GLOBAL COINSTAR DIGITAL CURRENCY

Global Digital Decentralized Currency Peer-to-Peer Finance Network

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Abstract

A global Coinstar is a new Decentralize Digital Currency on a Network is an Upgraded System of Decentralize Digital Currency that allow online payments to send directly from one party to another without any authority, GCS digital currency they have two (2) method to send asset trough the Blockchain Technology, peer to peer transactions Provide a Digital voucher and Digital Smart card, using Cryptographic algorithm, those two methods we provided to new transactions systems, Digital voucher and digital Smart card, for payments transaction system and Stored in blockchain.

We have provided a Confidentiality, integrity and availability with encryption algorithm for these two-method transaction Digital Voucher and Digital Smart card. *© 2024 The Author(s)*

Introduction

Global Coinstar (GCS) is a New Digital Currency on a Network that is not Controlled by any particular individual or Company and Providing to Operate the whole worldwide to make international payment Transaction is Easier and Create more Economy System in the world.

the GCS that can work similar to Cryptocurrency is a Digital Decentralized peer to peer Network and trading it through Digital Voucher and online Payment transaction with Digital Smart card, under blockchain Technology.

Mission Statement

Providing Easily for international Transactions without any Intermediate Central authority or Banks; Managing transaction or particular individual or Company and Create More Economic freedom around the world and Reducing Suffering of people in the world.

Vision Statement

Its Vision to become a best Channel of international payment transactions to Global commercial activity, Buy Crypto, Pay Bills, transportations (e.g., flight tickets, train tickets etc.) and online shopping (e.g., Amazon,

AliExpress, eBay etc.) and furthermore, Using Digital Smart Card (DS Card).

Coins Supply

GCS Digital Currency we Provided three (3) rounds of maximum Supply limited, they have four years between one Supply to each, the first-round total supply is 10 billion (10,000,000,000) and remaining two-rounds Supply there is not specific amount yet.

Coinstar Tokenomic and Distribution

Proactive Public Goods Funding: 63%

Ecosystem Fund for Project Developments: 25%

Core Contributors: 12%

Global Coinstar Subunits

There are Currency Subunits as Follows:

1. Millicoinstar (MI)   1/1,000
2. Microcoinstar (MC)   1/1,000,000
3. AB-Coinstar (AB)   1/1,000,000,000

Transactions

In a standard banking system, for example, the state is a balance sheet, a transaction is a request to move $X from A to B, and the state transition function reduces the value in A's account by $X and increases the value in B's account by $X. If A's account has less than $X in the first place, the state transition function returns an error.

The "state" in Coinstar is the collection of all Currency (technically, "unspent transaction outputs" or UTXO) that have been mined and not yet spent, with each UTXO having a denomination and an owner (defined by a byte's address which is essentially a cryptographic public key).

Global Coinstar State transactions functions as originally peer to peer transactions with another Methods Transactions which is Digital Voucher (DV) and Digital Smart Card (DS Card), these two methods can be defined transactions as follows.

Digital voucher (DV)

A digital voucher (DV) is a new peer to peer transaction system that can trade the asset without any denomination shareable, like wallet address, you can use the voucher to add asset into the wallet Accounts without sharing the wallet address.

Digital voucher they have own "non-fungible voucher" (NFV) we have provided this voucher each one they have own identity code and Timestamp that can not be alteration or replace to another and an owner of the voucher who generated they have own identity code to identify the owner of the voucher they will used these identifications to verify the voucher is validating or invalidating this voucher we used with the hash function to encrypted no any one can read or access the voucher code.

When an owned generated a voucher will broadcast to all nodes, they knowns a new voucher has initiated it will distribute the voucher identity code, Timestamp and voucher owned identity code to the all nodes this voucher, when processing generates the new voucher, our Coinstar Virtual Machine (CVM) System they will create the voucher code and voucher password using hash function encryption system and linked with a owned personal identity code who generate the new voucher and stored the voucher in blockchain.

When the beneficiary uses the voucher, they will use the nodes accessible and the voucher code when the put a voucher code into the nude they will check the voucher is valid and voucher didn't not used by any person if the voucher is validated and there is no anyone use with this voucher, they will take you to the next step and put a voucher password to add token into the wallet.

