore and such qualification has not been revoked, suspended, restricted or limited in any manner whatsoever. Accordingly, we are duly qualified to issue this Opinion.

4.   In rendering this Opinion, we have made the assumptions (without enquiry) as set out in Schedule 1 of this Opinion (the "**Assumptions**"). This Opinion is also subject to the qualifications as set out in Schedule 2 of this Opinion (the "**Qualifications**").

B.   DOCUMENTS EXAMINED

5.   For the purposes of this Opinion, we have examined the following documents (the "**Documents**") which were submitted to us by the Company or available as public information:

(a)   the version of the whitepaper in English provided to us which is annexed hereto as **Annex A** (the "**Whitepaper**"); and

(b)   the relevant laws and guidelines as set out in Schedule 3 of this Opinion.

6.   For the purposes of this Opinion, we have not examined, been provided with or instructed to review, any document other than that specifically mentioned above. In particular, we have not had sight of, and express no opinion whatsoever with respect to any other agreements or documents which are mentioned or referred to in any of the Documents.

C.   OUTLINE OF THE RELEVANT LAWS, ANALYSIS AND OPINION

7.   Under Section 2(1) of the SFA, "capital markets products" means any:

"(a)   securities;

(b)   units in a collective investment scheme;

(c)   derivatives contracts;

(d)   spot foreign exchange contracts for the purposes of leveraged foreign exchange trading; and

(e)   such other products as the Authority may prescribe as capital markets products."

8.   **Whether the Tokens are securities**

Under Section 2(1) of the SFA, "securities" means:

"(a)   shares, units in a business trust or any instrument conferring or representing a legal or beneficial ownership interest in a corporation, partnership or limited liability

partnership;

(b)   debentures; or

(c)   any other product or class of products as may be prescribed,

but does not include –

(i)   any unit of a collective investment scheme;

(ii)   any bill of exchange;

(iii)   any certificate of deposit issued by a bank or finance company, whether situated in Singapore or elsewhere; or

(iv)   such other product or class of products as may be prescribed".

8.1.   <u>Whether the Tokens are shares within the meaning of "securities"</u>

8.1.1.   Under Section 2(1) of the SFA, the definition of "share" bears the same meaning as that found in the Companies Act 1967 of Singapore ("**Companies Act**"), which refers to "*share in the share capital of a corporation and includes stock except where a distinction between stocks and shares is expressed or implied*".

8.1.2.   *Halsbury's Laws of Singapore* Volume 6 (LexisNexis Singapore, November 2021) at paragraph 70.343 provides further guidance on the legal nature of shares. It is stated that a share would be regarded as a bundle of:

(a)   rights, being the right to participate on the terms of the memorandum and articles of association (now known as the constitution) of a company, as well as the right to participate, when the company is wound up, in the assets of the company remaining after all the debts of the company have been paid; and

(b)   obligations, being liabilities in the corporation such as the liability to pay calls and the liability to contribute to the assets of the company in the event of a winding up.

A share has also been described in *Borland's Trustee v Steel Bros & Co Ltd* [1901] 1 Ch 279 at [288] per Farwell J as *"consisting of a series of mutual covenants entered into by all the shareholders* inter se*"*.

8.1.3.   We observe that neither the SFA nor the Companies Act provides a definition of "stocks". In this regard, Halsbury's Laws of Singapore, Volume 6 (LexisNexis Singapore, November 2021), at paragraph 70.345 provides *inter alia* as follows:

> *"Fully paid-up shares may also be converted into stock. Stock, unlike shares, does not exist as discrete units but as a fund. … Another difference is that shares must be numbered but stock need not be. Apart from this there is no significant difference between stock and shares."*

8.1.4.   Based on the Documents and the Instructions, we note that:

(a)   The Tokens appear to be each a discrete unit in nature, and do not exist as a fund; and

(b)   the Tokens do not:

(i)   represent any share or stock in the share or stock capital of the Company (or any other entity) or ownership in the share or stock capital of the Company

(or any other entity) in any form or manner;

(ii)   grant any right or interest to a Tokenholder to participate in the terms of the constitution of the Company (or any other entity) or in the assets of the Company (or any other entity) in the event of a winding up;

(iii)   confer any liabilities on a Tokenholder such as liability to pay calls or to contribute to the assets of the Company (or any other entity) in the event of a winding up; or

(iv)   constitute a series of mutual covenants with the shareholders of the Company (or any other entity).

8.1.5.   Based on the foregoing paragraph and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens do not constitute shares or any instrument conferring or representing an ownership interest (in any form or manner) in the Company (or any other entity), and hence are not, by virtue of the Token Functions, capital markets products under Part I of the SFA insofar as capital markets products refer to securities and such securities refer to shares.

8.2.   <u>Whether the Tokens are units in a business trust</u>

8.2.1.   Under Section 2(1) of the SFA (read with Section 2 of the Business Trusts Act 2004 of Singapore ("**BTA**")), "business trust" means:

"*(a)   a trust that is established in respect of any property and that has the following characteristics:*

(i)   the purpose or effect, or purported purpose or effect, of the trust is to enable the unitholders (whether by acquiring any right, interest, title or benefit in the property or any part of the property or otherwise) to participate in or receive profits, income or other payments or returns arising from the management of the property or management or operation of a business;

(ii)   the unitholders of the trust 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;

(iii)   the property subject to the trust is managed as a whole by a trustee or by another person on behalf of the trustee;

(iv)   the contributions of the unitholders and the profits or income from which payments are to be made to them are pooled; and

(v)   either —

(A)   the units in the trust that are issued are exclusively or primarily non-redeemable; or

(B)   the trust invests only in real estate and real estate-related assets specified by the Authority in the Code on Collective Investment Schemes mentioned in Section 284 of the [SFA] and is listed on an approved exchange; or

(b)   a class or description of trust that is declared by the Authority, by notice published in the Gazette, to be a business trust for the purposes of [the BTA],

but does not include the types of trusts specified in the Schedule [of the BTA]."

[Definitions added for purposes of this Opinion]

8.2.2.   Further, under Section 2(1) of the SFA, "unit" in relation to a business trust, means a "*share in the beneficial ownership in the trust property of the business trust*".

8.2.3.   We observe that the term "trust" is not defined in the SFA. Notwithstanding such lack of definition in the SFA, the Authority stated in paragraph 4 of Part I of the consultation paper entitled "Public Consultation on Regulation of Business Trusts" issued by the Authority on 10 December 2003 that "*[business trusts] are essentially businesses structured in the form of trusts instead of corporations. The trustee of the [business trust] has legal ownership of the assets of the underlying business in its capacity as a trustee. Investors take on beneficial ownership of the trust assets by acquiring units in the trust. Unitholders are granted economic benefits in the form of dividends paid out by the [business trust]*". We further observe that the Singapore High Court had commented in *Sumitomo Bank Ltd v Thahir Kartika Ratna* [1992] SGHC 301 at [191] that "*[e]very kind of trust is a relationship in respect of property under which the trustee is obliged to deal with the property vested in him for the benefit of the beneficiary*".

8.2.4.   Based on the Documents and the Instructions, we note that:

(a)   (i)   no trustee has legal ownership of the assets of the underlying business of the Company, or holds property or rights on trust for the Tokenholders;

(ii)   the Company does not appear to be acting as a trustee on behalf of the Tokenholders in respect of the Tokens, or retain any legal or beneficial interest in any of the Tokens; and

(iii)   the Tokenholders do not participate in or receive any economic benefits, whether in the form of profits, income, dividends or other payments or returns arising from the business to be paid out by the Company, solely by virtue of their holding of the Tokens,

and accordingly, no trust has been established between the Company and the Tokenholders; and

(b)   the structure of the Company is not a business trust under the SFA.

8.2.5.   Based on our review of the relevant regulations and notifications in force under the SFA, the structure of the Company is not a class or description of trust that is declared by the Authority, by notice published in the *Gazette*, to be a business trust for the purposes of the BTA.

8.2.6.   Based on the foregoing Paragraphs 8.2.4 and 8.2.5, and subject to all of the Assumptions and Qualifications, we are of the opinion that the Company is not structured as a business trust under the SFA and accordingly, the Tokens do not, by virtue of the Token Functions, constitute capital markets products insofar as capital markets products refer to securities and such securities refer to units in a business trust.

8.3.   <u>Whether the Tokens are debentures within the meaning of "securities"</u>

8.3.1.   We observe that the definition of "debenture" under the SFA is not exhaustive. Under Section 2(1) of the SFA, a debenture "*includes   –*

(a)   *any debenture stock, bond, note and any other debt securities issued by or proposed to be issued by a corporation or any other entity, whether constituting a charge or not,*

on the assets of the issuer;

(b)   any debenture stock, bond, note and any other debt securities issued by or proposed to be issued by a trustee-manager of a business trust in its capacity as a trustee-manager of the business trust, or a trustee of a real estate investment trust in its capacity as trustee of the real estate investment trust, whether constituting a charge or not, on the assets of the business trust or real estate investment trust; or

(c)   such other product or class of products as the Authority may prescribe,

but does not include —

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

(ii)   for the purposes of the application of this definition to a provision of [the SFA] in respect of which any regulations made under that provision 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".

