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Harmony Partners With Dusk Network For Zero-Knowledge Powered Ultra Light Clients

AMSTERDAM - MARCH 25, 2021 - Dusk and Harmony enter long-term PLONK collaboration to build towards the first industry-grade standardized zero-knowledge proof system. The first items on the list are 'ultra light clients': speeding-up block synchronization times, and improving efficiency of cross-chain bridges, mobile support, and more.

Zero-knowledge (ZK) proof systems combine various cryptographic tools to create mind-bending applications. Across the globe many researchers and developers are exploring the potential of zero-knowledge tech.

“There is a whole world of new applications to be discovered”, explains Luke Pearson, Dusk Network cryptographer. “Lately, we’ve been developing new tools such as PLOOKup, and have doubled our research into recursion to tackle some of the blockchain’s most complex challenges.”

One of these discoveries is zero-knowledge powered light clients, also referred to as ultra light clients.

Pearson adds: “Ultra light clients are useful for numerous applications. To start: we can create faster and more efficient cross-chain bridges, as well as create support for mobile phones.”

The partnership between Harmony and Dusk Network is the start of a long-term collaboration.

Both projects will be **co-funding the research and development of various zero-knowledge related applications**, starting with ultra light clients. **Harmony** will use ultra light clients to achieve blazingly fast blockchain synchronization. With it, only the latest proof needs to be downloaded and verified to sync to the latest state of the Harmony blockchain. This greatly speeds up the syncing procedure, and reduces the costs related to its execution.

"We envision connecting Harmony to every other blockchain in a fully trustless manner using on-chain light clients. Currently, deploying or syncing a Harmony light client on other blockchains requires at least verifying one block per epoch, which can be expensive. A zero-knowledge light client will be able to sync between any two epochs at one go cheaply. Harmony also has plans to apply the zero-knowledge modules developed with our on-going partnership with Dusk to mobile payment verifications, privacy preserving transactions, and many more." - Stephen Tse, Founder and CEO, Harmony

Ultra light client support is also an important item on Dusk Network's **roadmap** for the future.

"The capability to perform proof recursion on PLONK represents the new frontier of zero-knowledge cryptography. Coupled with the heightened performances achieved thanks to PLOOKup, we now have unlocked a concrete pathway toward the timely launch of ultra light clients. Smartphones are becoming society's single most important device, which is why ultra light clients are an important milestone for us", explains Emanuele Francioni, Dusk Network's Founder and Tech Lead. *Even more exciting, such technology is the key to allow cross-chain transactions to be executed efficiently, enabling groundbreaking interoperability features, such as privacy wrapping, cross-chain DeFi, confidential token bridges, and even the first decentralized exchange for securities."*

About Harmony

Harmony is a blockchain platform designed to facilitate the creation and use of decentralized applications (DApps). The network aims to innovate the way decentralized applications work by focusing on random state sharding, which allows for the creation of blocks in seconds.

About Dusk

Dusk Network is the privacy blockchain for financial applications. Dusk Network envisions a financial industry that embraces innovation and provides equal opportunity for any organization to secure capital, trade assets and access a full spectrum of financial services. Companies use the Dusk Network blockchain to issue tokens, trade and collaborate via smart contracts. Dusk Network recently became a shareholder of the Dutch Stock Exchange: NPEX.

ABOUT DUSK NETWORK

Dusk Network is an open source and enterprise-grade platform for the financial sector. Dusk Network is used to create tokenized representations of assets and securities. It uniquely offers fast and confidential transactions on a global ledger that is provably safe.

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