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AUDIT COMPANY

Smart Contract Security Audit

TechRate

November, 2021

Audit Details

Audited project

JokerToken

Deployer address

0x0c7f386bd780a18dc5687e3dffa94396ba02aae2

Client contacts:

JokerToken team

Blockchain

Ethereum

Project website:

Not provided

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 JokerToken to perform an audit of smart contracts:

https://etherscan.io/address/0xb1f5d869323e50d1981c88e3e5a2b720a0e4bc02#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 10.11.2021

Contract name	JokerToken
Contract address	0xB1f5d869323E50d1981c88e3E5A2B720A0E4bc02
Total supply	10,000,000,000
Token ticker	Joker
Decimals	9
Token holders	325
Transactions count	827
Top 100 holders dominance	89.80%
Contract deployer address	0x0c7f386bd780a18dc5687e3dffa94396ba02aae2
Contract's current owner address	0x0000000000000000000000000000000000000000

JokerToken Token Distribution

The top 100 holders collectively own 89.80% (8,980,191,431.30 Tokens) of JokerToken

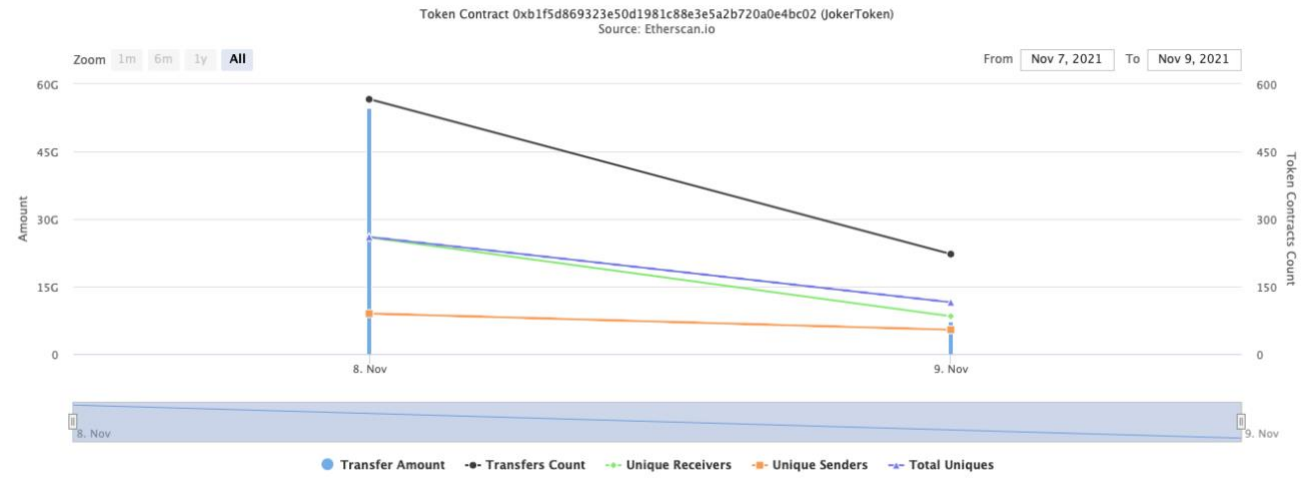
Token Total Supply: 10,000,000,000.00 Token | Total Token Holders: 325

(A total of 8,980,191,431.30 tokens held by the top 100 accounts from the total supply of 10,000,000,000.00 token)