Advantage of Digital voucher

This voucher has a more advantages they have confidentiality nobody knows any Your denomination Address that you received your asset like a wallet address, there is not issue of network interruption or transactions delaying, founding at a time you want in your wallet account.

Digital Smart Card (DS Card)

A digital Smart card (DS Card) Is a new Digital debit card provided on a blockchain network, digital smart card they can use on a digital decentralized Network for online payment transaction systems.

DS card is similar to virtual debit card (e.g., Master card, Visa card etc.) and this card it works unlike a native Debit card you know, but this digital card we provide it using Cryptographic algorithm and encrypted the card with hash Code.

This card is not under the control by any authority, the owner of this card they have fully Strong control the card, they can activate it when they need to use and they have the right to deactivate it, for security to their assets.

And this card has an access code that will allow to use the card for Online payments transactions with a Card, when they seen symptoms of the attack you have right to Regenerate a new access code on your DS wallet, this strategy it will help to provide strong security to the assets.

To ensure the safety of your property, we have provided a DS wallet in your original wallet account which this card can allow access to debit a token from the DS wallet, this card only Digital Smart wallet (DS wallet) can Allow to Withdraw.

Global Coinstar Accounts

In Global Coinstar, the state is made up of objects called "accounts", with each account having some byte's address and state transitions being direct transfers of value and information between accounts. A Global Coinstar account contains Three fields:

❖ The **miner Account**, a miner account which is used to Stored a mined asset before transfer to Storage account.
❖ The Account's **Storage,** which is use to Stored a Coinstar asset (empty by default).
❖ The account's Current **Coinstar Balance,** the Coinstar Balance Account which is used for Transactions in blockchain.

In general, there are three types of accounts: **Individuals owned Accounts,** Controlled by Private keys, and **cooperate owned Accounts,** controlled by two to three Person and **Externally owned Accounts,** which

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is Used by Cryptocurrency Exchangers. An Individuals owned account has no any one can send a message from personal owned account by creating and signing a transaction, only the account owner can read and write to internal storage and send a Messages. A cooperate accounts it was created By Company/organizations to stored assets Payments Transactions. Cooperate account it allows to controlled by two to three peoples can read and write internal messages and allow to debit asset from account.

Network

The steps to run the network are as follows:

1. New transactions are broadcast to all nodes.
2. Each node collects new transactions into a block.
3. Each node works on finding a difficult proof-of-task (POT) for its block.
4. When a node finds a proof-of-task (POT), it broadcasts the block to all nodes.
5. Nodes accept the block only if all transactions in it are valid and not already spent.

Nodes always consider the longest chain to be the correct one and will keep working on extending it.

Mining

The Coinstar blockchain is in many ways similar to the Cryptocurrency blockchain, although it does have some differences.

The algorithm for checking if a block is valid, expressed in this paradigm, is as follows:

✓ Check if the previous block referenced by the block exists and is valid.
✓ Check that the timestamp of the block is greater than that of the previous block and less than 8 hours into the future
✓ Check that the proof of task (POT) on the block is valid.
✓ Let S [0] be the state at the end of the previous block.

- ✓ Let TX be the block's transaction list, with n transactions. For all i in 0...n-1, set S [i+1] = APPLY (S [i], TX [i]). If any application returns an error, exit and return false.
- ✓ Let S_FINAL be S [n], but adding the block reward paid to the miner.

Essentially, each transaction in the block must provide a valid state transition from what was the canonical state before the transaction was executed to some new state. Note that the state is not encoded in the block in any way; it is purely an abstraction to be remembered by the validating node and can only be (securely) computed for any block by starting from the genesis state and sequentially applying every transaction in every block.

Additionally, note that the order in which the miner includes transactions into the block matters; if there are two transactions A and B in a block such that B spends a UTXO created by A, then the block will be valid if A comes before B but not otherwise.

Scalability

Global Coinstar Scalability. It is the capability of a system, network, or process to handle a growing amount of work or its potential to be enlarged to accommodate that growth.

Conclusion

Global Coinstar is a First Decentralized Global Digital Currency Proposed Without relying on Trust. Global Coinstar Provide a Debit Card, which Called Digital Smart Card (DS Card) and Digital Voucher's (DV). Digital Smart Card which is Provides Strong Control of ownership, but is incomplete without a way to prevent Card. We proposed a Digital Smart Wallet (DSW) in Each Accounts, which is only from this Wallet can allowed to debit assets.

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