CarbonDollarX

THE ASSET BACKED DIGITAL CURRENCY

WHITEPAPER

Assumptions, Limitations & Disclosures

This document does not constitute an offer to sell, a solicitation of an offer to buy, or a recommendation of any security or any other product or service by Carbon Dollar X or any other third party regardless of whether such security, product or service is referenced in this white paper. In addition, the trading platform as referenced in this paper may take from twelve months to eighteen months to become fully operational. Nothing in this document should be considered final, as the trading platform and other criteria for the launch of Carbon Dollar X may change, depending upon the then current price of Carbon Credits.

Furthermore, nothing in this document is intended to provide tax, legal, or investment advice and nothing in this paper should be construed as a recommendation to buy sell, hold any investment, security or to engage in any investment strategy or transaction. Carbon Dollar X does not represent that the currencies, products, securities or services discussed in this paper are suitable for any individual or investor. The reader is solely responsible for determining whether any currency, investment, currency or investment strategy, or related transaction is suitable for the reader or anyone associated with the reader. In addition, in the future, this type of currency will require that the investment individual either be an accredited or institutional investor. Future investment in this cryptocurrency will require a minimum purchase. Further, such a move would be dependent upon the reader's personal preferences, investment objectives, financial circumstances and risk tolerance. If that should be the case, the reader should consult with their business advisor, attorney, investment, tax and/or accounting advisor regarding specific business, legal or tax situation.

It is upon the individual to meet the requirements as an accredited investor and to have the most up-to-date version of documentation provided by Carbon Dollar X and its projects. Each person is responsible, even if they're not an accredited or institutional investor, to have the most up to date version of each document.

Suria Global (L) Ltd is not responsible, nor is any other company or individual, for any outdated information regarding Carbon Dollar X. Nor is it obligated to broadcast its updates to any person who possesses this document or any other Carbon Dollar X documentation. Neither Suria Global (L) Ltd nor any other contributor to the Carbon Dollar X project is responsible or liable for any individual not having the most up to date version of each document (basically if new clauses are added or old ones removed).

To find the most up to date version go to : https://www.carbondollarx.com/whitepaper

Any other documentation provided will also have a means by which each person can follow for all updates necessary in relation to the project or the document's nature. Depending on what the document is, if it's an agreement, or an accompanying document, etc., each document will explain how each individual can acquire the most up to date version of that document.

The Company acknowledges and agrees to refund the full amount invested without any interest element in the event of failure to raise the minimum fund required for the project stipulated in the Whitepaper within 12 months from the date of the Token Distribution.

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Private Token Distribution Overview

Token Name:	Carbon Dollar X
Token Ticker:	CDX
Token Website:	https://carbondollarx.com
Token Address:	0x2cb101d7dA0ebaA57D3F2fEf46D7FFB7BB64592B
Token Owner:	Suria Global (L) LTD
Token Type:	Ethereum ERC20
Distribution Target:	Hard Cap at $680'000'000.00 USD equivalent
Total Tokens Issued:	200'000'000 Tokens
Mining:	No mining or any other means of Token amount increase will apply.
Token Price:	ICO Token pricing will be: 1 Token = $4.00 equivalent.
Discount Price:	During the initial phase of the Private Token Distribution, discounted prices will be available during the distribution of the first 80'000'000 Tokens as follows: First 20'000'000 Tokens = $3.00 USD equivalent per Token Following 20'000'000 Tokens = $3.50 USD equivalent per Token Following 40'000'000 Tokens = $3.75 USD equivalent per Token
Eligibility:	Accredited and Institutional Investors
Use of Proceeds:	See "Use of Proceeds"
Token Distribution:	Public – 180'000'000 Tokens (90%) Management & Employees – 20'000'000 Tokens (10%)
Lockup Period:	Tokens distributed under "Management and Employees" will undertake a 12-month lockup period subsequent to the Token's Distribution. No distribution, transfer or pledge of Management and Employee Tokens will be permitted during this period. Tokens distributed from the public pool do not undertake any form of lockup period and may be freely transferred, pledged or distributed between other accredited and institutional investors.
Distribution Time:	Tokens will be distributed within 24h upon payment confirmation.
Distribution Event:	Pre-Distribution: 1st February 2018 – 25th March 2018 Opening Date: 26th March 2018

Executive Summary

Carbon Dollar X is an asset backed Cryptocurrency, tied to the value of the global carbon credit market. The initial hard asset value and carbon credits backing the Carbon Dollar X are derived from an old-growth standing forest. The assets are valued at greater than two times the hard cap of the token offering, verifiable via audited financials, with an estimated increase of five to fifteen percent (15%) per annum.

Carbon Dollar X is initiating the first cryptocurrency that will be fully backed by hard assets and carbon credits. Carbon credits as a commodity are recognized internationally and carry an established value. Since the adoption of the Paris Agreement and Kyoto Protocols the majority believe that the value of these credits will increase in years to come.

