CPESO

Multiple digital assets are currently being issued and circulated, each possessing distinct characteristics. Notably, a significant portion of these digital assets support a designated currency. These currency-backed digital assets are widely recognized as reliable accounting units, serving individuals, organizations, and institutions alike. They offer a secure and resilient decentralized approach for storing and facilitating the exchange of value.

Blockchain technology, renowned for its distributed ledger system, embodies a decentralized and fortified structure bolstered by robust encryption measures. As a result, a myriad of digital assets are now being forged using this revolutionary technology. Both asset-backed digital asset issuers and market participants stand to forge a novel ecosystem by harnessing the potential of blockchain technology. Its implementation paves the way for enhanced security, transparency, and efficiency, fostering an environment conducive to innovation and transformative business opportunities.

CPESO is designed to maintain a 1:1 value ratio with the Philippine legal currency, the peso, resulting in inherent volatility. Additionally, CPESO adopts a proof-of-stake consensus algorithm, which minimizes energy consumption. This strategic approach ensures that participants within the ecosystem can effectively safeguard the currency's liquidity, safety, and trustworthiness. CPESO diligently manages reserve assets through the peso-to-CPESO conversion ratio, and the currency's assets are consistently proven to be ready for payment through reserve asset verification and other rigorous auditing methods.

CPESO ensures its security against external hacking through comprehensive security authentication and audit reports. With a strong emphasis on legal compliance, CPESO establishes a robust regulatory framework to maintain a high level of trustworthiness.

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Background and Introduction

Bitcoin, which can be considered as the first implementation of public blockchain, introduced blockchain technology and cryptocurrency to the world.Subsequently, numerous digital assets such as Ethereum and Ripple emerged, leading to the increased attention towards blockchain technology. Blockchain technology is based on peer-to-peer (P2P) transactions, where data is stored in a distributed data storage environment called "blocks," which are connected in a chain-like structure. By storing the managed data in this way, it becomes impossible for anyone to arbitrarily modify it, and anyone can access the results of changes. Due to its P2P nature, it does not rely on third parties or central systems and allows for liberation from constraints. The application of this blockchain technology to currency and assets has resulted in the emergence of numerous digital assets in the world today.

Many individuals are utilizing digital assets built on blockchain technology to store and exchange value. Numerous digital assets have been created with the aim of replacing the role of traditional currencies. These digital assets enable fast and secure peer-to-peer transactions without the involvement of governments, central banks, or financial institutions, making them increasingly popular among a wide range of users.

The emergence of centralized exchanges (CEX) for the distribution of digital assets has brought about various issues. Legal concerns surrounding the organizations issuing digital assets have raised questions about the overall trustworthiness of these assets. Additionally, the significant volatility in the value of digital assets poses a notable drawback. Such issues act as substantial risks and impediments to the use of digital assets.

CPESO presents various alternatives to minimize price volatility and maximize reliability, enabling individuals to use digital assets with trust and safety. Furthermore, CPESO has been designed to replace traditional currencies, allowing for their usage in both online and offline real-world economies.

Background

Numerous financial infrastructures and services exist worldwide, utilizing a wide range of assets within these frameworks. The policies, systems, and services employed for asset management and utilization vary across different entities such as governments, institutions, organizations, and companies responsible for managing and operating financial infrastructures and services. Consequently, there is a prevalence of centralized systems that govern and control user interactions with financial infrastructures. Moreover, each financial system manages and utilizes assets according to the objectives and interests of the

operating entity, often neglecting to actively advocate for the benefits and convenience of system users.

People desire to utilize multiple financial systems instead of relying on a single system, which requires them to comply with the policies and processes of each respective financial system and fulfill their specific requirements. This inconvenience and lack of consideration for user interests and convenience persist, despite users enduring the inconveniences and disadvantages to access multiple financial systems to fulfill their needs or gain particular benefits. Even though users face inconvenience when using financial systems outside their country or leveraging assets they do not directly possess, many individuals continue to utilize multiple financial systems, accepting the associated inconveniences and drawbacks.

This problem lies not with the users themselves but with the multitude of existing financial systems, each with different service policies, asset utilization methods, and system processes. These systems lack proactive interconnectivity, resulting in users being deprived of convenience and better benefits. While existing financial systems do offer convenience, stability, and various advantages to users, the aforementioned financial infrastructure operates under centralized systems, inevitably causing users to experience inconveniences associated with utilizing the financial infrastructure.

