



SALTMINE

Monetizing Consensus

White Paper v1.6

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www.saltmine.io

Table of Contents

Table of Contents	1
Disclaimer	2
Saltmine	3
Our Mission	3
Our Path	3
What is Consensus	3
Blockchain Technologies	4
Competitive Markets	4
The Saltmine Token	5
Life cycle of a NACL token and the operations behind the token	5
The Saltmine Fund	5
Deflationary Fund	6
Increasing Production 45%	6
Distributions	7
Example of a weekly distribution with 10% distribution rate:	7
Token Value/Volume Equilibrium	7
Non-Speculative Value	7
Saltmine Roadmap	8
Production Systems	8
Cryptocurrency Portfolio	8
Saltmine Roadmap	8
When does this all happen	8
Initial Coin Offering(ICO)	9
ICO token rates and limits	9
ICO Purchase Limits	9
The Saltmine Team	11
Advisors	13

Disclaimer

This draft White Paper is for discussion and pre-information purposes only. The information contained herein is subject to change. No part of this White Paper is legally binding or enforceable, nor is it meant to be, until it has been discussed, reviewed and revised by Saltmine board of directors, board of advisors and lawyers. Please do not copy or disseminate any part of this White Paper without including this disclaimer. The final version of this White Paper will be published as soon as adopted. You acknowledge and agree that there are risks associated with purchasing, holding, and using NACL in connection with the company's product, services and platform developed for such products and/or services (hereafter, the "Model"), as disclosed and explained in this White Paper and available at saltmine.io. If you have any questions regarding these risks, please contact us at info@saltmine.io

Saltmine

Saltmine is a Fintech company which seeks, for the benefit of Saltmine and its token holders, to create the infrastructure for blockchains and distributed technologies.

Our Mission

Build and maintain the hardware, data infrastructure, and financial systems essential to blockchain technologies by investing in cryptocurrency infrastructure, as well as support blockchain technologies.

Our Path

The intent of Saltmine is to monetize the production and infrastructure of blockchain and distributed technologies through consensus, mining blockchain technologies, and blockchain infrastructure using the NACL token to pay distributions to NACL token holders using the model laid out in this white paper. First let's learn about consensus.

What is Consensus?

In blockchain technologies, consensus is the mechanism which is used by the distributed agents to agree on what will be written on the blockchain. Participating agents realize revenue by means of a block reward of the given cryptocurrency. The two most common consensus models are:

- **Proof of Work (PoW)** Nodes on the blockchain compete to validate transactions and receive crypto rewards known as mining.
- **Proof of Stake (PoS)** Concept states that a person can validate block transactions according to how many tokens held in a private wallet. This generally means that the more cryptocurrency owned by an individual or entity, the more staking power they have and thus will receive proportionately larger rewards.

Blockchain Technologies

The common view is that cryptocurrencies are the only reason for blockchain, alternatively, cryptocurrencies can be viewed as a by-product of the underlying blockchain technology. Examples of other businesses and use cases for blockchain are:

- **Siacoin:** Distributed file storage system
- **Golem:** Distributed rendering and deep learning engine
- **Ethereum:** Distributed transactional currency which can be programmed
- **Openmined.org:** Secure and distributed Artificial Intelligence model training engine

Competitive Markets

Blockchain and distributed technologies have created new markets that have previously been restricted to large corporations such as Amazon, Microsoft, and Google. Saltmine will play a vital role in this highly anticipated new blockchain market space. To understand the significance of this opportunity see the market projections below:

- **Deep Learning:** \$18B by 2023¹
- **Cloud Storage Market:** \$92B by 2023²
- **Rendering Market:** \$21B by 2022³

1-<https://www.businesswire.com/news/home/20180420005717/en/Deep-Learning-Market-Grow-CAGR-41.7-->

2-<https://www.businesswire.com/news/home/20170614005856/en/92.48-Billion-Cloud-Storage-Market---Forecasts>

3-<https://www.prnewswire.com/news-releases/3d-animation-market-growing-at-a-cagr-of-119-during-2017-to-2022>

The Saltmine Token (NACL)

Saltmine Token (NACL) is a burnable and distribution bearing ERC223 token which is directly backed by the Saltmine production revenue via the Saltmine smart contract. NACL cryptocurrency will be minted to distribute the value generated by Saltmine blockchain infrastructure systems to the holders of the NACL token using the Saltmine smart contract.