The Carbon Dollar X exchange platform is being developed as a proprietary integration of technologies that are cutting edge in scope, speed, security, transparency and accessibility. The exchange based on "Distributed Ledger Technology" elevates Carbon Dollar X above the noise of other crypto currencies, especially those that employ speculative manipulation totally for their market value, who are increasingly under scrutiny and vulnerable.

The initiative for the platform is to treat all transactions equally, be they US Dollars, Euro or Carbon Dollar X. Including the issuance of Carbon Dollar X debit cards and all supporting payment processing systems.

The company has assembled an executive team with decades of experience in international banking, investment banking, currency trading, IT and software specialties. These key individuals are ready, willing and able to put in place the organizations to build an orderly and efficient trading market for Carbon Dollar X.

All investments in CDX Ethereum ERC20 token contracts are backed in full by hard assets. As an asset backed digital currency, Carbon Dollar X's stability will pave the way for equal access. 10% of all Carbon Dollar X value will be dedicated to humanitarian goods and services.

It is estimated that it will take twelve (12) to eighteen (18) months to build out the platform to be fully functional and operational, at which time, investors will exchange CDX Ethereum ERC20 token contracts for live Carbon Dollar X currency. Once in the Carbon Dollar X exchange, holders of Carbon Dollar X may exchange its value for any other currency or sit on the investment.

Exchange Introduction

At inception Carbon Dollar X will be fully asset backed by old growth forest; the initial source of Carbon Credits for the Carbon Dollar X exchange. Through prudent acquisition and negotiations with friendly sovereign states and multinational corporations, additional resources are already earmarked for entrance into the exchange when it is ready. With every extension of the asset pool additional Carbon Dollar X's can be issued.

The last time a global currency was asset-backed was the United States Dollar before 1971. Since then virtually all world currencies have been based on the full faith and credit worthiness of central banks and future productivity of citizens. Carbon Dollar X alleviates an inherent weakness found with fiat currencies by tying its value to a viable commodity, like carbon credits.

Over decades this group of macro thinkers have identified and sourced leading technologies as the foundation Carbon Dollar X's platform to provide long term security, speed and sustainability. These range from military grade (+) cyber defense and risk mitigation, unique software structures, multiple language support, maximum throughput capabilities, high liquidity, customizable analytics and real time order execution.

The purpose of the ensuing technology is to provide a platform that is 100% reliable in real-time, that is transparent and trustworthy with audit tracking and minimal risk to currency holders.

The use of this 'Peer to Peer'' transaction based exchange initial use will be between substantial Institutional types and governments, with large purchase capability and technical understanding. The retail entry point for the platform will follow in phase 2.

Intention

The intention is to establish an asset backed cryptocurrency marketplace and bring into existence a modern and effective exchange platform that is synonymous with global and national currency exchanges including digital currency. The potential to promote economic growth by means of green bonds, organizational carbon credit agenda's and governmental carbon offsetting projects is at the heart of the project.

Mission

Carbon Dollar X's mission is to establish a universal cryptocurrency that is financially stable used globally and has sound and secure technology, upon which to trade ubiquitously with all other world currencies.

Objectives

The objective of Carbon Dollar X, is to be the global standard for cryptocurrency, with an exchange that is streamlined in all facets from its real-time transaction workflow, ultra-security, speed and fairness. no matter the currency it is exchanging.

Competitive Advantage

The obvious advantage is the asset backed nature of the cryptocurrency allowing for stability and expansion. Carbon Dollar X is designed to be resistant to volatile trading. Less obvious is, throughput and security as a distributed ledger technology with hundreds of thousands to millions of transactions per second and a theoretic hack proof network.