CPESO addresses these inconveniences experienced by users through decentralization, providing a means to alleviate their concerns.

In the realm of global economy and finance, currencies, as representative assets, are issued by various government institutions worldwide. These government entities aspire for their respective currencies to be widely adopted and used by a larger population. However, this diversity in currencies creates inconveniences for users when it comes to utilizing currencies other than their own. Currencies serve as nominal representations of the value of assets held by individuals. While the value of each currency may vary based on a country's credibility or competitiveness, it should be seamless for individuals to exchange and use different currencies. Presently, currencies not only differ in value based on a country's credibility or competitiveness, but they also vary in terms of convenience and costs associated with currency conversion, imposing burdens on users.

Living in an interconnected world, where numerous aspects are already interconnected and will continue to intertwine, we require a currency system that enables unrestricted, easy, fast, and secure exchange.

The internet has revolutionized the world by enabling countless individuals globally to share and connect with a vast amount of data instantly, securely, and

at no cost. It has had a profound impact on the lives of numerous people, and it continues to evolve and advance. The invention of blockchain technology and digital assets has ushered in a new era beyond the internet, constantly progressing in a direction of improvement. If various technologies have facilitated secure and unrestricted information sharing and communication on the open internet, digital assets and blockchain technology have positioned themselves as a means for all individuals connected to the open internet to securely and freely store and exchange their assets, eliminating artificial barriers and controls, thus enabling a highly efficient and inclusive global market that economically connects people worldwide. The world economy needs to evolve to be open, shared, secure, inclusive, equitable, and cater to the economic well-being of all interconnected individuals, not just a privileged few.

We believe that leveraging the decentralization and distributed ledger technology of blockchain can significantly transform the existing global financial system, which is controlled and managed by third parties or central systems. To this end, we have created CPESO, a blockchain-based digital asset that can potentially replace traditional monetary systems. Through CPESO, we aim to provide a financial system and the underlying infrastructure that can serve as a substitute for conventional currency systems.

Furthermore, we strive to minimize the system requirements and make it easy for individuals to use the financial system. By adopting a structure that is similar to the existing monetary systems, we aim to enable a greater number of people to conveniently access and utilize the financial system.

Introduction

Just as the internet has enabled people worldwide to share and connect with vast amounts of data at minimal cost, blockchain technology can similarly allow individuals to securely and swiftly store and exchange assets on a global scale, with minimal costs. Blockchain-based digital assets are poised to replace traditional currencies, and systems built upon them have the potential to surpass existing monetary and financial systems in many aspects, providing greater convenience to individuals.

By presenting methods for people to exchange and store value through digital assets such as CPESO, people can enjoy convenience and economic benefits. This allows individuals to exchange and store value in forms other than traditional currencies, offering them convenience and economic advantages.

Stablecoins are categorized into four distinct types :
- Fiat-backed stablecoins
- Crypto-backed stablecoins
- Commodity-based stablecoins

- Algorithmic stablecoins

CPESO is a fiat-backed stablecoin based on the Philippine legal tender, the Peso ("PESO"). It is a digital asset that holds an equivalent value to the PESO, ensuring stability without any volatility. Each CPESO is backed by 1 PESO, maintaining a fixed exchange rate of 1 CPESO to 1 PESO.

CPESO is issued by BRK Foundation ("BRK") and distributed by CPESO INC. ("CPESO INC."), providing a system and services for people to use CPESO. It is backed by a diverse range of assets that match the issuance and circulation of CPESO, ensuring its reliability. CPESO aims to create a different ecosystem within the Philippine economy and finance, supporting its development and enabling many individuals to access financial services safely and conveniently.

The reasons for CPESO's efforts to foster a digital asset ecosystem in the Philippines are as follows :
- The necessity of contactless economic activities has emerged as a result of the repercussions of the COVID-19 pandemic.
- The expansion of contactless economic activities highlights the need for improvement in the financial system.
- Many individuals are unable to fully capitalize on the benefits of online financial services.
- The banking system faces significant constraints, making it challenging to utilize its services.
- The utilization rate of credit transactions, such as credit cards, remains relatively low.
- Constraints and high fees associated with peso conversion and remittances pose limitations.
- The growth rate of the consumption market is hindered by reliance on physical currency transactions.
- Currency exchange occurs through in-person interactions, incurring costs in terms of time and effort.

