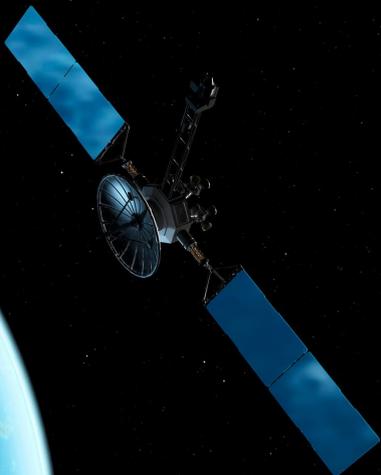




MONDOCOIN

CRYPTOCURRENCY EVOLUTION



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INTRODUCTION



Individuals and companies can use a digital token backed by fiat currency to exchange value in a secure and decentralised manner while still employing a familiar accounting unit. Solana Blockchains are a cryptographically secure global ledger that can be audited. Issuers of asset-backed tokens and other market participants can use Solana blockchain technology and inbuilt consensus systems to deal in more familiar, less volatile currencies and assets.

We suggest a technique to maintain a one to one reserve ratio between a cryptocurrency token, called The MONDOCOIN (USDMD), and its associated realworld asset, fiat cash, in order to guarantee accountability and exchange price stability. This solution employs the Bitcoin blockchain, Proof of Reserves, and other auditing techniques to demonstrate that issued tokens are always fully backed and reserved.

The MONDOCOIN (USDMD) is a collateralized cryptocurrency with a stable value compared to the US Dollar. Stable digital assets, such as MONDOCOIN, we feel, are critical to fulfilling the full potential of blockchain technology.

People can choose from a wide range of assets in the world as a store of value, a transactional medium, or an investment. The Bitcoin blockchain, we believe, is a superior system for trading, storing, and accounting for these assets. Most estimates place global wealth at roughly \$250 trillion, with banks and other financial institutions holding the majority of it. The transfer of these assets to the Bitcoin network represents a significant opportunity. Low transaction costs, transnational borderless transferability and convertibility, trustless ownership and trade, pseudo anonymity, real time transparency, and immunity from traditional banking system flaws are some of the key benefits of cryptocurrencies. Volatile price swings, a lack of mass market comprehension of the technology, and insufficient ease of use for nontechnical users are all common reasons for cryptocurrencies' present limited popular adoption.

We focus on applications in this white paper where fiat value is kept and communicated using open source, cryptographically secure software that employs distributed ledger technology, i.e. a true cryptocurrency. While the goal of any successful cryptocurrency is to eliminate the need for trust entirely, each of the aforementioned solutions either rely on a trusted third party or have additional technological, market-based, or process-based flaws and limits.

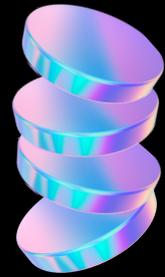
Fiat pegged cryptocurrencies are referred to as "MONDOCOIN (USDMD)" in our system. Mondocoins will be issued on the Solana blockchain at first, and they will function as a cryptocurrency token. Each USDMD unit placed into circulation has a one-to-one ratio of backing. According to USDMD Limited's terms of service, Mondocoins may be redeemed/exchanged for the underlying fiat money. A USDMD, like bitcoins, ethereum, or any other cryptocurrency, can be transferred, saved, spent, and so on once it has been issued. The reserve fiat currency has taken on the characteristics of a cryptocurrency, and its price is irrevocably linked to the fiat currency's price.

Compared to other fiat pegged cryptocurrencies, our approach has the following advantages:

- + USDMD exists on the Solana blockchain, not on a less developed/tested "altcoin" blockchain or within closed-source software that runs on controlled, private databases.
- + USDMD may be used in the same way as any other cryptocurrency, i.e. in a peer-to-peer, pseudo anonymous, decentralised, cryptographically secure environment, and can be readily linked with merchants, exchanges, and wallets.
- + USDMD inherits the Solana Blockchain protocol's features, which include a decentralised exchange, browser-based, open-source wallet encryption, transparency, accountability, multiparty security, and reporting.
- + USDMD Limited uses a simple but effective approach for completing Proof of Reserves that considerably decreases our counterparty risk.
- + There will be no pricing or liquidity limits on USDMD issuance or redemption. Users can buy and sell as many mondo coins as they desire, with minimal expenses.
- + Reserves are maintained in a one to one ratio rather than relying on market forces, USDMD will be immune to market dangers such as Black Swan events, liquidity crunches, and so on.
- + In comparison to collateralization approaches or derivative tactics, USDMD's one to one backing implementation is easier for nontechnical consumers to understand.



WHAT IS SOLANA TECHNOLOGY?