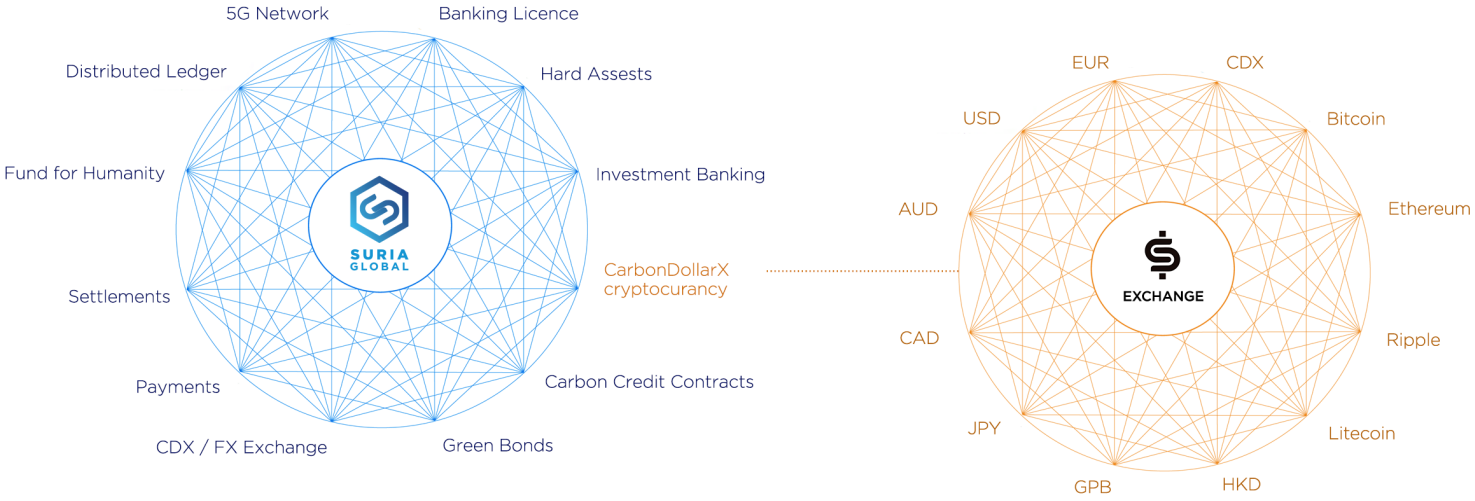
It is recognized that the existing financial infrastructure was not designed to stand side by side with crypto currency, thus the need for a ground up rewrite. See more technical details in the appendix.

Carbon Dollar X Currency

There are three key factors in creating a currency: 1) an asset or object of value, 2) a unit of currency and 3) a market.

Carbon Dollar X will be and have all three.

1. An assigned and audited hard assets, currently worth more than double the full issuance of the tokens offering, plus the carbon credits yet to be assigned.
2. Starting point of 200,000,000 Tokens, Hard Cap at $680,000,000.00 USD equivalent. Exchangeable for Carbon Dollar X and expandable upon registration of new Carbon Credits into the exchange.
3. Internationally accepted and valued Carbon Credits and the underlying natural resources they represent, as with most commodities. Carbon Credits have their own exchange platforms where they are valued and traded. They are sold by governments and corporations who's projects offset carbon emissions through green energy and forestry development.



Carbon Dollar X Distributed Ledger Technology

Carbon Dollar X's will implement a distributed ledger technology using a consensus algorithm that allows all individual ledger holders to come to an agreement in regards to the order of all Carbon Dollar X transactions and their timestamps. These characteristics may resemble those of a blockchain, but when comparing Carbon Dollar X's distributed ledger technology against blockchains it stands out in speed, security and fairness.

See more in the appendix A

Carbon Dollar X Exchange Platform

The Carbon Dollar X exchange platform is key in the process in implementing Carbon Dollar X as a globally accepted currency. The exchange is the bridge of Carbon Dollar X's other currencies, both fiat and other valid digital formats. As new contracts are established for Carbon Dollar X's Carbon Credits, it allows additional Carbon Dollar X's to be issued into circulation via the exchange.

The exchange will comply with all the laws and regulations on an international level and will acquire the necessary licensing to operate globally. It will adhere to the Know Your Customer (KYC) norms, verifying customers, on both individual and organizational levels through government issued identification and accompanying documentation, thereby, protecting itself from any money laundering.

The Carbon Dollar X exchange will facilitate hundreds of thousands of transactions per second, allowing practically instantaneous orders upon its low latency ultra secure rapid response platform. The user interface of the Carbon Dollar X exchange payment gateways, payment cards and wallets platforms are designed by a world class team.

The exchange platform will partner with Suria Global as its payment provider to process all payments. Suria Global is not a traditional banking institution. It is also designed from the ground up and can run upon the same technology rails as the exchange itself.

What will ensure its global acceptance and use of currency in any real world situation, will be the seamless integration between the exchange platform and Suria Global. This synergy will allow any and all transactions of Carbon Dollar X as a cryptocurrency to be converted in real-time, via Suria Global, into any other valid currency or cryptocurrency. This will effectively remove the latency issues that exist today.

Carbon Dollar X Private Token Distribution

The initial investment opportunity for Carbon Dollar X is offered through a ERC20 Token private distribution as a smart contract running on the Ethereum blockchain.

In contrast, to many other ERC20 Tokens that are traded, the Carbon Dollar X ERC20 Token holds its value from day one, due to its backing of hard assets and future assignment of Carbon Credits. This gives investors in the Carbon Dollar X project a strong sense of security as they know from day one there is true value behind it.

Capping at a Six Hundred and Eighty Million United States Dollar equivalent ($680,000,000.00 USD), there are two hundred million Carbon Dollar X ERC Tokens (200,000,000 CDX) issued. The funds acquired from the distribution of the Carbon Dollar X ERC Token all go towards the infrastructure and services required to create a seamless network that will allow all individuals and organizations globally to trade and use Carbon Dollar X as a legitimate currency, regardless of it being cryptographic.