The reflection on the financial system for the aforementioned reasons was not unique to us alone, as Cebu City in the Philippines was also contemplating alternative solutions to address these challenges. In 2020, through mutual consensus on blockchain-based digital assets, CPESO was further developed to enable people to use it safely and conveniently.

As a result, CPESO and Cebu City are presenting a new digital asset to individuals, allowing more people to benefit from financial services and efficiently manage and grow their assets using CPESO. Together, we aim to create a new financial ecosystem that minimizes costs previously incurred in payment activities. Of course, CPESO is committed to collaborating with not only Cebu City but also all

government agencies, organizations, and businesses in the Philippines to promote the advancement of the financial ecosystem.

CPESO is driving the transformation of the economic and financial ecosystem in the Philippines in the following ways:
- Minimizing Constraints and Reducing Financial Exclusion
- Expansion of Online Financial Services
- Decreased Reliance on Cash Payments
- Diversification and High-Quality Financial Services
- Facilitation of Financial Institution Advancements
- Provision of Various Benefits and Advantages
- Reduced Constraints and Cost Savings in Currency Conversion
- Lowered Risks and Diversified Investment Opportunities
- Ease of Payments for Government Agencies, Organizations, and Businesses
- Reduction of Offline Payment Costs and Unnecessary Expenditures
- Increased Circulation of Digital Assets

Concept of Token Service

CPESO is a legal tender-based stablecoin that holds the same value as the official currency of the Philippines, the PESO. It operates on the ERC-20 protocol, which encompasses the benefits of decentralization, distributed ledger, and smart contracts. By leveraging these advantages, CPESO aims to address numerous shortcomings of traditional monetary systems, providing people with a secure and convenient means to access financial services. In doing so, CPESO is forging a new financial ecosystem based on digital assets.

Service Summary

CPESO Coin was meticulously planned in collaboration with Cebu City to create a new ecosystem in the Philippine economic market using blockchain-based digital assets. By analyzing and referencing numerous existing digital coins and assets, we have defined the following coin concept to provide participants in the CPESO ecosystem with minimal costs and maximum benefits :

- CPESO Coin maintains its value by holding and preserving assets of equivalent value to the quantity of coins in circulation, ensuring trust and stability in CPESO Coin's issuance and distribution.
- Services utilizing CPESO Coin are designed to be user-friendly and similar to those using the traditional PESO currency, allowing ecosystem participants to utilize the coin easily and conveniently.
- CPESO Coin enables value exchange and storage at a cost comparable to or lower than traditional currencies.
- All transactions involving CPESO Coin can be verified and managed by users.
- CPESO Coin is a digital asset that can be used not only in the Philippines but also globally.
- There are no fees or delays for peer-to-peer coin transfers within the CPESO service. However, fees and delays may apply for coin transfers to external services or networks.
- We aim to minimize swap fees between CPESO Coin and PESO. However, any swap fees imposed by third parties or other services or institutions are not within CPESO's control.
- To provide people with greater financial benefits, CPESO Coin collaborates organically with existing financial services, both online and offline stores, allowing its usage in various financial transactions.
- CPESO Coin enables the introduction of useful financial services from other countries that have not yet been introduced in the Philippines.
- CPESO Coin offers a secure and convenient payment service for ecosystem participants to utilize in government agencies, public institutions, online/offline stores, providing lower transaction fees compared to existing payment services and offering payment merchants access to payment-related data for monitoring and management purposes.

- CPESO Coin can be swapped with other digital coins or digital assets, and swap fees vary depending on the specific coin or asset involved.

Coin Value and Service Fee

CPESO Coin is a stable cryptocurrency with no volatility, as it is pegged to the value of the Philippine PESO. Participants within the ecosystem can exchange CPESO Coins with each other at an equivalent value to the PESO and store CPESO with the same value as the PESO. Individuals who wish to convert their assets into CPESO Coins for their use in the CPESO system can transfer their assets to the CPESO issuer and receive CPESO Coins of equivalent value. This process is verified by the CPESO system, and the respective CPESO Coins become transferable. Conversely, if someone wishes to convert CPESO Coins back into PESO, they can transfer the CPESO Coins to the CPESO issuer, who will then return the equivalent amount of PESO held in deposit to the sender.

