Coinweb™

The Multichain Token Platform™

White Paper

v4.2 | March 2018

Disclaimer

The scope of this white paper is to describe the potential of Coinweb. The launch version of Coinweb is a feature-rich token platform on Litecoin. The intention is to add multiple underlying chains (where Bitcoin and Ethereum are the most likely candidates) and mentioned features, and possibly more functionalities not yet thought of, later. See the current roadmap on www.coinweb.io.

A protocol upgrade is a code change that requires community support to take effect. Moreover, a technically viable feature may not be considered worthwhile due to factors such as node operating costs and platform stability.

This white paper is limited to the Coinweb protocol. Wallets that carry the Coinweb name are not described here.

A full legal disclaimer is included at the end of this document

Abstract

The world of blockchain is complicated. The first company to simplify it will be the one that facilitates mass adoption. Coinweb adds new and exciting features to major crypto projects such as Litecoin, Bitcoin and Ethereum – opening up unprecedented opportunities for developers and vastly simplifying the end-user experience.

Lowering entry barriers

Right now, using the blockchain is a complicated experience for those who are new to it. But in order to ensure its longevity it needs to scale and grow. It requires mass market adoption. For that to happen, and to encourage new innovation, it needs to be vastly simplified.

In order to meet these challenges head on, Coinweb aims to lower the blockchain's entry barriers for the end-user. In order to do this, the team is building a 'metalayer': a technology that unifies many different exisiting blockchains – including Litecoin, Bitcoin, and Ethereum.

Standout feature: Easy-to-read multicoin wallet addresses

Coinweb's standout feature focuses on a key issue for crypto holders: wallet addresses.

Until now, anyone holding an amount of cryptocurrency has had to create a different wallet for each coin type they hold. Not only that, but each wallet used a long and complex hash address.

The Coinweb Metalayer puts an end to this. Crypto buyers will now be able to hold a number of different coins in a single user-friendly, human readable wallet.

Similar in structure to an email address or URL, address extensions can be easily added to existing wallets. This single unifying standard is designed to work across all blockchains – and will ensure that every user has an easy-to-read and remember wallet address.

Additional functionality

Coinweb also offers a whole host of other features including:

- The ability to issue tokens and smart contracts – first on Litecoin, and later on other blockchains
- A decentralized exchange which allows trading between popular coins, such as BTC, ETH and LTC, and user-created tokens
- A native token: XCO, which dynamically balances low fees with the needs of a smooth running network

Coinweb is developed by a private company with time-locked token and fee revenues. Its aim is to maintain and promote the platform in the long term.

Contents

Coinweb: Tackling the Blockchain's Biggest Issues

Evolving Crypto Address Formats

Crypto accounts, also called hash addresses, are difficult to type, let alone remember.

A Bitcoin (BTC) address looks something like this: *1XPTgDRhN8RFnzniWCddobD9iKZatrvH4*
Ethereum (ETH) addresses are no clearer: *0xb794f5ea0ba39494ce839613fffba74279579268.*

The main issue for most people is the fact they either have to remember each wallet address, or save/write them down somewhere. Even 'copy and pasting' addresses can create false entries; causing problems and adding to transaction frustrations for those both sending and receiving cryptocurrencies.

Easing Frustration and Fighting Fraud

While the primary function of hash addresses is to ensure transaction safety, despite the fact they're unique, they don't prevent fraudulent activity. For example, if a company releases the official address of a token generation event to receive tokens – like an ETH address – sometimes this address gets replaced by scammers undetected: because the addresses aren't distinct enough from each other.

If crypto addresses were easier to remember and looked more like email addresses, it would be much harder for scammers to target them. Why? Because each business or person would own their official 'name space' – such as @coinweb. No-one other than the owner of each name space could issue an address with that ending – ensuring that coins were always sent to the right person: not an anonymous address.

Unifying Standard

Blockchains are generally incompatible with one another. While many projects try to unify blockchains by building docking stations between them, Coinweb uses a metalayer which allows users to create and innovate on numerous blockchains.

Multichain Tokens

Token standards – such as ERC20 on Ethereum and Counterparty on Bitcoin – are limited to a single blockchain. This means that only those registered to a specific blockchain can use them. However, Coinweb tokens can be used across most blockchain infrastructures, giving users access to different characteristics and features.

Governance

Crypto projects typically have little emphasis on governance. Developers may get paid by a third party (leading to a conflict of interest) or accrue a large amount of tokens – tempting them to inflate the short term token price.

Coinweb is developed and maintained by a private company, which receives monthly time-locked tokens over a five year period – which are escrowed by a smart contract. The company also receives revenue proceeds from name auctions and usage fees, incentivizing them to increase the long term value.

Essential Blockchain Properties

Despite being developed by a private company and not featuring its own blockchain, Coinweb provides the same benefits as pure blockchain solutions.

Decentralized

Coinweb transactions are embedded in crypto transactions, and are decentralized in the same way as cryptocurrencies. Essentially, there's no single person with the centralized authority to process transactions.

Censorship Resistant

Another source of decentralization is the ability for anyone to review transactions and current statuses by running a node. Coinweb, as a metalayer, runs on the same principle as an open source server. This means that even if the development company disappears, Coinweb will survive as long someone runs a server.

Immutable

A transaction recorded on a public blockchain is practically impossible to modify or delete. Doing so would require a huge amount of hashing power or the ability to hard-fork the protocol to invalidate the particular transaction. The former requires massive quantities of specialized ASIC mining hardware with several power plants' worth of electricity, and the latter involves the majority of users agreeing (see the next paragraph).

Security by Consensus

When the development team proposes a consensus change, it must be accepted by the majority of users. Usually changes like these are minor upgrades, but in more extreme cases, a difference of opinion between users can result in a fork – create two parallel platforms (as was the case with Bitcoin Cash and Ethereum Classic).

Introduction to Blockchains and Metalayers

Cryptocurrencies, and the underlying blockchain technology stacks they're built on, have been steadily evolving over the past nine years. While some coins derive from others, all offer different features that can be applied to a range of use cases. However, as technology increases in sophistication, there's a growing need for easy, fast access to the many features offered by multiple coins. And that's exactly what Coinweb's metalayer offers.

Bitcoin's History and Current Scaling Issue

Satoshi Nakamoto launched Bitcoin in 2009 with the aim of creating a decentralized digital currency. The fact it had no backing, intrinsic value, or centralized authority initially attracted users for philosophical and technological reasons. As the network grew, the coin soon started having real monetary value.