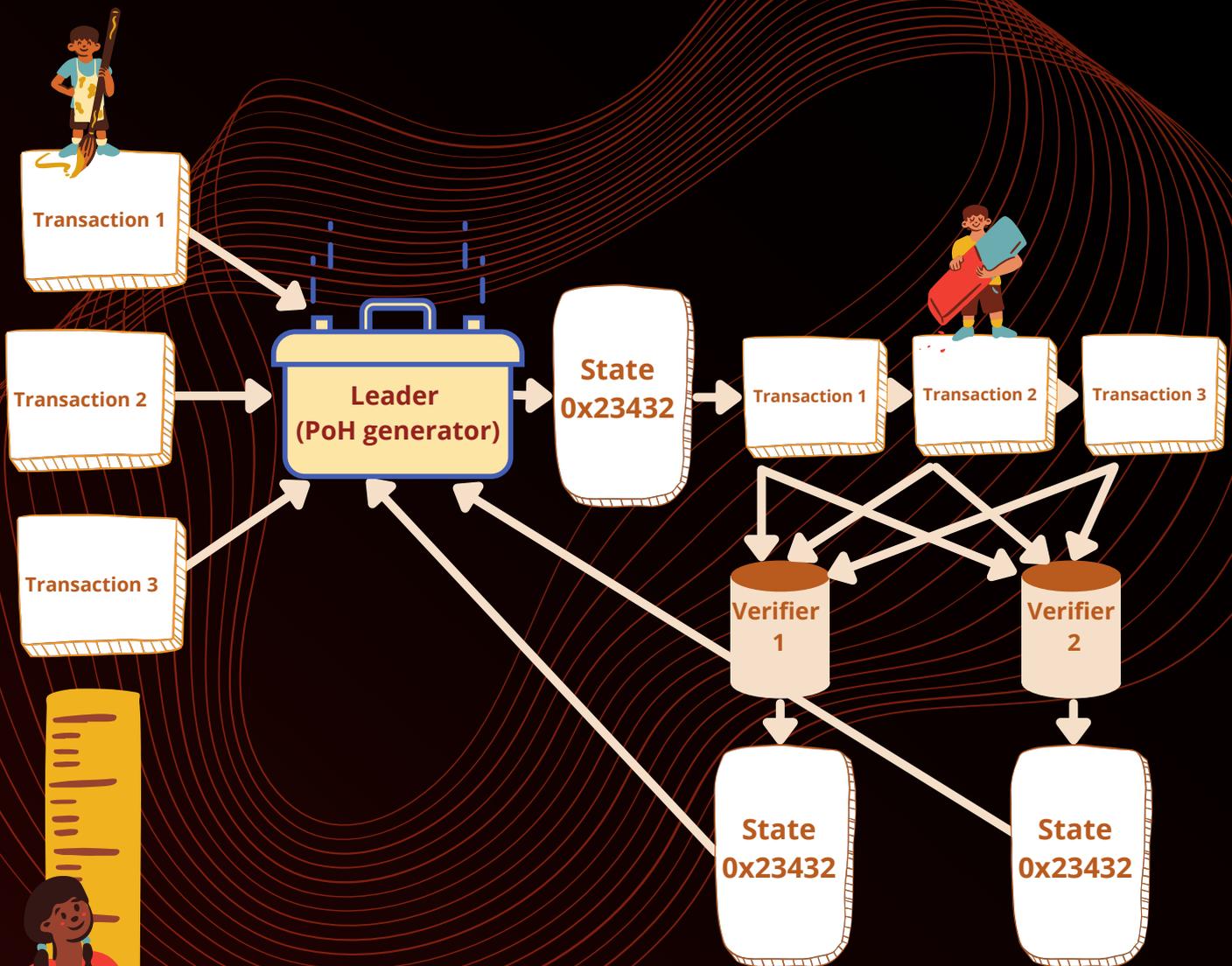
Solana is a web-scale blockchain that delivers decentralised apps and marketplaces that are quick, safe, and scalable. 50,000 TPS (Transactions per second) and 400ms Block Times are currently supported by the system. The Solana software's main purpose is to show that there is a feasible set of software algorithms that may be combined to form a blockchain. As a result, transaction throughput would rise proportionally with network capacity, achieving all of the blockchain's properties: scalability, security, and decentralisation. Furthermore, on a typical gigabit network, the system can sustain a maximum of 710,000 TPS and 28.4 million TPS on a 40 gigabit network.

Unlike Bitcoin, which uses the PoW algorithm as the system's decentralised clock, Solana employs the Proof of History technique. You can use Proof of History to construct historical records that verify an event occurred at a given point in time. The algorithm is a Verifiable Delay Function with a high frequency. The evaluation of this function necessitates a particular number of successive steps.