8.3.2.   The Authority has further prescribed that for the purposes of sub-paragraph (c) in paragraph 8.3.1 above, under Regulation 2(1) of the SFPDR (as defined in Schedule 3 of this Opinion), a debenture "*includes an arrangement:-*

(a)   *that is entered into on or after 8 October 2018;*

(b)   *under which –*

   (i)   a person (A) transfers legal title to any amount of any precious metal (called in this regulation the specified precious metal) to another person (B), for consideration given by B;

   (ii)   at a predetermined time or within a predetermined period after the arrangement is entered into —

      (A)   B is required to transfer legal title to the same amount of the specified precious metal to A, for a predetermined consideration given by A; or

      (B)   B may exercise an option to require A to acquire the legal title to the same amount of the specified precious metal from B for a predetermined consideration given by A, whether or not B may only exercise the option on the fulfilment of one or more conditions; and

   (iii)   the predetermined consideration to be given by A under -

      (A)   sub-paragraph (ii)(A); or

      (B)   sub-paragraph (ii)(B) upon B's exercise of the option mentioned in that provision,

      is greater than the value of consideration given by B under sub-paragraph (i);
and

(c)   *that is neither entered into in the ordinary course of B's business, nor solely incidental to that business."*

Under the SFPDR, "*precious metal*" means gold, silver or platinum.

8.3.3. In addition, Sections 239(3) and 239(3A) of the SFA reads:

"239(3). For the purposes of this Division –

(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."

"239(3A). Notwithstanding subsection (3) –

(a)   any invitation to a person by a prescribed entity to make a deposit with the prescribed entity is not an offer of debentures; and

(b)   the following documents issued or intended or required to be issued by a prescribed entity are not debentures:

(i)   any certificate of deposit;

(ii)   any other document acknowledging or evidencing or constituting an acknowledgment of the indebtedness of the prescribed entity in respect of any deposit that is or may be made with the prescribed entity",

where "prescribed entity" means (a) any bank licensed under the Banking Act 1970 of Singapore; or (b) any entity or any entity of a class which has been declared by the Authority, by order published in the *Gazette*, to be a prescribed entity for the purposes of Section 239(4) of the SFA.

8.3.4. In relation to what constitutes debentures, the Authority stated in paragraph 2.1 of Part I the 2014 Consultation Paper (as defined in Schedule 3 of this Opinion) that "*[d]ebentures are debt securities*" and "*[b]roadly, 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*" (the "**2014 Debentures Consultation Position**").

8.3.5. The Authority also provided the following illustration in the MAS Guide (as defined in Schedule 3 of this Opinion):

*"Company K intends to offer digital tokens ("**Token K**") to any person globally, including in Singapore, for US$1 per Token K. Company K aims to achieve a relatively constant price for Token K by pegging its value to the US dollar. To do so, Company K will only accept payments for Tokens K in the form of electronic deposits of US dollars into its US-dollar denominated bank account. These deposits will serve as a fiat currency reserve to back the purported US$1 value of each Token K in circulation. Holders of Tokens K will have the right to exchange Tokens K with Company K for US$1 per Token K. Company K will not have any rights to cancel or redeem Token K from token holders. Company K may consider future tie-ups with retail shops to enable Token K to be used to pay for purchases."*

In relation to the above illustration, the MAS Guide also states that "*[a]s Company K is under an obligation to the buy-back of Token K from the holders, Token K may constitute a debenture if Token K represents Company K's indebtedness to the holder to pay back the holder US$1 per Token K*".

8.3.6. Based on the Documents and the Instructions, we note that the Tokens do not:

(a) confer, and do not purport to confer, any right or interest on the Tokenholders to call for redemption of any of the Tokens by the Company (or any other entity) or to require the Company (or any other entity) to repay the Tokenholders any part of the consideration paid by the Tokenholders to the Company ("**Purchase Consideration**");

(b) appear to be an invitation to deposit money with or to lend money to the Company (or any other entity);

(c) appear to involve any transfer of any precious metal; and

(d) appear to be instruments representing, or purport to be instruments representing, any form of indebtedness and the Purchase Consideration does not constitute or purport to constitute borrowings or debt of any form.

8.3.7. Based on our review of the relevant regulations and notifications in force under the SFA and the Documents and the Instructions, the Authority has not prescribed any other product or class of products as being a debenture under Section 2(1) of the SFA.

8.3.8. Based on the foregoing paragraphs 8.3.6 and 8.3.7 and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens do not, by virtue of the Token Functions, constitute capital markets products under Part I of the SFA insofar as capital markets products refer to securities and such securities refer to debentures.

8.4. <u>Whether the Tokens are instruments conferring or representing a legal or beneficial ownership interest in a corporation, partnership or limited liability partnership</u>

8.4.1. Based on the Instructions, we note that the Tokens do not appear to confer or represent a legal or beneficial interest in the Company or any other entity, corporation, partnership or limited liability partnership.

8.4.2. Based on the foregoing paragraph 8.4.1 and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens do not, by virtue of the Token Functions, constitute capital markets products under Part I of the SFA insofar as capital markets products refer to securities and such securities refer to instruments conferring or representing a legal or beneficial ownership interest in a corporation, partnership or limited liability partnership.

8.5. <u>Whether the Tokens are such other product or class of products as the Authority may prescribe as securities</u>

Based on our review of the relevant regulations and notifications in force under the SFA and the Documents and the Instructions, the Authority has not prescribed any other product or class of products as being securities under Section 2(1) of the SFA.

9. **Whether the Tokens are "units in a collective investment scheme"**

9.1. Under Section 2(1) of the SFA, a "collective investment scheme" ("**CIS**") means:

"*(a) an arrangement in respect of any property —*

> *(i) under which the participants do not have day-to-day control over the management of the property, whether or not the participants have the right to be consulted or to give directions in respect of such management* (the "**Lack of Control Element**")*;*

> *(ii) under which either or both of the following characteristics are present:*

> > > (A) the property is managed as a whole by or on behalf of a manager (the "**Collective Management Element**");
> >
> > > (B) the contributions of the participants, and the profits or income out of which payments are to be made to the participants, are pooled (the "**Pooled Contributions and Profits Element**"); and
> >
> > (iii) under which either or both of the following characteristics are present:
> >
> > > (A) the effect of the arrangement 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) —
> > >
> > > > (AA) to participate in or receive profits, income, or other payments or returns arising from the acquisition, holding, management, disposal, exercise, redemption or expiry of, any right, interest, title or benefit in the property or any part of the property; or
> > > >
> > > > (AB) to receive sums paid out of such profits, income, or other payments or returns;
> > >
> > > (B) the purpose, purported purpose or purported effect of the arrangement 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) —
> > >
> > > > (BA) to participate in or receive profits, income, or other payments or returns arising from the acquisition, holding, management, disposal, exercise, redemption or expiry of, any right, interest, title or benefit in the property or any part of the property; or
> > > >
> > > > (BB) to receive sums paid out of such profits, income, or other payments or returns,
> > >
> > > whether or not —
> > >
> > > > (I) the arrangement provides for the participants to receive any benefit other than those set out in sub-paragraph (BA) or (BB) in the event that the purpose, purported purpose or purported effect is not realised; or
> > > >
> > > > (II) the purpose, purported purpose or purported effect is realised; or
> >
> > (the "**Profit Participation Element**", and, together with the Lack of Control Element, the Collective Management Element and the Pooled Contributions and Profits Element, the "**CIS Elements**"),
>
> [Definitions added for purposes of this Opinion]
>
> > (b) an arrangement which is an arrangement, or is of a class or description of arrangements, specified by the Authority as a collective investment scheme by notice published in the Gazette …"

9.2. Further, under Section 2(1) of the SFA:

> (a) "manager" in relation to a CIS, means "*a person, by whatever name called, who is responsible for managing the property of, or operating, the [CIS]*";

(b)   "participant" in relation to a CIS, means *"a person who participates in a [CIS] by way of owning one or more units in a [CIS]"*; and

(c)   "unit" in relation to a CIS, means *"a right or interest (however described) in a [CIS] (whether or not constituted as an entity), and includes an option to acquire any such right or interest in the [CIS]"*.

9.3.   We observe that the terms "contributions" and "property" are not defined in the SFA. In relation to the term "property", the Authority commented in footnote 10 of the 2014 Consultation Paper that it "*could include, for example, securities, futures, money, goods and real estate, whether located in Singapore or elsewhere*".

9.4.   In relation to considerations to be taken into account in determining whether the CIS Elements are satisfied, the Authority stated in the 2014 Consultation Paper as general principles that, amongst others (the "**2014 CIS Consultation Position**"):

(a)   the Lack of Control Element is not satisfied where participants retain control over how the property is managed, and the participants may have day-to-day control of the property even where they delegate certain aspects of management of the property, provided they retain control over who they delegate management to (paragraphs 3.9 and 3.10 of the 2014 Consultation Paper);

(b)   the Collective Management Element and Pooled Contributions and Profits Element are satisfied where the property of participants is effectively pooled to generate profits which would otherwise not be available to participants if property was managed on an individual basis (paragraph 3.11 of the 2014 Consultation Paper); and

(c)   in determining whether the Profit Participation Element is satisfied, the Authority will have regard to whether the arrangement purports to give or has the effect of giving participants rights to participate in pooled profits of the CIS. Rights to receive proceeds from management of a participant's individual property held on account of that individual participant only will not be considered as rights to participate in pooled profits (paragraph 3.14 of the 2014 Consultation Paper).

9.5.   The Authority also provided the following illustration in the MAS Guide:

"Company H plans to build a decentralised platform to collect user data on consumer spending on various e-commerce websites. This forms an ecosystem where retailers rely on consumer behaviour data to execute targeted advertisements. To fund the development of the platform, Company H intends to raise funds from investors through an offering of digital tokens ("Token H"). Token H only gives rights to investors to vote on features of the platform. There are no other rights attached to Token H. Company H will also distribute Token H as rewards to investors for participating in surveys on consumer spending. The amount of Token H to be rewarded to an investor is based only on his or her usage and activity on the Platform, and not through further investment in the platform."