May 17, 2010 is famously remembered as the Bitcoin Pizza Day when a pizza was ordered for 10,000 Bitcoins. Today, in March 2018, with Bitcoin at $11,000, this equates to $110 million.

The massive success of Bitcoin has also revealed some problems with capacity limits and transaction speed during high volume peaks on Bitcoin and flooded mempools. There are two contributing factors to the problem:

1) the lack of a direct economic incentive to run a node
2) a lack of built-in governance

With no direct development funding, a private company, Blockstream, has stepped in to pay the core developers' salaries. However, this inevitably leads to conflict of interest.

Litecoin – Silver to Bitcoin's Gold?

Litecoin was launched in 2011 by Charlie Lee. It's basically a copy of Bitcoin with some minor changes. Instead of 10 minute average block times (as with Bitcoin), Litecoin's blocks are four times faster: 2.5 minutes. The address format is slightly modified to begin with an 'L' instead of Bitcoin's '1'; the coin supply is higher; and the mining algorithm is different.

Litecoin had a very clean, transparent launch and quickly grew in popularity and is considered 'silver' to Bitcoin's 'gold'. It is still one of the largest blockchains, and following Bitcoin's scaling issues in 2017, has experienced a new surge in popularity.

Blockchain 1.0

From the perspective of blockchain evolution, and the Bitcoin Maximalist point of view, these chains are part of Blockchain 1.0: which means a very dominant chain; the one solution that nearly all people use. In the Blockchain 1.0 environment there are other blockchains, but market domination and development are all tied to the dominant player – Bitcoin.

Blockchain 2.0 – Ethereum

Ethereum first raised development money in 2014 and was launched in 2015. It offers a fundamentally different approach to Bitcoin. Blocks are generated several times a minute, and addresses are programmable with so-called 'smart contracts'. As Ethereum raised funds and has a trusted team of developers, bugs are quickly sorted out and scaling optimizations are in constant progress.

Ethereum has quickly grown in popularity and remains the second largest cryptocurrency by market cap – only beaten by Bitcoin. When Ethereum entered the market and offered smart contracts and the possibilities of DAPPS, the market decided to move in another direction first. Features were the dominating reason for new blockchains: safety/privacy (Monero), tipping/fun (Dogecoin), speed (Litecoin). Ethereum remains the dominant features-led blockchain with its integrated smart contracts layer.

In the evolution of blockchain 2.0, the first approach was to develop metalayers, like coloured Coins, Mastercoin, or Counterparty. Counterparty (XCP) was launched in 2014 prior to Ethereum. Instead of having its own blockchain, it was built on top of Bitcoin – so every Counterparty transaction is a Bitcoin transaction. The Counterparty server scans the Bitcoin blockchain, and a set of rules defines how to interpret it. This has enabled financial assets to be traded on Bitcoin.

Counterparty had intended to implement Ethereum smart contracts, but with no funding or full-time developers the task proved too challenging and plans were scrapped. However, the Counterparty metalayer still thrives today in its original form: as a lightweight token platform with some hard coded features. It has shown to be very secure but is limited in terms of available features.

Entering Blockchain 3.0

The market is now very diverse, but also over-saturated. There are huge numbers of coins and tokens in the blockchain 2.0 environment, and many struggle regularly with high fees and scalability issues. This has been a major problem not only for Bitcoin in the last months, but also for Ethereum and others. We are in a very fragmented crypto environment, so the next most important challenge for blockchain evolution is finding a way to unify the chains and let users and developers use the features of different chains.

Coinweb's Point of Entry

Coinweb aims to enter blockchain 3.0, opening blockchain environments to the mass market by reducing complicated entries and procedures, and unifying different blockchains for easier adaptation of features. Coinweb's proprietary technology uses the basic foundation of the secure metalayer and combines it the new features needed by the blockchain industry in 2018.

The Name Space

Issuance, Ownership and Transferability of Coinweb Domains

Coinweb will do for the blockchain industry what domains and the DNS system did for the internet: provide an easy entry point for mass adoption.

While there are several projects that offer a 'naming system' for a single blockchain, none of these operate as a metalayer – like Coinweb does. As a result, we can offer a simple naming system that works across several blockchains at the same time – names that are human readable and easy to remember – unlike the cumbersome hash addresses currently used.

Coinweb works on top of other cryptocurrencies and simplifies the life of every blockchain startup, end user, and anyone that wants to send tokens, coins, or a simple message to someone else – fully encrypted. It allows everyone to "own" their personal space within the blockchain world, democratising the blockchain industry for all users.

Coinweb allows users to create a unique name, that they can use in place of a conventional cryptocurrency wallet. 'C-names' as they're referred to, must be completely individual (not issued before) and meet established naming conventions.

Here's how they stack up:

C-domains

Structurally similar to domain names, but without a TLD suffix (like .com or .net). Anyone can register an available c-domain, or choose to buy a pre-registered one that's available on a second hand market place.

Example – *Alice registers the c-domain CRYPTOLAND*

C-name

A blockchain alias or address that can be used for receiving coins and tokens. Looks like an email address, but again -- no suffix.

Example – *Because Alice owns the c-domain CRYPTOLAND, she has the right to register (or sell) a c-name; such as alice@cryptoland.*

C-username

The first part of a c-name

Example – *alice' is the c-username of alice@cryptoland*

C-tokens

These are Coinweb tokens that the owner of any c-domain or c-name can issue.

Example 1 – *Alice issues 1000 CRYPTOLAND tokens*

Example 2 – *Alice issues 500 ALICE-IN-CRYPTOLAND tokens*

N.B. The latter also gives her the right to register the c-name alice-in@cryptoland

C-mail

An email service built on Coinweb that allows users to easily send and receive cryptocurrency and c-tokens.

Example – *Alice owns the c-domain CRYPTOLAND and the internet domain cryptoland.com. She sells c-mail addresses yourname@cryptoland.com bundled with equivalent c-addresses. This allows her c-mail users to login to a webmail interface – such as gmail or hotmail – and send emails along with cryptocurrencies and c-tokens.*

C-TLD

A generic internet domain that Coinweb maintains: ending in .xco

Example 1 – *As a c-domain owner, Alice automatically owns the web address http://cryptoland.xco*

Example 2 – *As a c-name owner, Alice is automatically assigned the web address http://alice.cryptoland.xco*

C-DNS

A truly decentralized domain name system. Like Namecoin, it will require end users to adopt a custom plugin.

