freshcoins

SMART CONTRACT CODE REVIEW AND SECURITY ANALYSIS REPORT

RefundCoin

$RFD

23/05/2023

TOKEN OVERVIEW

Fees

- Buy fees: 0%
- Sell fees: 0%

Fees privileges

- Can change buy fees up to 20% and sell fees up to 20%

Ownership

- Owned

Minting

- No mint function

Max Tx Amount / Max Wallet Amount

- Can’t change max tx amount and max wallet amount

Blacklist

- Blacklist function not detected

Other privileges

- Can exclude / include from fees

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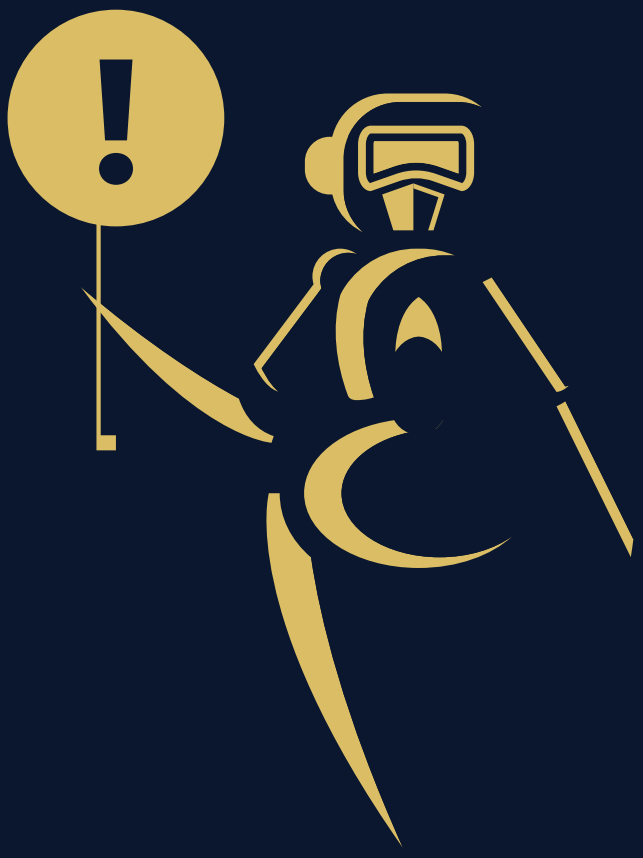
DISCLAIMER

The information provided on this analysis document is only for general information and should not be used as a reason to invest.

FreshCoins Team will take no payment for manipulating the results of this audit.

The score and the result will stay on this project page information on our website https://freshcoins.io
FreshCoins Team does not guarantees that a project will not sell off team supply, or any other scam strategy (RUG or Honeypot etc)



INTRODUCTION

FreshCoins (Consultant) was contracted by RefundCoin (Customer) to conduct a Smart Contract Code Review and Security Analysis.

0xC8D6D7a4aD4C94843c775f0391e2E08062395a11

Network: Binance Smart Chain (BSC)

This report presents the findings of the security assessment of Customer's smart contract and its code review conducted on 23/05/2023

WEBSITE DIAGNOSTIC

https://www.refundbsc.org/

0-49

50-89

90-100

Performance

Accessibility

Best Practices

SEO

Progressive Web App

Socials

Twitter

https://twitter.com/RFDCoinbsc

Telegram

https://t.me/RefundBSCPortal

AUDIT OVERVIEW

84

Security Score

98

Static Scan
Automatic scanning for common vulnerabilities

81

ERC Scan
Automatic checks for ERC's conformance

1 High

2 Medium

0 Low

0 Optimizations

0 Informational

No.	Issue description	Checking Status
1	Compiler Errors / Warnings	Passed
2	Reentrancy and Cross-function	Passed
3	Front running	Passed
4	Timestamp dependence	Passed
5	Integer Overflow and Underflow	Passed
6	Reverted DoS	Passed
7	DoS with block gas limit	Passed
8	Methods execution permissions	Passed
9	Exchange rate impact	Passed
10	Malicious Event	Passed
11	Scoping and Declarations	Passed
12	Uninitialized storage pointers	Passed
13	Design Logic	Passed
14	Safe Zeppelin module	Passed

OWNER PRIVILEGES

- Contract owner can't mint tokens after initial contract deploy
- Contract owner can't exclude an address from transactions
- Contract owner can exclude/include wallet(s) from tax

```
function excludeFromFee(address account) public onlyOwner {
    _isExcludedFromFee[account] = true;
}

function includeInFee(address account) public onlyOwner {
    _isExcludedFromFee[account] = false;
}

function bulkExcludeFee(address[] memory accounts, bool state) external onlyOwner {
    for (uint256 i = 0; i < accounts.length; i++) {
        _isExcludedFromFee[accounts[i]] = state;
    }
}
```

