Secure Crypto Coin(SCC)

Start from Bitcoin, Leapfrog Bitcoin

Content

Secure Crypto-Coin (SCC)

1. Summary: Digital currency is a break through in that human have use digital, which has no inherent value, to do value exchange successfully for the first time. SCC is a brand-new redesign of block-chain technology. It originates from the Bitcoin source code and preserves all the best characteristics of Bitcoin, while changing the serial processing to parallel processing. It is the first parallel block-chain technology in the world and has following characteristics: 1. Throughput can reach millions per second with multiple servers; 2. Latency start at about 1 sec or 600 times less than bitcoin; 3. Transaction fee cost 1 US cent, or 1/30th of Bitcoin; 4. Following Bank Secure standard, enterprise free wallet with ECC, SSL, encrypted private key, external flash USB storage. 10 times more secure than Bitcoin and 50 times more secure than Ethereum.

2. The Market Pain-Points Solved:

Existing blochains are linear, PKI is slow and heavy in CPU. Block chains are slow in aggregation, statistics, search, classification, large data….etc. and most block chain projects are technically or economically impossible. The two biggest pain points of Bitcoin are performance (600 sec for transaction to finish) and security. As the chain size grows over 100 GB, and shopping transactions surge, this problem gets worse each day. A hard-fork can divide the traffic but creates a competitor; Segwit and Segwit2 increase the block size but also has increased latency. These problems are inherent to the current block chain design where the hash of packing transactions are stored in the block header; and the whole block hash is then stored in the next block to create strong dependency and immutability, which entails sequential processing. SCC is the 1st parallel block chain and can be processed by hundreds of CPU. It is super fast and cheap in fee. Parallel processing is indispensable for blockchain in daily shopping.

Blockchain developers are mostly decentralized, with many of them being one-person shops or individuals scattered around the globe. They create all kinds of wallets unregulated by law and carry no legal responsibility, with most wallets vulnerable to unrecoverable crashes, no SSL, no ECC, weak private key protection, or developers stealing private keys outright. SCC will bring order to this chaos and provide secure enterprise wallets to all for free.

3. Near-term and Long-term Goal:

SCC initially has response times at about 1 second. However, SSC can do much better in later iterations. SCC's design objective is 20 msec in latency and at about 1 million TPM (Transactions Per Minute) in throughput for centralized processing , which is similar to the Telecom billing system that we have worked on before. It is horizontal scalable. By increasing the performance 1000 times overall, we can cut down the cost of a transaction to under 1 US cent (vs 30 cent for Bitcoin). Thus, we not only give the customer 600 times less waiting time for a transaction to finish, but also cut the cost 30 times. This revolutionary high performance blockchain technology will rival banking and credit card processes in terms of speed while costing 1/30th. Eventually, SCC will be developed into a trading hub for SCC and other digital currencies, payment gate-way to retailers, with support of smart contracts and applications.

On the SSC platform, nobody, including developers, hackers, and Trojan horses can see the client's private key offline or online. The SCC Private key is stored encrypted.

Our wallet will have crash persistence, hardware & software ECC protection, and SSL tunneling in all transfers. Also, the SCC security is designed to surpass the banking and credit card level, and give every customer secure wallets for free.

We have dual tracks or two network options. By default, SCC will use the same network as a Bitcoin-like network to remain peer-only. For those using centralized processing as an option, anonymity is still preserved; it will cost less, can correct errors in transactions, provide a refund on shopping fraud, and provide a refund if the error is due to SCC. Customers can count on our company assets as a responsible party. Dealing with the company has advantages in some cases relative to dealing with individuals. There is no company managing the Bitcoin network and no way to complain when there is Bitcoin error or fraud.

Our objective is to be the fastest, cheapest, and highest quality digital value exchange in the world. Our customers have the option to choose either centralized or decentralized transactions. CEO was amongst the top few performance architects at Intel/Oracle, using hardware monitoring technologies at $3*10^{-10}$ sec (Intel's system monitor tools are vital to the monitoring of encryption, parallel SIMD, cache-coherency traffic, zero-side-effect production monitoring, hardware and software utilization and optimization at 3×10^{-10} second; whose access is limited to only a few US citizens within Intel). We also have experience in 20 msec response-times in real-time telecom billing systems. Our history has proven that we can design and implement the highest performing solutions in transaction processing. See table 2. for SCC comparison.