Participants within the ecosystem who own CPESO Coins have the ability to transfer their CPESO Coins to others and engage in swaps to acquire assets of equivalent value. CPESO aims to provide financial benefits to participants and minimize costs required to maintain and develop the ecosystem, as individuals actively contribute to the ecosystem by utilizing CPESO Coins.

Previously, individuals have been using various financial services and incurring costs associated with those services provided by third-party financial institutions. For example, users would entrust their assets to financial institutions and occasionally transfer those assets to others. While financial institutions utilize these entrusted assets to generate credit and profits, they often impose transaction fees on users for transfers. People have been required to pay these financial fees and service costs. While it may not be possible to completely eliminate or reduce all financial fees and service costs, CPESO aims to minimize the additional financial fees and service costs associated with financial activities using the coin within the ecosystem. By doing so, CPESO maintains differentiation from traditional financial services and provides benefits to users.

Transfer and Swap

CPESO Coins can be transferred by anyone to another party as a digital asset in the online space. The transfer of CPESO Coins represents an exchange of value. The transfer of CPESO Coins is not limited to individuals but can also be conducted by private companies, event organizers, government agencies, and anyone else. The method and procedures for transferring CPESO Coins remain the same across all parties. There are no fees for transferring CPESO Coins within the CPESO service. However, when transferring CPESO Coins to external services or networks outside of the CPESO service, transaction fees may apply, and these fees are determined by the respective external services or networks.

CPESO Coins are not limited to conversion only to PESO but can be swapped for various assets that hold value, such as other digital assets or foreign currencies. This process is referred to as a "swap." CEPSO intends to continually expand the range of assets eligible for swapping. When swapping CPESO Coins for other assets or vice versa, there may be a swap fee involved. However, these fees will be minimized for the benefit of ecosystem participants. The swap fees vary depending on the asset being swapped, and the value exchanged during the swap depends on the value of the asset being swapped. Even for the same asset, the conversion value may fluctuate, as CPESO Coins maintain a stable value equivalent to PESO, while certain assets in financial markets, such as exchange rates, real estate values, and stock values, may exhibit volatility.

Coin issuance and distribution

The issuance of CPESO coins is carried out by the non-profit organization BRK, and their distribution to ecosystem participants is facilitated by CPESO INC. The circulating CPESO coins, which are currently in circulation, can also be subject to burning at the discretion of BRK and CPESO INC. CPESO INC. offers a range of services to ecosystem participants utilizing the circulating CPESO coins and may apply service fees to ecosystem participants or interconnected external systems and services as needed. A portion of the revenue generated by CPESO INC. is allocated as donations to BRK, which in turn channels it back into society through charitable and public welfare activities.

CPESO coin is pegged to the same value as PESO, ensuring minimal volatility. Therefore, CPESO coin itself does not generate profits or losses and is not considered an investment asset. Additionally, CPESO coin does not engage in activities aimed at fundraising such as ICO (Initial Coin Offering) or STO (Security Token Offering).

CPESO is used by ecosystem participants for value exchange and storage, and it can be swapped into different digital coins or assets according to their preferences. After issuance, CPESO coins are circulated within the ecosystem through participant swaps, which means that the total issuance and total circulation may differ. The value of the total circulation is managed by CPESO INC. to maintain it as an asset of equal value in a consistent form.

Collaboration with government and local authorities

In the administrative systems of Philippine government and local authorities, the process of collecting various taxes, fees, fines, and other payments is primarily conducted offline, unlike in other countries. As a result, individuals are required to pay costs such as time and effort. Government agencies need administrative staff for face-to-face interactions with the public, leading to decreased efficiency in administrative tasks.

CPESO coin, as a digital asset, enables the processing of various forms of online payments and transactions. In addition to private enterprises and services, it can be utilized to connect government agencies with individuals for the collection of taxes, fees, fines, and other payments. By collaborating with CPESO, government agencies can generate and provide online payment URLs or QR codes, allowing individuals to make payments directly using CPESO coins online. This addresses the deficiencies in the Philippine government's outdated offline payment system and enables CPESO ecosystem participants to make various payments conveniently, safely, and swiftly to government agencies.

