WhitePaper

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The intention of this paper is not to be a deep technical dive, but rather an overview of the existing gameplay and a vision of the future Technodium. This includes gameplay details, information on NFTs, the games economy, specifically tokenonics, and how the Binance Smart Chain and \$TECHNO can enhance and provide a rewarding experience to the end user. This is a living document and the team holds all rights to make adjustment as seen fit.

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Introduction

Cryptocurrency and smart contract platforms such as Bitcoin and Ethereum have sparked considerable interest and have become promising solutions for electronic payments, decentralized applications and potential digital stores of value.

A blockchain is a ledger showing the quantity of something controlled by a user. It enables one to transfer control of that digital representation to someone else. Of the many possible uses for blockchain technology, the reporting of who owns what is one of its core functions. This is likely why the first, and to date most successful, use case for blockchain technology has been Bitcoin, which was announced by Satoshi Nakamoto on October 31, 2008.

Blockchain has the potential to revolutionize economic and social interactions, and ultimately become the backbone of a digital society. Blockchain is a distributed ledger technology that is designed to protect against unauthorized access and ensures that records are immutable (nothing can be erased once it's added) and traceable without the need for centralized management.

Such architecture allows different organizations to utilize one common database, which does not require human efforts to verify the integrity of the data, and is protected from unauthorized interference. Blockchain technology has proven its capabilities in handling data in a decentralized and secure way, collecting separate fragments into one common whole. Where the internet transmits information, blockchain is capable of efficiently transmitting value, whether it is rights of ownership, goods, or services. Efficiency implies both the speed of information exchange on the blockchain and ensuring its reliability, immutability, as well as building a secure and transparent mode of access to this data by only those who have the right to access it.

This is especially important when the costs of adding data sources and the associated liabilities outweigh the benefits. With the explosive growth in the use of customer data in emerging technologies, such as AI and IoT, visibility is becoming extremely relevant to customers. If the blockchain itself has reached a certain threshold of maturity, then the UX / UI technologies that support it are in their infancy. Soon, they will start a conflict very similar to the conflicts of standards that have led to today's Internet standards. According to Gartner, by 2024, 30% of the sensitive personal data of customers will be protected by licenses based on blockchain technology.

Ecosystem

The Ethereum ERC20 protocol and other projects show tokenized assets that use another blockchain can be created with a wide variety of purposes and structures. Tokens offer several advantages to traditional shares or other participation mechanisms, e.g. faster transfer speed, increased user control and censorship resistance, and a reduction or elimination of the need for a trusted third party.

Bitcoin also has the capability of serving as the rails for tokens. However, neither Bitcoin nor Ethereum were specifically designed for facilitating ownership of additional assets, and the users and development teams generally prioritize other features.

TECHNO is designed to efficiently handle one specific function well: the transfer of assets from one party to another. One goal of the protocol is to create a use case focused blockchain and development effort which can create code, providing advantages for specific use cases, while contributing to open source code which could be used by Bitcoin or other projects.

If the global economy is influenced by actors using various blockchains, then the way capital markets work today could also change. Borders and jurisdictions may become less relevant as more assets become tradable and trading across borders grows increasingly frictionless. In an age where people can move significant amounts of wealth instantly using Bitcoin, global consumers will likely demand the same efficiency for their securities and similar asset holdings.



Technodium's contracts are deployed on the Binance Smart Chain. The user will need to have a nominal amount of BNB cryptocurrency to pay for transactional gas fees. They will need to have a wallet (i.e. Metamask) which can store the BNB cryptocurrency and which can also store the \$TECHNO token. The user will need to setup their Metamask wallet to the Binance Smart Chain network.

The Technodium is restoring trust in global systems by creating a more secure, transparent and sustainable basis for transactions and exchanges of individuals, governance systems and enterprise growth with the help of advanced science. This is a new standard in technology - open and inclusive, challenging the old and ushering in a new era of sustainable, globally distributed innovation. The Technodium allows any participants who do not know each other and have no reason to trust to safely interact in the ecosystem and make transactions.

The Game

An online game - an educational economic technostrategy. Its essence is in the extraction of resources, the production of radio components from them (resistors, transistors, microcircuits, batteries, and so on), and various devices and even spaceships will already be assembled from them, with the help of which it will be possible to explore other planets in search of resources, conduct trade war.