Life cycle of a NACL token and the operations behind the token:

NACL tokens are purchased thru the Initial Coin Offering (ICO).

1. ICO revenue is used directly to increase the production model
2. Weekly production profits are split accordingly:
 - 45% goes directly into increasing production.
 - 25% allocated to the **Saltmine Fund** which token holders can redeem value via the smart contract
 - 25% applied to daily operations
 - 5% goes into the **Deflationary Fund**

The Saltmine Fund

The Saltmine Fund is a portfolio of crypto assets which is continuously funded with 25% of the net production revenue from the Saltmine business model. Not only does this ever-growing fund provide intrinsic value for the NACL token and give token holders direct access to production revenues through our smart contract, it also provides another opportunity to return value by supporting blockchain technologies through Proof of Stake. Much like a bank, 10% of the fund value will be directly available via the smart contract to the token holders daily. The token holders can redeem their tokens for Ethereum (ETH) from this fund. Once NACL tokens have been redeemed, they will be burned. The Saltmine Fund will be rebalanced daily as tokens are redeemed, and production returns are updated. The remaining 90% of this fund will be used to create the next blockchain revenue model using Proof of Stake consensus. The dynamic nature of cryptocurrency markets requires Saltmine's fund management to remain flexible. This fundamental understanding dictates that Saltmine reserves the right to alter the fund allocations as the market demands.

Deflationary Fund

5% of revenues will be stored in a fund similar to a savings account. These funds are to help stabilize the price of the token during high volatility decreasing periods. In the event of 5% price decrease in the value of the NACL token per seven day period, Saltmine will take up to 10% of the fund to purchase tokens from an exchange and burn them to stabilize NACL token value.

Increasing Production

As mentioned above, 45% of revenue from production will go back into increasing production. Let's use the first revenue model as an example. The first revenue model will utilize PoW or mining to produce revenue, so the 45% may look like adding more computer hardware, additional venting, electrical and data infrastructure. As we grow and expand these steps all play a crucial role in the production of revenue. The next model will utilize PoS or staking. An example in the second revenue model may be as simple as securing more nodes to increase the revenue from the PoS revenue model.

Distributions

Tokens will be minted and distributed proportionally as distributions to token holders at a rate equal to 20% of the total tokens divided weekly. The distribution rate starts at 20% and will decrease over time to reach parity with the number of tokens being redeemed and subsequently burned via the smart contract.

Example of a weekly distribution with 10% distribution rate:

14,000,000 tokens X 10% = 1,400,000 tokens created in the first year

1,400,000 / 52 = 26,923 tokens distributed proportionally to existing token holders

Token Value/Volume Equilibrium

Token issuance of a cryptocurrency directly correlates with its value, which plays a large factor in price unpredictability and speculation. While it is impossible to completely eradicate price fluctuations due to the nature of markets, the token has been designed to reach equilibrium as the market dictates. Tokens will be minted for distributions, which will cause an increase of token supply and a decrease in token value. To offset this, the tokens in circulation are burned as redeemed for crypto assets backing the smart contract. The inflationary nature of a high initial distribution increases liquidity and encourages trading, while the deflationary nature of a low distribution (when the token reaches its soft cap) encourages utilization and redemption eventually reaching parity.

Non-Speculative Value

A base value for the NACL token is achieved by allocating 25% of net production each week to the Saltmine smart contract. Token holders can then redeem and burn the NACL token for ETH. The ability of token holders to redeem their tokens provides token holders direct access to Saltmine token production revenues.

Saltmine reserves the right to amend or layer smart contracts in order to account for technological or security advancements.

Saltmine Roadmap

The vision of Saltmine encompasses these technological components:

Production Systems

The physical hardware that is required for processing blockchain transactions, which includes: mining hardware, machine learning, rendering engines, storage and bandwidth resources.

Cryptocurrency Portfolio

A financial portfolio of established cryptocurrencies required for staking supported blockchains.