Technical

- C-domains and c-names are treated equally from a tech perspective. The only difference is that a c-domain owner can issue new c-names under his domain, while a c-name owner cannot.
- A c-domain is technically a c-name with 'www' used in place of a username – so that c-domain owner is assigned both c-TLDs http://cryptoland.xco and http://www.cryptoland.xco
- New c-names can be sold or auctioned off by a smart contract. The owner of the c-domain sets the price and conditions. Proceeds, minus a protocol fee, go to the c-name owner.
- Both c-domains and c-names can be traded on second hand marketplace.
- Every record is registered on the blockchain
- To verify the state of the name system, a Coinweb node is needed
- The full name table can be stored locally on any personal computer, generate the state, and verify the checksum at blockheight with several independent nodes
- A c-name holds multiple records; including owner address(es) that can be used to modify records and sign transactions; as well as relevant records such as description, optional token info, DNS info, and more
- A c-name can be used as an alias for ALL cryptocurrencies; and to register multiple addresses of any format. This means that compatible wallets only to use the linked address (the name table is stored locally, providing the system with a secure and decentralised environment)
- A c-name can hold Coinweb tokens and can be used to sign MOST crypto address formats
- Using a c-name you can register multiple addresses. Most of these can sign on behalf of the c-name and sent to blockchain through piggyback

The shortest and simplest names are called **Top Level Names (TLNs)**. These must be between one and nine characters long, and consist of letters A-Z and digits 0-9.

Technical Continued

Three letter names starting with 'X' are reserved for native blockchain currencies that will be added at a later date. BTC, ETH and LTC are also reserved for use within the protocol, and these currencies will be referred to without the preceding 'X'. To avoid confusion, the full names; BITCOIN, ETHEREUM, LITECOIN and COINWEB are reserved too.

Sub Level Names (SLNs) must consist of one to twelve characters; they must contain alphanumerics like TLNs, but dashes are also allowed – provided they are neither the first nor the last character.

SLNs are always tied to a TLN. The TLN owner has the sole right to issue new SLNs. Contracts for auctioning off SLNs are provided by the protocol.

A name's owner can transfer ownership to another address – and even sell it through the decentralized exchange (DEX).

Human Readable Address

A name always points to a specific address on the Coinweb. This ensures that coins can only be transferred to one name, and that the protocol automatically debits the associated address. This enables native support for human readable addresses.

The name format is always structured as *SLN@TLN*. In order to send coins to the owner of a TLN, the reserved name *MASTER@TLN* must be used. To give an example: in order to send funds to the owner of GOLDCOIN, the address *MASTER@GOLDCOIN* must be used – unless the owner already has issued a more suitable SLN such as *JOHN@GOLDCOIN*.

Tokens

With a name comes the right to issue tokens. Tokens are tradeable across the Coinweb and effectively work similar to Bitcoin, Litecoin, and Ethereum. In fact, user created coins are superior as they can be spent and escrowed across all chains.

Tokens may be referred to as coins, assets, trading cards, coupons, shares, or anything depending on its specific use case. A user created token can have whatever supply the owner defines, and he may also decide to lock the token so no more supply can ever be minted.

The name format is SLN-TLN. For a pure TLN the token name is simply the TLN. E.g. the owner of GOLDCOIN can issue his own gold currency, which will be referred to as GOLDCOIN. However, he may also issue other kinds of related currencies, such as EAGLE-GOLDCOIN and MAPLE-GOLDCOIN.

DNS

A name can also be assigned nameservers to work as a backbone for a potential new Internet naming system.

Name Fees & Scarcity

To discourage squatting and keep the namespace clean, Coinweb has a very restrictive name registration policy. All registrations come with an XCO fee.

The fee for issuing a TLN is adjusted dynamically. Every 4,032 Litecoin blocks (~1 week) the cost is increased by 20% if ten or more new TLNs have been registered. If five or less are registered, then there's a 20% fee reduction. There's a global limit of twenty new TLNs per period, after which any attempted registration is invalidated.

With a TLN comes the right to issue SLNs. A SLN is much cheaper and the keyholders will adjust the fee to stay at around one dollar.

A TLN issuer can register as many SLNs as he wishes, and can also auction these off at any price he desires. For example the issuer of the TLN MYCOIN can register the SLN *ALICE@MYCOIN* for himself and auction off *BOB@MYCOIN*.

Coinweb's Vision of Connecting Blockchains

Coinweb's ultimate aim is to allow users and developers to use its metalayer; selecting the best blockchain features for their needs.

While early metalayer, Counterparty, uses the Bitcoin chain; Coinweb's more sophisticated multichain implementation has several additional benefits:

- Coinweb's human-readable address unites previously incompatible formats. Now, users only have one simple address for all their coins and tokens.
- Adding extensions to existing wallets will ensure users continue to access the interfaces and logins they're used to – across several different blockchains.
- Coinweb support can easily be added to existing wallets – regardless of the blockchain used.
- The Decentralized Exchange (DEX) allows trading between numerous coins such as BTC, ETH and LTC, as well as user-created tokens.
- Layers on different chains enable users to cherry-pick different features, and vastly improves scaling.

Piggybacking

The most basic implementation of multichain is a concept we call piggyback. When a user signs a Coinweb message with his private key, the message is sent off-chain to a piggyback server – who in turn broadcasts it to the blockchain. This feature ensures most address formats (including Ethereum and Bitcoin) are compatible with Coinweb. A huge advantage of this approach is ease of implementation – both on the protocol level and for third party wallets.

Plugins

Existing crypto wallets can add Coinweb token support through a plugin. End-users can also do this by setting a deadline on the transfer – so if the piggyback server fails to broadcast it in the alloted time, the end-user can consider the transaction expired.

Profit Motives for Node Operators

Node operators should embrace the piggyback system, as it gives them an opportunity to earn crypto coins on relying transactions. The overall decentralization of Coinweb is in effect improved in this way– assuming the profit motive leads to more node operators.

Multiple Underlying Chains

A limitation of piggybacking is that it does not allow for DEX trading between coins such as BTC, ETH and LTC. To achieve this, Coinweb will need either multiple underlying chains or a compatible connected layer. Both explained in more detail in the chapter *Reaching Consensus*.

XCO – The Native Currency

Symbol and Code

Coinweb's native token is called XCO. CO are the first two letters of Coinweb and the X symbolizes the token's cross-chain properties. In addition, the X in XCO ensures compatibility with the ISO 4217 standard – where gold is XAU and silver is XAG.

Utility

Coinweb usage fees must be paid in XCO – such as when smart contracts are executed. In this instance, the fee protects against spam attacks and ensures the burden on nodes remains manageable. XCO is also the sole token that piggyback servers are paid in, and users will need XCO to register unique token and address names.

