Mintlayer

A Blockchain for Financial Markets. Built on Bitcoin.

Mintlayer is a long-term, secure solution for scaling and accelerating the future of decentralized finance.



Decentralized Finance

Payments & Settlements







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Mission.





Today, **sustainability** is rarely considered when designing blockchain technology. Consequently, we are presented with a problem where many existing and dominating networks face a cluster of issues. **Blockchains get clogged**, causing a spike in transaction **fees**, and their users face high **barriers of running a node**. This **sacrifices** the core feature of the blockchain technology: **decentralization**.

Currently, the DeFi ecosystem runs on the Ethereum (ETH) blockchain, where nodes can only be managed by **specialized servers rather than average users**. This policy achieves nothing in terms of the chain's usability: fees are skyrocketing and most users are left outside of the blockchain's governing decisions. These conditions pose **security threats for daily users** that mostly rely on light nodes or custodians, and lead to more **centralized project choices**. Several examples, such as rollbacks and fork upgrades, end up being discussed within a very tiny niche of users, primarily miners or the most influential public figures.

The lack of future-proof sustainability and long-term plans for scalability, combined with a complex technical architecture, make Ethereum an unsuitable long-term solution for truly decentralized finance. The clogged network cannot guarantee proper functionality of DEXs without off-chain layer solutions such as the Lightning Network, while gigantic nodes have increasingly slow syncing time. Moreover, the built-in Turing-completeness, which is part of the protocol, causes users and investors to encounter risks while interacting with smart contracts.

Mintlayer is creating the very first sustainable architecture for decentralized finance, inheriting its security model from Bitcoin.



Technical Architecture.



SCOPE

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Fast, low-cost and gas-free multi-token usability

FEATURES



Reducing frictions

- Long-term scalability ensures low fees and fast transactions, even at high throughput.
- Transaction fees can be paid in any token supported by the blocksigners. There is no need to use a native token as transaction gas, contrary to Ethereum.
- Access control list (ACL) allows better security token compliance, including but not limited to whitelisting or blacklisting addresses, enforcing conditions on the amount transferred, etc.
- Programmable pools avoid UTXO pollution and allow efficient token economics management, including but not limited to dividend payout or transaction taxing for specific security tokens.

Increasing interoperability

- Aggregated payments and support for multi-token transfers in a single transaction.
- Easy token porting from the Ethereum (ETH) network.
- Peg-in/out allows for wrapped tokens from other blockchains to exist on Mintlayer.
- Cross-chain swaps, making Mintlayer interoperable with Bitcoin.



SCOPE

Inclusive P2P network and DEX, preserving privacy

FEATURES

Enhancing decentralization

- Mintlayer is engineered to enable anyone to run a node and validate blocks with minimal hardware requirements: the block size limit is set to 1mb, utreexo reduces the merkelized UTXO set to 1kb, so that the node can safely prune the blockchain thanks to checkpoints on Bitcoin.
- The validation time has Bitcoin-like speed due to the use of block size limits and the FIBRE network.
- Each node communicates with peers to perform atomic swap transactions enabling a fully decentralized exchange (DEX).



- Tokens on Mintlayer optionally support Confidential Transactions (Bulletproof).
- UTXO methodology allows multiple receiving addresses for each wallet and supports batching/coinjoin procedures.
 Combined, this makes blockchain analysis and transaction traceability a much harder task.



SCOPE

No more trade off between scalability and security





Delivering scalability

- Transactions in the network are aggregated (by batching/coinjoin) to shrink transaction size down to ¹/₃ using signature aggregation.
- Each node can look for peers to aggregate payments with, minimizing transfer fees. This promotes the extensive use of batching practices by offering economic incentives.
- The long-term solution for the scalability of tokenized assets on Mintlayer is guaranteed by the Lightning Network technology.
- Block frequency generation is adaptive and can be adjusted based on network usage.
- Script Hash smart contracts (Turing-incompleteness) reduce the on-chain pollution to scale-ready levels.



- Mintlayer's Dynamic Slot Allotment (DSA) consensus, a refined model based on Proof-of-Stake, provides economic incentives for users maintaining the network, and reduces the risk of misbehavior.
- Having the architecture of a Bitcoin sidechain allows any network participant to enforce checkpoints on the Bitcoin blockchain.
- Non-Turing-complete smart contracts increase outcome predictability and reduce contract failure risk, such as failure of DAO or the Parity multiple signature validation program.