Saltmine Roadmap

1. Mining as a means to acquire cryptocurrency assets
2. Saltmine ICO and smart contracts
3. Exchange listing
4. Creation and management of crypto portfolio
5. Alliance with other blockchain companies
6. Repurposing of hardware assets to more lucrative technologies like Deep Learning and Rendering
7. Development of proprietary technology

When does this all happen?

Saltmine is not your typical startup as we are already a fully-operational profitable company. Even amidst this 2018 bear market.

Initial Coin Offering(ICO)

There will be a public ICO with strict Know Your Customer (KYC) and anti-money laundering (AML) standards in accordance with our SEC filings. The Saltmine ICO consists of 10 minting periods of 1.4 million tokens each. NACL tokens will be instantly unlocked when purchased. ICO periods have no time limit of execution and will only be deployed once funds from previous ICO have been fully utilized into production. Again it is important to note that 100% of the funds raised during the ICO will go directly towards increasing production of the operating revenue model.

ICO token rates and limits

- 14 million total tokens to be created during the ICO period, of those 14 million, 10 million will be available to the public, 4 million are reserved. This is an intentionally low number of tokens, which will deliver the highest value to token holders
 - The reserved tokens will be distributed to the Saltmine team for their hard work and dedication to making the Saltmine token a success. Aside from the founders, Saltmine is reserving a significant amount to be able to attract top talent and keep exceeding token holder expectations. Reserved tokens are issued proportionately to the ICO stage in order to preserve token holder value.
- 50 Million token soft cap
 - Distributions begin at 20% decreasing to >1% as the near the soft cap
- 100K ICO purchase limit per person or entity thru all 10 ICO periods.
 - Saltmine believes everyone should have an equal opportunity to participate in the Saltmine ICO. We ensure this by limiting the amount purchasable by an individual or entity to 10k tokens per ICO period. We will be whitelisting applicants during our open enrollment program. After whitelist applicants have passed KYC and AML the approved applicants will be able to purchase unlocked tokens directly thru the Saltmine website. The Saltmine ICO tokens in each round will be divided equally between all applicants who pass KYC and AML.

The Saltmine Team



Douglas Saltsman - Founder - Chief Executive Officer

Douglas is an accomplished developer. You probably used his software and didn't even know it. As the head of Research and Development for Broadcast Software International Douglas wrote the automation software currently running at over 500 Cumulus Media radio stations. Douglas went on to create several widely-adopted applications like PrimoPDF and PDFDownload with over 60M users worldwide. While functioning as the engineering and Information Systems Director for a Software 500 Company for nearly a decade, he acquired a talent for implementing and scaling businesses. After this, Douglas was involved in a number of startups before being courted by one of the largest private solar companies in US to take on the role of Information Systems Director and lead them through the technological hurdles of a 100 million merger. In 2015, Douglas took an interest into the crypto space and began development of the Saltmine token integration utilizing the Ethereum network.



Shawn Hunter - Co-Founder - Chief Operations Officer

Shawn is an entrepreneur focusing mainly on energy efficiency, Shawn studied Commercial Air Conditioning and Refrigeration at Utah Valley University Utah and then went on to study Electrical for four years at Dixie State University Utah. Shawn is the founder and CEO of EMCO Energy Management Company working largely with the latest advances in energy efficient variable frequency drive commercial refrigeration, venting and air conditioning systems, also control integration and data monitoring for tech companies and data centers across Utah and Nevada for over 18 years. Shawn couldn't deny the excitement he had for crypto and decided to apply the skills learned in the energy efficiency sector to the blockchain space and began monetizing consensus thru Proof of Work.



Kristopher Larson - Co-Founder - Director of IT

Kristopher has a passion for everything information technical and began programming when he was 13 years old. Kristopher served in the United States Air Force as a F-16 jet mechanic, this training provided Kris the ability to come up with unique ways to solve complex real world problems. After leaving the military, Kristopher continued his education studying in Computer Science from the University of Phoenix. While attending College Kristopher worked as the Director of IT for a software company. He soon decided to pursue his own interests and started a web development company. Success soon followed Kristopher and his company was acquired within the first 12 months of operation. Kristopher has been in the cryptocurrency space ever since, and is a very advantageous crypto trader. Kristopher was able to use his programming skills and trading experience to build out several successful commercial and personal trading bots.