These ERC20 Tokens under the name of Carbon Dollar X (CDX) were created in a smart contract and issued to a main Ethereum-based wallet. These Two Hundred Million Carbon Dollar X ERC20 Tokens (200,000,000 CDX) have been designated as follows:

Public = 180,000,000 CDX (90%)
Management and Employees = 20,000,000 CDX (10%)

The Carbon Dollar X Tokens that have been designated under "Management and Employees", will be distributed amongst those who have contributed throughout the various processes of the project in the entirety of its duration. The pool of Tokens assigned as "Public" is intended for public distribution and will be distributed amongst Accredited and Institutional Investors who meet eligibility requirements.

This set of Carbon Dollar X Tokens amounts to One Hundred and Eighty Million and will be distributed in the following order:

The first Twenty Million Carbon Dollar X Tokens (20,000,000 CDX) will be distributed at a discounted equivalent price of Three United States Dollars ($3.00 USD).

The following Twenty Million Carbon Dollar X Tokens (20,000,000 CDX) will be distributed at a discounted equivalent price of Three United States Dollars and Fifty Cents ($3.50 USD).

The following Forty Million Carbon Dollar X Tokens (40,000,000 CDX) will be distributed at a discounted equivalent price of Three United States Dollars and Seventy-Five Cents ($3.75 USD).

The remaining One Hundred Million Carbon Dollar X Tokens (100,000,000 CDX) will be distributed at an equivalent regular set price of Four United States Dollars ($4.00 USD).

Distribution of Carbon Dollar X Tokens will be accepted in Malaysian Ringgit.

Upon completion of the exchange, investors will have an opportunity to trade in their Carbon Dollar X ERC20 Tokens for the newly circulating Carbon Dollar X cryptocurrency.

For confidentiality, the audited financial documentation relating to the assets and carbon credits, or documentation pertaining to intellectual property, have not been included in this Whitepaper. Any and all accredited or institutional investors wishing to see such documentation, may make a request in writing, and the appropriate measures will be taken to accommodate the request.

Use of Proceeds

The entire use of proceeds from the token private distribution will be utilized in the creation of the necessary infrastructure for the Carbon Dollar X, its distributed ledger technology, the full exchange platform, including multi-currency payments and settlement, as well as, the authentication of the carbon credits associated with the full value of standing old growth forest assets pledged to the platform.

Included in the cost of the platform build is the complete buyout of the key technologies described herein, thus keeping a competitive edge. Any amount of the acquired proceeds that is not used as payment of services towards the completion of the Carbon Dollar X project will be held as an asset in the exchange.

Executive Team

Ian Percy - Chief Executive Officer

An Organizational Psychologist by formal education, Ian is widely regarded as a possibility expert. His clients and colleagues frequently refer to and access his uncanny ability to see game-changing possibilities others don't see and turn them into profitable new realities.

Ian's been an entrepreneur since undergraduate days launching his first company in 1971. He focused on the healthcare sector, and hospitals specifically, resulting in a sterling reputation across his native Canada. This early work involved some of the most renowned transformations in the healthcare scene including the founding of the first ever program designed to teach physicians how to be medical school Deans and Department Heads.

Over time his consulting work expanded into a wide variety of industries globally and across North America including technology companies, government ministries, professional services, education, manufacturing, finance and insurance, agriculture and retail operations. Major companies such as KPMG, Royal Bank of Canada and UNIFI Insurance retained his services for well over ten years. Year after year he was able to expand their thinking to see the opportunities all around them.

Not only is he able to unify people and focus them on their highest possibilities, he is a gifted corporate speaker having spoken to senior corporate audiences around the world. This rare ability led to the honor of being inducted into both the USA and Canadian Speaker Halls of Fame. Successful Meetings magazine declared him "One of the top 21 speakers for the 21st century."

Ian founded a company with access to a software technology capable of ensuring fault-free software source code. Faulty software is an almost incalculable expense for world businesses. This technology is still in development.

Ian admits to having low tolerance for incremental change. There are such enormous possibilities available to us, he insists. As one colleague put it, "Ian is a possibility magnet!" He's also written seven books and contributes frequently to various professional blogs and newsletters.

Ian and his wife Georgia live in Scottsdale, Arizona and hold dual citizenship.

Douglas L. Johnson - Chief Financial Officer

Mr. Douglas Johnson has proved himself an exceptional senior executive with diverse business development, program management, operations management and strategy development experience. He has repeatedly led the development and implementation of complex turnaround and new business strategies. Although it's difficult to put over 30 years of working at the highest levels of corporate America into a short bio, some of Mr. Johnson's experience is displayed below.

As a Senior Consultant on the staff of the Westinghouse Vice President of Corporate Planning, Mr. Johnson was responsible for review and analysis of major investment programs, including acquisitions, with recommendations for corporate action. He also served as advisor to Business Units for long range strategic plan development.