Built for Financial Use Cases.

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나 **Tokenization**

- Easy Token creation and management.
- Transactions free from gas economy.
- Legally compliant technical architecture (ACL) for primary and secondary market activities.
- Programmable pools to support taxation, dividend distribution, and other tokenomic models.
- Decentralized capital raising by using out-of-the-box tools for launching tokens and conducting an Initial DEX Offering.
- **Optional Confidential Transactions for each** token issued on the network.



- Everything is packed within a wallet: store of assets, lending, borrowing, staking and DEX trading.
- Oracle support allows anyone to use and verify pricing, identity, weather, and other data from multiple sources to enhance DeFi and DEX capability.
- Secure smart contract environment (Turing-incomplete) provides better outcome reliability and predictability.
- DEX trades appear as standard transactions on the blockchain explorer.



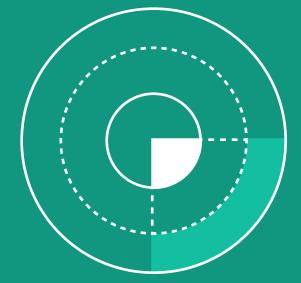
- Two-way pegging allows any and all cryptocurrencies to exist on a single network.
- Cheaper & faster crypto transactions for all assets and crypto that run on clogged networks (e.g. BTC, ETH).
- Stable and scalable network for desired stablecoin usability (e.g. USDT).
- Lightning Network is enabled for all assets on Mintlayer to achieve scalability and cheaper transactions.



ML Token.

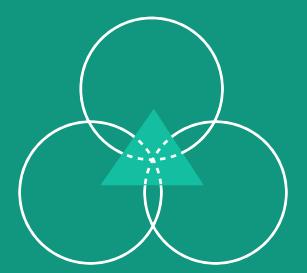






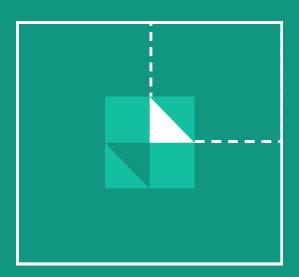
Staking

Anyone can stake tokens and participate in a recurring auction to become a blocksigner and collect transaction fees and rewards from created (mined) blocks. Network users can pay fees in any token transferred on the Mintlayer, including ML.



Community Engagement

Token holders participate in the decision-making expressing their opinions on the future development of the protocol.