XCO Supply and Distribution

A maximum of 7,680,000,000 XCO can theoretically be issued. The maximum token supply at launch will be 2,400,000,000 XCO.

2 billion XCO can potentially be sold prior to launch of the platform

- Tokens will be issued, assigned to their respective buyers, and will be transferable at Coinweb's launch
- Any unsold tokens will never be issued
- Tokens are sold by the company and the proceeds go to further develop the protocol, provide infrastructure, support the network, and promote Coinweb

An additional 0.4 billion XCO will be released to Counterparty token holders (XCP) as an airdrop

1.8 billion time-locked XCO will be rewarded to early contributors who helped Coinweb become a reality

- Only a tenth of the rewarded XCO are granted at launch. The remainder are held by a smart contract that pays out XCO every 17,280 blocks (~1 month) in equal chunks over the next five years

1.8 billion time-locked XCO are retained by the company

- Only a tenth of the retained XCO are issued at launch. The remainder are held by a smart contract that pays out XCO at every 17,280 blocks (~1 month) in equal chunks over the next five years

1.68 billion XCO are held by a smart contract that subsidizes miners

- Mineable XCO are paid to the miner of the underlying Litecoin block under certain conditions, and a maximum of 10% the remaining balance of mineable XCO are paid out annually.

Reaching Consensus

Reaching consensus on blockchain rules is similar to how it's reached on pretty much anything digital – such as JPEG images or HTML websites. Basically, if someone doesn't agree on a specific rule, they still need to accept them or they won't be in sync with others.

Changes in rules are proposed and incremental improvements are added over time – when they're granted consensus for change. A major change requires a fork; which involves everyone upgrading their software, while minor changes are left to the keyholders (explained later in this white paper).

Confidence, Transparency, & Proof of Work

Prior to Bitcoin's launch in 2009 it was impossible to send a digital token from A to B without a central authority confirming the transaction. The difficulty lay in making sure that everyone was confident that A could send a token to B without sending it to C as well – the double-spend problem.

That's why blockchains offer complete transparency. Each transaction is recorded and can be independently verified. Verification happens when a set of transactions, (a block) is sent to the blockchain. Those adding new blocks to the chain – miners – do so by using their computing power to calculate the numbers involved in each transaction -- solving the puzzle. Their reward for doing so are new coins, which they've effectively unlocked through their efforts. This is a rule known as 'proof of work', and it's a principle adopted by most cryptocurrencies: including Litecoin and Ethereum.

It works flawlessly for the most part, as everyone can agree on the latest block and has an interest in adding new blocks. However, on some rare occasions two blocks are found – almost simultaneously – meaning the network must decide which one to accept. This is a very minor issue though.

Single Blockchain Metalayer

In 2014, Counterparty introduced a metalayer on top of Bitcoin. Messages embedded in Bitcoin transactions were subject to a set of rules defined by the Counterparty protocol. This meant that everyone using Counterparty had to agree on the same rules – but the difficult double spend problem would be solved by Bitcoin. Since Counterparty is a database, its current state can be hashed, so users don't really need to verify that their states are identical.

Multi Blockchain Metalayer

Coinweb currently uses the Litecoin blockchain. Bitcoin is scheduled to be added very soon (Ethereum and others are not yet confirmed). This will mean that messages can be embedded in either chain, and Coinweb servers will be able to read through both.

In order to reach consensus, there must be a unique ordering of blocks from different chains. This will be achieved by anchoring Bitcoin (and possibly other) blocks to the Litecoin chain. The highest valid Bitcoin block, when anchored to a specific Litecoin block, will be parsed immediately before the Litecoin block.

Block hashes are anchored through a broadcast within a Litecoin transaction. Anyone can make broadcasts and the Coinweb server will include the highest valid anchor. If no-one makes a valid broadcast, Bitcoin and Ethereum blocks will not be included until such an anchor exists.

> **An anchoring broadcast consists of the following data:**
>
> *prefix (3 bytes) + bitcoin block height (6 bytes) + bitcoin block hash (32 bytes) [+ ethereum block height (6 bytes) + ethereum block hash (32 bytes)]*

The Bitcoin and Ethereum blocks are validated separately, so if only one them is valid, the Coinweb server will accept this one but not the other.

When Coinweb receives valid Ethereum and/or Bitcoin anchors, it will add these blocks together along with any prior blocks that are not already parsed. These will all be included between the previous Litecoin block and the current one.

The Bitcoin block will normally be placed somewhere between the Ethereum blocks – depending on block timestamps.

Take the timestamp of the first Ethereum block to be included in the table below. Then collect the second timestamp. If it is lower than the previous, adjust it so it is one second higher than the previous. Repeat for the third block and so forth. Do the same for the Bitcoin blocks. Sort Ethereum blocks and Bitcoin blocks by adjusted timestamp.

Multi Blockchain Metalayer Continued

The ordering of blocks will look something like this.

Chain	Height	Timestamp	Adjusted Timestamp
Litecoin	1245770	(not relevant)	
Litecoin	1245771		
Ethereum	4065990	July 24th 2017 @ 07:28:42	July 24th 2017 @ 07:28:42
Ethereum	4065991	July 24th 2017 @ 07:28:53	July 24th 2017 @ 07:28:53
Ethereum	4065992	July 24th 2017 @ 07:28:36	July 24th 2017 @ 07:28:54
Ethereum	4065993	July 24th 2017 @ 07:29:21	July 24th 2017 @ 07:29:21
Bitcoin	477308	July 24th 2017 @ 07:29:38	July 24th 2017 @ 07:29:38
Ethereum	4065994	July 24th 2017 @ 07:29:47	July 24th 2017 @ 07:29:47
Litecoin	1245772		

In this example, no anchors were included in Litecoin block 1245771. In the next block, Litecoin 1245772, the hashes for both Ethereum 4065994 and Bitcoin 477308 were found. By looking at this table, we can also presume that the highest blocks previously included were Ethereum 4065989 and Bitcoin 477307.

Since the state of each blockchain may be reorganized, the Coinweb server must also periodically go back and re-validate the anchors. If necessary, the state of the Coinweb must be reorganized. This is similar to how Counterparty works, as it too automatically reorganizes if a Bitcoin block gets orphaned. Similarly, every user of Bitcoin and any blockchain are advised to wait for new blocks to be added to be confident of the state of the blockchain. With Coinweb this will occur more often as the state of all blockchains must be confirmed.

Compatible Connected Layer (CCL)

A CCL is strictly not part of the Coinweb consensus. A Coinweb node does not need to read a CCL; but a CCL node is a full Coinweb node that also runs the connected layer.