Mr. Johnson was also the Manufacturing Manager of Westinghouse Elevator. He managed Three plants with over 1200 employees producing Elevators, Escalators, and Components. These employees were both Union and Non-Union. He maintained production and increased output of key products while initiating closure of the largest, oldest plant, transferring products and significantly increasing volume at the newest plant. Mr. Johnson also led the development of all marketing programs for the Westinghouse PCB Service Business, winning top Corporate Marketing Award.

As General Manager, led the Allis Chalmers Residential Transformer business from $18.0 to $30.0 million in sales—a doubling of market share and a tripling of volume, for the transformer product line. These gains resulted from facility rearrangement and productivity improvement. During this time employee population remained essentially unchanged. As Assistant to the Vice President of the Power Generation Division of Babcock and Wilcox, Doug helped chart the turnaround strategy for this very troubled business. He led a wide variety of problem identification, plan definition and progress monitoring efforts.

Mr Johnson developed the strategy and gained approval for a Polychlorinated Biphenyl (PCB) Service Business for Westinghouse. The business involved the removal and disposal of PCBs from electrical equipment. He grew the PCB Service business from $1.5 to $37.0 million sales, utilizing aggressive marketing plus joint ventures for added technology.
Mr. Johnson has consulted hundreds of businesses, stretching across all sectors and markets, in his capacity as a Management Consultant. He is also proficient in software code and advanced mathematics.

Education - BSIE, MSIE – Oklahoma State University

Dr. Gerald Kurz - Chief Technology Officer

Dr. Gerald Kurz has more than 20 years experience in international enterprises technology; Jacobs Suchard, Knight Wendling and Gemini Consulting. He has also held active leading positions for logistic service enterprises as Kühne & Nagel in Switzerland and Dachser in Munich.

His core strengths are found in information technology for banking, accounting and logistics and, since 2000, has been Chief Executive Officer for Business Gateway AG, specifically concentrating in data connectivity and conversion systems.

Gerald's academic studies include Ph.D., MBA, BBA and Dipl. Betriebswirt from Clemson University (USA), Graduate School of Business Administration in Zurich (Switzerland), University of Applied Sciences in Augsburg (Germany) and University of Pecs (Hungary).

Appendix A

Technology Overview

The company has put together a team of leading hardware, software and telecommunications experts. The technologies they bring were sourced from thousands that were reviewed. The Carbon Dollar X platform will be a game changer in the cryptocurrency universe.

List of features:

- Artificial intelligence with multi-language support.
- Cyber-attack “kill” cells with decimation tracking back to source.
- Endpoint sensors with enrichment engines enrich client interactions.
- Endpoint sensors with enrichment engines track privileged activity and isolate malicious penetration providing destructive cyber techniques with isolation into “kill” cells.
- Real-time system defense response with audit mapping and cyber-attack mitigation
- Consensus algorithm allows all individual ledger holders to interactively come to an agreement multiplying speed, security and fairness between transactions.
- Distributed ledger technology provides hundreds of thousands of transactions per second. That is more than a hundred times those of Visa or MasterCard. This enhanced speed decimates the slow speed of Bitcoin which is a maximum of seven transactions per second.
- “Byzantine Fault-Tolerant”, or otherwise known as “Asynchronous Byzantine” which provides the strongest level of security.
- Fairness is a characteristic that hasn’t really taken effect in other blockchains, but will be integrated into Carbon Dollar X’s distributed ledger technology.
- Carbon Dollar X’s distributed ledger technology doesn’t allow manipulations to occur. As a result, no individual or organization can influence the processing speed of the transactions.
- With this new fairness rule introduced, all transactions are timestamped and ordered at a speed of thousands of transactions per second.
- Planned takeover - company in a unique position to take on Sysco with better technology cannot currently keep up with sales.

- Planned takeover - cell phone encryption group doing around $200 million a year available for merger, acquisition or joint venture.
- Planned takeover - though rotational encryption has been banned in this country, there are derivations of encryption technology that only the NSA will have a key for. There are several interesting Cyber firms available that will fit together with this strategy.
- One of the technologies we have just cannot be cracked because it is like stepping into an alien environment where nothing is as it seems. This comes from some of the EMP technologies that we have where hacking will become an obsolete profession.
- This product moves the threat hunting process from backward-looking and expensive analysis of network logs to delivery of threat behavior to the desktop in real time.
- Technology enables real-time identification of the threat behavior used in every recent major network breach and insider attack: lateral movement with privileged credentials.
- New “orchestration suites”, which ingest data from all those tools, only compound the complexity and expense. While artificial intelligence has somewhat eased the process, most current tools generate hundreds of thousands of alerts – which then require manual investigation, thus further delaying response times. By contrast, we focus on the behavior that matters from both outside and inside threats: lateral movement and clever system administration tradecraft.
- A self-correcting system that can detect and fix code vulnerabilities and errors before hackers get a chance to identify them and breach the system.
- The newest software testing algorithm for proprietary and public semantic and logical processes

The exchange platform and its data communication features are key to successful trade among participants, such as; Traders, Banks, Stock Exchanges and Institutional and Private Investors. The secret sauce of the system is the way it handles the various communication protocols across disparate system, the common bottleneck of existing systems.

