



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

Rewards



Deployer address

0x3B588f75A41254829AA52F20bCAe945ba267dBc4



Client contacts:

Rewards team



Blockchain

Ethereum



Project website:

<https://rwd.global/>

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 Rewards to perform an audit of smart contracts:

<https://etherscan.io/address/0xd80f72a6558ec337e0d4cf76b8752b17fa770860#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 12.08.2021

Contract name	Rewards
Contract address	0xD80F72a6558ec337E0d4CF76b8752B17FA770860
Total supply	149,599,257.752088266
Token ticker	RWD
Decimals	18
Token holders	471
Transactions count	2,259
Top 100 holders dominance	98.65%
Contract deployer address	0x3B588f75A41254829AA52F20bCAe945ba267dBc4
Contract's current owner address	0x00

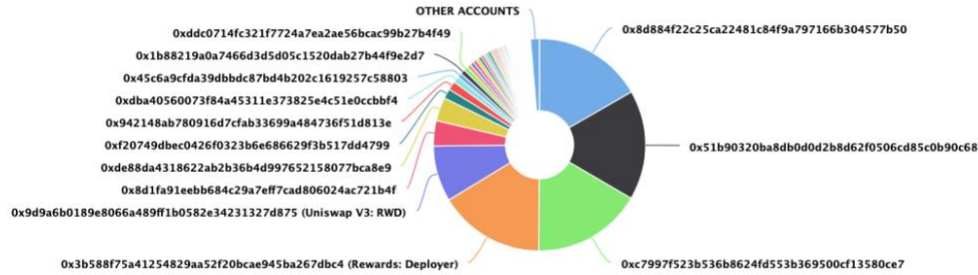
Rewards Token Distribution

The top 100 holders collectively own 98.65% (147,573,541.86 Tokens) of Rewards

Token Total Supply: 149,599,257.75 Token | Total Token Holders: 471

Rewards Top 100 Token Holders

Source: Etherscan.io



(A total of 147,573,541.86 tokens held by the top 100 accounts from the total supply of 149,599,257.75 token)

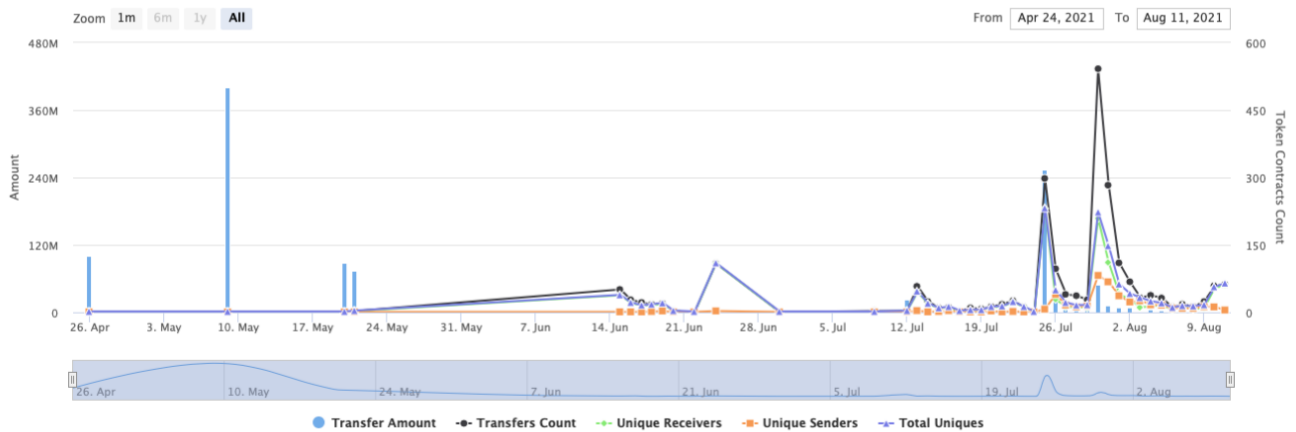
Rewards Contract Interaction Details

Time Series: Token Contract Overview





Mon 26, Apr 2021 - Wed 11, Aug 2021

Token Contract 0xd80f72a6558ec337e0d4cf76b8752b17fa770860 (Rewards)

