

The Virtualempire Whitepaper

<http://virtualempire.in> ; <https://virtualempire.lol>

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We tribute to Bitcoin and Ravencoin founders and hard-work developers in these areas over the years. At the same time, we sincerely thank Bitcoin and Ravencoin for their efforts and contributions in establishing digital currencies and blockchain development. Appreciate the valued code and research results of the predecessors, Virtualempire is created by standing on the shoulders of giants. Ravencoin is a blockchain and platform optimized for transferring assets, such as tokens, from one holder to another.

Introduction

On November 1, 2008, Satoshi Nakamoto published the Bitcoin white paper "Bitcoin: A Peer-to-Peer Electronic Cash System" on the P2P Foundation website, stating his new vision for electronic money—Bitcoin was available. On January 3, 2009, the Bitcoin genesis block was born. However, the Bitcoin protocol has a lack of scalability. For example, there is only one symbol in the Bitcoin Network-Bitcoin, which means users cannot customize symbols. These symbols can represent company stocks or debt certificates, and so on. Ethereum can solve the problem of insufficient scalability of the Bitcoin protocol. Ethereum ERC20, ERC223, and ERC721 protocols and other projects show that can use another blockchain to create tokenized assets in various ways and structures. Tokens provide some advantages for traditional stocks or other participation mechanisms, such as faster transmission speeds, enhanced user control and censorship, and reducing or eliminating the requirement for trusted third parties. Virtualempire is a blockchain featuring assets and the ability to obtain cryptocurrency while playing various games and proof of work mining. While other cryptocurrencies use only Proof of Work (PoW), Virtualempire uses PoW and Proof of Game (PoG). PoG is a new way for gamers to participate in blockchain technology, simply by playing games. Until now, the minable cryptocurrency communities and gaming communities have been separated by a graphic card shortage. With Virtualempire, both these communities can come together and get a piece of the block. While Virtualempire does feature a new use case for blockchain technology, it functions the same as any other cryptocurrency. Virtualempire can still be used to trade, transfer of value and purchases. Virtualempire is the cryptocurrency with a Proof of Work blockchain to implement an earning mechanism on existing popular games and our games.

Virtualempire Launch and Algorithm

Virtualempire was announced on Bitcointalk on October 20, 2022, with social channels, website, and mainnet launch date. The mainnet was launched on October 20, 2022. Virtualempire uses a new mining algorithm developed by Ravencoin developers, KawPoW, to create a platform similar to Bitcoin to prevent ASIC mining pools from dominating. Virtualempire uses a combination of Proof of Work (POW) and Proof of Game (PoG). Each transaction on the Virtualempire blockchain is broadcasted to all nodes. Each node will work to find a difficult proof of work for its block. When the node finds proof of work it will broadcast the block to all the nodes. The blockchain keeps a record of every transaction since the genesis block. Nodes on the Virtualempire Network will always consider the longest chain to be the correct one. While the Virtualempire blockchain has an explorer where users can see their transactions, their wallets can still be anonymous. Unlike the traditional banking system, the Virtualempire blockchain does not link your name to your wallet, unless signed by you in your wallet. Even though Virtualempire is not a privacy-focused cryptocurrency, it has the same features implemented on the Bitcoin and Ravencoin blockchain.

Assets

On January 3, 2009, Bitcoin was launched as a peer-to-peer electronic cash system. After many years of reaching a high-security level, people realized that it is possible to “create” assets on the “Bitcoin” blockchain or embed assets in the Bitcoin blockchain. By creating a Bitcoin transaction digital signature, asset issuance and transaction information can be added to the Bitcoin blockchain. In this way, assets can obtain natural security on the Bitcoin blockchain, but they must also follow the original Bitcoin UTXO model writing rules. The asset system provides both client and RPC commands to protect assets from accidental or deliberate destruction. Virtualempire plans to integrate assets to the Virtualempire Marketplace where developers can create their own asset for their video games on the Virtualempire Marketplace. These tokens will be purchasable with \$VTE. While Virtualempire assets can be used in the Virtualempire Marketplace, it can be used for many other things such as the transfer of value, art, registrations and much more. When an asset is created, Virtualempire is burned and the asset with a unique name is created. Assets created on the Virtualempire network can be traded and sold too. The token creator can also transfer ownership of a token to another wallet. When an asset is created on the Virtualempire blockchain, \$VTE is burned. Virtualempire also plans to burn any unused coins on Proof of Game. Currently only a third of Proof of Game coins are distributed. Virtualempire plans to burn any other coins that are not being used by Proof of Game. Less Virtualempire will be burned when more games become available on Virtualempire Proof of Game.

