
# Smart Contract Security Audit

## Audit details:

| | |
|---|---|
| Audited project: | Env Finance |
| Deployer address | 0x3290458d69788302c7dca753896f3c0a10952368 |
| Client contacts: | @Zeppe79 |
| Blockchain: | Binance Smart Chain |
| Project website: | https://www.env.finance |

April, 2021
TechRate

# Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

# Background

TechRate was commissioned by Env Finance to perform an audit of smart contracts:

- *https://bscscan.com/address/0x4D2b1966F347E48B2d247F684d7677854083E4AB#code*

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

# Contracts details

## Token contract details for 08.04.2021.

| | |
|---|---|
| Contract name: | Env Finance |
| Compiler version: | v0.4.24+commit.e67f0147 |
| Contract address: | 0x4D2b1966F347E48B2d247F684d7677854083E4AB |
| Total supply: | 12_300_000_000_000_000 |
| Token ticker: | ENV |
| Decimals: | 8 |
| Token holders: | 41 |
| Transactions count: | 44 |
| Top 100 holders dominance: | 100 % |
| Contract deployer address: | 0x3290458d69788302c7dca753896f3c0a10952368 |
| Paused status: | False |
| Minting finished status: | True |
| Contract owner address: | 0xe0f1dedde3650e8d7a46e413228e25ab21b789c6 |
| Deployed at transaction: | 0x50909fc61ef05e8c08abb0a489141922c837d6318424b2046fa8b61448e4a4ea |

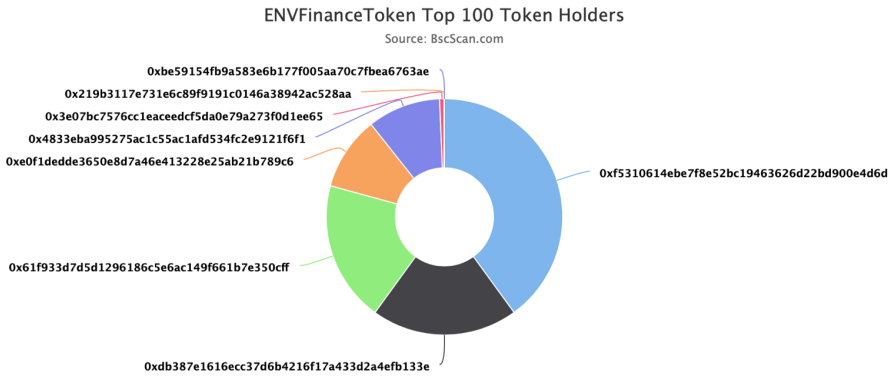
## Env Finance top 5 holders

| Rank | Address | Quantity | Percentage |
|---|---|---|---|
| 1 | 0xf5310614ebe7f8e52bc19463626d22bd900e4d6d | 49,200,000 | 40.0000% |
| 2 | 0xdb387e1616ecc37d6b4216f17a433d2a4efb133e | 24,600,000 | 20.0000% |
| 3 | 0x61f933d7d5d1296186c5e6ac149f661b7e350cff | 23,693,000 | 19.2626% |
| 4 | 0xe0f1dedde3650e8d7a46e413228e25ab21b789c6 | 12,404,000 | 10.0846% |
| 5 | 0x4833eba995275ac1c55ac1afd534fc2e9121f6f1 | 12,300,000 | 10.0000% |

# Env Finance top 100 token distribution

The top 100 holders collectively own 100.00% (123,000,000.00 Tokens) of ENVFinanceToken