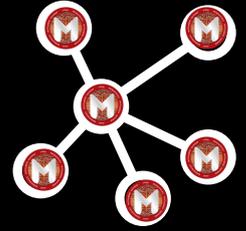


HOW DOES SOLANA WORK?

Input of transactions to the Leader The Leader will sequence and organise the messages so that they may be processed by other nodes effectively. The leader then runs the transactions on the current state, which is saved in RAM. The completed state's transactions and signature will then be published by the Leader to the Verifiers (replication nodes) If the state receives confirmation, verifiers will perform the same transactions on their copies of the state and publish their signatures as votes for the consensus algorithm.

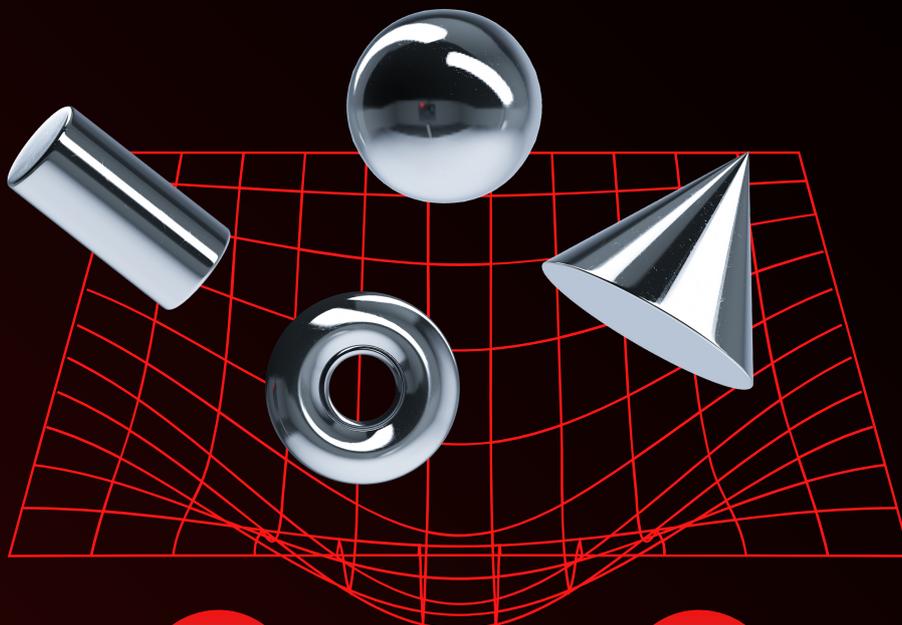


WHAT IS A SOLANA CLUSTER (SOL)?

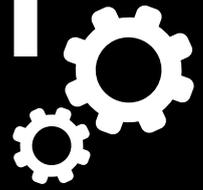


Solana software relies heavily on the Solana Cluster. A cluster is a group of computers that collaborate. From the outside, they appear to be a single system. Each Solana cluster consists of a collection of individually owned computers that collaborate on a regular basis (can also work against each other). The computers assist in the verification of untrusted, user-submitted programme output. We may also use the cluster whenever a user wants to keep an immutable record of events or their programmatic interpretation.

Some applications of the technology include tracking which computers contributed to the cluster's continued operation. Another option is to keep track of real-world assets. One advantage is that as long as someone has a copy of the ledger, the output of its programmes can be duplicated at any time and is independent of the entity that issued it.



THE MOST IMPORTANT APPLICATIONS



The primary applications of USDMD across the Solana blockchain ecosystem and for other users internationally will be summarised and discussed in this section. Beneficiaries are divided into three categories: Exchanges, Individuals, and Merchants.

The most important advantages, which apply to all groups:

Other asset classes benefit from Solana's properties Less volatile, more familiar unit of account. The world's assets migrate to the Solana blockchain.

For exchanges

Accepting fiat deposits and withdrawals through traditional financial institutions is complicated, hazardous, slow, and expensive, as exchange operators are well aware. The following are a few of these issues:

- + Choosing the best payment processors for your exchange
- + Irreversible transactions, fraud prevention, and the lowest fees, among other things
- + Getting the platform to work with banks who don't have APIs
- + coordinating compliance, security, and building trust with these banks
- + Small value transfers have prohibitive costs.
- + International wire transfers take 37 days to clear.
- + Currency conversion fees that are poor and unfavourable



By offering USDMD, an exchange can avoid the aforementioned issues while also gaining other benefits, such as the ability to accept cryptofiats as a deposit/withdrawal/storage mechanism instead of relying on a traditional bank or payment provider.

