

VeChain (VET)

About: VeChain Foundation is a non-profit organization founded within July 2017 in Singapore. VeChain believes that a well governed foundation is the key to longevity, growth and stability. Making an actionable governance system, that matches the identity we envision for our product.

The VeChain Foundation introduced a two-coin system, i.e., VET and VeThor, to provide flexibility, stability, and longevity.

Function of VET :

- Serve as the intermedium of value, i.e., smart payment currency
- Represent the right and privilege to occupy and use VeChainThor blockchain
- Carry out the economic and business activities which contributes valuation of entire VET circulation

Function of VeThor

- Represent the underlying cost of using VeChainThor blockchain
- Support payment transactions and smart contract executions

VECHAINTHOR BLOCKCHAIN TECHNOLOGY:

- ✓ **PROOF OF AUTHORITY :** The VeChainThor blockchain uses PoA to maintain the consensus among all blockchain nodes. The blockchain consists of 101 authority nodes which are controlled by the whitelist. All the nodes no matter owned by institutions or individuals will have to meet our KYC requirements, hardware and security standards.

Advantages:

- 1. Comprehensive Governance:** As VeChain strives to achieve a balance between decentralization and efficiency, the VeChainThor blockchain has built-in governance tools including voting and know your customer (KYC) to ensure that it is supported by the smart contract to provide transparency and efficiency.
- 2. High scalability :** The PoA consensus allows us to have a higher scalability for the VeChainThor blockchain than PoW blockchain. Based on our test, the maximum TPS could be 10,000 transactions per second. But the VeChainThor blockchain will have 50 TPS based on our estimation of the transaction volume at the launch of the platform. We will also leverage technologies such as cross chain and sidechain (such as for a vertical industry) to enhance the performance of the VeChainThor blockchain.

3. VeChain has partnered with numerous world's leading IoT devices manufacturers, RFID, NFC tags producers, to empower the integrity and accuracy of the dataset stored on VeChainThor Blockchain.

USE CASES:

1. **COLD-CHAIN LOGISTICS** : VeChain's cold-chain logistics solution uses proprietary IoT devices to track key metrics throughout the entire journey. VeChain embeds data management and sharing in every process, making cold-chain logistics transparent, regulated, secure and reliable.
2. **AUTOMOBILE** : VeChain creates a digital passport of a vehicle recording all data including repair history, insurance, registration and even driver behaviour throughout its lifecycle. VeChain puts data into the hands of owners, making data management comprehensive, accessible and transparent.
3. **MEDICAL&HEALTHCARE** : VeChain's blockchain solution can track end-to-end medical devices production process. Besides, with the patient's authorization, VeChain can help patients to securely share their biometrics data with their doctors to enable real-time monitoring. VeChain makes the production and use of medical devices safer, better regulated, efficient and reliable.
4. **LUXURY&FASHION** : VeChain embeds smartchips within luxury goods, brands can monitor the sales channels in real time to prevent illegal overstock trading. Meanwhile, consumers can verify the authenticity of the luxury products. VeChain puts control back into the hands of brands, making luxury trail transparent, seamless and data-driven.

- 5. AGRICULTURE :** VeChain provides the solution of blockchain-enabled cloud services for the certification of environmentally friendly and organic agriculture products. Throughout the production process, IoT sensors and mobile devices feedback climate and soil conditions which are then updated into the cloud for real-time monitoring, this data is encrypted and immutable and at the same time, can be easily accessed by relevant parties with proper authorization and private keys. Data collection can help agriculture companies make better decisions. They can improve on the planting method, improve the quantity and quality of the crops and increase their product margins. In addition, it can minimize the negative impact of fertilizer and pesticides to the environment.
- 6. LOGISTICS :** Leveraging on blockchain technology, various parties in the logistics cycles can access information on a transparent and immutable yet very secure platform with a private key. In addition, logistics service providers can now manage goods at the granularity of single units for the very first time. The VeChain platform can provide customers with better services, accurate logistics information of each single product and this means there is potential for new logistics and business models to develop.
- 7. LIQUOR :** VeChain created a tracking & authentication platform for wine bottles, data of the wine at every step of the production process was stored on the blockchain. It also allows logistic providers and distributors to store relevant data before it reaches its destination. This platform brings immense value and trust, and most importantly stems out illicit activities. Consumer rights are protected simply by scanning a QR Code or NFC Chip which provides authentic and valuable information to the entire timeline starting from the source, storage, and logistics process at the fingertips.