By using CPESO coin, individuals no longer need to personally visit government agencies, local authorities, or banks to make payments. They can now make their payments online. This eliminates the inconvenience of physically going to government offices to pay taxes, fees, fines, and other payments, as well as the non-economic costs associated with waiting and processing times. Moreover, it simplifies the tasks handled by administrative personnel in government agencies and enhances overall efficiency.

CPESO continues to collaborate with government agencies to expand the benefits that can be provided to ecosystem participants through the utilization of CPESO coin. Additionally, individuals can conveniently review and manage their payment records, thanks to the features offered by CPESO.

Global Transaction

CPESO coin is not limited to the Philippines but is a globally accessible cryptocurrency-based fiat-stable token. It enables individuals, businesses, financial institutions, government agencies, and others to freely exchange assets, transcending geographical and currency restrictions.

When Overseas Filipino Workers (OFWs) send their foreign earnings back to their home country, the Philippine peso (PESO) faces limitations in being recognized as a major global currency. This necessitates unnecessary currency conversion and incurs significant fees through various financial institutions and intermediaries. By utilizing CPESO coin, these fees can be significantly reduced in all aspects. The same principle applies to inter-corporate transactions, offering benefits for businesses as well.

Foreign visitors to the Philippines, including tourists, face fees and inconveniences associated with currency exchange and remittance due to the disparity between their home currency and the Philippine peso. CPESO coin can alleviate these burdens by reducing fees and simplifying processes. If foreigners can easily and securely swap their home currency to CPESO coin and use it both online and offline, it becomes a significant advantage for those planning to visit or currently in the Philippines.

The international adoption of CPESO coin signifies the recognition and use of the Philippine peso as a global currency. This is because CPESO maintains an equivalent value to the peso as a cryptocurrency.

Core Applications

In general, there are two types of applications built on top of CPESO. The first category comprises financial applications that facilitate CPESO usage, where users can pay in pesos and execute contracts on the internal transaction ledger. This includes sub-currencies, financial derivatives, wallets, transaction histories, and business account management for ecosystem expansion. The second category focuses on ecosystem management, providing functionalities to manage multiple business locations in conjunction with specific user applications. It allows for the establishment of restricted permissions for intermediate managers, departments, and supervisors within franchise outlets and businesses utilizing CPESO. These applications predominantly have a semi-financial nature, as they involve money-related operations but only allow deposits and not withdrawals.

- User Application
  - CPESO Transfer
  - CPESO Swap
  - CPESO Transaction History
  - Ethereum-based Public Wallet (Wallet with ERC20)
  - Internal Wallet for CPESO Ecosystem Management
  - Deposit and Withdrawal Records
  - Business Application Management

- Business Application
  - Query Transaction Ledger with Limited Privileges for Business Operators
  - Query Assets with Limited Privileges for Business Operators
  - Modify Information with Limited Privileges for Business Operators
  - Check the Amount of Sold Products
  - Request and Confirm Transactions for Total Order Amount
  - Receipt and Documentation Processing
  - Access Statistics

Smart Contract

The CPESO smart contract is designed to operate on the Ethereum-based ERC-20 network. With the upgrade of Ethereum 2.0, known as The Merge, the consensus algorithm has transitioned from Proof of Work (PoW) to Proof of Stake (PoS). This upgrade has addressed issues such as slow transaction speeds and high gas fees (transaction fees). Additionally, with the introduction of stable services, the exchange pairing between the fiat currency Peso and the digital asset CPESO has become possible.

To mitigate the volatility of CPESO, a combination of centralized exchange(CEX) and decentralized exchange (DEX) has been integrated. This fusion aims to ensure the security and stability of CPESO.

Ethereum Test net
   Smart Contract Address : 0x1739Ebc150c50302120b93876cED09276DB82d4E
   Smart Contract Code : https://github.com/CPESO/smartcontracts/tree/draft

Ethereum Main net
   Smart Contract Address :
   Smart Contract Code : https://github.com/CPESO/smartcontracts/tree/main

Main Function

Function	Function Name
Approve()	Approve
Allowance()	Check Allowance
Transfer()	Transfer Tokens
TransferFrom()	Transfer and Exchange Tokens
BalanceOf()	Account Balance
Name()	Token Name
Symbol()	Token Symbol
totalSupply()	Total Token Supply

Ecosystem

We are actively preparing, in collaboration with other companies, institutions, and services, to establish and expand an ecosystem based on CPESO. Our goal is to create a robust ecosystem that utilizes CPESO and fosters growth and development.