- + Allows users to move fiat more freely, swiftly, and cheaply in and out of trade.
- + Outsource fiat custodial risk to USDMD Limited and focus on cryptocurrency management.
- + Easily add other fiat currencies to the platform as trading pairs.
- + Secure consumer assets solely through crypto processes that are widely approved.
- + Multisignature security, cold and hot wallets, HD wallets, and more features are available.
- + In a completely crypto environment, conducting audits is easier and more secure.
- + Anything that can be done with Solana as a token can also be done with USDMD.

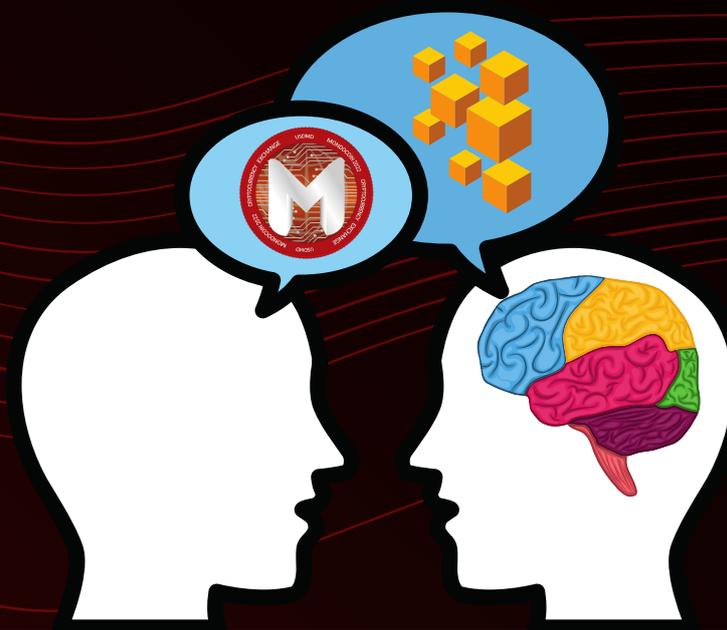
Exchange users are well aware of the dangers of holding fiat money on a platform. It can be highly harmful, especially with the rising frequency of insolvency situations. As previously stated, we feel that owning tethers on exchanges exposes customers to less counter-party risk than holding cash. There are also other advantages to keeping USDMD, which will be discussed in the next section.



Regarding Individuals

In today's world, there are many different types of crypto users. From day traders seeking daily profits, to long term investors seeking secure storage of their cryptocurrency, to techsavvy shoppers hoping to prevent credit card fees or sustain their privacy, to metaphysical users seeking to change the universe, to those seeking to remit payments worldwide more efficiently, to those in third world countries seeking access to financial services for the first time, to developers seeking to create new technologies, to all those wishing to change the world We feel Mondocoins are beneficial to each of these people in similar ways, such as:

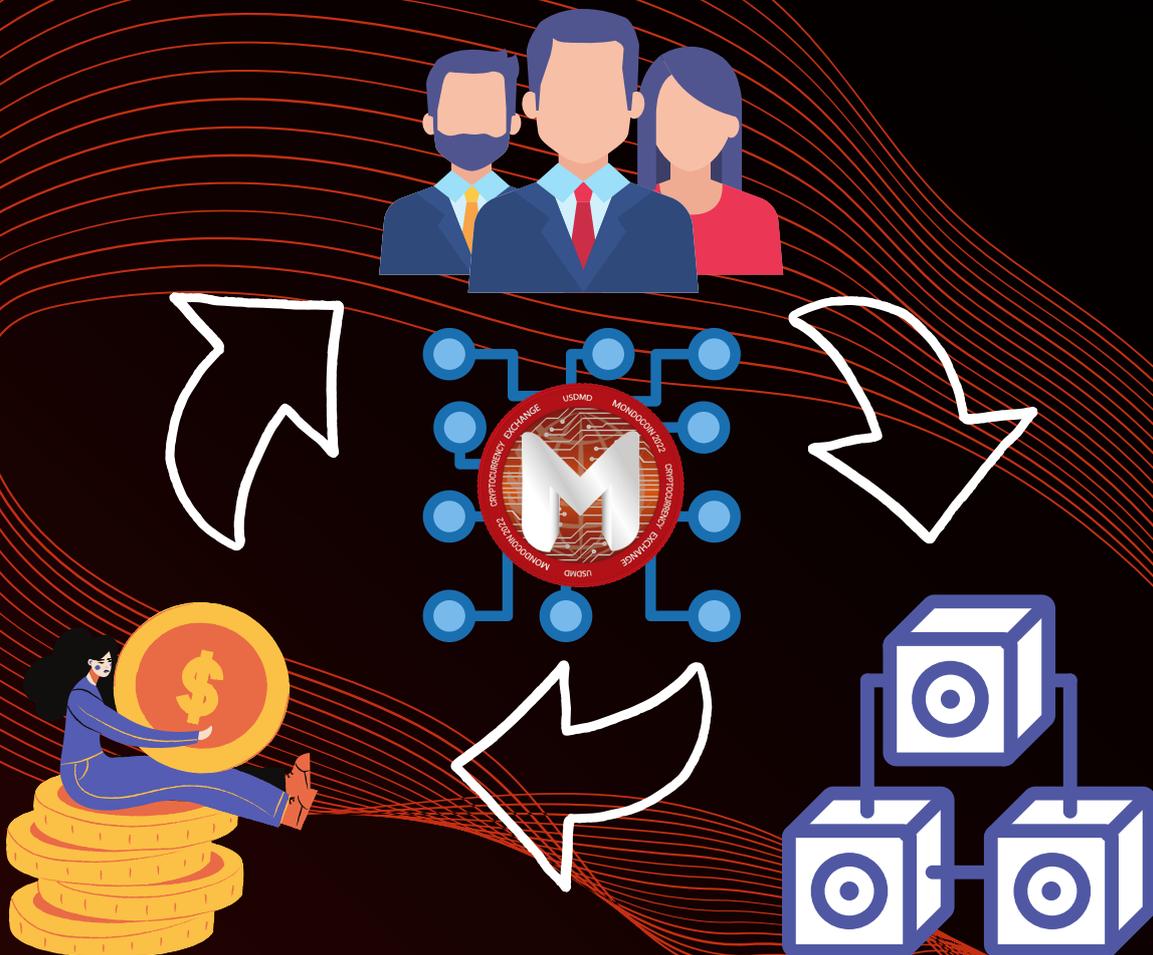
- + Transact in fiat currency without the use of middlemen or intermediaries.
- + By safeguarding one's own private keys, one can cold store fiat currency.
- + Avoid the dangers of keeping fiat on exchanges by quickly moving crypto fiat in and out of them.
- + Avoid the need to open a fiat bank account in order to store fiat currency.
- + Easily add USDMD support to programmes that operate with Solana.
- + Any action that may be taken using Solana Token can also be taken with USDMD.



For Business Owners

Merchants prefer to concentrate on their business rather than on payments. The lack of worldwide, low-cost, and ubiquitous payment options continues to be a problem for merchants large and small all over the world. Merchants are entitled to more. Here are some ways the USDMD can assist them:

- + Avoid fees and processes related with Bitcoin to money conversion.
- + Prevent chargebacks, save money, and have more privacy.
- + Because of fiat crypto characteristics, provide unique services like micro tipping, gift cards, and more.
- + Anything a merchant can do with solana can likewise be done with USDMD.



! IMPORTANCE OF MONDOCOIN (USDMD)

USDMD has the potential to serve this large unbanked and underbanked population as a digital currency that can be used to make payments all over the world. Stablecoins have the potential to replace traditional currency to promote faster, more secure, easier, and cheaper cross-border payments for everyone from migrant workers to corporations making payments to overseas suppliers or personnel. Other cryptocurrencies' major flaw is their excessive price fluctuation, which is why USDMD, with its more stable values, has such a strong appeal. Because cryptocurrencies are not as well-known as other assets, they have a limited market capitalization, making their prices extremely volatile. Even Bitcoin, the most popular cryptocurrency, has wildly fluctuating prices. Consider the Florida man who in 2010 spent 10,000 Bitcoins for two pizzas. The cost of those pizzas today is estimated to be in excess of \$60 million. In general, the smaller an asset's market cap is, the more volatile its price is. Consider tossing a rock into a tiny pond, then tossing the same object into the ocean. The pond will be more affected by the rock than the sea.

Some key functions of The Mondocoin are-

Governance - Stablecoin governance entails setting and enforcing criteria for purchasing, redeeming, keeping, and transferring stablecoins, among other things.

Reserve Asset Management - Reserve asset-backed USDMD arrangements typically stipulate the composition of such assets and aim to maintain a one-to-one ratio between reserve assets and the par value of stable coins in circulation. Making investment decisions about the reserve assets, including the riskiness of the assets, is part of managing the reserve assets.

Settlement - On a distributed ledger, transfers of digital assets such as stablecoins necessitate the processing of stablecoin transactions (e.g., authentication and validation) and, for on-chain transactions, the updating of the ledger in compliance with the underlying protocol.

Distribution - Providing access channels and other services that let users to obtain, hold, and transact in the USDMD is part of the distribution of the USDMD to users, such as consumers and companies.