In relation to the above illustration, the MAS Guide also states, *inter alia*, that:

(a)   *"Token H is not a share as it does not represent any legal or beneficial title in the shares of any company. **As the rewards are distributed in proportionate to investor's usage and activity on the platform, it does not represent a right to claim dividends or return on capital**"*; and

(b)   *"Token H is not a unit in a CIS as **there is no management of property by a manager ("Scheme Property")**, and **investors are rewarded based on their participation on the platform** with new Token H and not profits, income or other payments or returns relating to Scheme Property. Token H also does not involve pooling of contributions, or income or profits from which payments are to be made to*

the investors".

[Emphasis added for the purposes of this Opinion]

9.6. There are three (3) possible ways of viewing the Token Distribution for purposes of considering whether the CIS Elements are met:

(a) the Purchase Consideration constitutes the "contributions" whereas all or part of the existing assets of the Company, the Project and/or the Network, constitute(s) the "property";

(b) the Purchase Consideration constitutes both the "contributions" and the "property"; or

(c) the Purchase Consideration constitutes the "contributions" whereas the Tokens constitute the "property" ("**Analysis 3**").

9.7. Based on the Documents and the Instructions, we note that the Profit Participation Element is not satisfied in respect of the Tokens as:

(a) the Token Functions do not confer upon Tokenholders (as the case may be) any right (contingent or otherwise) to participate in or receive any profits, income or other payments or returns by virtue of their holding of the Tokens. Any Tokens earned or rewards in the Network are earned through activities made by participants within the Network as highlighted in Paragraph 1(c) above; and

(b) whilst a Token Miner has the opportunity to receive Tokens as a reward, such rewards are premised on such Token Miner providing the Model or other services on the Network or successful governance voting on the Network as described in paragraph 1(c) above, rather than as a return of profits, income, payments or returns to such Token Miner simply by virtue of holding of the Tokens.

9.8. Based on the Documents and the Instructions, we note that the Pooled Contributions and Profits Element is not satisfied as the Purchase Consideration and the Tokens, even when staked, are not aggregated or pooled together into the Network, and correspondingly neither the Purchase Consideration nor the staked Tokens are pooled together with the incentives to be rewarded from the Network.

9.9. Additionally, in respect of Analysis 3, based on the Documents and the Instructions, we note that there is no arrangement between the Tokenholders with the Company (or any other entity) in respect of any potential profits, income or other payments or returns from the ownership of any of the Tokens. Any other potential profits, income or other payments or returns that Tokenholders may receive are solely dependent on a future potential appreciation in the value of Tokens through secondary trading of the Tokens or the increase in value of the Tokens due to an increased demand for the Tokens where universal usage of Tokens increases. However, assuming that the Tokens are the "property" in Analysis 3, the Lack of Control Element and the Collective Management Element will not be satisfied, given that:

(a) Tokenholders have control over how to manage their Tokens, whether it be by way of using their Tokens on the Network or selling their Tokens on a secondary market; and

(b) no person or entity, including the Company, is acting as a "manager" to manage the Tokens in order to generate such profits, income or other payments or returns for Tokenholders.

9.10. Based on our review of the relevant regulations and notifications in force under the SFA, there has been no other arrangement, or a class or description of arrangements, specified by the Authority as a CIS by notice published in the *Gazette*.

9.11. Based on the foregoing Paragraphs 9.7 to 9.10 and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens do not, by virtue of the Token Functions, constitute capital markets products insofar as it refers to units in a CIS as defined in Section 2(1) of the SFA.

10.   **Whether the Tokens are "derivatives contracts"**

10.1. Under Section 2(1) of the SFA:

(a)   "derivatives contract" means:

"(a)   any contract or arrangement under which —

(i)   *a party to the contract or arrangement is required to, or may be required to, discharge all or any of its obligations under the contract or arrangement at some future time [("**Contract Element**")]; and*

(ii)   *the value of the contract or arrangement is determined (whether directly or indirectly, or whether wholly or in part) by reference to, is derived from, or varies by reference to, either of the following ("**Value Reference Element**"):*

(A)   *the value or amount of one or more underlying things;*

(B)   *fluctuations in the values or amounts of one or more underlying things; or*

(b)   *any contract or arrangement that is, or that belongs to a class of contracts or arrangements that is, prescribed to be a derivatives contract,*

but does not include —

(i)   *securities;*

(ii)   *any unit in a collective investment scheme;*

(iii) *a spot contract;*

(iv)   *a deposit as defined in section 4B of the Banking Act 1970 [of Singapore], where the deposit is accepted by a bank or merchant bank licensed under that Act;*

(v)   *a deposit as defined in section 2 of the Finance Companies Act 1967 [of Singapore], where the deposit is accepted by a finance company as defined in that section of that Act;*

(vi)   *any contract of insurance in relation to any class of insurance business specified in section 3(1) of the Insurance Act 1966 [of Singapore]; or*

(vii) *any contract or arrangement that is, or that belongs to a class of contracts or arrangements that is, prescribed not to be a derivatives contract"*.

(b)   "underlying thing" means:

"(a)   in relation to a derivatives contract or a spot contract —

(i)   a unit in a collective investment scheme;

(ii)   a commodity;

(iii)   a financial instrument;

(iv)   the credit of any person; or

(v)   an arrangement, event, index, intangible property, tangible property or transaction that is, or that belongs to a class of arrangements, events, indices, intangible properties, tangible properties or transactions that is, prescribed by regulations made under section 341 [of the SFA] to be an underlying thing in relation to a derivatives contract or a spot contract,

but does not include any arrangement, event, index, intangible property, tangible property or transaction that is, or that belongs to a class of arrangements, events, indices, intangible properties, tangible properties or transactions that is, prescribed by regulations made under section 341 [of the SFA] not to be an underlying thing in relation to a derivatives contract or a spot contract …";

[Definitions added for purposes of this Opinion]

Additionally, the Authority has, pursuant to the Securities and Futures (Prescribed Underlying Thing) Regulations 2020 ("**SFPUTR**"), prescribed certain "underlying things" for the purposes of the definition of "underlying thing" in Section 2(1) of the SFA. These all pertain to (i) futures contracts traded on an organised market established by or operated by any recognised market operator, (ii) futures contracts traded on an organised market established or operated by any approved exchange, or (iii) derivatives contracts (other than a futures contract) traded on an organised market that is established by or operated by any approved exchange.

(c)   "commodity" means:

"(a)   any produce, item, goods or article;

(b)   any index, right or interest in any produce, item, goods or article; or

(c)   any index, right, interest, tangible property or intangible property of any nature that is, or belongs to a class of indices, rights, interests, tangible properties or intangible properties that is, prescribed for the purposes of this definition,

but does not include —

(i)   any produce, item, goods or article that is, or that belongs to a class of produce, items, goods or articles that is, prescribed not to be a commodity for the purposes of this definition; or

(ii)   any index, right or interest in any produce, item, goods or article that is, or that belongs to a class of indices, rights or interests that is, prescribed not to be a commodity for the purposes of this definition"; and

(d)   "financial instrument" is defined as follows:

"'financial instrument' includes any currency, currency index, interest rate, interest rate instrument, interest rate index, securities, securities index, a group or groups of such financial instruments, and any other thing that is prescribed by the Authority by regulations made under section 341 [of the SFA] for the purposes of this definition".

(e) the Authority has further prescribed that for the purposes of sub-paragraph (a)(v) in sub-paragraph 10.1(b) above, under Regulation 2(1) of the SFPUTR, the following are prescribed as underlying things:

"(a) in relation to a futures contract traded on an organised market that is established or operated by any recognised market operator — any intangible property that is not a payment token;

(b) in relation to a futures contract traded on an organised market that is established or operated by any approved exchange —

> *(i) any payment token; and*

> *(ii) any intangible property;*

(c) in relation to a derivatives contract (other than a futures contract) traded on an organised market that is established or operated by any approved exchange — any payment token"; and

(f) under Regulation 2(2) of the SFPUTR, "payment token" means:

"any digital representation of value –

(a) that is expressed as a unit;

(b) the value of which is determined in any way, other than being permanently fixed by the issuer of the digital representation of value at the time when the digital representation of value is issued to either a single currency or 2 or more currencies;

(c) that is, or is intended to be, a medium of exchange accepted by the public, or a section of the public, as payment for goods or services or for the discharge of a debt; and

(d) that can be transferred, stored or traded electronically."

10.2. In relation to derivatives contracts pertaining to a "commodity", we note that the Authority only intends to regulate *tangible* commodities, unless it expressly prescribes otherwise. This is supported by the following:

(a) under the definition of "commodity" under Section 2(1) of the SFA, references to "produce", "items", "goods" and "article" are intended to *"encompass all tangible commodities including agricultural products, minerals and precious metals … [which] would include commodities such as gold and oil"* – see footnote 3 of the 2015 Consultation Paper (as defined in Schedule 3 of this Opinion);

(b) the Authority had sought responses based on its following view:

"[a]s the market for intangible commodity derivatives appears to be small as compared to tangible commodity derivatives, there is no pressing reason to expand the current regulatory reach to include intangible commodities at this point in time. Therefore, we propose to preserve the status quo, i.e. to regulate only derivatives contracts in respect of tangible commodities while retaining the power to bring intangible commodity derivatives contracts into the ambit of the SFA by way of

prescription if necessary. We will continue to monitor market developments, and where necessary, regulate intangible commodity derivatives on a case-by-case basis" – see paragraph 3.1.2 of the 2012 Consultation Paper (as defined in Schedule 3 of this Opinion);

(c) further to Paragraph 10.2(b) above, the Authority stated that it intends to "*preserve the status quo of regulating only tangible commodity derivatives*" – see paragraph 2.3 of the 2012 Consultation Paper Responses (as defined in Schedule 3 of this Opinion); and

(d) the 2007 Parliamentary Report (as defined in Schedule 3 of this Opinion) noted the then proposed revisions to the definition of "commodity" to be intended for "*expand[ing] the definition of "commodity" in the SFA to include all tangible commodities (i.e., any produce, item, goods or article) and also provide [the Authority] with the power to prescribe as a 'commodity' other types of 'intangible' commodities (e.g., weather indexes, freight prices, carbon credits, etc.)*

("**Regulatory Position on Commodities**").