Transfer and Exchange of Asset Value

Participants within the ecosystem can conveniently and securely utilize CPESO to transfer or exchange assets. While traditional currencies have served numerous methods for the transfer, exchange, and leasing of asset value, CPESO can fulfill all of these roles as a substitute for conventional currencies.

The transfer and exchange of assets using CPESO can encompass any asset that holds value. It can occur both online and offline, encompassing various existing forms of assets. The following are examples of assets that can be transferred and exchanged with CPESO:

- Exchange of various tangible assets, including currencies, gold, silver, etc.
- Payment for goods in kind, such as consumer products and food
- Payment of intangible service fees, including travel expenses, medical fees, education costs, hotel accommodations, tickets, transportation, and more
- Voluntary payments, donations, and contributions
- Payment of government and local agency fees, taxes, fines, etc.
- Payment of intermediation fees for both online and offline transactions, service transactions, etc.
- Business activities such as inter-company investments, employee salaries, inter-company transactions, etc.

Storage of Asset Value

People have traditionally used currency to store their assets and have utilized financial services for this purpose. They have stored their assets and, through investments and interest earnings, have grown their wealth.

Similarly, CPESO aims to create an ecosystem where anyone can engage in these activities using CPESO, just like with traditional currency.

Vision and Goals

Our vision is to issue and distribute CPESO, a digital asset with the same value as PESO, and provide services that enable CPESO ecosystem participants to use it safely and conveniently.

We will continuously manage the issuance and circulation of CPESO to ensure the stable value and reliability of CPESO. Furthermore, we will prepare assets of equivalent value to CPESO in circulation within the ecosystem, ensuring the ongoing stability and trustworthiness of CPESO. We comply with Philippine financial regulations and anti-money laundering regulations, transparently managing the circulation of CPESO to instill trust and enable ecosystem participants to use it with confidence.
By addressing the inconveniences and inefficiencies imposed by existing financial systems, we enhance the convenience and safety of value transfer and storage for CPESO ecosystem participants. This reduces unnecessary constraints from a financial system perspective and alleviates financial service fees or charges that users previously had to bear.

We continue to expand services utilizing CPESO for the benefit of CPESO ecosystem participants, providing them with convenient and secure financial services. With CPESO, anyone can easily, quickly, and safely transfer and convert assets. CPESO can be used by individuals, businesses, and institutions in the global financial market, eliminating the losses and negatives associated with traditional PESO usage.

We collaborate with existing financial systems, online/offline services, government, and local institutions to explore numerous directions in which CPESO can be used as a currency. This will establish an ecosystem where CPESO is used on par with the legal tender PESO in the Philippines. Unlike the ecosystems created by conventional cryptocurrencies, our ecosystem allows users to utilize CPESO, a cryptographic currency, in the real economy, creating an advanced ecosystem.

Appendix

Organization

The organization of CPESO consists of two separate entities: the BRK Foundation ("BRK") responsible for issuing CPESO, and CPESO INC. ("CPESO INC.") responsible for distributing and managing CPESO to create the ecosystem. CPESO INC. is authorized by the BRK Foundation to distribute and manage the issued CPESO, and it strives to build and manage the CPESO ecosystem while providing various services to ecosystem participants.
In order to drive specialized businesses or services for the CPESO ecosystem, additional organizations may be established, and collaborations with external individuals, institutions, and businesses are also possible.

BRK Foundation

The BRK Foundation is a non-profit organization operating with the mission "To Create Camaraderie and Relief to All." Since 2018, it has been engaged in social volunteering, donations, and disaster relief activities in the Philippines, starting with the Naga City Landslide Disaster Relief Fund in Cebu. Within the CPESO ecosystem, BRK receives a portion of the generated revenue in the form of donations, which will be used for social contribution activities.

CPESO INC.