John Chain - Chief Technology Officer

John has been tackling unique problems in technology since age 11 when he set up and took over his families IBM XT computer. Over the next few years his love of technology grew as he experimented with a bulletin board based on Wildcat! BBS and dove into Slackware Linux from a CD in the back of a computer magazine. Soon after Phrack, Alt 2600, and DEFCON led to self-study in software development and offensive cyber security.

Then the travel and adventure bug found him, and on a whim, he joined the Army. 21 years later John retired in Colorado after spending the culminating 12 years of his career as a Green Beret with 10th Special Forces Group. While serving he developed offensive and defensive cyber solutions, worked as a Department of Defense trainer alongside a pen testing organization within the defense community, developed custom built solutions with single board computers and off the shelf electronics, and managed various exercises and events around the globe with multinational partners.

When Bitcoin surfaced in 2009 he did some research and dedicated a couple of machines to mining in an unused bedroom. The old mining hardware has long

since disappeared. However, his dedication to explore and develop within the blockchain space continues to grow. No longer content with simply mining, John focuses his tech energy on creating unique solutions with existing hardware. His latest project leverages GPU mining hardware to create cluster machine learning and distributed rendering solutions.

Advisors

Michael Saltsman - Advisor

Michael Saltsman is an experienced technologist who has been working with tech startups for the past two decades. In the late 90s, during the height of the dot-com bubble, Michael was part of a number of startups including co-founding The Salt, a social site for musicians and artists. In 2000, he graduated with degree in graphic design and continued to work as a designer and front end web developer throughout the decade. In 2009 he co-founded Trickcomp.com, which pivoted and was rebranded, and continues to operate as Podium.com. In 2011, after going back to school, Michael graduated from the University of Utah with degree in computer science. Continuing to work for the startup VitalVu after graduation, he conceived of an idea and led a team of developers in the design and build of a satellite-based monitoring and control system which was later purchased by the Swire Group.

Michael currently functions as the Chief Technology Officer for Purestream Services, a *Swire* Company.

Nash E. Foster - Advisor

Nash has over 20 years of experience in the computing industry and has served on the engineering staffs of Google, Oracle, Counterpane, iBiblio, and many others. Nash studied mathematics and the theory of computation at the University of North Carolina and George Mason University.

Vince Romney - Advisor

Vince Romney is a veteran information technology security professional who has worked in the data encryption space for over decade, and has both strong military and corporate IT security experience.

Mr. Romney's military background includes 23 years total service, with the last 6 as a Network Warfare operator in the 101 Information Operations Flight (IOF), Utah Air

National Guard. As part of the 101 IOF, he stood up one of the first Cyber Warfare units within the Air National Guard, and was tasked with developing the on-boarding and training documentation for Cyber Warfare operators. Based on DD 8570 guidance, and incorporating ISO 27001-3 series regulations, he built the training requirements and tracking system still in use by the 101 IOF.

During his work as a Cyber Warfare Operator, he provided operational cyber warfare support to NORAD/NorthCom, America's AOC/Air Combat Command, and was privileged to interface with the CIA and NSA in specific capacities. He was among the first operators to encounter weaponized .pdf files in a nation-state attack against a network, and facilitated saving critical mission data due to swift, creative response actions. Along with his operational experience, he served as a critical asset during multiple multi-service exercises, facilitating the successful defense against red-team actors across multiple networks. Vince's experience in these exercises provided him a strong understanding of the complexities of data protection in program-managed weapon systems, as well as inter-agency security operations.

In his civilian career, Mr. Romney was instrumental in devising the core security architecture, including the selection and integration components for Multi-Component Modules (MCMs) for a high-security data storage and transfer device using both physical and logical access barriers and multiple encryption methodologies. He led the development staff in the design of six individual Printed Circuit Boards (PCB) and component sets, User Interface (UI) software and graphics, database, commerce engine, and support elements. He also co-authored five patent submissions surrounding the technologies. Mr. Romney continues to be a leader in the cybersecurity space, assisting companies in various industry sectors, as well as developing new intellectual property surrounding emerging security technologies.

Thank You for reviewing our whitepaper! We look forward to working with you.

The Saltmine Team.