4. Background :

Digital currency is a break through technology in that human have use digital, which has no inherent value, to do value exchange successfully for the first time. It also breaks the rules that only government can issue currency. Bitcoin, the leading enterprise crypto-currency, is a peer-to-peer digital coin that one can trade anonymously using a public ledger via the Internet. The price of Bitcoin has grown from $0.003 in 2010 to about $4863 in Sep 1, 2017, or 1.6 million times in the past 8 years and has served as a fast and low-cost method to send money or pay for services.

Table 1. History of Bitcoin

Date	USD : 1 BTC	Notes
Apr 2010	$0.003	On 25 Apr 2010, the now-defunct BitcoinMarket.com exchange is the first one that starts operating.
Sep 2017	$3800 —$4863	Price reached its maximum in the history of bitcoin, an all-time high of $4,863 on Sep 1, 2017.

The success of Bitcoin has induced a flurry of new crypto coins to the party: some of them such as Ethereum, Ripple, NEM, Litecoin, Dash, Monero have also achieved a high level of success. What are the benefits of crypto coins? What can we expect them to become? Why are we introducing a new SCC crypto coin? What is unique about SCC?

The chaos of the financial crisis in early 2009 significantly damaged the reputation of the global financial system. It resulted in ostensive "printing" of fiat money by many governments in an unprecedented scale. The M2 growth was up 30% in some big economies. Some small countries had currency devaluation reach 100x in a year. The US Fed flooded the market with 4 Trillion USD of new cash. The Japan Abe government openly calls to double the M1 supply in 3 years; and China's M2 grew 52x from 1990 to 2017 and is still growing; the EU has printed for 5 years and still printing …… etc. Coincidentally, the birth of Bitcoin also occurred in 2009.

Such a dramatic printing of cash globally has seriously weakened people's confidence in fiat currency. Many have been looking into alternative means such as the digital coin for value-exchange. These digital coins have some special advantages:

1. International convention avoids government excessive printing of fiat money.

2. Financial democratic, equal, fair, limited and transparent to all citizen on earth.

3. Has actual value, Perceived Value, Transfer value, Exchange, Anonymous, Invisible.

4. Low cost of transfer, fast, effortless and can't be defeated by any country.

5. Designed with increase cost of mining, aid the value increase with time.

6. Bitcoin has good claim: limit to 21M coins, deflationary…..etc.

7. Attacked by countries numerous times, still going strong, show its robustness.

Despite the dramatic rise of Bitcoin and Ethereum, and the emergence of several alternative crypto-currencies, they are all still technically quite immature. All of them suffer the following weaknesses:

1. Not scalable: Bitcoin has 600 sec latency and 3 transactions/sec, The latency will only increase as shopping with it grows. This has increasingly become a big pain point as Japan, Switzerland and more countries begin using Bitcoin for general shopping.

2. Not sustainable: The reward is cut in half every four years and mining difficulty increases, Increasing the number of transactions and data (July 2017, ~100GB) while diminishing reward for mining as time goes by, will lead to a dead-end where no one is willing to process/mine transactions someday. In the mean time, because 90% of calculations in Bitcoin are not necessary,it means that the transaction fee itself can't sustain Bitcoin, or it will have to charge 9 times more than conventional banking.

Bitcoin Money Supply
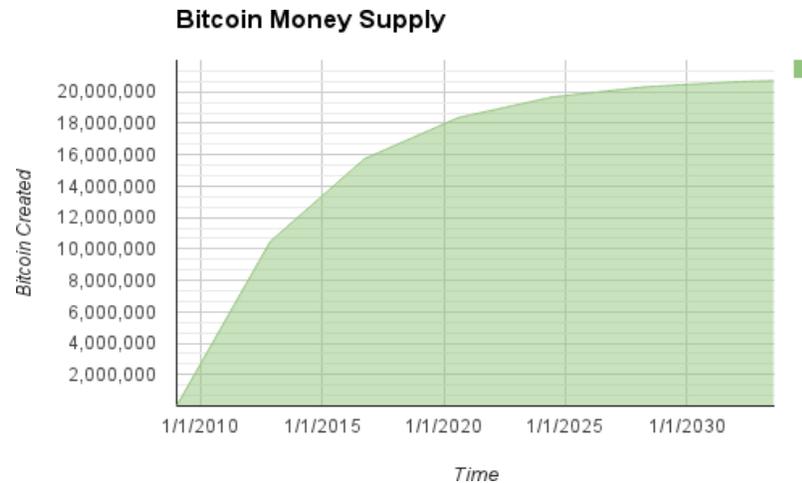
3. Not secure: Client wallet highly insecure with diverse, unprofessional key management.