In-game coins that you can enter, earn in the game and withdraw to your wallet. For the development of the project at the initial stage, 1 million tokens are allocated.

The Technodium game will be not only exciting, but also educational in nature, introducing people to radio electronics and the internal structure of devices. We cannot reveal all the details, to ensure trade secrets.

Technodium's game mission is to bring the benefits of blockchain technology to mass audiences through gamified experiences. Technodium allows players to buy, trade, collect and sell virtual properties and items. True ownership of all digital assets is the core value proposition of the game and is made possible by the use of blockchain technology.

Technodium game is based on the BNB blockchain software and runs on the BSC mainnet.

Initial development of Technodium game started in October 2021. Since then, various concepts have been tested with early adopters and discussed with industry experts. In February 2022, Technodium was released in a closed beta with very limited features to a small group of players. Since then the company has been implementing frequent updates to the game and plans to launch its open beta in late 2022 / early 2023.

Technodium is built as an ecosystem. Players can get rewarded for spending time and effort to contribute to the development of the Technodium ecosystem. Players own the entire real money economy in Technodium. Players will have full control of their own economy in the game. Developers earn through ownership of \$TECHNO tokens. This token will be the main currency in the game.

Game economies can capitalize on the core benefits of blockchain technology: true ownership, a transparent ledger of records and trustless transfer of value.

Blockchain allows the creation of fungible tokens that serve as a bearer instrument that complements or, in an increasing number of cases, act as a replacement for fiat money. The success and growing excitement for Bitcoin and alternative cryptocurrencies are validating that there is a demand for non-fiat money which can fulfill the basic economic functions of money, i.e., functioning as a medium of exchange, a unit of account and a store of value. Fungible tokens are an obvious fit for implementing ingame currencies in an open market economy scenario.

In addition to fungible tokens, blockchain provides the ability to create Non-Fungible Tokens (NFT) which represent provable, unique collectibles. NFTs are being utilized for digital arts, digital property, and other applications where each tradable NFT has its own unique attributes and value.

NFTs can be allocated to unique accounts. People can feel confident that they truly own an original asset and can verify their ownership on a public blockchain.

Token

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If the global economy is influenced by actors using various blockchains, then the way capital markets work today could also change. Borders and jurisdictions may become less relevant as more assets become tradable and trading across borders grows increasingly frictionless. In an age where people can move significant amounts of wealth instantly using Bitcoin, global consumers will likely demand the same efficiency for their securities and similar asset holdings.

Tokenomics are the economic rules of behavior and interaction of participants in the blockchain network. Technodium is based on PoSA economics that provides participants with the most favorable conditions for interaction with each other and motivate them to act for the benefit of the network. Technodium Coin (TECHNO) run on the Binance Smart Chain with BEP-20.

Basic \$TECHNO metrics: Total supply - 21,000,000; Pancake Swap listing price of \$TECHNO - \$0,1.

BNB is also powering the Binance Smart Chain, which is an EVM-compatible network, forked from "goethereum". It supports smart contracts and relies on a new consensus mechanism: Proof-of-Staked Authority (PoSA) consensus ("Parlia"), which incorporates elements from both Proof of Stake and Proof of Authority. BNB is used for delegated staking on the authority validator, leading to staking rewards for users and validators.



Binance Smart Chain is Binance Chain's side-chain, forked from "go-ethereum" (an implementation of the Ethereum protocol in GOlang), which allows full support of smart contracts and other programmable features.

The Binance Smart Chain combines several features from Delegated Proof-of-Stake (DPoS) and Proof-of-Authority (PoA) for consensus finding. At its core, this consensus algorithm called Parlia is built on a network of 21 validators and delegators, who vote for validators.

Binance Smart Chain is fully EVM-compatible and naturally supports smart contracts. Hence, high-level languages, like Solidity and Vyper, can be used to write a set of contracts that can be compiled into bytecode and deployed on the Virtual Machine, using tools like Remix or Truffle. This makes it easy for developers to port some of their decentralized applications onto the Binance Smart Chain.

A few general safety guidelines:

- 1. Do not trust any online service or person because they sound or look reputable. Always use an escrow service if you are buying peer-to- peer.
- 2. Store your \$TEHNO on a hardware wallet if possible. If not, then store your coins in the official Binance Wallet.
- 3. Do not use exchanges as wallets. Exchanges are for trading, not for savings.