Carbon Dollar X will operate on a custom designed platform that will ensure security, transparency and the speed necessary to provide seamless transactions. The objective of the platform is to function in such a way that makes it impossible to differentiate a transaction made in United States Dollars, Euro or Carbon Dollar X. This will enable various Carbon Dollar X payment systems such as debit cards and gateway systems for all aspects of ecommerce, including mobile.

A subset of product features:

- Exchange Platform supporting several dozen ERP structures and user applications. For example; SAP R/3, Baan, PeopleSoft, Oracle, perpendicular, Siebel, and so forth as well as adhock in-house formats. Global standards such as EDIFACT, ANSII, CII and other communications interfaces are integral component of the data communication platform. All open standards are available, for example S/MIME, EDIINT, etc. The service of the platform is unique and combines all "state of the art" adapters with complete availability of communication components as for example to HTTP/S, TCP/IP, X.400, Async., X.25, OFTP, FTP etc. Communication languages and standards as for example XML, cXML / BizTalk / Rosetta Net for the Financial and Automotive industry, VANs, EC/ EDI or Internet WWW are supported. For the connection of heterogeneous structures MQ Series and other message brokers as well as Security installations are completely available.
- Complete integration of all trader specific (proprietary) formats.
- All business processes are completely automated, benefiting more timely interactions for all parties.
- Multi-functional communications platform, the Exchange can integrate horizontal and vertical markets of any kind and turns them into integrated parts of the business processes transaction.
- Mapping capability with ”2700 Modules and Data Communication interfaces”, the Exchange Platform will transaction in any hard value.
- “Semantic analysis” uses formal and proprietary logic rules to analyze code statements, ensuring the software is semantically correct.
- Code correction that finds only actual faults, no false positives, greatly reducing the number of test cases and forms of testing necessary.
- High degree of Mapping capability
- Multi-functional communication – Any to Any
- High speed communication
- Workflow process for transaction form cryptocurrency to hard currency
- Data communication on the platform is system and format independent
- Availability of 99,8 % p.a., cluster technology without any lack, secure redundant, heard beat connectivity on the platform and 100 % secure with RAID 5 system failover.

The Data Communication Platform offers a complete integration of the supply chain with involvement of all business processes even in heterogeneous IT-systems. Simultaneous management systems, software "on demand", payment handling or tracking and tracing can be applied upon as necessary. The advanced design of the Carbon Dollar X Exchange, allows the entire scope of digital communication and electronic trade to be processed in any currency secure, fast and transparent.

Appendix B

Cryptocurrency Industry

Introduction

Ever since the technological boom of the 1990's, there have been many attempts to create a digital currency worthy of worldwide acceptance. Each failure has been improved upon and modified along the way, bringing us closer to the cryptocurrencies we know and trade with today; such as Bitcoin, Ether and Litecoin.

Decentralized cryptocurrencies have grown exponentially since their conception in 1983, yet still haven't been perfected to withstand the flaws of the real-world economy. These cryptocurrencies are produced by the entire cryptocurrency system collectively, at a rate which is defined when the system is created, and which is publicly known. In centralized banking and economic systems such as the Federal Reserve System, corporate boards or governments control the supply of currency by printing units of fiat money or demanding additions to digital banking ledgers. In case of decentralized cryptocurrency, companies or governments cannot produce new units, and have not so far provided backing for other firms, banks or corporate entities which hold asset value measured in it. The underlying technical system upon which decentralized cryptocurrencies are based was created by the individual known under the pseudonym of Satoshi Nakamoto who created Bitcoin.

Cryptocurrencies in Today's Economy

Since the creation of the first decentralized cryptocurrency, Bitcoin, was created in 2009, more cryptocurrencies have emerged than ever before. This is due to Bitcoin's separation from the many past failed attempts of creating a working cryptocurrency since the 1983 conception of Ecash by American cryptographer David Chaum and finally providing a functioning and accepted cryptocurrency.

As of January 2018, over one thousand, three hundred and eighty-four cryptocurrencies exist; most are alike and derived from the first fully implemented decentralized cryptocurrency, Bitcoin. Within cryptocurrency systems, the safety, integrity and balance of ledgers is

maintained by a community of mutually distrustful parties referred to as miners: members of the public using their computers to help validate and timestamp transactions, adding them to the ledger in accordance with a time-stamping scheme. Miners have a financial incentive to maintain the security of a cryptocurrency ledger.