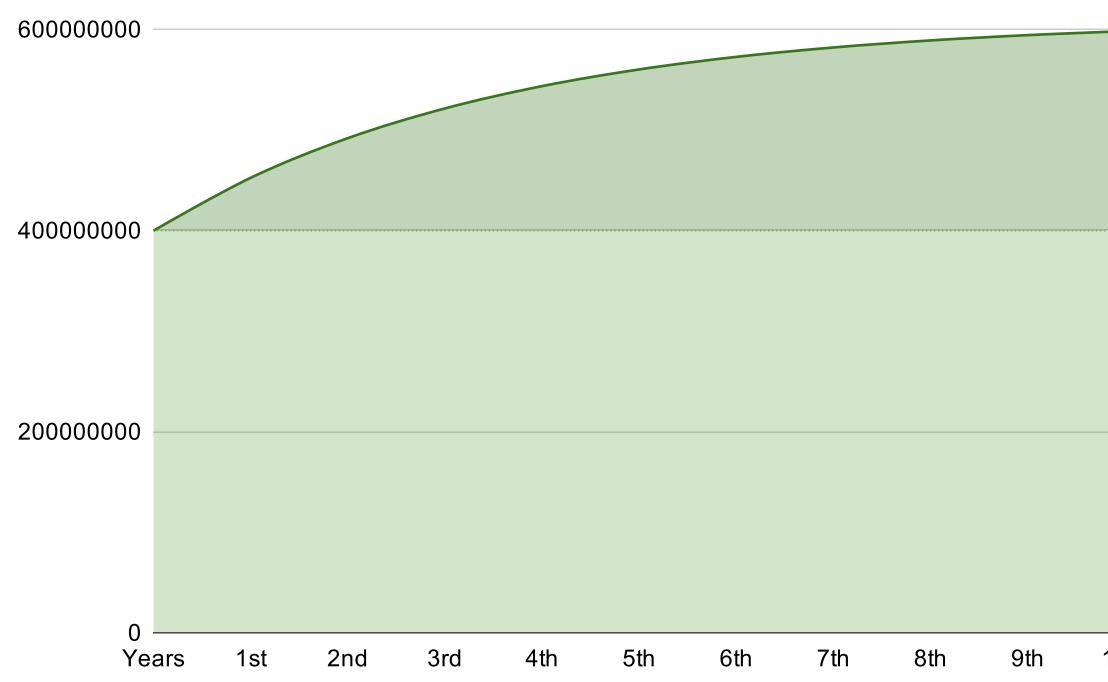


Ecosystem tools

ML token can be used to cover the fees for network transactions and exclusive services and products within the protocol, such as the token issuance fee that users pay when issuing a token on Mintlayer. RBB LAB services related to Mintlayer can be bought using ML tokens: smart contract development, security audit, software engineering.

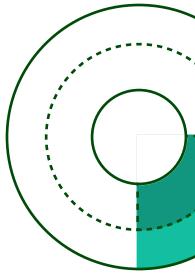


ML Tokens issuance schedule



TOTAL TOKENS AT LAUNCH * 400,000,000 ML

* Before Mintlayer's mainnet is developed ML tokens are issued as ERC20



REWARD FOR STAKERS

In the first 10 years after the mainnet launch, each Mintlayer block will generate a reward for the block creators until the total supply reaches the 600,000,000 ML hard cap.

The reward decreases by 25% yearly: the first year it includes 100ML, the second one 75ML, and so on until 200,000,000 new tokens are generated.

Newly generated tokens are collected by network participants staking a minimum of 40,000 ML tokens, following the Mintlayer conensus rules.

10th

TOTAL TOKENS AFTER 10 YEARS 600,000,000 ML







Roadmap.





Q1Mintlayer DSA and DEX prototyping

Q2

 Implementation of UTXO and BLS on Substrate

- Q3

• Testnet fullnode with basic PoS consensus

Q4

Launch of
"Von Neumann" Testnet

2022



 New node codebase to replace Substrate started

- Q2

 Mobile wallet beta version (Bitcoin enabled)

Q3

 Mobile wallet support for Bitcoin Lightning Network

- Q4

- Launch of "Lovelace" testnet
- Fullnode release candidate for Linux, Windows, Mac
- MLS-01 and MLS-03 standards in testnet

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2023

Q1 -

2024

- Mainnet launch
- DSA Consensus
- System v.0

Q2 -

- Mobile wallet
 integration of ML and
 MLS tokens
- Free gas market for transactions

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Q3

- WebAssembly Programmable Pools
- Access Control
 List for MLS-01

Q4

 Basic Atomic Swap system

Q1----

 Atomic Swap DEX with Distributed Hash Table

Q2

Lightning Network
 Integration

Q3

• MLS-02 Confidential Transactions



Token Distribution.



400,000,000 ML

ML distribution across the network's participants.

| Pool Name | Token Amount | Pool Share | Vesting Type |
|---|--------------|------------|--------------|
| Pre Seed Sale | 2,500,000 | 0.62% | 4 |
| Seed Sale | 54,600,000 | 13.65% | 2 |
| Strategic - Long Vesting | 52,000,000 | 13.00% | 5 |
| Strategic - Short Vesting | 26,000,000 | 6.50% | 2 |
| Marketing & Listing | 48,000,000 | 12.00% | 1 |
| Protocol Development | 40,000,000 | 10.00% | 4 |
| Community Incentives | 20,000,000 | 5.00% | 3 |
| Team & Advisors | 50,000,000 | 12.50% | 4 |
| Company Reserve | 106,900,000 | 26.73% | 5 |

Pool share are rounded to 2 decimal places

- Type 1unlocking 12% at TGE + 8% monthly over 11 monthsType 2unlocking 10% at TGE + 6% monthly over 15 months
- **Type 3** unlocking 10% at TGE + 5% monthly over 18 months
- **Type 4**4 months locked after TGE, then unlocking 5% monthly over 20 months
- **Type 5**4 months locked after TGE, then unlocking 2% monthly over 10 months, then 4% over 20 months



Legal Disclaimer

Liabilities

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Important Notes

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Mintlayer

Based in San Marino. Scaling financial markets worldwide.

Want to know more?

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