CPESO INC. is delegated the authority by BRK to distribute and provide services for the issued CPESO within the ecosystem. It plays a role in creating services and businesses that utilize CPESO and can be utilized by actual ecosystem participants for transactions, swaps, and payments, among other activities, through the services provided by CPESO INC. Additionally, CPESO INC. is responsible for managing and maintaining services and systems related to CPESO. It will continue to develop convenient, secure, and innovative businesses and services for the CPESO ecosystem by integrating with external offline and online businesses or services. Furthermore, CPESO INC. collaborates with government and local institutions to offer new offline and online services utilizing CPESO. A portion of the revenue generated within the CPESO ecosystem is donated to BRK, which is then channeled back into society through social contribution activities.

Legal and Compliance

BRK is a non-profit foundation established in accordance with the Philippine Foundation Bylaws, while CPESO INC. is a limited company established in accordance with the Philippine Corporate Bylaws.

CPESO INC. has entered into key institutional agreements with BRK for CPESO distribution and ecosystem development. In order to provide enhanced services to CPESO ecosystem participants, CPESO INC. is establishing relationships with Philippine financial institutions and acting as a representative of BRK in carrying out tasks related to anti-money laundering regulations and customer due diligence procedures. Through these measures and other actions, CPESO INC. ensures compliance with Philippine laws and anti-money laundering regulations by conducting customer due diligence, maintaining records, and implementing reporting procedures.

Glossary

Peso (₱) : Peso is the official currency of the Philippines.

Blockchain : Blockchain is a distributed ledger where a list of records (blocks) securely connected through cryptographic hashes grows. Each block contains the cryptographic hash of the previous block, a timestamp, and transaction data. The timestamp proves that the transaction data existed when the block was created. Since each block contains information about the previous block, they effectively form a chain with each additional block being linked to the previous ones. As a result, blockchain transactions are immutable, meaning that once recorded, the data of a specific block cannot be retroactively changed without altering all subsequent blocks.

Bitcoin : Bitcoin is a network (or currency unit, when written in lowercase [bitcoin]) that uses cryptographic technology to regulate the creation of currency units and verify fund transfers.

Ethereum : Ethereum is a decentralized blockchain with smart contract functionality. Ether is the native cryptocurrency of the platform. Among cryptocurrencies, Ether is the second-largest by market capitalization, following Bitcoin. It is an open-source software.

Ethereum 2.0 (Serenity): Ethereum 2.0, also known as Serenity, is an upgraded version of the core Ethereum protocol. It improves upon the existing Ethereum protocol "Layer 1" through various enhancements, including:

- Sharding
- Proof of Stake (PoS)
- eWASM

Proof of Stake (PoS) : Proof of Stake is the underlying consensus mechanism used in blockchain to achieve distributed consensus. In contrast to Proof of Work (PoW), where miners prove their commitment by expending energy and demonstrating ownership of capital at risk, Ethereum utilizes a form of Proof of Stake called staking, where validators explicitly stake capital in the form of ETH on Ethereum's smart contracts. The staked ETH serves as collateral that can be destroyed if validators act dishonestly or negligently. Validators, also known as attestation, are responsible for validating the validity of new blocks propagated through the network and occasionally creating and propagating new blocks themselves.

Proof of Stake is offered along with various improvements over the obsolete Proof of Work system, including:

- Improved energy efficiency: Proof of Stake does not require significant energy consumption for computational calculations.
- Lower barriers to entry and reduced hardware requirements: Elite hardware is not necessary to seize opportunities to create new blocks.
- Reduced risk of centralization: Proof of Stake requires a greater number of nodes to secure the network.
- Less issuance of ETH is required to incentivize participation due to lower energy requirements.
- 51% style attacks incur exponentially higher costs for attackers due to the economic disincentives for misbehavior.
- If a 51% attack were to overcome cryptographic economic defenses, the community can rely on social recovery of the honest chain.

Casper Algorithm : The consensus algorithm of Ethereum 2.0, which marks the transition from Ethereum to Ethereum 2.0.

Casper FFG (Friendly Finality Gadget) : A consensus algorithm that combines Proof of Work (PoW) and Proof of Stake (PoS).