JokerToken Contract Interaction Details

Time Series: Token Contract Overview

Mon 8, Nov 2021 - Tue 9, Nov 2021



JokerToken Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Uniswap V2: Joker 14	1,451,973,444.257269178	14.5197%
2	0x11c1c94b292a52c52d7b525c4e66161d4130d75f	465,440,461.748865899	4.6544%
3	0xa402ffa5e8415963ba75f9815cb083a5a0a86fd3	450,225,112.556278139	4.5023%
4	0x2e4acd4d8051b9d4febdad7e2182f6a1fc4b16e2	420,029,591.011767177	4.2003%
5	0x241b48c83c2394b93069589b9741e1462fce092e	375,593,497.26538392	3.7559%
6	0x730ae89916801b92c127316a318ef51bb880191a	364,494,725.948668549	3.6449%
7	0x7551eae8bc94552c35b847644a3688b5a59ae413	300,024,437.482785871	3.0002%
8	0x5136a9a5d077ae4247c7706b577f77153c32a01c	203,814,944.867296309	2.0381%
9	0xd34112c9311b8438239fa1ff1708a0b71c99f4cc	193,846,662.714350375	1.9385%
10	0x40de378824cb099691e8463edd58538e8f3b6849	166,538,911.5921834	1.6654%

Contract functions details

+ Context
  - [Int] _msgSender

+ [Int] IERC20
  - [Ext] totalSupply
  - [Ext] balanceOf
  - [Ext] transfer #
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transferFrom #

+ [Lib] SafeMath
  - [Int] add
  - [Int] sub
  - [Int] sub
  - [Int] mul
  - [Int] div
  - [Int] div

+ Ownable (Context)
  - [Pub] <Constructor> #
  - [Pub] owner
  - [Pub] renounceOwnership #
    - modifiers: onlyOwner

+ [Int] IUniswapV2Factory
  - [Ext] createPair #

+ [Int] IUniswapV2Router02
  - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
  - [Ext] factory
  - [Ext] WETH
  - [Ext] addLiquidityETH ($)

+ JokerToken (Context, IERC20, Ownable)
  - [Pub] <Constructor> #
  - [Pub] name
  - [Pub] symbol
  - [Pub] decimals
  - [Pub] totalSupply
  - [Pub] balanceOf
  - [Pub] transfer #
  - [Pub] allowance
  - [Pub] approve #
  - [Pub] transferFrom #
  - [Ext] setCooldownEnabled #
    - modifiers: onlyOwner
  - [Prv] tokenFromReflection
  - [Prv] _approve #
  - [Prv] _transfer #
  - [Prv] swapTokensForEth #

    - modifiers: lockTheSwap
  - [Ext] liftMaxTx #
    - modifiers: onlyOwner
  - [Prv] sendETHToFee #
  - [Ext] openTrading #
    - modifiers: onlyOwner
  - [Prv] _tokenTransfer #
  - [Prv] _transferStandard #
  - [Prv] _takeTeam #
  - [Prv] _reflectFee #
  - [Ext] <Fallback> ($)
  - [Ext] manualswap #
  - [Ext] manualsend #
  - [Prv] _getValues
  - [Prv] _getTValues
  - [Prv] _getRValues
  - [Prv] _getRate
  - [Prv] _getCurrentSupply

($) = 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)

- Owner can enable cooldown (user to user trading with time offset).

```
function setCooldownEnabled(bool onoff) external onlyOwner() {
    cooldownEnabled = onoff;
}
```

- Owner can open swap trading.

```
function openTrading() external onlyOwner() {
    require(!tradingOpen,"trading is already open");
    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D);
    uniswapV2Router = _uniswapV2Router;
    _approve(address(this), address(uniswapV2Router), _tTotal);
    uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory()).createPair(address(this), _uniswapV2Router.WETH());
    uniswapV2Router.addLiquidityETH{value: address(this).balance}(address(this),balanceOf(address(this)),0,0,owner(),block.timestamp);
    swapEnabled = true;
    cooldownEnabled = true;
    _maxTxAmount = 800000000 * 10**9;
    tradingOpen = true;
    IERC20(uniswapV2Pair).approve(address(uniswapV2Router), type(uint).max);
}
```

- Owner can change max transaction amount.

```
function liftMaxTx() external onlyOwner{
    _maxTxAmount = _tTotal;
}
```

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details are NOT provided by the team.

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.