10.3. Based on the Documents and Instructions, the Tokens do not appear to be a derivative contract on the basis that each of the Contract Element and the Value Reference Element is not satisfied. In particular, the Tokens do not represent a contract or arrangement (the obligations for which are to be discharged "at some future time") which is determined by reference to, is derived from, or varies by reference to either the value or amount or fluctuations in the value or amounts of one (1) or more "underlying things".

10.4. Based on the Relevant Laws & Guidelines, the foregoing paragraph and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens do not, by virtue of the Token Functions, constitute capital markets products insofar as it refers to derivatives contracts as defined in Section 2(1) of the SFA.

11. **Whether the Tokens are "spot foreign exchange contracts for the purposes of leveraged foreign exchange trading"**

11.1. Under Section 2(1) (read with the Second Schedule) of the SFA:

(a) "spot foreign exchange contract" means "*a spot contract of which the underlying thing is a currency*";

(b) "spot contract" means "*a contract or arrangement for the sale or purchase of any underlying thing at the spot price, where it is intended for a party to the contract or arrangement to take delivery of the underlying thing immediately or within a period which must not be longer than the period determined by the market convention for delivery of the underlying thing*"; and

(c) "leveraged foreign exchange trading" means "*entering into a spot foreign exchange contract where one counterparty provides to the other counterparty or the counterparty's agent money, securities, property or other collateral which represents only a part of the value of the spot foreign exchange contract*".

11.2. Based on the Documents and Instructions, and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens do not, by virtue of the Token Functions, constitute spot foreign exchange contracts for the purposes of leveraged foreign exchange trading on the basis that the Company does not provide any counterparty with money, securities, property or other collateral representing part of the value of a "spot foreign exchange contract" as defined under Section 2(1) of the SFA which the Tokens would fall under by virtue of the Token Functions.

12. **Whether the Tokens are "such other product as the Authority may prescribe as capital markets products"**

Based on our review of the relevant regulations and notifications in force under the SFA and the Documents, the Authority has not prescribed any other product or class of products as being capital markets products under Section 2(1) of the SFA which the Tokens would fall under by virtue of the Token Functions.

D. **SUMMARY**

13. Based on the foregoing and subject to all of the Assumptions and Qualifications, we are of the opinion that the Tokens are not "capital markets products" as contemplated under Part I of the SFA solely by virtue of the Token Functions.

Yours sincerely

Hsu Li Chuan
Senior Partner
Dentons Rodyk & Davidson LLP

SCHEDULE 1

ASSUMPTIONS

(a)   All Documents are authentic, accurate, and complete and all copies submitted to us as certified or reproduced copies conform to the originals and such originals are authentic, accurate, and complete, and no relevant document, information or arrangement has been withheld from us.

(b)   All facts, statements, representations, and/or information expressed in the Documents and Instructions are and remain true, accurate and complete in all respects and not misleading due to the omission of any material matter, and we express no opinion on all such facts and information (save to the extent of the CMP Enquiry). Insofar that the Instructions are inconsistent with the Documents, the Instructions shall prevail.

(c)   All signatures, seals, and dates submitted to us are genuine and authentic, and we have assumed that the identities of all signatories and corporate officers are correct with the requisite legal capacity and authority for such execution, and the due execution and validity of all documents are in accordance with applicable laws.

(d)   All Documents remain and will remain in the form reviewed by us, without amendment or supplement (whether in writing or otherwise). All Instructions will remain in the form communicated to us, without amendment or supplement (whether in writing or otherwise).

(e)   No information contained in or on, and no part of the following:

(i)   the finalised, published and adopted version or draft of the Whitepaper or any other documents uploaded on the website of the Project or Network accessible at the Company's website or the Company's social media channels (collectively, the "**Channels**");

(ii)   any website or social media channel directly or indirectly linked to the Whitepaper or the Channels; or

(iii)   any other information or document,

constituted or will constitute part of the Token Distribution terms or would revise, modify or add to the Token Functions, or would affect or have any implication on this Opinion.

(f)   All factual statements, including representations and warranties, and/or information set out in the Instructions or otherwise as disclosed to us, including as contained in all documents (including the Documents) submitted to us are and remain true and accurate and complete in all respects and have not, since they were disclosed to us, been altered in any respect.

(g)   The Tokens have been distributed in accordance with the Instructions and there are no terms in respect of the Token Distribution which are or may be expressly documented or implied which relate to, would vary, affect, or have any implication on the Token Distribution or Token Functions as set out in the Instructions or the subject matter of this Opinion.

(h)   There are no other documents, facts, information or materials, other than the Documents and Instructions, which relate to the items or the matters that we examined, or would affect or have any implication on this Opinion.

(i)   All facts and information stated or represented by the Company and/or the management, representatives and/or personnel of the Company, and/or the representatives of the Project, whether contained in documents, electronic mail or orally or publicly available information, are and remain true, accurate and not misleading due to the omission of any material matter, and we express no opinion on all such facts and information, and we have not concerned

ourselves with confirming any such representations made, and we have not been responsible for investigating or verifying the correctness of any such facts or statements.

(j)   We have not examined the constitution or any other constituent document of the Company or any other entity related to the Project and assume that nothing contained therein varies, affects, or has any implication on the Token Functions or the Token Distribution terms.

The making of each of the above Assumptions indicates that we have assumed that each matter and the subject of each Assumption is true, correct, and complete in every particular. That we have made the Assumptions in this Opinion does not imply that we have made any enquiry to verify any Assumption or are aware of any circumstances which would affect the correctness of any Assumption. No Assumption is limited by any other Assumption.

SCHEDULE 2

QUALIFICATIONS

(a)   This Opinion is limited, and relates solely, to Part I of the SFA as at the date of this Opinion. This Opinion is confined to matters of Singapore laws and is given on the basis that it will be governed by and construed in accordance with the laws of Singapore. Accordingly, we do not express or imply any opinion whatsoever as to any laws other than the laws of Singapore and we have made no investigation of any other laws which may be relevant to the Documents submitted to us.

(b)   This Opinion is confined to the CMP Enquiry and does not include a review or opinion with regard to the operations of the Company, the Token Issuer, the Project or the Network, whether or not such operations are regulated under the SFA, PS Act, or otherwise.

(c)   Our outline of the relevant provisions of Part I of the SFA in this Opinion is meant to be illustrative, but not exhaustive, in relation to the requirements under the SFA.

(d)   Our statements on the provisions of Part I of the SFA discussed in this Opinion have been given on the basis of our interpretation of the relevant provisions, current practice, and the positions expressed by the Documents, and accordingly, where we provide a statement in this Opinion, we are expressing our view but this does not guarantee that a court or any other regulatory authority of Singapore would necessarily come to the same view.

(e)   The courts of Singapore are bound to follow judicial precedents laid down by the superior courts of Singapore. However the Court of Appeal, which is the highest court in Singapore, has power to depart from such precedents where, amongst others, adherence will cause injustice in a particular case or constrain the development of law in conformity with the circumstances of Singapore.

(f)   The courts of Singapore are not bound to adopt the same positions in relation to Part I of the SFA, in particular the provisions thereof which are subject of the 2014 Debentures Consultation Position, 2014 CIS Consultation Position, Regulatory Position on Commodities as adopted by the Authority in the 2012 Consultation Paper, 2014 Consultation Paper, the MAS Guide, or as stated by the Authority in any of the Documents.

(g)   We express no opinion as to the tax laws of Singapore, or the tax treatment or consequences of the Documents and Instructions or the transactions contemplated by the Documents or Instructions.

(h)   This Opinion is given on the basis that there has been no amendment or supplement to, or termination or replacement of the Documents or Instructions.

(i)   We have solely relied on the English version of the Whitepaper in preparing this Opinion. We have not reviewed any other versions of the Whitepaper (if any), in a language other than English and have not made any comparisons of the aforementioned versions against the English version of the Whitepaper and the Channels.

(j)   This Opinion is strictly limited to the matters stated in this Opinion and is not to be read as extending by implication or otherwise to any other matter in connection with the Documents, Instructions or otherwise, including but without limitation, any other document signed or to be signed in connection therewith or pursuant thereto.

(k)   Without limiting any other Assumption or Qualification made in this Opinion, we have not investigated whether any company is or will by reason of the execution of, or the transactions contemplated by, the Documents or any document referred to therein be in breach of any of its obligations under any authorisation, consent, agreement or document.

(l)   This Opinion is given on the basis of the laws of Singapore in force as of the date of this Opinion. We undertake no responsibility to notify any present addressee or future recipient of this Opinion (to the extent permitted in accordance with the terms in this Opinion) of any change in the laws of Singapore (including the SFA) or its application after the date of this Opinion that may alter, affect or modify the opinion expressed in this Opinion.

