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Nesten Announces Strategic Partnership with Ethernom to Introduce Advanced Biometric Smart Cards to support Nesten's IoT token (NIT) and network Ecosystem

Tustin, CA – March, 2021 – Nesten, an IoT communications company specializing in IoT tokens (NIT) and blockchain IoT networks, announces a strategic partnership with Ethernom, Inc., a leading provider of the world's most secure biometric smart cards. This strategic collaboration marks Nesten's latest advancement in developing a trusted and expansive community-based communications network with a fully-functioning financial ecosystem. By integrating the capability for individuals to store and manage crypto tokens—including Nesten's NIT token—securely and conveniently, Nesten and Ethernom are further cementing the critical role of user empowerment in digital, decentralized architectures.

Cryptocurrency and crypto tokens as the future of finance

The future of digital currency as a viable option for financial transactions is already here, thanks to its growing adoption by central banks, national governments, and major global corporations. The primary functionality of cryptocurrency is to provide a secure digital mechanism to store financial assets and allow transactions without traditional paper money. The added benefits also include near-anonymity and minuscule fees as well as user convenience.

Like cryptocurrency, crypto tokens can store valuable assets that can be used as payment for goods and services. Furthermore, crypto tokens can offer smart contract functionality and intelligence beyond financial storage. For instance, tokens can be tailored and optimized to address specific needs in a variety of industries while providing governance mechanisms for financial integrity.

Addressing the challenges of cryptocurrency

Several challenges however currently face the broader adoption and acceptance of cryptocurrency and crypto tokens, including their liquidity and usability; transaction delays and fees; security and transparency issues in standard blockchain networks; and their cumbersome conversion process to fiat currency or other types of cryptocurrencies, which requires setting up a web-based exchange or a digital wallet on a smartphone.

The need for a timely, manageable, and secure way to convert between currencies has grown more apparent and more urgent as Nesten continues to introduce advanced IoT and blockchain technologies to strategic use cases in the real-world economy.

NIT, Nesten's IoT token, was developed to address specialized needs for the emerging IoT sensor economy, empowering individuals to monetize their unique capacities to produce marketable sensor content. NIT tokens offer data providers and their customers a reliable, secure method of exchanging value and paying for data.

In combining Nesten's decentralized network and NIT tokens—both of which boast security unprecedented within the blockchain sphere—with Ethernom's biometric recognition smart card technology in a user-friendly format, Nesten and Ethernom are now poised to meet all of these challenges and more as they pave the way for mainstream transitions to cryptocurrency.

"As cryptocurrencies and IoT sensors increase in their utilities, we want to be ready for the inevitable onramp of transformation," says Dr. Andrew Baek, Nesten CEO and CTO. "We are looking at multiple approaches that will allow us to lead the market in a transformation driven by end-to-end IoT solution, cryptocurrencies, and central banks, and our partnership with Ethernom is an important first step in the process."

Better blockchain for a more secure and functional ecosystem

With a radical approach to data management and security, a self-sustaining ecosystem, and industry-leading technology, Nesten's rapidly expanding network and IoT token (NIT) are the ideal combination for normalizing and streamlining the integration of cryptocurrency. Multiple layers of blockchain are linked together to facilitate the independent, reliable, and secure functioning of every network element, as well as ensure the perpetual and invulnerable storage of encrypted data. This enables myriad economic activities necessitated by the transition to a more community-based environment.

Nesten's NIT, or New IoT Token, serves as the foundation for the network's financial architecture. Unlike other cryptocurrencies, Nesten's permissioned blockchain is scalable, operates semi-independently of public blockchains, and processes transactions nearly instantaneously at only a fraction of standard transaction fees.

Smart cards for managing cryptocurrency

Smart cards are an increasingly popular method for managing the cryptographic keys tied to cryptocurrency because they allow the private keys of the parity system to be stored in a physically separate location from the public keys. (Both the public and private keys are necessary for maintaining, securing, and transferring cryptocurrency or digital assets.)

Smart cards are blockchain-based devices featuring an embedded integrated circuit or microcontroller that supports a broad range of processes including

authentication, data storage, and personal identification. The card is activated when it connects with a smart card reader via radio frequency interface (RFI), near-field communication (NFC), or direct physical contact, such as during an ATM or point-of-sale transaction. Data is then exchanged between the smart card and the card reader.