Mobile wallets should be used for day-to-day purchases, but do not keep large amounts of funds in them. Transfer funds as necessary.

Blockchain technology has introduced exceptional innovations—distributed ledgers, decentralized trust, smart contracts, etc.—yet has not improved on the basic principles that characterize money, nor has it built the trust of the public necessary to achieve popular adoption.

Technodium is designed to leverage the new innovations of blockchain technology to improve the function of money, while being supported by traditional infrastructure that can ensure it is trustworthy.

ICO

ICO brings cryptocurrency to the market, making it a subject of trading available to everyone, and Crowdsale is a preliminary sale of a token, even before it enters the exchanges. \$TECHNO at this stage can be bought for a low price, which you will not see later either on the ICO, or, especially, on the stock exchange. Income in this case can be expressed in hundreds and even thousands of percent.

Distribution of \$TECHNO tokens:

- Marketing 1%;
- Game currency 4%;
- Team of creators 10%;
- Reserved 30%;
- Public Sale 55%.



As entrepreneurs who funded the development of the technology, the development team received 2.1 million tokens, which they intend to use as a long-term investment.

At the main stage of the ICO, it is planned to sell 11.55 million \$TECHNO tokens to investors. This asset is not tangible, since it is just an electronic record that confirms your involvement in the project. But it opens access to all the services offered by the developers, that is, it serves as an internal payment unit of the Technodium ecosystem.

7 million \$TEHNO tokens are reserved for the development of the ecosystem to help launch new network services and ensure the development of the community in the long term.

Roadmap

The Roadmap sets out delivery milestones for future releases of \$TECHNO and includes specific technical details describing how the development team plans to realise each challenge.

- 1. Q1 2024 Private sale
- 2. Q3 2024 ICO (IDO)
- 3. Q1 2025 Game start
- 4. Q2 2025 Opening the NFT market
- 5. Q3 2025 Listing on the Binance exchange

Deadlines may vary depending on the situation.

Funds Usage:

- 35% of the funds will be used to build the platform and perform upgrades to the system, which includes team recruiting, training, and the development budget.
- 50% will be used for branding and marketing, including continuous promotion and education of Technodium and blockchain innovations in industry mediums. A sufficient budget for various advertisement activities, to help Technodium become popular among investors, and to attract active users to the ecosystem.
- 15% will be kept in reserve to cope with any emergency or unexpected situation that might come up.

Team

We are an experienced and passionate team with experience in internet business, research, engineering and design. The core group is working on the project, with the involvement of numerous freelancers.

• Arseniy aka Maestro - founder

- Andrey aka Sam director
- Ivan aka Sten programmer
- Natalia aka NataLi marketing
- Eugene aka Revived designer
- Maxim aka OldMax tester

We have a solid team led by Maestro, with both traditional wall street finance and cryptocurrency experience. We have a track record of successful startups under our belt. With years of experience in the gaming world, along with the help of the pioneers in the blockchain space, we are positive on the outlook of Technodium.

We know this will be an ultra competitive space. There are probably hundreds, if not thousands of teams wanting, planning or doing ICO. Competition will be fierce. But in this age, this is a common risk in any decent startup or new company. The question is: given our team, experience, industry resources, and product, do you believe we stand a better chance than the rest of the pack? If yes, then please join our ICO!

Liability

Legal Liability

As with cash or any other currency system, users may use \$TECHNO in connection with illegal activity. A common question we receive is whether masternode operators can also be liable for criminal activity, simply by relaying transactions related to that activity. The fundamental legal requirement of mens rea makes criminal liability unlikely for masternode operators.

Primary Liability

Almost all crimes require that a defendant have a defined mens rea at the time of an offense. Mens rea is a mental state like purposefulness, knowledge, recklessness or negligence. For example, to act with "purpose" is commonly understood as desiring as your "conscious object" the result of a crime. "Knowledge" is a less culpable mindset than "purpose" – acting with "knowledge" requires general awareness that your actions will bring about a particular crime. "Recklessness" requires disregard of a substantial risk. Finally, a person acts "negligently" if they should have been aware of a substantial and unjustifiable risk of a particular consequence of their actions, but were not.