4. Has no error-correction mechanism and clients are error-prone. If the client software makes an error, all the user's crypto-currency is lost .

5. Using about $1M in electricity costs each day, print >$1B each year, 90% computation not necessary.

The solution to those above problems is SCC.

5. Technical Design :

SCC uses the same 2017 source code as Bitcoin initially. We will improve it to make it 600 times faster than Bitcoin. SCC integrated many features from real-time database, banking transaction and telecom transaction, Ebay trustless handling tricks, parallel computing and validation technologies from the insurance industry. We target it to be next generation block-chain 3.0.

Database systems have perfected transaction processing in the past 40 years and are the fastest software to do transaction processing safely (ACID). Two architects of the SCC team have worked extensively on database performance and thus ideal to improve block chain transactions, enable parallel processing while preserving the decentralized, anonymous, consensus based Bitcoin network. SCC has the following characteristics:

1. High Performance and Scalability: The SCC network latency is initially about 1~3 sec. It will go below an average of 1 second within a year, and eventually go as low as about 100 msec after 6 major upgrades of protocols, algorithms and block chain architectural changes (patenting in progress). SCC system has a two network routing options:

   - One has a database kernel specifically optimized to understand Bitcoin: it will take sequential transaction input, do parallel processing via MVCC (multi-version concurrency control) in the database, and output as if they

are sequentially processed. It will utilize our real-time database, high-availability real-time cluster, and have credit card/banking strengths. Processing is further accelerated by GPU via CUDA.

- Users can optionally not go through the above centralized processing network. Users still can perform all Bitcoin style transactions in peer-only, decentralized, anonymous, immutable and consensus mode, exactly the same as Bitcoin. Transactions will be slightly slower than the above centralized processing, but still much faster than traditional Bitcoin because our optimization of transaction verification via dozens of server cores connected to GPU via CUDA, as well as numerous optimizations of the structure of the blockchain itself and Bitcoin software. Our system also can horizontally scale across multiple servers and can handle millions of transactions per second.

2. Transaction reliability: SCC or Banking typically have less than one error in a billion transactions. In the current Bitcoin system, no transaction control (naive), software crush or a power outage will leave transaction in unpredicted state.

3. Security: Provide enhanced PKI crypto and key management, error correction code (ECC) in both hardware and software, safe locking and tracing option, and meet all enterprise requirements for institutional usage. The SCC client will have "cold" and redundant hardware external wallet in flash USB by default in the 1st upgrade. The user has no need to buy expensive external hardware wallet since the user's private key is encrypted and redundantly backedup offline in flash USB.

5. Smart Contracts: The SCC platform will support smart contracts, but in file type format and using stored procedures. This is far safer than the VM style smart contracts in Ethereum, whose functions are not bounded and very risky.

6. Sustainability: SCC will quickly optimize the mining system and reduce the cost of transaction and block verification in the second upgrade. It will have 2% constant new coin generation yearly (< global GDP growth). Avoiding new mining cash generation at 10~30% yearly as is the case with all existing crypto currencies; Saving 90% of computing power or $1 Billion electricity each year.

7. Hard fork of Bitcoin &Ethereum creates competitors for themselves, while SCC doesn't have performance issue and will not hard fork.

8. SCC itself will be further developed into a trading platform between digital currencies, between digital currencies to fiat; and further expansion into payments processors. SCC's strength lies in 600 times faster transaction and 1/30 cost payment, we should be competitive in both transaction processing and payments.

Some ICO whitepapers aggregate all good things on earth and many use side-chains to claim "millions of transaction per second" (see Q&A 7,8). They exaggerated and both EOS and Ethereum Plasma are just small improvements. Many block chain projects do complex things such as handling huge amount of comments, travel booking, 3D printing, perfume….etc. which need complex data processing, statistics, search…..which are all impossible either technically or economically, or both. In these areas, databases are

thousands to millions times faster than block-chain, also cost hundreds of times less. Nobody will go mine for these low value coin system and mining is very costly. Database should have been the right choice for these projects.