Source: Etherscan.io



Rewards Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 0x8d884f22c25ca22481c84f9a797166b304577b50	25,000,000	16.7113%
2	 0x51b90320ba8db0d0d2b8d62f0506cd85c0b90c68	25,000,000	16.7113%
3	 0xc7997f523b536b8624fd553b369500cf13580ce7	25,000,000	16.7113%
4	Rewards: Deployer	24,210,406.671555405046680483	16.1835%
5	 Uniswap V3: RWD	12,744,740.985349755518866098	8.5193%
6	0x8d1fa91eebb684c29a7eff7cad806024ac721b4f	5,752,958.128067652681535851	3.8456%
7	0xde88da4318622ab2b36b4d997652158077bca8e9	5,387,246.239995082826244257	3.6011%
8	0xf20749dbec0426f0323b6e686629f3b517dd4799	2,237,855.57658378734175799	1.4959%
9	0x942148ab780916d7cfab33699a484736f51d813e	2,001,394.447244846992313873	1.3378%
10	0xdba40560073f84a45311e373825e4c51e0ccbfb4	1,383,528.779474160173676998	0.9248%



Contract functions details

- + [Int] IERC20
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] transfer #
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transferFrom #
- + Context
 - [Int] _msgSender
 - [Int] _msgData
- + ERC20 (Context, IERC20)
 - [Pub] <Constructor> #
 - [Pub] name
 - [Pub] symbol
 - [Pub] decimals
 - [Pub] totalSupply
 - [Pub] balanceOf
 - [Pub] transfer #
 - [Pub] allowance
 - [Pub] approve #
 - [Pub] transferFrom #
 - [Pub] increaseAllowance #
 - [Pub] decreaseAllowance #
 - [Int] _transfer #
 - [Int] _mint #
 - [Int] _burn #
 - [Int] _approve #
 - [Int] _beforeTokenTransfer #
- + ERC20Burnable (Context, ERC20)
 - [Pub] burn #
 - [Pub] burnFrom #
- + [Int] IERC165
 - [Ext] supportsInterface
- + ERC165 (IERC165)
 - [Pub] supportsInterface
- + [Int] IAccessControl
 - [Ext] hasRole
 - [Ext] getRoleAdmin
 - [Ext] grantRole #
 - [Ext] revokeRole #
 - [Ext] renounceRole #
- + AccessControl (Context, IAccessControl, ERC165)
 - [Pub] supportsInterface
 - [Pub] hasRole

- [Pub] getRoleAdmin
 - [Pub] grantRole #
 - [Pub] revokeRole #
 - [Pub] renounceRole #
 - [Int] _setupRole #
 - [Int] _setRoleAdmin #
 - [Prv] _grantRole #
 - [Prv] _revokeRole #
- + [Lib] EnumerableSet
- [Prv] _add #
 - [Prv] _remove #
 - [Prv] _contains
 - [Prv] _length
 - [Prv] _at
 - [Int] add #
 - [Int] remove #
 - [Int] contains
 - [Int] length
 - [Int] at
 - [Int] add #
 - [Int] remove #
 - [Int] contains
 - [Int] length
 - [Int] at
 - [Int] add #
 - [Int] remove #
 - [Int] contains
 - [Int] length
 - [Int] at
- + [Int] IAccessControlEnumerable
- [Ext] getRoleMember
 - [Ext] getRoleMemberCount
- + AccessControlEnumerable (IAccessControlEnumerable, AccessControl)
- [Pub] supportsInterface
 - [Pub] getRoleMember
 - [Pub] getRoleMemberCount
 - [Pub] grantRole #
 - [Pub] revokeRole #
 - [Pub] renounceRole #
 - [Int] _setupRole #
- + RewardsToken (Context, AccessControlEnumerable, ERC20Burnable)
- [Pub] <Constructor> #
 - modifiers: ERC20
 - [Pub] mint #
 - [Int] _beforeTokenTransfer #

(\$) = payable function

= non-constant function

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

No low severity issues found.

Owner privileges (In the period when the owner is not renounced)

- Minter role can mint any amount of tokens.

Conclusion

Smart contracts do not contain high severity issues!

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.