Most masternodes have no awareness, while relaying \$TECHNO transactions, of the identity of the users involved, the ultimate destination of users' funds, or any other circumstances of \$TECHNO transactions. As such, it would be difficult for a prosecutor to demonstrate that a masternode operator who facilitated an illegal transaction merely by relaying the transaction would have a culpable mens rea.

Summary

Blockchain is a distributed ledger that ensures data immutability and transparency. Blockchain data is presented as transactions. A transaction is a record of an action, such as token issue, cryptocurrency transfer, smart contract creation or invocation, etc.

Transactions are stacked into blocks. Besides transactions, every block contains the hash of the previous block and the digital signature of the node that generated the block. The previous block contains the data hash of its preceding block, and so on. As a result, the signature of each block depends on the data of all the preceding blocks.

In other words, the blockchain is a sequence of blocks linked by cryptographic hashes. Each transaction stays intact indefinitely. An attempt to change any data in a block would invalidate the block and all the later blocks.

Blockchain today is still seen a complicated technology, difficult to understand and to use for a nontechnical versed person. Technodium's ambition is to change that and to live up to its mission: to bring the benefits of blockchain technology to mass markets through gamified experiences.

If you are new to cryptocurrencies, the most important change to understand is that transactions occur directly between two parties without any central authority to facilitate the transaction. This also means that you are responsible for your own security - there is no bank or credit card company to reverse a transaction if your funds are stolen or lost. In this sense, it is similar to cash or gold, but cryptocurrency can be spent locally and internationally with equal ease, if you are confident you are sending funds to the right destination. For these reasons, the Technodium documentation has a strong focus on safety and understanding the concepts and features that drive the Technodium ecosystem.

Today, centralized solutions are used everywhere across all areas of our lives. But recently society has started to realize the shortcomings of centralized systems, and how the largest corporations conduct their business. Therefore, we are seeing tremendous growth in decentralized solutions that have emerged thanks to blockchain technologies. Unfortunately, decentralized solutions can hardly be called convenient and user-friendly, which is crucial to reaching mass distribution. Technodium want to change that.

We took the most useful and applicable technological innovations and built decentralized products based on top of them. We designed our products to be user-friendly, accessible, and as understandable as centralized products, but without exploiting users' data or creating a single centralized point of authority or failure.

People's desire to regain freedom, privacy, and control over their data has led to the emergence of the concept of Web 3.0 – the decentralization of the Internet. It can become true with the advancement of blockchain technology, which has transformed entire industries in recent years.

Web 3.0 will completely erase the boundaries between online and offline, it will be completely authentic and saturated with decentralized applications distributed across domain-specific clusters. The ordered chaos created by the small activities of billions of people is likely to make individuals, companies, and technologies work differently. Work better.

Glossary

Address

A \$TECHNO address is used to Send/Receive a Payment on the BSC network. It contains a string of alphanumeric characters, but can also be represented as a scannable QR code. A \$TECHNO address is also the public key in the pair of keys used by \$TECHNO holders to digitally sign transactions.

Account

Technodium uses an account-based model. Each transaction is created on behalf of an account, all assets and data are associated with the account. An account has a pair of cryptographically bound keys: a private key that the account uses to sign transactions, and a public key that allows anyone to verify the signature.

Algorithm

In mathematics and computer science, an algorithm is a self-contained step-by-step set of operations to be performed. Algorithms perform calculation, data processing, and/or automated reasoning tasks.

Altcoin

Since Bitcoin was the first cryptocurrency and has the largest market capitalization, it is considered as the reference. An altcoin, or alternative coin, is any cryptocurrency other than Bitcoin.

Bitcoin 2.0

This is a term explaining the next new level of Bitcoin projects which started as a fork of Bitcoin but extended their code into the next level of Blockchain Projects (Smart Contracts, Decentralised Voting,....)

Blockchain

A blockchain is a distributed database that maintains a continuously-growing list of data records hardened against tampering and revision. It consists of data structure blocks — which exclusively hold data in initial blockchain implementations, and both data and programs in some of the more recent implementations — with each block holding batches of individual transactions and the results of any blockchain executables. Each block contains a timestamp and information linking it to a previous block.