Ethernom's smart card—one of the most unique and advanced crypto smart cards currently available—is built in a credit card format, making it portable and personal. Integrated functionalities include security features like fingerprint and e-ink display for user interaction as well as cryptographic encryption for enhanced security. Enabled to support low-power protocols like Bluetooth Low Energy (BLE) and NFC, Ethernom's card can last several months on a single battery charge under a typical use scenario, minimizing user maintenance.

Most importantly, the Ethernom cards provide a cryptographic Application Programming Interface (API) to extend support for multiple cryptocurrencies, including Nesten's NIT. This streamlines the conversion, storage, and management processes for cryptocurrency and crypto token holders into a single, simple operation.

Integrating smart cards with blockchain technology

The partnership between Nesten and Ethernom will now allow cryptocurrency owners the flexibility and convenience of using digital currency like fiat currency. Instead of relying on their smartphones for payment—a precarious situation where all sensitive data is consolidated on a single device, the security of which can be compromised by hackers or other forms of data theft—individuals can use their Ethernom smart card like a debit card at a cryptocurrency ATM-type machine or kiosk where they can instantly convert their digital holdings to various crypto tokens or even withdraw cash.

While Nesten persists in its commitment to growing a decentralized IoT communications network, its core mission remains to empower people with both a trusted platform and the tools—like the Ethernom smart card—to optimize it.

"Nesten is building a unique and innovative ecosystem with an advanced blockchain solution," says Hock Law, CEO and president of Ethernom, Inc. "As its user base continues to expand, Nesten is constantly searching for ways to help its users benefit from participation, and the team at Ethernom is delighted to work with such talent and commitment toward achieving that goal."

The collaboration between Nesten and Ethernom is a necessary step toward transforming next-generation blockchain networks into viable financial systems positioned to meet monetary challenges of the future. Not only will the partnership improve the utility, unification, and convenience of the Nesten

network, but it will also expand the use cases possible for real-world applications of cryptocurrency.

You can read more about Nesten's network expansion, current use cases, and additional partnerships:

Semtech collaboration
https://www.businesswire.com/news/home/20200701005271/en/Semtech-and-Nesten-Deploy-LoRa%C2%AE-based-Wireless-Infrastructure-Nationwide

Partnership with PNI Sensor for shared parking
https://www.prweb.com/releases/nesten_announces_strategic_collaboration_with_pni_sensor_to_bring_blockchain_economics_to_iot_connected_shared_parking/prweb17444896.htm

Coverage in Dallas-Fort Worth Metro Area
https://www.prweb.com/releases/nesten_inc_announces_lorawan_network_in_dallas_fort_worth_metroplex/prweb17088860.htm

White paper contribution on LoRaWAN and WiFi roaming
https://lora-alliance.org/in-the-news/lora-alliancer-and-wireless-broadband-alliance-demonstrate-increase-market-opportunity

Nesten vision on IoT
https://www.entrepreneur.com/article/341451

About Nesten

Nesten, Inc. is a privately-held company based in Tustin, CA. The company specializes in IoT-optimized blockchains and communications networks that redefine the wireless landscape into one that places participants at the center of data generation, transmission, and trading. Since early 2019, the company has deployed hundreds of its advanced computing wireless nodes, establishing significant coverage footprints in New York; New Jersey; California; the Dallas and Houston metro areas; suburban Washington, DC; and Seoul, South Korea. To learn more, please visit www.nesten.io.

About Ethernom

Ethernom, Inc. is a privately-held company based in Carlsbad, CA. Ethernom was formed in 2018 by "system on a chip" (SoC) experts who saw an opportunity to build an SoC-based platform that could be used for personal identity, security and biometric authentication applications as well as other applications requiring secure personal data storage and privacy in a Card/Wearable device format. Ethernom's design employs state-of-the-art low power silicon to produce a

practical Biometric Smart Card with exceptionally long battery life and provide unprecedented security and ease of use for a variety of applications. Ethernom's smart biometric cards can be deployed as part of the Ethernom end-to-end ecosystem or integrated as a secure edge product to existing network infrastructure. More info on Ethernom and its smart cards can be found at https://ethernom.com/

For more information on Nesten's blockchain IoT technologies and the partnership between Nesten and Ethernom, contact:

Danielle Suh
danielle@nesten.io
http://nesten.io/