Investing - Investing is the process of allocating resources, usually money, in the hopes of making a profit or producing an income. You can invest in Mondocoin, such as utilising money to establish a business, or assets, such as buying real estate with the intention of reselling it at a greater price later.

Trading - In contrast to investing, which is based on a buy-and-hold approach, trading entails active engagement in the financial markets. Trading success is determined by a trader's ability to be profitable over a long period of time. Merchants and individuals can trade their money through mondocoin which is a great advantage.

Transfer - Through Mondocoin USDMD you can transfer funds from one bank account, which is highly reliable and secure. With every transaction we make sure that your security is not compromised.

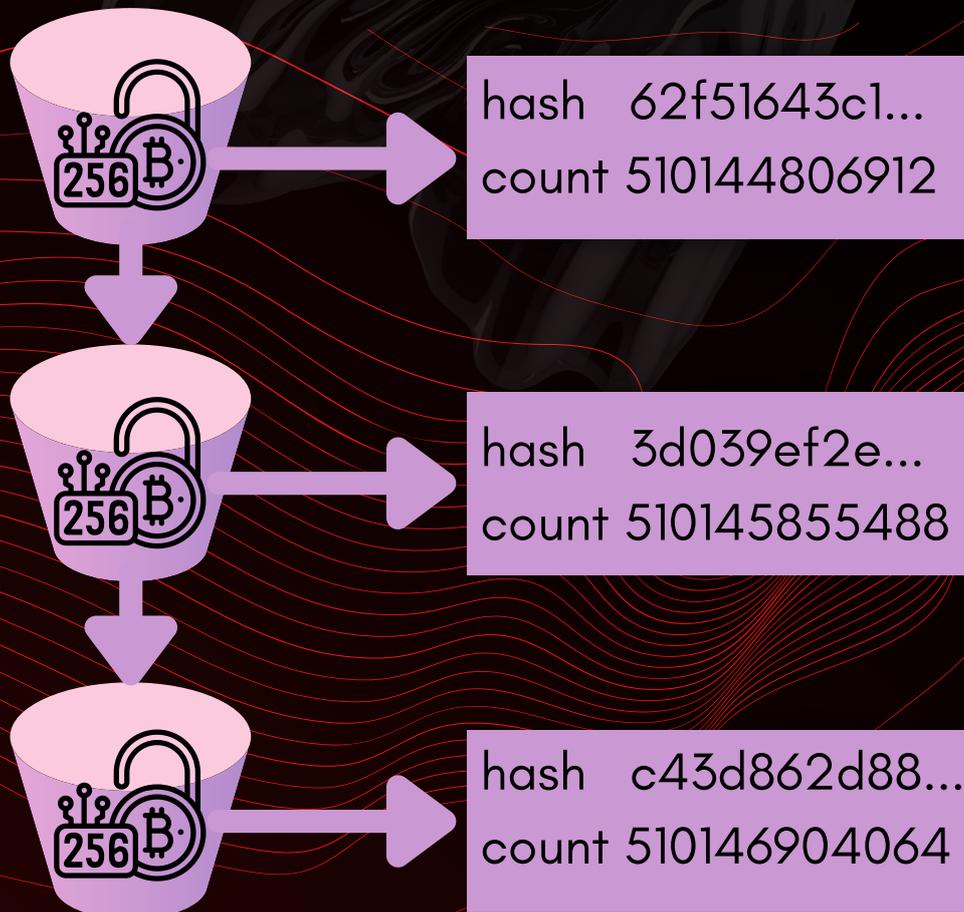
Platforms for trading digital assets and DeFi

This section focuses on digital asset trading platforms and DeFi's activities and associated hazards, as well as the interactions between USDMD and digital asset trading platforms and DeFi. USDMD is used by digital asset trading platforms including DeFi to facilitate borrowing, lending, and trading. Digital asset trading platforms like DeFi, on the other hand, play a vital part in the current operation of USDMD. DeFi and digital asset trading platforms raise broader problems concerning legislation, supervision, and enforcement of the digital asset market.

HOW MONDOCOIN (USDMD) WORKS?

Systems based on proof of work, such as Bitcoin and Ethereum, can handle around 10 transactions per second (TPS). Tendermint and other practical Byzantine Fault Tolerance-based (PBFT) Proof of Stake (PoS) systems support 1,000 TPS with 100–200 nodes. On current testnet iterations, Solana, a PBFT-like PoS blockchain, can support upwards of 50,000 TPS with over 200 nodes, making it the most performant blockchain and the world's first web-scale decentralised network. USDMD is solely based on Solana Blockchain and follows its 8 key technologies

PROOF OF HISTORY



If a blockchain network as a whole can equal the performance of a single node, bandwidth cannot be the bottleneck; instead, computing must be the constraint. To do so, we must first improve the way the network's nodes interact.