While these alternative, decentralized modes of exchange still find themselves in the early stages of their expected lifespan, they have the unique potential to challenge existing systems of currency and payments. As of December 2017, total market capitalization of cryptocurrencies was larger than Six Hundred Billion United States Dollars ($600'000'000'000.00 USD) and have reached a record-high daily volume larger than Five Hundred Billion United States Dollars ($500'000'000'000.00 USD).

Most cryptocurrencies are designed to gradually decrease production of currency, placing an ultimate cap on the total amount of currency that will ever be in circulation, emulating the mining of gold, silver, and other precious metals which have a fixed amount.

Future Trends

Though the number of merchants who accept cryptocurrencies has steadily increased, they are still very much in the minority. For cryptocurrencies to become more widely used, they must first gain widespread acceptance among consumers. However, their relative complexity compared to conventional currencies will likely deter most people, except for the technologically adept.

While Bitcoin and some of its rivals have many advantages, enough to remain in the near future as a relevant currency, the vast majority of transactions by volume have been made in China and surrounding Asian countries. With China having recent Bitcoin and initial coin offerings, it's inevitable that the two will remain interlinked, potentially being the downfall of Bitcoin and, consequently, fellow cryptocurrencies that have been susceptible to Bitcoins volatility.

Bitcoin enthusiasts may claim that this is never going to be an issue since Bitcoin was the pioneer and as such enjoys a "first-to-market privilege". This argument is undoubtedly due to Bitcoin payments amounting to only a small percentage of total Bitcoins in circulation. Bitcoin's primary uses is being a store of value and, for this reason, any other cryptocurrency

that develops upon and perfects the process can step in and take Bitcoin's place from the top of the list.

Regardless of the uncertainty of Bitcoin's price, as well as the price of all other cryptocurrencies known to date, the only certainty is that their price will collectively remain very volatile in the upcoming future.

Why Asset-Based Cryptocurrencies Are Necessary for the Future

As much as Bitcoin's success has boosted the popularity in other cryptocurrencies and helped increase their values, already the cryptocurrency market has witnessed dramatic fluctuations in price like no other currencies have encountered in the same timeframe.

Throughout the year of 2017, Bitcoin grew in value from being just under one thousand United States Dollars ($1000.00 USD) to its record high of twenty thousand United States Dollars (20'000.00 USD): reaching a multiple of over twenty times its value. Regardless of its outstanding growth, in an unexpected manner, in a same week it dropped as low as eleven thousand, five hundred United States Dollars ($11'500.00 USD). The sudden reversal of Bitcoin's upward trajectory this year, having started 2017 at $966, and sparked warnings that investors need to beware of its volatility. This is not the only time Bitcoin's price has dropped drastically, having done so multiple times, but is certainly the most noteworthy.

Being the front-running cryptocurrency in a decentralized economy, Bitcoin's fluctuations translate as to how the other cryptocurrencies values sway in the market. Bitcoin's massive drop in price shook the values of all other cryptocurrencies, all of which respectfully dropped in price.

Analysts said the dramatic moves in the run-up to the end of 2017 meant that it was difficult to predict what would happen in the new year when trading volumes are expected to rise. Regulators have been sounding a cautious note about Bitcoin, which is not regulated and is controlled by a network of computers that update all transactions which take place on a variety of trading platforms around the world.

What most of these cryptocurrencies have in common is their lack of "true hard value" and therefore open the continuous possibility to being susceptible to massive price drops time

and time again, whether it be for large one-way trades or for no reason at all. Therefore, cryptocurrencies must have commodities to back them.

Though there are cryptocurrencies that currently exist and partly rely on a commodity - most often gold - though not for the entire price of the cryptocurrencies. They have never found themselves with enough currency with total value in circulation to provide the fluidity and demand that a true currency must endure to become standardized. This is one of the many important barriers that Carbon Dollar X seeks to break through and stand out upon in becoming a one-of-a-kind globally accepted cryptocurrency.

Appendix C

Carbon Credits

The market for Carbon Credits will have no restrictions as it will trade fluidly with all existing fiat currencies as well as the most influential cryptocurrencies of choice on its own exchange platform.

Taking into account that most of today's cryptocurrencies have no true value other than that which is given by those who trade it on a supply and demand basis, Carbon Dollar X's value will hold parallel to that of its Carbon Credit commodity. This not only separates Carbon Dollar X from the "bubble-bursting" environment other cryptocurrencies find themselves susceptible to, but allows Carbon Dollar X to differentiate itself from other cryptocurrencies with fixed issuing caps, and be more like common fiat currencies, having no fixed caps. The amount of Carbon Dollar X in circulation and issued will increase as more Carbon Credits are deposited into the exchange.

Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets.

Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere, as a result of more than one hundred and fifty years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012.