When a Coinweb user sends a token to a CCL, the token is escrowed by a smart contract. What happens on the CCL is only known to those using that particular layer. When the user deposits a token back to Coinweb, the transaction is recorded both on the CCL and on Coinweb. For Coinweb to accept this, designated staker nodes must verify the deposit. The exact rules – for how many confirmations are required and who can operate a staker node are determined by the creators of the specific CCL.

Since the number of CCLs is unrestricted, anyone can open one and they can run on any blockchain – allowing Coinweb to accommodate any number of users and apps at a very low cost.

Blockchain Message Encoding and Efficiency

Every Coinweb action must be embedded in a blockchain. Coinweb inherits Counterparty's ways of encoding messages, but will initially uses Litecoin instead of Bitcoin. While these are technically similar, the fees for using Litecoin are significantly lower, often a hundred times less. Although Coinweb benefits from Litecoin's low fees, it's important to plan ahead for when Litecoin dramatically appreciates in value.

An efficient message minimizes the number of bytes used. As a general rule, miners prioritize transactions by fee-paid-per-bytes used. With the recent introduction of SegWit, this has changed slightly. A byte encoded as SegWit data is counted as a quarter of a regular byte, effectively giving it a 75% fee discount.

Encoding Options

Op_return Encoding

Coinweb uses op_return by default. It's a clean, technically simple, and relatively straight forward way of adding data to the blockchain. The downside of op_return is that it's limited to 80 bytes. There's a big overhead though. Usually one coin input is used and one output is needed for change (technically, change is not needed but then the entire input goes to miner fee) . An average Coinweb transaction message of 50 bytes requires a ~250 byte Litecoin transaction. That's an efficiency of just 20%.

Multisig Encoding

Coinweb transactions which require more than 80 bytes can have their messages encoded in redeemable multisig scripts. The message is encoded in a 1 of 3 multisig, i.e. where any one of the three addresses can redeem the escrowed bitcoin. However, two of these three addresses contain the actual Coinweb message, while the third address is the sender's address, allowing him to redeem the dust later.

Not surprisingly, this method comes with some issues: the addresses have checksums, the redeem address takes up bytes, and the redeem itself takes another transaction (although several redeems can be grouped into one). The actual efficiency depends on message size, but a fair estimate is 10% for messages slightly above 80 bytes, to 50% for very large messages.

ScriptSig Encoding

An alternative method of adding larger amounts of data involves chaining two transactions together. Thankfully this can be done simultaneously so no time is wasted. This creates some overhead (roughly 400 bytes), but the embedded message can be several kilobytes with a marginal efficiency of about 70%.

Coinweb Standard Send

The sender makes a transaction with a message specifying which token to send, how much, and the recipient's address. An optional hex or text memo can be included. The structure of the message is as follows:

- *XCO (3 bytes) + Message ID (1 byte) + Asset Name (8 bytes) + Asset Qty (8 bytes) + Receiving network prefix and public key hash (21 bytes) + Memo (up to 34 bytes)*

The sender's address is implicitly understood to be the address making this transaction.

A limitation of the standard send is that the sender must have an address in he same format as the underlying chain, as well as a tiny amount of the native coin to pay the fee. This means using Litecoin until more chains are added, either on the main Coinweb or as CCLs.

Piggyback Single Transaction

With this transaction type, users can create a regular transaction from their own address, but use another address to broadcast it to the blockchain. This makes it possible for Coinweb to introduce address formats, without the underlying blockchain being supported, while keeping the ability to transfer from its addresses. It also eliminates the need for anything but XCO to pay fees (for the average user). Moreover, it adds flexibility to use the chain with the lowest miner fee.

A piggyback transaction inherits the message data structure of a regular send:

- *Prefix + Message ID + Token Name + Token Qty + Receiving Address + Memo*

Here only the Message ID will be different, as the piggyback transaction type has its own unique ID.

A few more parameters are needed:

- Broadcaster – the address broadcasting the transaction. Can be left empty to allow anyone to broadcast in full or partially (to save bytes)
- XCO Fee – amount to pay the broadcaster
- Deadline – the last Litecoin block a specific transaction can be included in
- ECDSA Signature – the sender's ECDSA sep256k1 DER-encoded signature covering a sha256 hash of *Token Name + Token Qty + Receiving Address + Memo + Broadcaster + XCO Fee + Deadline*

Where needed, as in *Memo* and *Broadcaster*, an initial length byte is implied.

The sender's address is derived from the ECDSA Signature.

Coinweb invalidates a Piggyback Transaction if the the same ECDSA Signature has been used before.

It's expected that professional third party services will offer to broadcast piggyback transactions. Their business model is to charge more in XCO than the underlying miner fee, while competition ensures that broadcasters able to optimize fees will succeed, indirectly benefiting end-users.

A piggyback transaction doesn't need to be limited to token transfers – they can be used for any message type. Any other digital signature can be used and be made compatible with the address of any crypto coin (as long as a message can be signed with it). In case a particular signature does not reveal the signer's public key, this must be included as a separate parameter.

Piggyback Multi Transaction

Multiple piggyback messages can be pooled into one transaction. This adds efficiency on several levels.

One sender can sign several transactions with one signature. Any valid Coinweb transaction can be used, not just token transfers. The sender saves bytes by including the broadcaster, fee, deadline and signature – just once. They'll also be in control of the order of grouped transactions – which can be very useful in instances where an order has to be cancelled before a new one can be placed – like on the DEX.

One server can group together several senders. As there's a fixed overhead cost of broadcasting messages the marginal cost of adding data is quite low. This reduces both the average cost per message and per sender.

A complete piggyback multi transaction uses the following format:

- *Prefix + Message ID + TxData1 + TxData2 + … + TxDataN*

N is the number of senders – which can be one or more.

Piggyback transactions do not need to be implemented exactly as described here. The deadline and XCO could be set by the server so that senders don't need to include them. A signature is optional, and if omitted it is assumed that the server is behind the txData. There's no specific way of doing this but the basic method is that one or multiple signed messages by one or multiple senders are broadcast to the blockchain by a server.