Blocks

Transactions on the Blockchain are collected in "blocks" which record and confirm when and in what sequence transactions enter and are logged in the block chain. Blocks are created by users known as "miners" who use specialized software or equipment designed specifically to create blocks.

dApp

A decentralized application (dApp) is an application empowered by blockchain. A dApp can store data on the blockchain and invoke a script assigned to an account. There is, therefore, no centralized database that might be hacked or compromised. Any user can view the script code and the result of its invocation.

Digital Wallet

A digital wallet is similar to a physical wallet except that it is used to hold digital currency. A wallet holds your private keys, which allow you to spend your \$TECHNO. You are also able to make backups

of your wallet in order to ensure that you never lose access to your \$TECHNO. Digital wallets can exist in many different forms and on many devices:

Desktop Wallet: Wallet programs that you install on a laptop or desktop computer. You are solely responsible for protecting the wallet file and the private keys it contains. Make backup copies of your wallet files to ensure that you don't lose access to your funds.

Mobile Wallet (Android, iOS): These wallets can be downloaded through Google Play or Apple (iTunes) App Stores. Mobile wallets allow you to use \$TECHNO on-the-go by scanning a QR code to send payment. Make backup copies of your mobile wallet files to ensure that you don't lose access to your funds. Due to security issues with mobile phones, it is advised that you don't store large amounts of funds on these wallets.

Online/Cloud/Web Wallet (MetaMask, Binance Wallet): Third parties that will store your \$TECHNO on their servers for you or provide an interface to access your Dash with you providing the keys, so that you can access your \$TECHNO from any device connected to the internet. If their website is hacked or if their servers are damaged, you run the risk of losing your \$TECHNO. Any online wallets should be secured with strong passphrases and 2FA. You cannot make backup copies of your online wallet, because you do not have access to the private keys. We strongly urge that you never store large amounts of \$TECHNO in any online wallet or cryptocurrency exchange.

Hardware Wallets (Trezor, Ledger, Nano): A hardware wallet is a specialized, tamper-proof, hardware device that stores your private keys. This device is able to sign transactions with your private key without being connected to the internet. However, you must have an internet connection to send the transaction to the BSC network. This allows your private keys to be accessed easily while still keeping them securely protected. This is widely regarded to be the safest form of storage for your \$TECHNO.

Gateway

Gateway is a centralized payment solution that allows transferring cryptocurrencies from one blockchain to another and vice versa; as well as transferring fiat money to and out of the blockchain.

Private key

The private key is one of a pair of account keys. The account owner signs the transaction with the private key before sending it, and, as a result, gets the digital signature of the transaction.

Public key

The public key is one of a pair of account keys. A public key uniquely correlates a transaction with its sender. The transaction signature is checked against the public key with some function, and, if it returns true, we can be sure that the user has valid private key for this public key.

Token

Token is a digital asset on the blockchain. A token can be used: as a cryptocurrency to pay for goods and services within a project, as well as for crowdfunding; as an object or resource in games etc. A token can represent a physical or an intangible object.

The words "token" and "asset" are used interchangeably in the Technodium ecosystem.

Transaction

Transaction is an action on the blockchain on behalf of an account.

Sender and Signature

Each transaction contains the public key of sender account, on behalf of which the action is performed on the blockchain. Transaction that is sent from an ordinary account (without script) must contain the sender's digital signature. Smart accounts and dApps can set their own rules for outgoing transactions verification. See the Transaction Signature and Proofs article for more information.

Transaction Fee

Technodium transactions are very cheap but not free: the sender is charged a fee. The sender can specify any amount of fee but not less than the minimum amount.

Whitepaper

A white paper is an authoritative report or guide that informs readers concisely about a complex issue and presents the issuing body's philosophy on the matter. It is meant to help readers understand an issue, solve a problem, or make a decision.

Wallets

Whenever you are storing objects with a market value, security is necessary. This applies to barter systems as well as economies using currency as a medium of exchange. While banks store balances on a private ledger, cryptocurrencies store balances under unique addresses on a distributed public ledger. The cryptographic private keys to access the balance stored on each public address are therefore the object of value in this system. This section of the documentation discusses different practical methods of keeping these keys safe in wallets, while still remaining useful for day-to-day needs.

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- Youtube: https://www.youtube.com/channel/UCw6_L8-v3e5DwJqCXbOstyg

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