(m)   This Opinion is also given on the basis that we undertake no responsibility and are under no obligation to advise you of any other matters, including any matters in relation to any additional features of the Tokens that may be introduced in respect of the Tokens that are not set out in the Documents and the Instructions. For the avoidance of doubt, we have not reviewed any terms and conditions, information and/or details in relation to a current or planned Token Distribution for the purposes of this Opinion.

(n)   This Opinion is addressed to, and for the sole benefit of, the Company, and except with our prior written permission, may not be transmitted or disclosed to or used or relied upon by any other person for any purpose or filed with any governmental agency or other person (other than pursuant to an order of a court of Singapore).

(o)   The statements in this Opinion are to be considered as a whole and no single statement in this Opinion is to be extracted and referred to independently.

(p)   Headings reflected in this Opinion are for reference only and shall not in any manner affect the interpretation of any statement in this Opinion.

(q)   The conclusions in this Opinion are based on the Instructions and having regard to the relevant laws and guidelines as set out in Schedule 3 of this Opinion.

SCHEDULE 3

RELEVANT LAWS AND GUIDELINES

(a)   the SFA

(b)   the Securities and Futures (Prescribed Entities Order) 2005

(c)   the Securities and Futures (Reporting of Derivatives Contracts) Regulations 2013

(d)   the Securities and Futures (Capital Markets Products) Regulations 2018

(e)   the Securities and Futures (Prescribed Debentures) Regulations 2018 ("**SFPDR**")

(f)   the Securities and Futures (Prescribed Excluded Derivatives Contracts) Regulations 2018

(g)   the Securities and Futures (Prescribed Underlying Thing) Regulations 2020 ("**SFPUTR**")

(h)   the consultation paper entitled "Public Consultation on Regulation of Business Trusts" issued by the Monetary Authority of Singapore (the "**Authority**") on 10 December 2003

(i)   the consultation paper entitled "Acceptable Collateral and Contract for Differences" issued by the Authority on 27 September 2005

(j)   the Singapore Parliamentary Debates on the Commodity Trading (Amendment) Bill, Official Report (17 July 2007) vol 83 (The Minister for Trade and Industry, Mr Lim Hng Kiang) as reproduced on the website of the Ministry of Trade and Industry at https://www.mti.gov.sg/Newsroom/Speeches/2007/05/Second-Reading-Speech-by-Minister-Lim-on-Commodity-Tradung-Amendment ("**2007 Parliamentary Report**")

(k)   the consultation paper entitled "Proposed Regulation of OTC Derivatives" dated February 2012

(l)   the consultation paper entitled "Transfer of Regulatory Oversight of Commodity Derivatives from IE to MAS" dated February 2012 ("**2012 Consultation Paper**")

(m)   the paper entitled "Reply to Parliamentary Question on Virtual Currencies" issued by the Authority on 21 February 2014

(n)   the media release entitled "MAS to Regulate Virtual Currency Intermediaries for Money Laundering and Terrorist Financing Risks" issued by the Authority on 13 March 2014

(o)   the consultation paper entitled "Consultation Paper on Proposals to Enhance Regulatory Safeguards for Investors in the Capital Markets" issued by the Authority on 21 July 2014 ("**2014 Consultation Paper**")

(p)   the consultation paper entitled "Consultation Paper on Proposed Amendments to the Securities and Futures Act" dated February 2015 ("**2015 Consultation Paper**")

(q)   the paper entitled "Response to Feedback Received – Consultation on the Transfer of Regulatory Oversight of Commodity Derivatives from IE Singapore to MAS" dated 11 February 2015 ("**2012 Consultation Paper Responses**")

(r)   the paper entitled "Response to Feedback Received – Proposals to Enhance Regulatory Safeguards for Investors in the Capital Markets" issued by the Authority on 22 September 2015

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(s)   the consultation paper entitled "Proposed Amendments to the Securities and Futures (Reporting of Derivatives Contracts) Regulations" dated 18 January 2016

(t)   the paper entitled "Response to Feedback Received – Proposed Amendments to the Securities and Futures (Reporting of Derivatives Contracts) Regulations" dated 28 March 2018

(u)   the paper entitled "Frequently Asked Questions on Product Definitions" issued by the Authority on 12 June 2018

(v)   the media release entitled "MAS clarifies regulatory position on the offer of digital tokens in Singapore" issued by the Authority dated 1 August 2017

(w)   the paper entitled "A Guide to Digital Token Offerings" ("**MAS Guide**") first issued by the Authority on 14 November 2017 and last updated on 26 May 2020

(x)   the consultation paper entitled "Proposed Amendments to the Securities & Futures (Reporting of Derivatives Contracts) Regulations" dated 5 July 2021

ANNEX A

THE WHITEPAPER

ATR Network: A Multimodal Supercomputing Network for Decentralized Private Data Training

Singapore：ATR FOUNDATION

April 2024

1. Introduction

As the tide of the digital era rolls forward, the concept of decentralization has gradually become popular. As the core driving force to promote the global economic and social transformation, blockchain technology has demonstrated its great potential in restructuring the trust system, innovating business models and other aspects. Since Bitcoin pioneered decentralization, Ethereum, Filecoin and other projects have emerged in succession. By using blockchain technology, it has subverted the traditional centralized storage model, which is not only a beneficial supplement to existing cloud storage facilities, but also a powerful proof of the distributed ledger technology in finance. The infinite possibility and far-reaching strategic value contained in data storage and wide application in various industries. Especially when dealing with a large number of dynamically changing data scenarios, how to ensure data security and privacy protection while achieving efficient use and in-depth analysis of data has become a major issue to be solved.

In this context, the close combination of AI technology and blockchain technology has brought us unprecedented innovation opportunities. Using advanced AI, such as machine learning, deep learning and neural network, we can extract valuable information from massive production and operation data, reveal hidden laws and trends, and achieve accurate capture, continuous mining and efficient use of valuable data resources through complex model training and optimization.

At this critical moment, we ceremoniously launched ATR Network, which is an innovative multimodal supercomputing network for decentralized privacy data training. It skillfully integrates three major technical elements, namely, the trust gene of blockchain technology, the time series analysis capability of general multimodal models, and the advanced privacy computing environment, to build a new era of decentralized AI applications for the Web3.0 era. ATR Network drives its algorithm market through the built-in native token ATB, and encourages miners to provide the "universal time series model" or related high-quality data sets in the verified multimodal to obtain ATB benefits, while users (node members) can purchase high-quality model services provided by these miners by consuming ATB.

Compared with the traditional mining mode relying solely on consensus mechanisms such as workload proof or equity proof, ATR Network's role as a miner is more technical and practical. They participate in the competition of block mining by contributing a "universal multimodal model" with practical benefits and excellent performance, making their mining capacity directly

ATR Network: A Multimodal Supercomputing Network for Decentralized Private Data Training

linked to the actual performance of the model, so that while ensuring the consensus of the blockchain, they can more directly serve the market demand and provide service products with substantial value. This innovative incentive mechanism has greatly mobilized the enthusiasm of miners to optimize the performance of the model, ensuring them to continuously improve the performance indicators, adaptability and market competitiveness of the "general time series model" on the premise of ensuring data privacy and security.

ATR Network, with its in-depth integration and optimization of multi-dimensional technical resources, has successfully created a decentralized multimodal privacy supercomputing network environment that allows any node member to have conveniently, safely and efficiently access and maximize use. This breakthrough architecture not only greatly improves the overall efficiency of data processing and AI applications, but also paves a new path for safe data transfer and efficient use in the digital economy era, providing a solid support for future business ecology and social infrastructure construction. The birth and development of ATR Network marks an important step forward on the road of data sovereignty return, privacy protection and rational resource allocation, and indicates that the Web3.0 world is about to usher in a new era with decentralized AI as the core power.

2. Integration of AI and blockchain under digital transformation

2.1. 1 Development status and integration trend of AI and blockchain industry

In the wave of digital transformation, AI and blockchain keep abreast, and the synergy between the two is increasingly apparent. AI technology continues to make breakthroughs, especially in deep neural networks, reinforcement learning and natural language processing, which have penetrated into the core links of all walks of life. At the same time, the blockchain has expanded from a simple cryptocurrency application scenario to a wide range of trust infrastructure construction, such as decentralized identity authentication, multi-party data collaboration, and intelligent supply chain. The convergence of AI and blockchain gives birth to a new computing paradigm. AI enhances the intelligence of smart contracts, enabling them to adapt and make intelligent decisions. Blockchain provides a distributed, transparent and credible security foundation for AI model training and reasoning, thus building a decentralized supercomputing network for the future.

2.1.2 Security and efficiency issues in mass production data processing

At present, Industry 4.0 enterprises face severe safety and efficiency problems when dealing with large-scale production data. The limitations of traditional centralized storage systems are prominent, which are vulnerable to attacks and difficult to ensure data integrity and privacy protection; the heterogeneity of the original data of production and operation determines the low availability. However, the solution of AI and blockchain integration emerged at the historic moment. For example, ATR Network used the distributed storage characteristics of blockchain and trusted execution environment (TEE) and other technologies to build an on chain privacy training supercomputing network, which realized the secure flow and efficient operation of data

across multiple nodes in the encrypted state. This architecture not only reduces the risk of single point failure and breaks the data island, but also greatly improves the data processing efficiency through hardware resource sharing to ensure that the data is always highly safe and traceable during the flow process.

2.1.3 Demand growth of data encryption storage and permission management (POS mechanism)

In view of the global strengthening of data privacy protection and the upgrading of enterprises' own demand for data asset security management, the importance of data encrypted storage and fine authority control is self-evident. The application of proof of equity (POS) mechanism on the blockchain not only helps to improve consensus efficiency and reduce energy consumption, but also can dynamically adjust data storage and access permissions according to the rights held by nodes. In the context of AI and blockchain integration, POS mechanism and smart contract cooperate with each other to achieve accurate definition of data ownership and use right, and ensure that authorized participants can participate in data driven AI model training and data processing only when they meet specific conditions, which not only maintains data security, but also maximizes the release of data potential.