Compressed Messages

Optimized Message Data

Counterparty transactions are wasteful. The most common – the token transfer – uses the following format:

- *CNTRPRTY (8 bytes) + Message ID (1 byte) + Asset Name (8 bytes) + Asset Qty (8 bytes) + Receiving network prefix and public key hash (21 bytes) + Memo (up to 34 bytes)*

An example send in hex format looks like this:

- *434e545250525459|02|000000000004fadf|000000174876e800|0026343166625c7475f01e48b5ede8c0252e051a8b|ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff*

Coinweb saves bytes through several optimizations:

- Shorter prefixes – although these need to be lengthy, to prevent data crashes (random data aligning with transactions), 8 bytes is overkill. Shortening it to 3 bytes reduces the likelihood of a collision to less than one in sixteen million
- When there is a crash, the cost is negligible as a Coinweb server will invalidate in a few cpu cycles. But these are extremely rare
- The 8 byte asset name can be also be shortened to 5 bytes. This leaves more than a trillion options
- The 8 byte quantity should be of variable length. The first byte can specify the number of leading and trailing zeros; typically shortening the total length to 2-4 bytes
- If XCO tokens are being sent, the asset name can be omitted entirely. An alternative message ID will imply that XCO is used
- The 21 bytes required by the recipient address is already optimized, but Coinweb will optionally let a 5 byte ID point be converted to a human readable address. The total address encoding will be between 7 and 22 bytes

The memo is already of variable length.

Similar optimizations are possible with all Counterparty messages. With the Hex example above, a potential 33 bytes were shaved off.

Data Compression

LZMA or any other lossless compression algorithm can be included in Coinweb, and used to shorten messages – particularly useful for multi-send transactions with repeating tokens, addresses or quantities. However, not all messages will benefit from compression, so both compressed and uncompressed messages are allowed.

An alternative prefix will be used to let the server know the message is compressed.

Server's XCO Fee Pricing

The cost of running a server is very low and there's no barrier to entry. However, there are economies of scale which a server may exploit.

The larger the amount of Coinweb transactions in one multi piggyback transaction, the fewer native currency miner fees there are to pay – per included Coinweb transaction.

This is the cost the server needs to bear, while the server charges customers an XCO fee. A large server can then put its XCO fee just below its much smaller competitor's break even.

Thankfully, there are several arguments as to why a natural monopoly will not occur:

- Projects doing mass-sends are better serving their own sends, and then they may just as well offer anyone else to piggyback on top of their transactions. If several projects are doing this, they need to compete on price, and with sufficient competition the price will fall toward marginal cost
- Servers need to make a tradeoff between frequency and size of multi-sends. A server, even a dominating one, is likely to to offer lower XCO prices when there's a longer wait
- The Coinweb company may decide to a run a not-for-profit server financed by collected fees

Finally it's worth mentioning that a server benefits by building reputation. However, the only fault a server can cause is not making a transfer as promised. It cannot steal funds, so no trust is needed, but if a server fails to include a piggyback, the signed transaction will simply expire by the specified deadline.

Smart Contracts

Coinweb aims to deploy the Ethereum Virtual Machine (EVM), while continuing Counterparty's path of hard coded features.

Hard coded features are safe and cheap for end-users. Common, essential tasks – such as sending tokens and trading on the DEX – add minimal blockchain footprint and remain cheap, as their simplicity and extensive usage ensure their safety.

Ethereum Smart Contracts enable conditional escrow of tokens, which in many cases removes the counterparty risk. The flexibility of full Turing completeness has shown to be very popular – although on several occasions buggy contracts have slipped through code reviews and resulted in significant loss of funds.

With Coinweb, users have the flexibility of using safe hard coded features only, or have their tokens escrowed by the EVM if they are comfortable with the risk. The EVM is bound to get much safer as it's continually developed and more programmers become familiar with the code. By using the EVM, both Ethereum and Coinweb benefits by having more resources going into maturing our common smart contracts language.

Coinweb Specific EVM Features

A smart contract has a specially formatted name associated with it. When SLN@TLN deploys its first contract, it gets the address *SLN@TLN.BOT1*. Subsequent contracts are assigned incrementing numbers up to 256, which is the maximum; *SLN@TLN.BOT2*, *SLN@TLN.BOT3*, .. , *SLN@TLN.BOT256*. A contract can itself deploy a contract which follows the same name convention.

Addresses like these cannot receive native coins such as BTC, LTC and ETH. They can, however, receive hold and send XCO and any Coinweb token. They can also read anything happening on a blockchain supported by Coinweb. This means they can (for example) verify that Alice sent LTC to Bob, and as programmed, then transferred the XCO Bob escrowed to Alice. Another example is an oracle contract which, every block, broadcasts a random number based off the Litecoin block hash.

Similar to Ethereum, execution of contracts come with a gas cost. Gas is priced in XCO, and the XCO fee is paid by the contract address to the keyholder address. If not enough gas is present, the contract stops executing.

Coinweb has no gas limit. Instead it has l lower and higher bounds per 24 blocks (~per hour). If less than the lower bound is used, the gas price drops by 1%. If more than higher bound, the price increases by 1%. The keyholders can adjust the bounds, but not more than once per 576 blocks (~per day) and not more than by 5% in either direction. The keyholders shall set the range to balance the resource requirement of running a server and user demand for cheap contracts. They must also make slowdown of servers prohibitively expensive, which basically means that even when the protocol is new with relatively low usage, there's a responsible limit to how low the gas price should go.

Governance

Forks vs Integrated Governance

Current blockchains rely heavily on forks. This means the majority of the network updates the code simultaneously – so that social consensus can confirm that the new code is valid. Typically the changes are programmed to be incompatible with the previous version, giving everyone time to upgrade.

With a small network and a trusted developer team, this approach works reasonably well. But as the network grows, there will be more users with solutions built on top of the existing code with very specific economic interests – which in turn will make a fork much harder to be accepted. Bitcoin's one megabyte block size debate illustrates this perfectly.

There are at least three problems with the blocksize issue. Firstly, why is such an essential feature hard coded when the optimal solution depends on ever-improving computer technology? Secondly, with a few individuals in control of the core code, if their opinion opposes the majority's, how can the majority collectively launch their own fork from a different team? Thirdly, since Bitcoin development has no funding from protocol fees, development must be financed by outside sources. Can this lead to a conflict of interest among the developers?

Coinweb will minimize such problems by allowing users to vote on parameters. These will help set thresholds for the computational burden on servers, indirectly adjusting fees. In some cases it may be better to adjust fees directly by vote. This will reduce the need for forks, or ideally, eliminate the need altogether. Protocol fees will go to development, and the people in charge will be replaced regularly by the XCO holders and protocol users.

Roadmap for Coinweb

Coinweb will permit access to different blockchains via a metalayer; simplifying and lowering entry hurdles for end-users. This also allows users to develop more exciting features – such as a decentralised exchange. The system enables us to implement this particular feature in much easier way than normal.