One of the primary technologies that permitted tremendous scalability in cellular networks is Time Division Multiple Access (TDMA). Towers divide each radio frequency into time slots and assign these time slots to each phone call, according to TDMA. In this way, the cell tower serves as a network clock that is accessible from anywhere in the world. This greatly improves the scalability of limited bandwidth by allowing each frequency to handle numerous, concurrent datachannels while also reducing interference from multiple phones broadcasting on the same frequency at the same time.

Leaders continue to rotate, and the network as a whole achieves progress regardless of network difficulties, thanks to Proof of History. This implies that the network never comes to a halt. Without any validators communicating with one another, the network can decide to cycle validators. This is a minor but significant change. There is no other blockchain that has a method like this. Validators in every other chain must communicate in order to reach a decision.

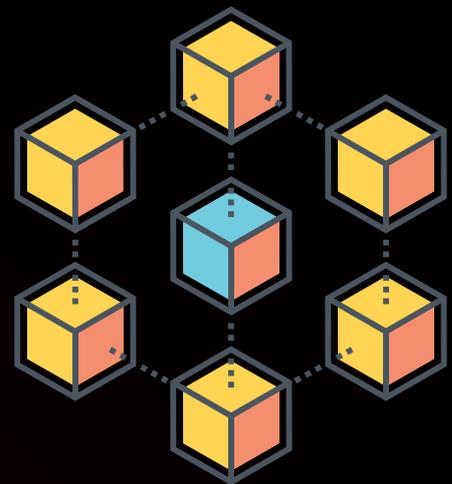


Tower BFT - USDMD runs Tower Consensus on top of Proof of History, a PBFT-like consensus algorithm that takes advantage of the synchronised clock. Tower Consensus, unlike PBFT, values liveness over uniformity. Nodes increase their timeouts exponentially to reach an agreement, similar to PBFT, but because the ledger is also a trustless source of time, nodes may watch and study the timeouts of every other validator in the network.

Turbine - Because the Solana consensus layer isn't reliant on peer-to-peer messaging, it can optimise how blocks are sent through the network without regard to consensus. Solana's block-propagation mechanism, Turbine, is significantly influenced by BitTorrent. When a block is streamed, it is split into small packets with erasure codes and then dispersed among a large number of random peers. The second layer of the network can span 40,000 validators with a fan-out of 200. As a result, validators can propagate blocks that have a $\log_{200}(n)$ influence on finality. For all practical purposes, if each connection takes 100 milliseconds, replication will take 400 milliseconds and finality will take 500 milliseconds for a 40,000 node network. The fanout mechanism must be fault-resistant. As a result, validators use Reed-Solomon erasure codes to encrypt data and provide fault tolerance.

Gulf Stream - Mempool management is a new type of challenge in a high-performance network that other chains don't have to deal with. Gulf Stream works by bringing transaction caching and forwarding to the network's edge. Clients and validators forward transactions to the expected leader ahead of time since every validator knows the order of forthcoming leaders in the Solana architecture. Validators can now execute transactions ahead of schedule, reducing confirmation times, switching leaders faster, and relieving validators of memory burden from the unconfirmed transaction pool.

Sealevel - It is also known as Parallel smart contracts run-time. Sealevel is a horizontally scalable hyper parallelized transaction processing engine that runs on GPUs and SSDs. With this architecture in place, Solana will be able to achieve a faster runtime and will be able to conduct transactions on the same state blockchains at the same time. Despite the fact that Sealevel is a VM that schedules transactions, the VM does not actually execute transactions. Instead, Sealevel sends transactions to be executed natively on hardware using the Berkeley Packet Filter (BPF), an industry-proven bytecode developed for high-performance packet filters. Since the early 1990s, this bytecode has been optimised and used in millions of switches around the world to process 60 million packets per second on a 40-gigabit network in a single switch.