2.1.4 Discussion on methodology of using big data analysis and AI to extract effective information

In the context of AI and blockchain integration, big data analysis methodology has been innovated and improved. By combining the transparency and immutability of the blockchain with AI's excellent data analysis capability, a new security analysis framework for encrypted data was established. For example, using zero knowledge proof technology and homomorphic encryption technology can verify the effectiveness of data processing results without exposing the details of original data, and even directly perform computing operations on encrypted data. In addition, learning from the federal learning concept, decentralized nodes can conduct joint training by sharing model parameters rather than actual data, which not only respects data privacy, but also improves the training efficiency of AI models.

2.2.1 The interpretability and trust of AI model are enhanced

The application of blockchain technology has significantly improved the transparency and credibility of the AI model. In some key industries, such as financial risk control and talent fields, the traditional AI model is difficult to understand and accept its internal decision-making logic due to its lack of interpretability, which may lead to a serious crisis of trust. However, with the openness and transparency of the blockchain and the smart contract function, important information such as the training course, parameter configuration, and data source of the AI model can be recorded throughout the process to build a detailed decision tracking chain for external supervision and audit. At the same time, the blockchain based trust evaluation system can be used to evaluate the reliability and performance of the AI model. By setting up a model scoring system, high-quality data providers and model developers are encouraged to actively participate and contribute.

2.2.2 Cooperative training and cross domain interoperability of AI models

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Under the framework of close integration of AI and blockchain, barriers between different entities have been broken, and all parties can participate in the training and optimization of AI models under the premise of protecting data privacy. As a distributed ledger technology, blockchain ensures clear ownership of data and traceability of exchange process in multi-party cooperation. Create a cross domain data trading platform that allows data owners to flexibly set data usage permissions through smart contracts, so as to realize the joint training of AI models on multiple heterogeneous data sets and improve the universality and generalization performance of models.

2.2.3 Blockchain driven AI governance and autonomous evolution

Blockchain technology promotes the self-evolution and self-governance mechanism of AI system. Through the automatic execution rules of smart contracts, the AI system can update the training parameters and optimize the model structure according to the predetermined conditions, and attract community members to actively participate in the model iteration, upgrading and error correction through the Token incentive system. This nature of self-correction and sustainable development makes the AI system more suitable for the requirements of the future open, fair and self-organizing digital economic ecosystem.

2.2.4 Building a future oriented decentralized AI computing infrastructure

In the face of the high cost, computing power concentration and scalability constraints brought by the current cloud computing centralized architecture, the integration of AI and blockchain has spawned a decentralized AI computing network. By aggregating the idle computing resources of distributed nodes, AI R&D and operation costs can be significantly reduced, and the excessive dependence on a single cloud service provider can be alleviated. For example, the IPFS distributed file system is used to store the data and models required for AI training, and the blockchain technology is combined to ensure the right confirmation of resources and transaction clearing, ultimately establishing a new decentralized AI computing infrastructure.

3. ATR Network Project Introduction

3.1 Project Vision and Positioning

ATR Network is forward-looking and rooted in Web3 AI, realizing the transformation of thinking from traditional gold mining to shovel selling, and is committed to building a revolutionary decentralized multi-mode privacy supercomputing network, enabling big data analysis, intelligent algorithm model, deep machine learning, neural network, natural language big model and other application scenarios of Web3.0 ecosystem. The core mission of the project is to efficiently use AI technology, build a transparent, secure and high-performance Web3 AI infrastructure through seamless integration of blockchain, AI and privacy computing technology, effectively promote the transformation of the global economic system to a more equitable, open and inclusive Web3.0 model through the original token ATB, and provide a multi-modal Supercomputing network of computing base, etc.

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Original token: ATB
Published by: ATR FOUNDATION
Public distribution chain: ATR intelligent data public chain
Issue Quantity: 688000000pcs

3.2 Details of ATR Network core technical architecture

① the trusted cornerstone of the blockchain

ATR Network uses the distributed characteristics, data tamper resistance and transparency advantages of blockchain technology to link and store the data flow and available certificates between the "general multimodal model" and the "privacy supercomputing cluster", providing the basis for reliability, traceability, security, etc. Decentralized storage and management of data is realized through blockchain, and smart contracts ensure the automatic execution of AI fragmentation computing tasks and fair allocation of resources. By synchronizing data nodes in a distributed computing cluster, the ability to run, store, and calculate on the same node is realized. The whole architecture has formed a closed loop and has the possibility of implementation. In addition, the management mode of DAO autonomous organization is integrated to ensure that the network rules are open and transparent, and decisions are driven by community consensus, thus creating a strong trust execution environment for Web3 AI applications.

② Generalized multimodal modeling and time series analysis

ATR Network has specially designed an AI model with strong versatility and time series characteristics for the Web3 environment. It uses advanced algorithms such as deep learning, reinforcement learning, and neural networks to form supercomputing networks (large models such as ChatGPT, GPT4.0, LLaMA, PaLM, ChatGLM, Bard, BLOOM, Qwen, Falcon, InternLM, and Groks that can be networked and scheduled) through networking capabilities, The model can effectively deal with heterogeneous data, real-time and dynamic data streams in production and operation. The general multimodal model can capture and understand the time series patterns of text, audio, video and other types of data, extract hidden information and risk factors, and generate prediction and decision support accordingly, providing flexible and real-time available data resources for Web3 AI applications.

③ off-chain training inference infrastructure construction

ATR Network has created a Web3 AI privacy protection supercomputing environment. It uses TEE (trusted execution environment) and advanced cryptography technologies (such as zero knowledge proof, homomorphic encryption, etc.) to build supercomputing clusters, which can complete efficient allocation training and reasoning while ensuring data encryption, and protect data privacy to the greatest extent. The distributed computing thinking in federated learning is introduced to enable the sharing of specific TPU, GPU, CPU, memory and other resources of a single node, forming a super computing node of the chain network. This environment is widely applicable to various scenarios of Web3 AI. Whether in DeFi, DePIN, social networks and other fields, it can achieve efficient use of data and exchange of security value on the premise of ensuring user data privacy.

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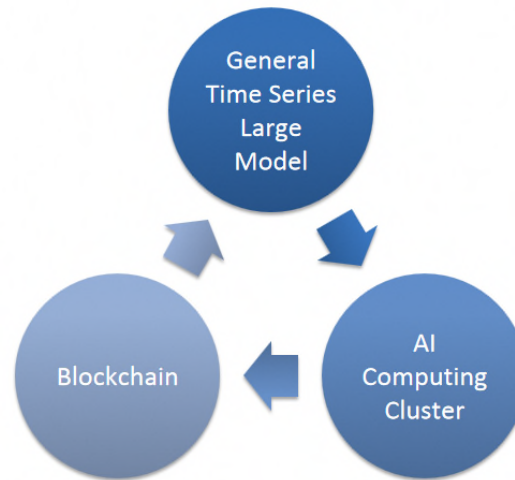
3.3 ATB protocol token economic system

① Protocol Algorithmic Proofs: Mechanisms for the Operation of Algorithmic Markets

ATR Network has built a Web3 AI algorithm market based on ATB protocol token, and transformed AI models, data and computing resources into tradable commodities. Miners earn ATB rewards by providing AI model services, participating in data annotation and cleaning, and contributing computing resources. The market operation follows the principle of transparency and openness, and the smart contract automatically executes transactions to ensure the balance of interests between supply and demand, thus promoting the healthy and sustainable development of Web3 AI ecology.

ATB is a protocol token. Its blockchain runs on a new virtual engine mechanism called "AVM". Its blocks will be mined by miners who provide the algorithm of "general multimodal model". The ATB protocol relies on the supercomputing network composed of coordinating multiple models, and provides the ability to deeply process big data, including:

User-supported massive heterogeneous datasets for generalized multimodal models;.

Miners earn mining dataset fragments by providing efficient and useful generalized multimodal models; the

Miners take the block refining advanced to obtain more block rewards and ATB token rewards;

② Verifiable Markets: Relationships between Miners and Node Members

In the ATR Network, the role of miners is transformed into Web3 AI service providers. By providing customized AI model training, data processing and other services, ATR Network builds data refining demanders and model miners into two decentralized verifiable orders in the market from the AVM algorithm engine. ATR network assists node members (including but not limited to DApp developers, data owners, etc.) to deploy and optimize AI applications in the Web3 environment. The verifiable market ensures that when a service is correctly provided, the corresponding payment will be paid, and the efficient and safe AI services provided by miners will be enjoyed. Both sides will mutually benefit and co-exist to jointly drive the prosperity and

development of Web3 AI ecology.

③　Proof of useful work: accessing and incentivizing patterns of use

As the core token driving the ecological operation of ATR Network, ATB has a variety of access channels, including but not limited to participation in AI model training, data sharing, network mining, governance voting and other activities. In terms of use, ATB can not only use the AVM virtual engine as the payment currency for supercomputing network services, purchase AI models, rent privacy supercomputing resources, but also participate in network governance through staking, which has an impact on the direction of ecological development and shares the results of network value growth. The Web3 AI token economic system carefully designed by ATR Network ensures the smooth circulation and value-added of ATB inside and outside the ecology, and provides a strong driving force for the sustainable development and deep integration of Web3 AI ecology.