As Coinweb is also a new token environment, it enables us to onboard other tokens, issue them on the Coinweb platform, and create a platform for new DApps. This automatically leads to the possibility of being an incubator to enable new blockchain startups to develop their applications and utility tokens on the Coinweb platform.

Coinweb will support startups and help develop new blockchain solutions. Every startup that joins the incubator will automatically profit from the simplified, human readable wallet addresses – and from issuing their tokens within the name space.

The Name Space is ready for release on Litecoin in May 2018. Other blockchains will follow over the next months.

There are lots more features coming soon -- due for release over the next 18 months. Some of them are:

The Decentralized Exchange

Counterparty's built-in exchange is one of its most popular features. The Decentralized Exchange (DEX) functions in a similar way to a traditional stock market, where a newly placed order either matches instantly with an existing order, or gets placed in the order book awaiting a matching bid or ask.

The protocol takes care of order matching, updating balances, and escrow of funds. No middle man is needed – no accounts need be set up.

The decentralised exchange will work on Litecoin in June 2018, other trading pairs will be added constantly over the next months.

Bitcoin, Litecoin and Ethereum on the DEX

Coinweb's DEX doesn't just work with XCO and user created tokens; it also uses Litecoin – with some complications. Since LTC cannot be escrowed by the protocol, after two orders match, the participant selling LTC has 24 blocks to make the transfer – while the other party's coins are escrowed. Coinweb plans to enable similar trading with Bitcoin and Ethereum.

In addition, a more customizable contract will allow the user's own coin to be sold for either Bitcoin, Litecoin, or Ethereum – introducing optimized and streamlined processing for ICOs.

Instant DEX Orders

One of the major problems for decentralized exchanges is the time taken to confirm orders. Coinweb offers a workaround – a market maker that withholds orders, updates the order book, and only broadcasts matching orders to the blockchain. This ensures a safe and fast process (which will be explained in more detail in the technical White Paper).

Auction Contracts

As a decentralized exchange is not suitable for all types of trades, Coinweb has also implemented auction contracts. Say you own a token representing a rare trading card; you can place an 'ask' offer on the DEX. However, since it's rarely traded, you have little information on a potential buyer's willingness to pay. With an auction you can put it up for sale at a minimum price, and if someone makes a bid, there's a wait period for any higher bids. If no higher bids are recorded by the deadline, the auction is over.

The auction contract will be able to facilitate several different models, including crowdsales. It'll be implemented as a hard-coded contract in the same fashion as the DEX, or through a general virtual machine – such as the Ethereum Virtual Machine.

Coinweb – The Fast Growing Incubator

Coinweb is an open platform and anyone who wants to use it as a DApp platform will be able to do so without any support from the Coinweb corporate structure. In addition, through its Coinweb Incubator ("CWI"), Coinweb will be able to provide a number of services to selected businesses, supporting them through their pre-ICO journey, as well as nurturing them post ICO launch; and helping them stabilize and grow. All incubator participants will be able to launch their tokens on Coinweb.

Coinweb will also offer its incubator businesses a range of in-house and third party services, including:

- Seed capital funding
- Introduction to Coinweb's advisory board and operational team
- Project planning and blockchain model usage support
- White Paper advice – including draft and design
- Access to a network of legal and regulatory advice
- Investor relations, introductions, and advice
- Technical support
- Community building for blockchain-specific platforms
- Branding and corporate design
- PR and Marketing pre/post ICO
- Advice and support for listing ICOs and tokens on exchanges
- Access to crypto conferences, speaking slots, and sponsorship opportunities
- A general suite of advisory services, including access to CWI's third party suppliers, partners, and contacts

Fees & Expenses

Coinweb charges fees for two reasons; to limit the computational load on servers and to keep the namespace clean. Fees are paid in XCO and go to the keyholders' address. Fees must adjust as the XCO value fluctuates and the computational burden changes.

Hard Coded Fees

No fee is directly hard coded, but the fee for registering a Top Level Name follows a hard coded formula. This is done to avoid any future debate on issuance rules, making the supply of new TLNs more predictable and investing in them less risky.

Dollar Pegged Fees

The cost of registering a Sub Level Name will stay at roughly US$1, or more if the dollar itself loses value. The keyholders will broadcast the XCO/USD price weekly and the protocol will then update this fee. The actual fee is the USD price times a factor, which can be adjusted if the keyholders want to do so. The reason SLNs come with a cost is to prevent TLN owners from registering wasteful quantities of these prior to putting out a general auction contract.

Contract Specific Fees

Counterparty's dividend contract charges a small XCP fee per recipient. Coinweb inherits this feature and will charge a corresponding XCO fee. However, a more general accounting of resource usage is preferable, and will be added in an early upgrade. All hard coded contracts will follow this system.

Each contract will constitute a range of factors, including the use of database reads, database inserts, storage, RAM, and processing. Each carries a given fee price.

Blockchain Fee Discount

Coinweb knows the XCO price of each blockchain's native token through the DEX. The transaction's miner fee is equivalent to paying an XCO fee upfront. This amount is deducted from the contract specific fee; removing the need to pay any XCO fee.

Global Capacity Limits

The various server burdens – database read, database insert, storage, RAM, processing – must have certain thresholds. Once a day, the server calculates usage of each these metrics. If they are above a certain threshold, the fee goes up 5%. If they are less than 80% of the respective thresholds, the fee drops by 5%.

Adjustment of Fee Parameters

During a weekly cycle, keyholders can vote on changing the fee parameters. These include the capacity limits, the lower threshold fraction of the upper, and the dollar factor for registering SLNs. To adjust a particular parameter, at least five keyholders must vote. To safeguard against a sudden extreme change, the maximum change is capped at 5% in either direction.

The fees themselves are set dynamically. The weekly cycle and the 5% max change are hardcoded and cannot be modified.

The XCO/USD price is a special parameter that will be set at a specific time every week. Every keyholder must broadcast this value within ten hours. For the price to be set, at least three key holders must submit it, and the median value sets the official price.

Keyholders who fail to submit this value get downvoted by the protocol and risk losing the next election.

The Team

A team of highly experienced developers, based in Scandinavia, Latvia and the United Kingdom.

Jan-Petter Janssen

Founder, CEO, Chief Platform Architect

Former Community Director and Developer[1] at the Counterparty platform. Education and background in finance, specifically in algorithms and trading platforms.

Knut Arne Vinger

Co-Founder, Chief Technical Officer

Education and background in AI, deep coding and technical architecture[2]. Author of several publications for NASA and the Department of Defense.