Table 2: SCC details comparison (*DC: decentralized, C: centralized, N: number of server; these number are for single server, SCC can scale horizontally while other can't)

Features	SCC	Bitcoin	Ethereum	Litecoin
Platform	SCC dual tracks	bitcoin	Ethereum	bitcoin
year start	2017	2009	2015	2011
Parallel processing transaction	Y	N	N	N
Horizontal scalable	Y	N	N	N
Real time transaction	Y	N	N	N
response time in 2018 (second)	1	600	15	150
response time in 2019 (second)	0.1	>600	15	150
transactions/min/server: DC/C	500,000/1,000,000	200	2185	3360
N servers transaction/min: DC/C	500,000*N/1,000,000*N	200	2185	3360
transaction fee (US cents)	1	30	26	15
Survive power outrage	Y	N	N	N
Encrypted private key	Y	Op	Op	Op
Smart Contract	Y	N	Y	N
Multi-Channel	Y	N	N	N
Consensus	PoW	PoW	PoW	PoW
Algorithm	SHA256	SHA256	Ethash	Scrypt
Immutable	Y	Y	Y	Y
Decentralized	Y (N as option)	Y	Y	Y
Anonymous	Y	Y	Y	Y
Open Source	Client, not server	Client	Client	Client
Blockchain format	Bitcoin => SCC format	bitcoin	bitcoin	bitcoin
Governance	MacroSQL Technology	None	Ethereum.org	none
Total coin supply (million)	42	21	unlimited	84
2017 coin total (million)	10.5	16.58	94.7	53
Coin yearly grow%	2%	50~4%	26%	?

Summary: SCC is the first parallel blockchain in the world and has following characteristics:

1. Throughput can reach millions per second with multiple servers.
2. Latency start at about 1 sec or 600 times less than bitcoin.
3. Transaction fee cost 1 US cent, or 1/30th of Bitcoin.
4. Following Bank Secure standard, enterprise free wallet with ECC, SSL, encrypted private key, external flash USB storage. 10 times more secure than Bitcoin and 50 times

more secure than Ethereum. SCC has advantages to other blockchain projects in general. Please reading below:

Q1. Why SCC web, whitepaper look simple but will eventually beat all competitors?
Q6. What are core competitiveness that MacroSQL Technology has?

6. Key Architects and Management:

Dave Liu (Founder and CEO). Dave is highly motivated and passionate about transaction performance tuning and strives to be among the best. He has performance tuning experience in every layer of the data center: application, appserver, JVM, DB, OS, CPU, motherboard, storage, switch/router and firewall at Cycle-accuracy (3x10-10 sec). Dave specialized in hardware and software technologies to make transaction processing super fast. Dave had worked on transaction processing at 20msec and worked on perfecting performance of PostgreSQL, Oracle and MarkLogic cluster database. He has a Masters in computer science with straight As from Rensselaer Polytechnic Institute at Troy, NY. Linkedin

Tammuz Dubnov: CEO & Founder of Zuzor, which is an Experience-Driven Digital company with a proprietary system that generates interactive graphics in real-time from movement. Tammuz will serve as adviser. Tammuz graduated at the age of 18 with an Honors in pure Mathematics with a minor in Computer Science and Dance, from University of California, Berkeley. LinkedIn

Dr. Mikhail Kazdagli specialized on intrusion detection and computer security, crypto algorithms, he will be focusing on the security of wallet and network, and security of SCC block chain. He has PhD in Computer Security & Artificial Intelligence from University of Texas at Austin with GPA 4.0/4.0. Linkedin.

Channy Wang, COO, Channy has strong problem-solving skills and extensive experience in computer system, web applications, and software development. In the past ten years, he worked at Microsoft Research and Nokia on various projects in computer systems and networks. Specialties: system design, system implementation,system maintenance. Channy has a Master of Engineering Management from Stanford University.   LinkedIn

Other team members can be viewed at website: http://www.sccbit.org/team/

Another 10~15 good engineers will be hired after ICO.