4. Unique design and innovation of ATR Network

4.1 Model Miners and Innovative Mining Mechanisms

In the framework of ATR Network, the roles and functions of miners have been innovated and sublimed as never before. They are no longer limited to the traditional computing competition, but participate in the new mining ecology through research and development, optimization and submission of the "general time series model". This design not only sets a new benchmark in the blockchain industry, but also achieves unprecedented cross-border integration and innovation upgrading in the technical, economic and social value levels.

①　mechanisms for deeper integration of model contributions with mining competition

In the mining process of ATR Network, miners not only have to undertake the task of reaching traditional blockchain consensus, but also need to deeply participate in the development and optimization of the "universal multimodal model" with practical business value. Different from the traditional mining method that simply relies on computational power competition, miners must submit AI models that have undergone rigorous testing and performance verification when competing for new blocks. These models have shown outstanding prediction and analysis strength in various complex time series data analysis scenarios, and have been incorporated into the public model library of multimodal supercomputing networks to provide plug and play AI services for various applications in the ecosystem. This mechanism of deeply binding mining tasks with AI technological innovation achievements fundamentally subverts the value creation logic of traditional mining activities.

②　A value quantification system that dynamically links mining capacity to model effectiveness

ATR Network has innovatively constructed a set of rigorous and comprehensive model evaluation system, which is used to quantitatively evaluate the utility of the "universal multimodal model" submitted by miners in practical application and its value contribution to the whole network. This system valuated multiple dimensions of the model, such as the prediction

accuracy, generalization ability, calculation efficiency, energy consumption performance, reuse value and other dimensions of the model, and weighted these elements to make them an important indicator determining the mining capacity of miners. The probability of miners' successful mining is closely related to the actual utility of the submitted model. The more effective the model is, the higher the probability of miners to win block rewards and fees. This innovative mechanism has greatly stimulated the enthusiasm of miners to actively improve the quality and performance of the model, and has effectively promoted the application level of AI technology in the decentralized network environment.

4.2 A new mining model based on value service orientation, the

ATR Network pioneered a new mining model based on value service delivery. This model goes beyond the dependence on pure computing resource consumption and emphasizes that miners directly create cost value for network participants by providing a "general time series model" with clear business value. This new mining mode is reflected in the following aspects:

Each node member can easily call high-quality models in the ATR Network that have been reviewed by peers and tested by practical applications through payment of ATB protocol certificates according to their own business needs to help optimize decision-making and improve operational efficiency.

Miners not only get mining rewards for submitting high-quality models, but also enjoy additional service fee shares and other sources of income when their models are widely adopted and create value in actual business scenarios, forming a growth model driven by both mining revenue and service revenue.

5. Practical Application and Advantages of ATR Network in Web3.0 AI Environment

5.1 Create a Web3.0 AI driven distributed resource interaction and collaborative computing platform

ATR Network makes full use of the combination of Web3.0 technologies, especially the deep integration of blockchain, AI and privacy computing technologies, to build an efficient, secure and decentralized resource acquisition, sharing and collaborative computing platform for each node in the Web3.0 environment. On this platform, both AI service providers and consumers can realize distributed storage, transparent management and barrier free exchange of AI models, data sets and computing resources with the help of ATR Network's general timing model sharing system and smart contract functions. Even node users without high-end computing equipment can access and use AI services that meet their needs with high transparency and convenience while strictly protecting privacy and reducing costs. This innovative architecture provides strong technical support for various applications involving complex time series data analysis in the Web3.0 ecosystem.

5.2 Promote the deep reform of Web3.0 AI data processing market and application ecology

The birth of ATR Network has had a profound impact on the Web3.0 AI data processing

market and application ecology. The network adopts advanced privacy computing technologies such as TEE, zero knowledge proof, homomorphic encryption, etc., which promotes the open sharing and value release of data resources while ensuring data privacy and security. By integrating the general time series model and AI service market, ATR Network has lowered the entry threshold of AI technology in the Web3.0 environment, promoted the standardization and popularization process of AI services, helped diversified Web3.0 applications including DeFi, NFT, GameFi, DAO, etc., and achieved in-depth analysis and intelligent decision-making of complex time series data in the fields of finance, healthcare, Internet of Things, social media, etc. This series of innovative measures strongly promoted the evolution of the data market and AI application ecology in the Web3.0 ecology towards a more open, equal and efficient form.

5.3 Propose innovative solutions and prospects for Web3.0 AI applications in the digital economy era

In the tide of the digital economy, ATR Network has proposed a new solution to core issues such as data security, privacy protection and efficient use of resources by building a new infrastructure based on Web3.0 AI. The network uses blockchain technology to ensure the separation of data ownership and use right, endowing users with autonomy in their own data use, and relying on the ATB protocol token economic system, it encourages all participants to share data and computing resources, forming a self-driven, fair and orderly decentralized market. In addition, ATR Network outlines a series of potential innovation scenarios for the Web3.0 era:

① Rebuilding the digital trust foundation: with the help of the tamper proof nature of the blockchain and the automated execution of smart contracts, ensure the accuracy of the AI model and the fairness of services, and build a solid trust cornerstone for the digital economy.

② Drive the smart upgrade of Web3.0 applications: provide powerful and reliable AI service support to all kinds of Web3.0 applications, help them process complex timing data more efficiently, and comprehensively improve user experience and application efficiency.

③ Create a new blueprint for the digital economy: By realizing the capitalization of data, commercialization of AI services, and market-based distribution of computing power, ATR Network is building a new generation of digital economic system with Web3.0 AI as the core, which opens a broad imagination space for the digital transformation and intelligent upgrading of the future economic society, and breeds infinite possibilities.

6. technology roadmaps and future development

6.1 Technical routes and landmark achievements

ATR Network has made remarkable research and development achievements in the field of Web3.0 AI. With the development strategy driven by innovation, we have successfully built a comprehensive Web3.0 AI infrastructure integrating blockchain, privacy computing, artificial intelligence and DePIN technology. The current key technological breakthroughs and achievements are summarized as follows:

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①   ATR Network Qian Chuangshi: it is an open source protocol based on Substrate to build an AVM virtual engine. Through the ATB token protocol, it builds a bridge between the "general multimodal model" and massive heterogeneous data in production and operation. The blockchain network incentive mechanism realizes the scheduling and filtering of different models, and promotes free competition and knowledge sharing in the field of artificial intelligence.
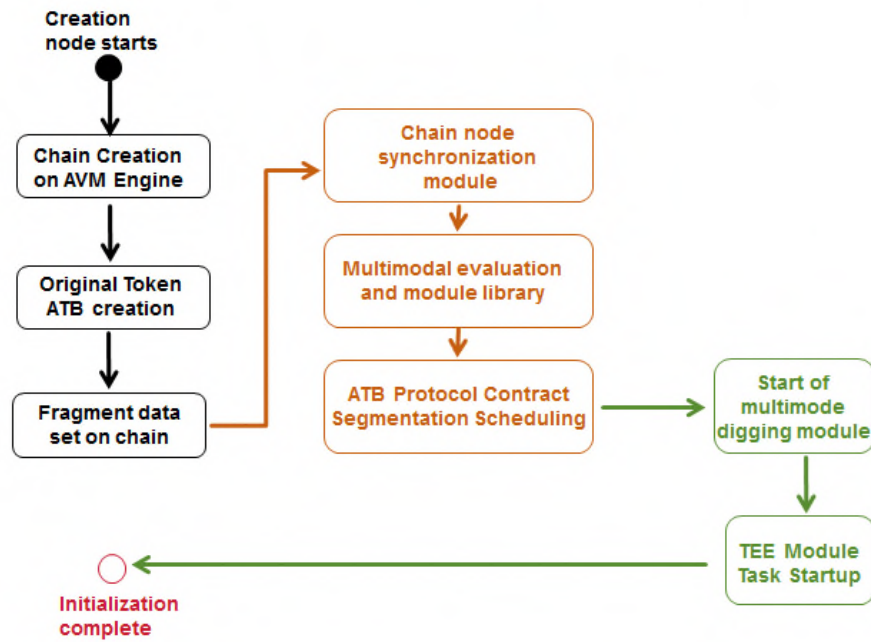

②   Off chain training and reasoning infrastructure: It is a decentralized off chain training and recommendation infrastructure, which uses trusted execution environment (TEE) technology to achieve data confidentiality and transmission security. In the field of decentralization, zero knowledge proof is the most widely used. But like multi-party security computing and other technologies, it has many limitations in application scenarios and faces fatal shortcomings such as weak recursive computing processing ability. Therefore, in our network, we have adopted the zero trust technology of trusted execution environment, which has Turing complete computing power and ordinary PC computing environment, and can be used for large-scale piecemeal computing.