Casper CBC (Correct by Construction) : A consensus algorithm that supports Proof of Stake (PoS) while incorporating support for Proof of Work (PoW).

eWASM (Ethereum WebAssembly) : A new programming language used for smart contracts in Ethereum. eWASM is an abbreviation for Ethereum WebAssembly and represents a subset of the WebAssembly language. It was created to improve upon the existing code execution environment of Ethereum Virtual Machine (EVM 1.0). It supports WebAssembly and offers advantages in terms of performance, scalability, development tools, and community support.

Ethereum Improvement Proposal #20 (ERC-20) : A technical standard used for issuing and implementing tokens on the Ethereum blockchain. It was proposed by Ethereum developer Fabian Vogelsteller in November 2015. This standard outlines a set of common rules that tokens within the Ethereum ecosystem must adhere to in order to function properly.

Gas : The fee that must be paid by the sender for all operations carried out on the Ethereum blockchain. Just as a car requires fuel (gas) to move, the Ethereum network requires gas fees to function. Gas units represent the smallest type of transaction and measure the amount of computational work required, rather than indicating a monetary value. Ethereum can process only a limited amount of gas within a certain timeframe, and validators must regulate the numerous transaction requests. Miners rely on gas prices and gas limits to choose which transactions to include, as failure to regulate speed can result in network congestion from excessive usage or spam transactions.

Overseas Filipino Worker (OFW) : A foreign worker or migrant worker who works in a country other than their own, where they do not hold citizenship.

Asset Swap: The exchange of assets of different forms.

Initial Coin Offering (ICO) : A method for companies to raise funds in order to create new coins, apps, or services. Interested investors can purchase tokens

offered in the initial coin offering and receive newly issued cryptocurrency tokens from the company. These tokens may have some utility associated with the company's offered product or service or represent ownership or stake in the company or project.

Security Token Offering (STO) : A type of public offering where tokenized digital securities, also known as security tokens, are sold on a security token exchange. These tokens can be used to trade real financial assets such as stocks and bonds, and the token transactions can be stored and verified using blockchain ledger systems.

Anti-Money Laundering (AML) Regulations : A set of procedures, laws, or regulations designed to prevent the practice of generating income through illegal activities. These regulations aim to stop the flow of illicitly obtained funds and promote transparency and accountability in financial transactions.

Application Programming Interface (API) : A set of routines, protocols, and tools for building software applications. APIs specify how software components should interact with each other. They generally define a clearly defined set of communication methods between various software components.
Implementation: A specific realization of a protocol or other software abstraction in the form of a particular form of software code. Loosely speaking, the blueprint is for the house, and the protocol specification is for the implementation.

Know Your Customer (KYC) : Rules and processes through which companies identify and verify the identity of their clients. This term is also used to refer to banking and anti-money laundering regulations that regulate such activities.

Smart Contract : A computer protocol designed to facilitate, verify, or enforce the negotiation or performance of a contract. Smart contracts are self-executing contracts with the terms of the agreement directly written into code.

Stablecoin : A stablecoin refers to a virtual asset that is pegged to the value of another targeted asset, ensuring minimal price fluctuations and providing stability. The targeted asset can be a fiat currency such as the US dollar or the euro, or a commodity like gold. The most common practice is to peg the price to one US dollar.
Stablecoins can be broadly categorized into three types based on the principles they follow to maintain a stable price:
- Fiat-Collateralized Stablecoin
- Coin-based Stablecoin
- Commodity-based Stablecoin
- Algorithmic Stablecoin

Transaction : A transaction refers to the transfer of value from one network participant to another on the blockchain.

Decentralized Finance (DeFi) : DeFi is a term that encompasses financial products and services accessible to all individuals (those with internet connectivity). DeFi ensures that the market is constantly open, with no centralized authority capable of blocking payments or denying access to everything.

Central Bank Digital Currency (CBDC) : CBDC is a form of digital currency issued by a country's central bank. Apart from its value being pegged to and equivalent

with the nation's fiat currency, it shares similarities with cryptocurrencies, excluding central bank control.

Unspent Transaction Output (UTXO) : UTXO stands for Unspent Transaction Outputs. It refers to the value of transaction outputs that have not been spent. Unlike Ethereum's Account Balance Model, UTXO does not have accounts or balances. Instead, the validity of a transaction and the existence of coins are verified by examining the "unspent outputs" recorded on the blockchain.