- Contract owner can exclude/include wallet from rewards

```
function excludeFromReward(address account) public onlyOwner {
    require(!_isExcluded[account], "Account is already excluded");
    if (_rOwned[account] > 0) {
        _tOwned[account] = tokenFromReflection(_rOwned[account]);
    }
    _isExcluded[account] = true;
    _excluded.push(account);
}

function includeInReward(address account) external onlyOwner {
    require(_isExcluded[account], "Account is not excluded");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account) {
            _excluded[i] = _excluded[_excluded.length - 1];
            _tOwned[account] = 0;
            _isExcluded[account] = false;
            _excluded.pop();
            break;
        }
    }
}
```

Contract owner can change buy fees up to 20% and sell fees up to 20%

```
function setTaxes(
        uint256 _rfi,
        uint256 _marketing,
        uint256 _liquidity
    ) public onlyOwner {
        require((_rfi + _marketing + _liquidity) <= 20, "Must keep fees at 20% or less");
        taxes = Taxes(_rfi, _marketing, _liquidity);
        emit FeesChanged();
    }

    function setSellTaxes(
        uint256 _rfi,
        uint256 _marketing,
        uint256 _liquidity
    ) public onlyOwner {
        require((_rfi + _marketing + _liquidity) <= 20, "Must keep fees at 20% or less");
        sellTaxes = Taxes(_rfi, _marketing, _liquidity);
        emit FeesChanged();
    }
```

Contract owner can change marketingWallet address

Current value:

marketingWallet: 0x000000000000000000000000000000000000dead

```
function updateMarketingWallet(address newWallet) external onlyOwner {
        require(newWallet != address(0),"Fee Address cannot be zero address");
        marketingWallet = newWallet;
    }
```

Contract owner can change swap settings

```
function updateSwapTokensAtAmount(uint256 amount) external onlyOwner {
        require(amount <= 42e14, "Cannot set swap threshold amount higher than 1% of tokens");
        swapTokensAtAmount = amount * 10**_decimals;
    }

    function updateSwapEnabled(bool _enabled) external onlyOwner {
        swapEnabled = _enabled;
    }
```

Contract owner has to call EnableTrading() function to enable trade

(a maximum delay of 5 blocks can be added after enabling trades)

```
function EnableTrading() external onlyOwner {
        require(!tradingEnabled, "Cannot re-enable trading");
        tradingEnabled = true;
        swapEnabled = true;
        genesis_block = block.number;
    }

    function updatedeadline(uint256 _deadline) external onlyOwner {
        require(!tradingEnabled, "Can't change when trading has started");
        require(_deadline < 5,"Deadline should be less than 5 Blocks");
        deadline = _deadline;
    }
```

Contract owner can withdraw tokens from smart contract

(native tokens excluded)

```
function rescueBNB(uint256 weiAmount) external onlyOwner {
    require(address(this).balance >= weiAmount, "insufficient BNB balance");
    payable(msg.sender).transfer(weiAmount);
}

function rescueAnyBEP20Tokens(address _tokenAddr,address _to, uint256 _amount) public onlyOwner {
    require(_tokenAddr != address(this), "Owner can't claim contract's balance of its own tokens");
    IBEP20(_tokenAddr).transfer(_to, _amount);
}
```

Contract owner can transfer ownership

```
function transferOwnership(address newOwner) public virtual onlyOwner {
    require(newOwner != address(0), "Ownable: new owner is the zero address");
    _setOwner(newOwner);
}

function _setOwner(address newOwner) private {
    address oldOwner = _owner;
    _owner = newOwner;
    emit OwnershipTransferred(oldOwner, newOwner);
}
```

Contract owner can renounce ownership

```
function renounceOwnership() public virtual onlyOwner {
    _setOwner(address(0));
}
```

Recommendation:

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. The risk can be prevented by temporarily locking the contract or renouncing ownership.

CONCLUSION AND ANALYSIS

Smart Contracts within the scope were manually reviewed and analyzed with static tools.

Audit report overview contains all found security vulnerabilities and other issues in the reviewed code.

Found 1 HIGH issues during the first review.

TOKEN DETAILS

Details

Buy fees:	0%
Sell fees:	0%
Max TX:	N/A
Max Sell:	N/A

Honeypot Risk

Ownership:	Owned
Blacklist:	Not detected
Modify Max TX:	Not detected
Modify Max Sell:	Not detected
Disable Trading:	Not detected

Rug Pull Risk

Liquidity:	N/A
Holders:	100% unlocked tokens

RFD TOKEN ANALYTICS & TOP 10 TOKEN HOLDERS

The top 10 holders collectively own 100.00% (1,000,000,000,000.00 Tokens) of RefundCoin

Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 1

(A total of 1,000,000,000,000.00 tokens held by the top 10 accounts from the total supply of 1,000,000,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	0xc9bb27f24e0f01d02410b2d27033d4bd79315eea	1,000,000,000,000	100.0000%

TECHNICAL DISCLAIMER

Smart contracts are deployed and executed on the blockchain platform. The platform, its programming language, and other software related to the smart contract can have its vulnerabilities that can lead to hacks. The audit can't guarantee the explicit security of the audited project / smart contract.