Proof of Work and Mining

Proof of work is a form of cryptographic proof in which one party proves to others that a certain amount of a specific computational effort has been expended. Verifiers can subsequently confirm this expenditure with minimal effort on their part. – Wikipedia

Virtualempire uses KawPoW as the hashing algorithm. The KawPoW algorithm is a tweaked variant of Programmatic Proof of Work (ProgPoW) developed by the Ethereum developers. The algorithm makes it harder for ASIC miners to join the network and gives GPU miners preference.

A block is mined every 60 seconds by Proof of Work.

Proof of Game

The Virtualempire Marketplace will be a place where developers can sell their video games, sell in-game items and cosmetics. The Marketplace will also feature an asset exchange, where each developer can sell their assets for \$VTE.

Virtualempire introduces a new earning mechanism to earn cryptocurrency while playing video games. With Proof of Game, gamers can “mine” \$VTE by simply playing video games. Gaming can be seen by many as simply wasting time, with Virtualempire Proof of Game you earn while having fun.

Proof of Game can be implemented on any video game that allows custom servers and data tracking. While Proof of Game can be implemented without the use of custom servers, it will require an API to track statistics within the video game.

Instead of implementing Virtualempire on a new game, Virtualempire is implementing it on existing popular games and our games. The implementation of Proof of Game is available for games that allow custom servers and the Virtualempire team is not affiliated with any game studio.

The Virtualempire development team plans to implement a Proof of Game earning structure on More games in the future are possible.

Each game on the Virtualempire Proof of Game servers will have a different earning structure. These structures will be added to the whitepaper as soon as more games are delivered.

While Proof of Game does not form part of the consensus currently, it may be implemented in the future. An in-game action could generate a hash, where essentially the blockchain accepts the hash, the same way it does with Proof of Work. This will be polled to the community at a later stage in development.

Currently, 5% of every block is rewarded to Proof of game. This will change in the future, read below.

Block structure: The Virtualempire Way

Transaction data is permanently recorded in files called blocks. They can be thought of as the individual pages of a city recorder's record book (where changes to title to real estate are recorded) or a stock transaction ledger. Blocks are organized into a linear sequence over time (also known as the block chain). New transactions are constantly being processed by miners into new blocks which are added to the end of the chain. Currently, every block mined on the Virtualempire network distributes 5000 VTE. The block time is 60 seconds. Just like Ravencoin and Bitcoin, block rewards will halve in 4 years. With the introduction of Proof of Game, the Virtualempire blockchain to facilitate a block structure to reward miners and gamers, please see the breakdown below:

Within the first year of existence, Virtualempire gives 90% of the block to Proof of Work miners, and 5% of the block to Proof of Game "miners". Within the years before the first halving, this structure will change. Within the first year since the Virtualempire mainnet, the block structure is 90% for Proof of Work, 5% for Proof of Game, and 5% for the developer fund.

Virtualempire use cases

Virtualempire features the same use cases as any cryptocurrency, a digital peer to peer currency that can be used for transfer of value.

But here is what set Virtualempire apart, Virtualempire aims to be the currency used for gaming purchases, in-game items and cosmetics.

Below we will go through what Virtualempire will be used for in the future.

Transfer of value

Transfer of assets

Gaming purchases

In-game item purchases

In-game cosmetics purchases

Assets purchasable with \$VTE

Creator donations (tips)

Server play-to-earn with \$VTE

Gaming servers hosted with \$VTE payments

In the future, Virtualempire aims to work with developers and hobbyists that would like to run their servers with a play-to-earn model. The problem most gaming server hosts face is to get a population growing on their servers. With the Virtualempire play-to-earn model hosts will be able to purchase \$VTE