Token Total Supply: 123,000,000.00 Token | Total Token Holders: 41

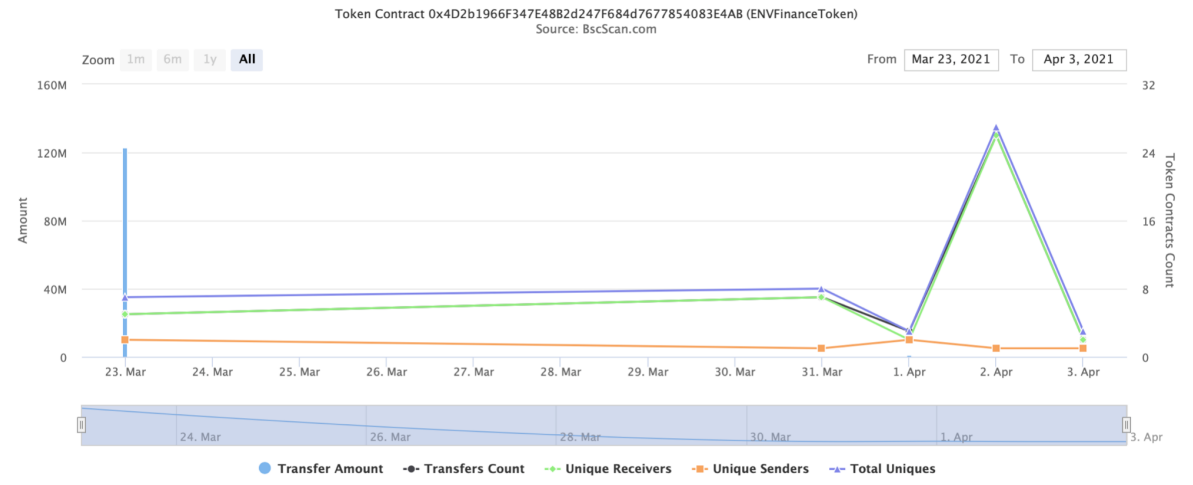



(A total of 123,000,000.00 tokens held by the top 100 accounts from the total supply of 123,000,000.00 token)

# Env Finance contract interaction details

Time Series: Token Contract Overview

Tue 23, Mar 2021 - Sat 3, Apr 2021



# Contract functions details

| Function | Return value | Who can call |
|---|---|---|
| name() | string | public |
| symbol() | string | public |
| decimals() | uint8 | public |
| totalSupply() | uint256 | public |
| balanceOf(address) | uint256 | public |
| transfer(address, uint256) | bool | public |
| allowance(address, address) | uint256 | public |
| approve(address, uint256) | bool | public |
| transferfrom(address, address, uint256) | bool | public |
| increaseAllowance(address, uint256) | bool | public |
| decreaseAllowance(address, uint256) | bool | public |
| renounceOwnership() | void | owner |
| transferOwnership(address) | void | owner |
| mint(address, uint256) | bool | owner |
| finishMinting() | bool | owner |
| actualBalanceOf(address) | uint256 | public |
| freezingBalanceOf(address) | uint256 | public |
| freezingCount(address) | uint | public |
| freezeTo(address, uint, uin64) | void | public |
| getFreezing(address, uint) | uint64, uint | public |
| releaseOnce() | void | public |
| releaseAll() | uint | public |
| burn(uint256) | void | public |
| pause() | void | public |
| unpause() | void | public |
| mintAndFreeze(address, uint, uint64) | bool | owner |

# Issues Checking Status

| № | Issue description. | Checking status |
|---|---|---|
| 1 | Compiler errors. | Passed |
| 2 | Race conditions and Reentrancy. Cross-function race conditions. | Passed |
| 3 | Possible delays in data delivery. | Passed |
| 4 | Oracle calls. | Passed |
| 5 | Front running. | Passed |
| 6 | Timestamp dependence. | Passed |
| 7 | Integer Overflow and Underflow. | Passed |
| 8 | DoS with Revert. | Passed |
| 9 | DoS with block gas limit. | Passed |
| 10 | Methods execution permissions. | Passed |
| 11 | Economy model of the contract. | Passed |
| 12 | The impact of the exchange rate on the logic. | Passed |
| 13 | Private user data leaks. | Passed |
| 14 | Malicious Event log. | Passed |
| 15 | Scoping and Declarations. | Passed |
| 16 | Uninitialized storage pointers. | Passed |
| 17 | Arithmetic accuracy. | Passed |
| 18 | Design Logic. | Passed |
| 19 | Cross-function race conditions. | Passed |
| 20 | Safe Open Zeppelin contracts implementation and usage. | Passed |
| 21 | Fallback function security. | Passed |

# Security Issues

## High Severity Issues

No high severity issues found.

## Medium Severity Issues

No medium severity issues found.

## Low Severity Issues

### 1. Wrong event

Issue:

There is a wrong Transfer event in function mintAndFreeze.

```
function mintAndFreeze(address _to, uint _amount, uint64 _until) public onlyOwner canMint returns (bool) {
    totalSupply_ = totalSupply_.add(_amount);

    bytes32 currentKey = toKey(_to, _until);
    freezings[currentKey] = freezings[currentKey].add(_amount);
    freezingBalance[_to] = freezingBalance[_to].add(_amount);

    freeze(_to, _until);
    emit Mint(_to, _amount);
    emit Freezed(_to, _until, _amount);
    emit Transfer(msg.sender, _to, _amount);
    return true;
}
```

Recommendation:

There should be a Transfer event from zero address to _to address, because this is minting of tokens, so it should be from zero address.

## Owner privileges

### 1. Owner privileges

- ❏ Owner can pause the transfers of contract tokens.

```
function pause() onlyOwner whenNotPaused public {
  paused = true;
  emit Pause();
}
```

# Conclusion

**Smart contracts do not contain any high severity issues! However, smart contracts contain owner privileges.**

Techrate note:
*Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.*