Under the Protocol, countries must meet their targets primarily through national measures. However, the Protocol also offers them an additional means to meet their targets by way of three market-based mechanisms.

The Kyoto mechanisms are:

- International Emissions Trading
- Clean Development Mechanism
- Joint Implementation

The mechanisms help to stimulate green investment and help Parties meet their emission targets in a cost-effective way.

Under the Protocol, countries' actual emissions have to be monitored and precise records have to be kept of the trades carried out.

Registry systems track and record transactions by Parties under the mechanisms. The UN Climate Change Secretariat, based in Bonn, Germany, keeps an international transaction log to verify that transactions are consistent with the rules of the Protocol.

Reporting is done by Parties by submitting annual emission inventories and national reports under the Protocol at regular intervals. A compliance system ensures that Parties are meeting their commitments and helps them to meet their commitments if they have problems doing so.

The Kyoto Protocol, like the Convention, is also designed to assist countries in adapting to the adverse effects of climate change. It facilitates the development and deployment of technologies that can help increase resilience to the impacts of climate change.

The Kyoto Protocol is seen as an important first step towards a truly global emission reduction regime that will stabilize GHG emissions, and can provide the architecture for the future international agreement on climate change.

What are Carbon Credits?

A Carbon Credit is a generic term for any tradable certificate or permit representing the right to emit one ton of carbon dioxide or the mass of another greenhouse gas with a carbon dioxide equivalent (CO2e) equivalent to one ton of carbon dioxide.

Carbon Credits and carbon markets are a component of national and international attempts to mitigate the growth in concentrations of greenhouse gases (GHGs). One Carbon Credit is equal to one ton of carbon dioxide, or in some markets, carbon dioxide equivalent gases. Carbon trading is an application of an emissions trading approach. Greenhouse gas emissions are capped and then markets are used to allocate the emissions among the group of regulated sources.

The goal is to allow market mechanisms to drive industrial and commercial processes in the direction of low emissions or less carbon intensive approaches than those used when there is no cost to emitting carbon dioxide and other GHGs into the atmosphere. Since GHG mitigation projects generate credits, this approach can be used to finance carbon reduction schemes between trading partners and around the world.

How do Carbon Credits Work?

Carbon Credits are found as a flexibility mechanism provided through the Clean Development Mechanism under the Kyoto Protocol and are bought and sold through number of international brokers, online retailers and trading platforms. Businesses that find it hard to comply with the carbon emissions, purchase carbon credits to offset their emissions by making finance readily available to renewable energy projects, forest protection and reforestation projects around the world. These renewable energy and energy efficiency projects replace fossil fuel and industrial processes. This all helps businesses in mitigating their emissions and compliance with global standards.

Offsetting one ton of carbon means there will be one less ton of carbon dioxide in the atmosphere than there would otherwise have been. The buyers of the offsets benefit as they can use these offsets to mitigate their greenhouse gas emissions. Many types of activities can generate carbon offsets. Projects which sell carbon credits include wind, solar, geothermal, biomass projects which replace fossil fuel powered plants, low cost household device projects that can eliminate need for extra energy, methane capture from landfill gas and agriculture,

different afforestation projects, forest protection from illegal logging, destruction of heat trapping greenhouse gases from the atmosphere and many more.

Carbon Credits as a Commodity

Since the Kyoto Protocol, carbon emissions became a liability and carbon reductions an asset. One of the provisions in the Kyoto Protocol called for emission reduction trading using free market mechanisms. Emissions trading would allow national and international transfer of reductions among players in different industries as a way to level out costs. This, in essence, created a new commodity under the name of Carbon Credits and a marketplace for it.

Currently, carbon emissions trading is technically allowed in any of the thirty-seven countries that fall under the jurisdiction of the Kyoto Protocol. The largest emissions trading scheme is currently in operation in the European Union, under the name of the European Union Emission Trading Scheme (EU ETS). Currently twenty-five of the twenty-seven countries in the EU are enrolled in the scheme. The United States of America also began to engage in carbon cap and trade emissions trading in 2009. Australia and New Zealand have also implemented themselves into the Carbon Credit market. One of the primary factors influencing prices in the carbon trading market is the cap that is imposed on carbon emission levels by the regulating jurisdiction. As the cap is lowered, as it is periodically, there will be more companies operating above the set limit of carbon emissions. This will mean that there will in theory be more companies in need of Carbon Credits, which could result in a higher price for each credit. A change in the level of carbon emissions generally across the board will also affect prices, as it is hoped that cleaner ways of manufacturing products will be found, eliminating the need for any kind of carbon reduction scheme at all.

In essence, as the world finds itself approaching the set upon carbon ceiling, Carbon Credits will inevitably continue to increase in value in a typical supply and demand format: the supply becoming even more dependent on the “production” of Carbon Credits and the demand more severe as there is less buffer between the carbon ceiling and the progressive carbon emission.