

Proposal for a new Nordic Digital Currency

Private Nordic Digital Currency based on the CryptoNote protocol
by The kryptokrona developers
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What is kryptokrona?

Kryptokrona is a fast and privacy-focused blockchain developed with the needs of the Nordic market in mind. It features the following properties:

- **High speed:** Fast transactions and instant messaging with Hugin Messenger.
- **Private & secure:** Private transactions and wallet balances.
- **Supply:** 1 Billion coins will be mined with Proof-of-Work. No premine or ICO.
- **Ease of Access:** Use almost any desktop or mobile device to store and send XKR.
- **Low fees:** The blockchain supports low cost transactions and free messaging.
- **Transparency:** Supports a view-only version of wallets to share account information.
- **Open source:** All software used within the network is open source and available for public review.

Imperative for a New Nordic Digital Currency

On 2nd April 2019, the kryptokrona platform was launched as an open-source alternative to Central Bank Digital Currencies and the “cashless society” that the Nordic region is spearheading. Centralized systems are problematic, for one, because they have only a few points of failure. There are numerous examples of financial systems being made unavailable because of excessive traffic, DDoS, ransomware and other hacking attacks.

By utilizing a combination of cryptography and peer-to-peer networks, Bitcoin has achieved a secure distributed ledger technology and consensus system that continuously has facilitated transactions for more than a decade, proving that decentralized cryptocurrencies can become successful competitors to traditional systems. But Bitcoin has its problems, namely lack of fungibility and privacy, which conclusively makes it a bad contender for the role of digital cash.

Situation

Unfortunately, most cryptocurrencies suffer from numerous technical drawbacks, such as poor scaling, leading to high transaction fees and a high level of entry for node operators. Most also take no regard for privacy, which we believe is a very important component to any digital cash system.

Lack of privacy in existing solutions such as Bitcoin can lead to devastating effects for legitimate users. Bitcoin transactions, for example, are completely public and can be traced back to the moment they were mined. It is like if every banknote you ever received had a written record of everyone who had owned it previously on it. If any holder before you ever caused their Bitcoin to be blacklisted, it would be made effectively useless both for the holder and all future holders, as no exchange would accept it. Lack of transaction privacy can have devastating effects for both businesses and innocent holders.

Fungibility is the property of an asset's interchangeability with other equal amounts of that same asset. In the example above we have demonstrated that a lack of transaction privacy can lead to the same amount of an asset being less interchangeable than another equal part of that same asset. We believe that the future units of exchange must be fungible in order to function as money.

The Nordic solution

The kryptokrona (XKR) project aims to gather the Nordic community and together make technological advances while managing a stable and robust system enabling fast and low-cost privacy-by-default transactions, combined with end to end encrypted and decentralized high-quality communications for everyday use. Private transactions and hidden wallet balances makes users immune to mass-surveillance, but still supports the ability to share a view-only version of your wallet, enabling full transparency for charity donations and providing access to financial records for trusted parties.

Kryptokrona is a blockchain cryptocurrency based on the CryptoNote-protocol, which was first implemented by the ByteCoin developers and further developed by the TurtleCoin community. The network's security, decentralization and consensus relies on the participation of nodes and miners, where miners are paid in the native currency (XKR) for contributions to validating and securing the transactions on the blockchain. Anyone can run a node, which is the safekeeper of the ledger and validates blocks, and also functions as an API for kryptokrona-connected apps, such as wallets.

Additionally, anyone can partake in the mining process, by computing a Proof of Work algorithm (specifically CryptoNight-Pico), picked for favouring ordinary consumer hardware resulting in a more egalitarian, versatile and decentralized system than other algorithms, such as SHA256, used by Bitcoin, which are plagued by mining centralization and geographical and political concentration due to ASICs outperforming general purpose processing units found in PCs by a factor of up to a million, and perhaps even more looking forward.

Kryptokrona provides some solutions to Bitcoin's limitations with the following key characteristics:

- Faster transactions
- Private transactions
- Higher fungibility
- Lower fees
- Dynamic blocks
- A messenger protocol for secure communication, please read more in the Hugin Whitepaper: https://www.kryptokrona.se/Hugin_Whitepaper.pdf

Hugin Messenger

A key component of the kryptokrona project is Hugin Messenger, which is a decentralized peer-2-peer end-to-end encrypted private messaging service with built in payment capabilities.

Hugin messages are relayed through the kryptokrona network, and the user will have to stake a small message fee while the message is being relayed in the transaction pool, bonding XKR with Hugin. XKR is also used to send regular transactions between users on Hugin.

More about Hugin Messenger can be read in the separate Hugin Messenger Whitepaper.

Collaboration in The Nordics

The Nordic countries have a long-standing history of trade, cooperation, currencies and enjoy a very high trust environment. With 5 countries and 3 territories, the Nordic region stretches over 3,425,804 km² making it the 7th largest land area in the world. This geographical area is not only highly intertwined with its language, culture and its \$1.6 trillion economy, but also in other domains such as political, military, and vital infrastructure. Kryptokrona could add additional value to the region as a robust decentralized payment and communication system.

Community

Communities are built with determined and continuous actions to bring people together. A community is more than a group of people or colleagues that have transactional relations. One of the project's main visions is to gather a community of people committed to shared ideas and beliefs about freedom.

Being a local project with strong roots, kryptokrona could benefit from the understanding of culture and language and therefore onboard people much easier.

Definition of Community

/kə'mju:nti/noun

A group of people **living in the same place** or having a particular characteristic in common.

A feeling of **fellowship with others**, as a result of sharing common attitudes, interests, and goals.

Summary

We believe that projects like kryptokrona and other open-source projects provide a healthy competition and viable addition to Central Bank Digital Currencies, and a solution that potentially can outlive the centralized alternatives.

By using the protocol for efficient transmission of encrypted messages and initiation of secure peer-to-peer communication, we can deliver a cheap and safe alternative to many messaging services and provide a platform for users to exchange knowledge and value in this growing industry.

The local community is a feature that has been a valuable asset for the project, and should not be underestimated. Even though the project seems very focused on the geographical area of the Nordics, the technology itself has no borders, and is able to grow outside the region and to some extent export our freedom of speech from the Nordics to where it is needed.