Pancho Vanhees

Co-Founder, Investor Relations

Proprietary trader for 25 years. Runs a multi-strategy hedge fund. Has a broad network within the target sector.

Toby Gilbert

Partner, Founder of ICO Incubator

Responsible for numerous startups in a variety of sectors including tech. Has a strong network that will be benefit the project. Co Founder of several telecommunications companies.

Alf Erik Lundgrenn[3]

Co-Founder, Business Strategist

Successful track record with a number of startup businesses. Board member of the Norwegian Chamber of Commerce and Foreign Investment Council of Latvia.

Lexi Willetts

Director of Operations, ICO Incubator

Former Head Of Intellectual Property (Commercial Legal) at FIFA, Zurich. Former COO of Wistla, a high profile group-based networking app.

Peter Moody

Legal Counsel

Experienced tech lawyer, involved in numerous international multimillion dollar partnerships, contract disputes, arbitrations, and hedge funds.

1 https://counterparty.io/news/announcing-the-winners-of-the-devparty-contest/
2 http://jimtoer.at.ifi.uio.no/esm2002_FPGA.pdf
3 https://www.linkedin.com/in/alf-erik-lundgrenn-280753/

The Advisors

Chris Blackhurst

Advisor

Executive director for CTF Partners, an international political and corporate campaigning and advisory firm. Former editor for The Independent, City Editor Evening Standard, and TV presenter. Award winning journalist since 1984 who graduated in Law from Cambridge University.

John Hunter Maxwell

Advisor

Very experienced investor and advisor to numerous startups. Strong finance and non-executive director experience for numerous companies, such as Prudential Group, The AA and Royal Sun Alliance.

Christopher Darnell

Advisor

Former CFO of Microsoft special projects including responsibility for X-Box, Microsoft Cloud and Office 365. Held numerous high-level positions at £B+ companies.

Legal Disclaimer

This white paper is for information purposes only and may be subject to change. Coinweb cannot guarantee the accuracy of the statements made or conclusions reached in this white paper. Coinweb does not make and expressly disclaims all representations and warranties (whether express or implied by statute or otherwise) whatsoever, including but not limited to:

- any representations or warranties relating to merchantability, fitness for a particular purpose, description, suitability or non-infringement;
- that the contents of this document are accurate and free from any errors; and
- that such contents do not infringe any third party rights. Coinweb shall have no liability for damages of any kind arising out of the use, reference to or reliance on the contents of this white paper.

This white paper may contain references to third-party data and industry publications. As far as Coinweb is aware, the information reproduced in this white paper is accurate and that its estimates and assumptions are reasonable. However, there are no assurances as to the accuracy or completeness of this information. Although information and data reproduced in this white paper are believed to have been obtained from reliable sources, we have not independently verified any of the information or data from third party sources referred to in this white paper or ascertained the underlying assumptions relied upon by such sources.

As of the date of publication of this white paper, XCO Tokens have no known potential uses outside of the Coinweb platform ecosystem and are not permitted to be sold or otherwise traded on third-party exchanges. This white paper does not constitute advice nor a recommendation by Coinweb, its founders, officers, directors, managers, employees, agents, advisors or consultants, or any other person to any recipient of this paper on the merits of participation in the Coinweb Token Sale. Participation in the Coinweb Token Sale carries substantial risk that could lead to a loss of all or a substantial portion of funds contributed.

No promises of future performance or value are or will be made with respect to XCO Tokens, including no promise of inherent value, no promise of continuing payments, and no guarantee that XCO Tokens will hold any particular value. Unless prospective participants fully understand and accept the nature of Coinweb's proposed business and the potential risks inherent in XCO Tokens, they should not participate in the Coinweb Token Sale. XCO Tokens are not being structured or sold as securities. XCO Tokens are not a participation in Coinweb and XCO Tokens hold no rights in Coinweb. XCO Tokens are sold with an intended future functionality on the platform to be developed by Coinweb and all proceeds received during the Token Sale may be spent freely by Coinweb on the development of its business and platform.

This white paper does not constitute a prospectus or offering document and is not an offer to sell, nor the solicitation of an offer to buy any investment or financial instrument in any jurisdiction. XCO Tokens should not be acquired for speculative or investment purposes with the expectation of making an investment return.

No regulatory authority has examined or approved any of the information set out in this white paper. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of this white paper does not imply that applicable laws, regulatory requirements or rules have been complied with.

XCO Tokens could be impacted by regulatory action, including potential restrictions on the ownership, use, or possession of such tokens. Regulators or other competent authorities may demand that Coinweb revises the mechanics and functionality of XCO Tokens to comply with regulatory requirements or other governmental or business obligations. Nevertheless, Coinweb believe they have taken commercially reasonable steps to ensure that its planned mechanics are proper and in compliance with currently considered regulations. Coinweb is in the process of undertaking further legal and regulatory analysis of the intended functionality and mechanics of XCO Tokens. Following the conclusion of this analysis, we may be required to amend the intended functionality of XCO Tokens in order to ensure compliance with any legal or regulatory obligations that apply to us. We shall update this white paper and publish a notice on our website in the event that any changes are made to the XCO Token functionality.

Caution Regarding Forward-Looking Statements

This white paper contains forward-looking statements or information (collectively "forward-looking statements") that relate to Coinweb's current expectations and views of future events. In some cases, these forward-looking statements can be identified by words or phrases such as "may", "will", "expect", "anticipate", "aim", "estimate", "intend", "plan", "seek", "believe", "potential", "continue", "is/are likely to" or the negative of these terms, or other similar expressions intended to identify forward-looking statements. Coinweb has based these forward-looking statements on its current expectations and projections about future events and financial trends that it believes may affect its financial condition, results of operations, business strategy, financial needs, or the results of the token sale or the value or price stability of XCO Tokens.

In addition to statements relating to the matters set out here, this white paper contains forward-looking statements related to Coinweb's proposed operating model. The model speaks to its objectives only, and is not a forecast, projection or prediction of future results of operations.

Forward-looking statements are based on certain assumptions and analysis made by Coinweb in light of its experience and perception of historical trends, current conditions and expected future developments and other factors it believes are appropriate, and are subject to risks and uncertainties. Although the forward-looking statements contained in this white paper are based upon what Coinweb believes are reasonable assumptions, these risks, uncertainties, assumptions, and other factors could cause Coinweb's actual results, performance, achievements, and experience to differ materially from its expectations which are expressed, implied, or perceived in forward-looking statements. Given such risks, prospective participants in this token sale should not place undue reliance on these forward-looking statements.


Coinweb™
coinweb.io