7. Term of ICO:

SCC Starts at about 10.5 million in circulation, grow 2% yearly. Total coins will reach forty two million in about 70 years. Please refer to table 2 of whitepaper for year 2017 total and comparison with other coins, within next 10 years, SCC will likely have the smaller number of coins in circulation than Bitcoin.

- 21M supports transaction verification or mining, growth 2% per year and max at 42M in 70 years.

- 5.25M is for development fund and for sustaining network for at least 70 years, which will support the continue operation.

- 5.25M(12.5% of total coin) allocated to team incentive.

- 10.5M is divided into 4 presale batches （0.5, 0.5, 0.5, 0.5 million coin) and 4 ICO batches of 2, 2, 2, 2.5 million coin each. Raised money will be used to support development & network maintenance.

Presales is going on right now. Price at 0.5, 1.0, 1.5 USD ETH, BTC and other coins use dollar price to convert. After presale, ICO price will be determined based on market condition. Investors are encouraged to apply early batch.

If a batch sold out earlier than timer, the next batch will start immediately. Current batch & price at http://sccbit.org/buy/

Please be sure to record your sending address as evidence of your purchase. Your email should be sent to biz@macrosql.com and include the following: your wallet address and total amount you paid; ideally accompanied by a screen shot of the sending confirmation.

8. Roadmap:

Oct 5, 2017: Pre-sale open for first 2.1M SCC;

Dec 20, 2017: ICO begin

Jan 1~10, 2018: Trade on exchange open (will trade in at least 3 exchanges). network officially open;

May 30, 2018: dual tracks online.

Jul 30, 2018: enhance dual track online.

Dec 20, 2018: first block chain architecture modification to enhance performance.

Jun 30, 2019: GPU via CUDA to enhance fast track.

Dec 30, 2019: GPU enhanced slow track.

9. Investment Risk and Responsibility Exemption:

Policy risk is the biggest risk for crypto digital coins. At present, only Japan and Switzerland legalized crypto coins for general shopping, while most countries have limited commercial application. The second risk is whether our platform will win the competition and serve our community well. What we can commit is that we target to make SCC the best digital coin.

As with any investment, and especially in new products or ventures, there are risks. Even though our team has some of the best technical experts, and we are fully committed to do our best to make SCC our life-time achievement, the future is still mostly unknown to us, and we can't guarantee company profitability, investment profitability, or guarantee that the SCC price will increase or stay in certain range, or that we can beat our competitors. Investors have to study carefully and compare us with other competitors to make their best decision.

Coin is a digital product for the products and services on our platform. Coins themselves doesn't contain shares of the company, nor enjoy any profit from the company. Product value of the coin is exchanged based on group behavior and how people value our platform and their consensus to pay for it, it also affected by many other factors such as supply and demand, community efforts to improve the platform, R&D money raised from community. Same as Bitcoin, SCC coins are not a legal tender, and their value is not backed by any physical items, issuers or the real economy. We have no way to guarantee the value of the coin.

10. Notes:

1. Q&A has a lot of updated details, investors should read all of them.

2. SCC or sccbit.org is division of MacroSQL Technology LLC(macrosql.com). Core database teams are mostly working on SCC project now. Investor who interested in presale or ICO should are encourage to write to biz@macrosql.com for pricing. Please always check the most updated information at: http://sccbit.org/buy-ecc/

11. Contacts:

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Company Address: 888 Tamarack Ln, Sunnyvale, CA 94086, USA;

phone (408) 8180155

Official Telegram Group： https://t.me/sccICO

Twitter： https://twitter.com/sccbit

12. Q&A:

Overview:
Q1. Why SCC web, whitepaper look simple but will eventually beat all competitors?
Q2. How to purchase SCC? How to prove my purchase? How to validate MacroSQL or complain?
Q3. What is the roadmap of SCC?
Q4. What is the circulation overview of the SCC Coins?

Technical:
Q5. Why SCC use centralized processing in addition to Bitcoin type network?
Q6. What are core competitiveness that MacroSQL Technology has?
Q7. How does SCC achieve parallel processing and when source code will open source?
Q8. How does SCC compare to EOS or Ethereum plasma or Lighting Network in performance?
Q9. What's the smart contract difference between SCC and Ethereum?
Q10. What are the weakness block-chains?

Others:
Q11. How can I get good VPN for free?
Q12. How to join SCC Telegram group at @sccico ? and how to use Telegram?