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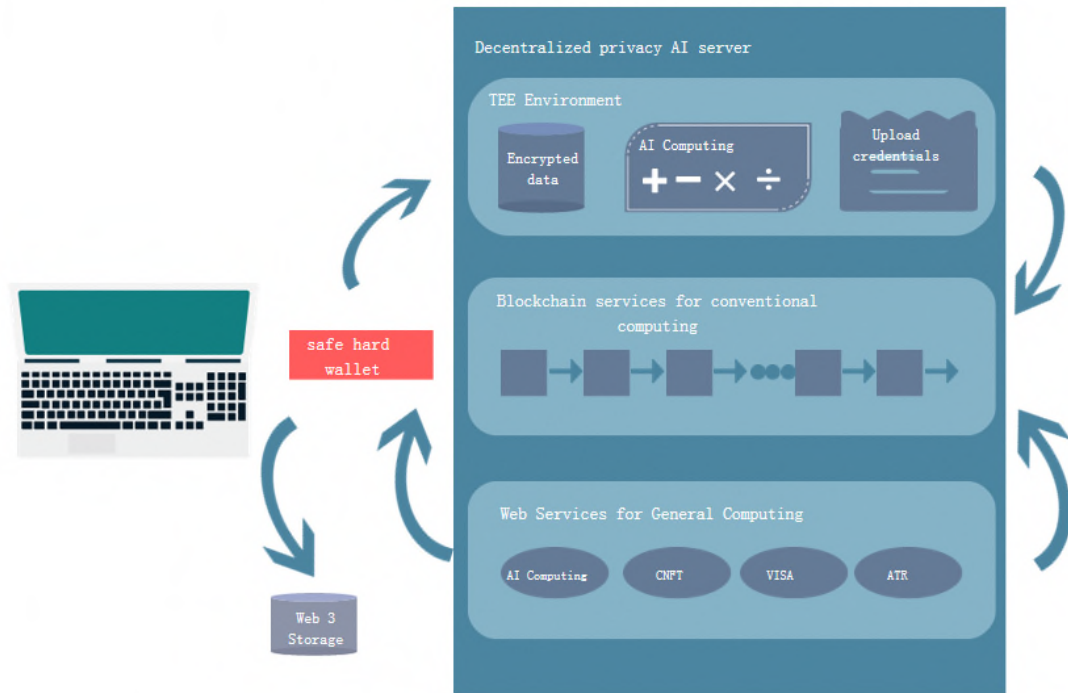
③　Preliminary construction of the general multimodal model market: after rigorous model review, evaluation and screening process, the optimized high-quality general time series model is retained, and the networking model is built using LLM APIs and Trainable Models modules, so that it has the highest level of Token parameters and vector data sets; Among them, Fine tuning Methods ensure the highest performance of multimodality, and the Learning context module enables it to strengthen the ability to resist learning, forming an open, shared and efficient model resource pool. So as to deal with heterogeneous data in complex production and operation, to extract hidden information in complex data and make more accurate prediction.

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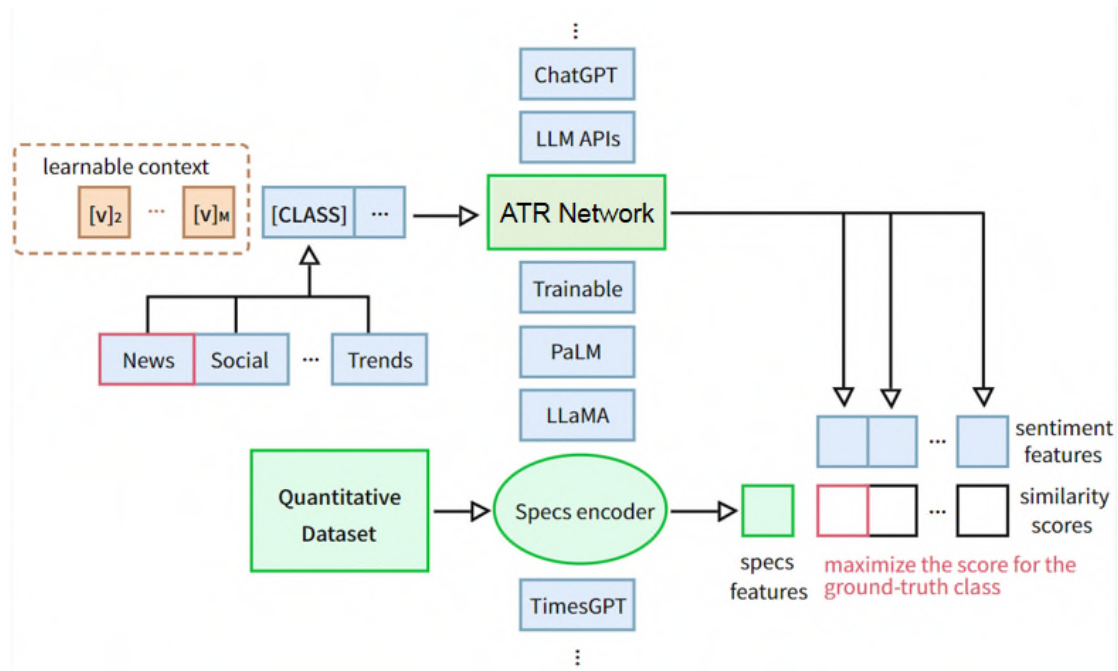
④ Integration of DePIN technology and chain synchronization node management: as a pioneer, we successfully applied DePIN technology to the hardware server with TEE privacy environment at the T management chain synchronization node, participated in the chain data set fragmentation and chain storage, ensured the privacy security of data sets in the supercomputing network, and had clear rights and proper rights management when acquiring and contributing AI resources.

6.2 Continuous optimization and future directions of technology development

With a view to the future, ATR Network will continue to focus on technological innovation and product iteration in the following key areas with the goal of building the world's top Web3.0 AI ecosystem:

① Optimization of underlying technical performance and rich functions: we will continue to optimize the underlying performance of the blockchain to achieve lower transaction delay and higher concurrent processing capability, and further enrich and improve the diversity and intelligence level of AI model library to meet the needs of Web3.0 timing data analysis in different complex scenarios.

② Deep coupling of AI and Web3.0 ecology: deeply explore the landing applications of AI technology in core Web3.0 fields such as DeFi, NFT, and Metauniverse, develop customized time series data analysis models that adapt to specific scenarios, and design flexible and easy-to-use API interfaces to promote seamless connection between AI services and Web3.0 applications.

③ Cross chain connectivity and enhanced ecological openness: through self-developed cross chain technology, interoperability between mainstream blockchain platforms is achieved, data barriers are broken, and a comprehensive, open and diversified interactive Web3.0 AI

ecosystem is built.

6.3 Community co-construction, ecological alliance formation and market layout strategies

①　Deep community cultivation and empowerment: adhere to the principle of community co governance, create a multi-dimensional community ecological environment including education, training, research and development, encourage and support community members to actively participate in all stages of the project, and jointly promote the technological innovation and ecological prosperity of ATR Network.

②　Extensive interaction with ecological partners: actively expand the strategic cooperation relationship with the world's top AI research institutions, blockchain technology enterprises, and Web3.0 application development teams, and jointly build the Web3.0 AI ecological alliance through multiple cooperation modes such as joint research and development, project incubation, and jointly realize the ecological pattern of mutual benefit and win-win results.

③　Comprehensive marketing and brand image building: plan and hold a series of summits, forums and technical seminars with international influence, and fully spread the brand value and technical advantages of ATR Network with the influence of authoritative media and industry opinion leaders. At the same time, by setting up incentive plans for developers, launching ecological investment funds and other measures, more developers, users and investors will be attracted to pay attention to and participate in the ecosystem construction of ATR Network, and jointly describe the grand vision of the Web3.0 AI era.

7. Conclusion

7.1 Review the core value and innovative practice of ATR Network in the field of artificial intelligence technology in Web3

At the intersection of the development of Web3 technology and artificial intelligence, ATR Network has successfully built a future oriented decentralized multimodal privacy supercomputing network by virtue of its unique positioning and technological innovation. Its core value and technological innovation are reflected in:

①　Deep integration of Web3 and AI: ATR Network combines the decentralized and transparent features of Web3.0 with AI's intelligent and personalized capabilities to create a new infrastructure that can both protect user data privacy and achieve efficient computing.

②　Privacy protection AI service: with the help of advanced privacy computing technology, ATR Network allows users to analyze and predict time series data without disclosing original data, which truly realizes the separation of data ownership and use rights, and sets a model for privacy protection for artificial intelligence applications in the Web3 field.

③　DePIN enabled chain synchronization node management integration: By integrating DePIN technology, ATR Network ensures the degree of node synchronization and distribution,

while ensuring the security and controllable sharing of private heterogeneous data resources in production and operation under the Web3 environment, promoting the vigorous development of decentralized AI service market, and creating a more convenient and secure resource access experience for users.

7.2 Look forward to the profound influence and contribution of ATR Network to the future development of artificial intelligence in Web3 field

Under the development trend of artificial intelligence in the Web3 field, the decentralized multimodal privacy supercomputing network of ATR Network will further play its key role and have a profound impact on the digital economy:

① Rebuilding the Web3 intelligent application ecosystem: The general time series model service provided by ATR Network will continue to enable various application scenarios of Web3.0, including but not limited to DeFi, NFT market, DAO governance, games and other fields, promote it from simple data recording to intelligent decision-making and prediction, and open a new chapter in Web3 intelligent applications.

② Build a credible and efficient AI market mechanism: By providing a decentralized, transparent and fair AI service trading platform, ATR Network will lead the Web3 field to build a new data and AI service market mechanism, so that data and AI models can achieve secure and free flow like cryptocurrency, and promote the prosperity and evolution of the Web3 ecosystem.

③ Drive the formulation of Web3 data economy policies and standards: The practice of ATR Network provides valuable experience and reference for data right confirmation, privacy protection and value exchange in the Web3 era, which will strongly promote the formulation and improvement of relevant policies and regulations, thus promoting the stable and compliant development of the global Web3 data economy.

④ Gather global Web3+AI innovation power: ATR Network will continue to attract developers, researchers and Web3 enthusiasts from all over the world to participate in the joint efforts to explore the deep integration of Web3 and AI, explore more innovative application modes, and provide more possibilities for the future of Web3 AI.

Therefore, the decentralized multimodal privacy supercomputing network of ATR Network, with its forward-looking design concept and technological innovation, is deeply shaping the development trajectory of artificial intelligence in the field of Web3, and has made indispensable contributions to building a more open, intelligent and secure Web3.0 world.