

Research Report on EOSIO Software

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1 Overview

1.1 Description

EOSIO is a blockchain protocol powered by the native cryptocurrency EOS, developed by Block.one and released as open-source software on June 1, 2018. The EOSIO software provides:

- accounts
- authentication
- databases
- asynchronous communication
- scheduling of applications across multiple CPU cores and/or clusters

It aims to be the first decentralized operating system (EOSIO) that provides a development environment for decentralized applications.

1.2 Key Features

The key features of the project are listed below:

1. Open-source MIT software license
2. Can be used to create both private and public blockchains
3. Has no user fees
4. Accounts are referenced by a unique human readable name
5. Operates as a smart contract platform and decentralized operating system providing CPU, RAM and Storage facilities.
6. Has potential to scale to millions of transactions per second.
7. Accounts can be restored.

8. High performance messaging using event sourcing
9. Delegated Proof of Stake
10. Contracts as negotiation and intent – messaging at its heart
11. Usability for everyone from user to contract writer to developer to entrepreneur
12. Governance for business and chain maintenance.

2 Economic Model

The project was initially supported by block.one company and currently is developing with Market Cap \$3 464 804 140 USD. Users can buy RAM from the system and sell RAM back in exchange for the blockchains native tokens. If users need storage and bandwidth they must hold tokens and may sell tokens when storage and bandwidth is no longer required. Regarding market, EOSIO applications will be similar to Ethereum's, but will provide more scalability potential. Moreover, there are possibilities to rent Amazon's or Google's servers, so for business it is important to compare pros and cons in more details.

3 Challenges

- **No central support and warranties.** The EOSIO Software is provided “as is,” without warranty. If someone chooses to adopt and deploy the software, they take full responsibility for patching and upgrading the software as necessary to serve their use case.
- **Not decentralized enough.** EOS tokens also allow the owner to cast votes and participate in the on-chain governance of the blockchain, again in proportion to the owner's stake. The EOSIO platform will vote for 21 block producers during its launch, who will generate and validate blocks within a 500 ms block time.
- **No fees policy could potentially become a problem for the miners.**
- **Ethereum's applications are quite similar.**

References

1. <https://eos.io/introduction>
2. <https://coinmarketcap.com/currencies/eos/>