Pipelining: a Transaction Processing Unit that optimises validation -

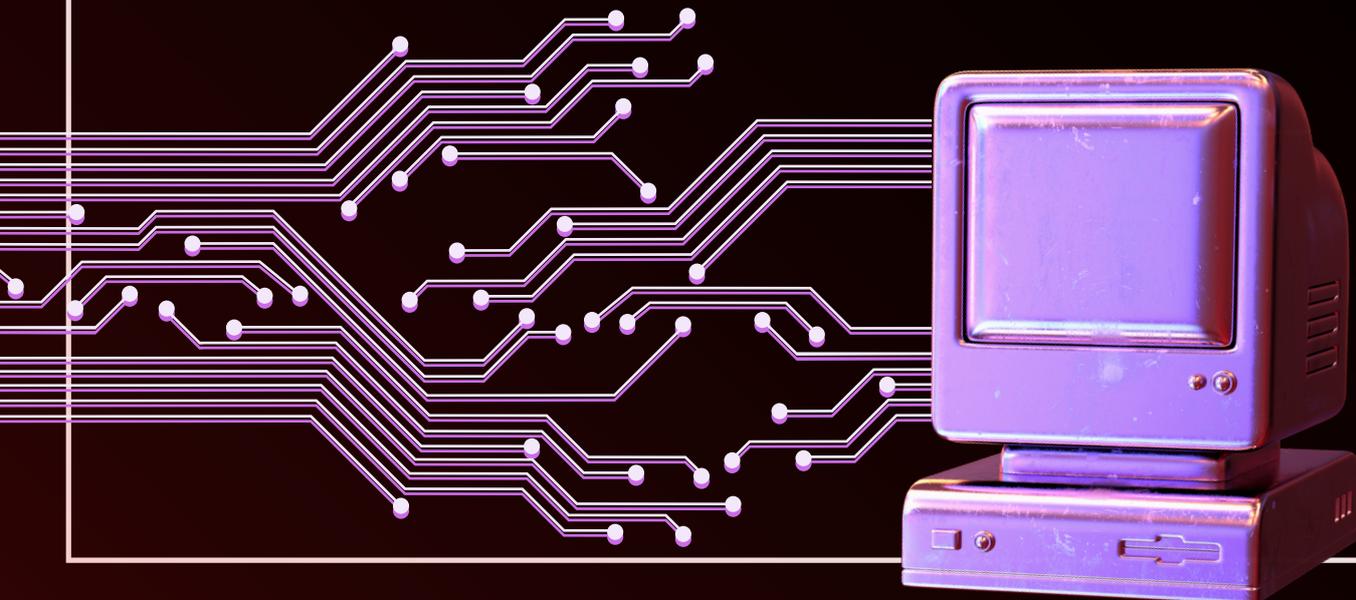
On the Solana network, the transaction validation procedure makes considerable use of pipelining, a CPU design improvement. When a stream of input data needs to be processed in a series of steps, and each step requires distinct hardware, pipelining is an appropriate approach. The pipeline mechanism — Transaction Processing Unit — on the Solana network proceeds through Data Fetching at the kernel level, Signature Verification at the GPU level, Banking at the CPU level, and Writing at the kernel level. The TPU has already acquired the next set of packets, validated their signatures, and begun awarding tokens by the time it starts sending blocks to the validators.

Horizontally Scaled Memory – Cloudbreak

Simply scaling computing isn't enough. Memory used to keep track of accounts becomes a bottleneck in terms of both size and access performance very fast. For example, it's widely assumed that LevelDB, the local database engine used by many current chains, can only sustain 5,000 TPS. This architecture, when combined with our transaction design, allows for AOT (Ahead Of Time) transaction processing. Sealevel can begin pre-fetching all accounts from disc and prepare the runtime for execution as soon as a transaction is detected by a validator. Validators and block producers can even begin executing transactions before they are encoded into a block, allowing us to improve block time and confirmation latencies even further.

Archivers - On USDMD, data storage is delegated from validators to Archivers, a network of nodes. Archivists do not take part in consensus meetings. The state's past is fragmented and erasure coded in various ways. Small sections of the state are archived by archivists. The Archivers will be asked to confirm that they are storing the data that they are required to on a regular basis by the network. Solana makes use of Proofs of Replication (PoRep), which are largely influenced by Filecoin.

We can optimise how PoReps are formed by using Proof of History – our clock before consensus. PoH is used by archiver nodes, which do not participate in consensus, to provide lightweight proofs that bits of the ledger have been duplicated, which validators can verify in huge batches across GPUs.



CONCLUSION



Terminal

Mondocoin (USDMD) is built on the Solana blockchain, which is the most secure and well-tested blockchain and public ledger currently available. USDMD are totally reserved in a one-to-one ratio, meaning they are absolutely unaffected by market forces, pricing, or liquidity limitations. USDMD has a simple and reliable Proof of stake implementation that is subject to professional audits on a regular basis. We can be the custodian of reserve assets and issuer of tethers because of our underlying banking relationships, compliance, and legal framework. Our staff is made up of seasoned and well-respected business people from the Solana ecosystem and beyond. Mondocoin is a crypto exchange platform on which you can trade, invest and transfer and use mondocoin for all of it...



MONDOCOIN