

Blockchain Security | Smart Contract Audits | KYC

MADE IN GERMANY

Dogel Audit Security Assessment 04. February, 2022

For





| Disclaimer | 3 |
|--|----|
| Description | 5 |
| Project Engagement | 5 |
| Logo | 5 |
| Contract Link | 5 |
| Methodology | 7 |
| Used Code from other Frameworks/Smart Contracts (direct imports) | 8 |
| Tested Contract Files | 9 |
| Source Lines | 10 |
| Risk Level | 10 |
| Capabilities | 11 |
| Inheritance Graph | 12 |
| CallGraph | 13 |
| Scope of Work/Verify Claims | 14 |
| Modifiers and public functions | 20 |
| Source Units in Scope | 22 |
| Critical issues | 23 |
| High issues | 23 |
| Medium issues | 23 |
| Low issues | 23 |
| Informational issues | 23 |
| Audit Comments | 24 |
| SWC Attacks | 25 |
| | |
| | |

Disclaimer

<u>SolidProof.io</u> reports are not, nor should be considered, an "endorsement" or "disapproval" of any particular project or team. These reports are not, nor should be considered, an indication of the economics or value of any "product" or "asset" created by any team. SolidProof.io do not cover testing or auditing the integration with external contract or services (such as Unicrypt, Uniswap, PancakeSwap etc'...)

SolidProof.io Audits do not provide any warranty or guarantee regarding the absolute bug- free nature of the technology analyzed, nor do they provide any indication of the technology proprietors. SolidProof Audits should not be used in any way to make decisions around investment or involvement with any particular project. These reports in no way provide investment advice, nor should be leveraged as investment advice of any sort.

SolidProof.io Reports represent an extensive auditing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology. Blockchain technology and cryptographic assets present a high level of ongoing risk. SolidProof's position is that each company and individual are responsible for their own due diligence and continuous security. SolidProof in no way claims any guarantee of security or functionality of the technology we agree to analyze.

| Version | Date | Description |
|---------|-------------------|--|
| 1.0 | 04. February 2022 | Layout project Automated- /Manual-Security Testing Summary |

Network Binance Smart Chain (BEP20)

Website https://doge-1mission.io/

Telegram https://t.me/Doge1MissionToTheMoon

Twitter https://twitter.com/Mission_Dogel

Instagram https://www.instagram.com/doge1missiontothemoon

Youtube

https://www.youtube.com/channel/UCfhgb07NSzzcjvW4ma9eeuQ/ featured



Description

Where our love of science and space leap into the future and meet cryptocurrencies and nft.

How likely is Elon Musk to tweet about Doge-1 in the next 2 months? Just think about it

Project Engagement

During the 2nd of February 2022, **Dogel Team** engaged Solidproof.io to audit smart contracts that they created. The engagement was technical in nature and focused on identifying security flaws in the design and implementation of the contracts. They provided Solidproof.io with access to their code repository and whitepaper.



Contract Link v1.0

 https://bscscan.com/address/ 0x08cCAC619e9c6e95d48DFD23793d722A994b95B8#code

Vulnerability & Risk Level

Risk represents the probability that a certain source-threat will exploit vulnerability, and the impact of that event on the organization or system. Risk Level is computed based on CVSS version 3.0.

| Level | Value | Vulnerability | Risk (Required Action) |
|---------------|---------|---|--|
| Critical | 9 - 10 | A vulnerability that can disrupt the contract functioning in a number of scenarios, or creates a risk that the contract may be broken. | Immediate action to reduce risk level. |
| High | 7 – 8.9 | A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way. | Implementation of corrective actions as soon aspossible. |
| Medium | 4 – 6.9 | A vulnerability that could affect the desired outcome of executing the contract in a specific scenario. | Implementation of corrective actions in a certain period. |
| Low | 2 – 3.9 | A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective. | Implementation of certain corrective actions or accepting the risk. |
| Informational | 0 – 1.9 | A vulnerability that have informational character but is not effecting any of the code. | An observation that does not determine a level of risk |

Auditing Strategy and Techniques Applied

Throughout the review process, care was taken to evaluate the repository for security-related issues, code quality, and adherence to specification and best practices. To do so, reviewed line-by-line by our team of expert pentesters and smart contract developers, documenting any issues as there were discovered.

Methodology

The auditing process follows a routine series of steps:

- 1. Code review that includes the following:
 - i) Review of the specifications, sources, and instructions provided to SolidProof to make sure we understand the size, scope, and functionality of the smart contract.
 - ii) Manual review of code, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
 - iii) Comparison to specification, which is the process of checking whether the code does what the specifications, sources, and instructions provided to SolidProof describe.
- 2. Testing and automated analysis that includes the following:
 - i) Test coverage analysis, which is the process of determining whether the test cases are actually covering the code and how much code is exercised when we run those test cases.
 - ii) Symbolic execution, which is analysing a program to determine what inputs causes each part of a program to execute.
- 3. Best practices review, which is a review of the smart contracts to improve efficiency, effectiveness, clarify, maintainability, security, and control based on the established industry and academic practices, recommendations, and research.
- 4. Specific, itemized, actionable recommendations to help you take steps to secure your smart contracts.

Used Code from other Frameworks/Smart Contracts (direct imports)

Imported packages:

| IERC20 |
|------------|
| IFactoryV2 |
| IV2Pair |
| IRouter01 |
| IRouter02 |
| AntiSnipe |
| Cashier |



Tested Contract Files

This audit covered the following files listed below with a SHA-1 Hash.

A file with a different Hash has been modified, intentionally or otherwise, after the security review. A different Hash could be (but not necessarily) an indication of a changed condition or potential vulnerability that was not within the scope of this review.

v1.0

| File Name | SHA-1 Hash |
|---------------------|--|
| contracts/doge1.sol | b781ab6baf4cdaa238672e7edde429d557e4c97e |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |



Source Lines v1.0



Capabilities

Components

| Version | on Contracts Libraries Interfaces | | Interfaces | Abstract | |
|---------|-----------------------------------|---|------------|----------|--|
| 1.0 | 1 | 0 | 7 | 0 | |

Exposed Functions

This section lists functions that are explicitly declared public or payable. Please note that getter methods for public stateVars are not included.

| Version | Public | Payable | | |
|---------|--------|---------|--|--|
| 1.0 | 95 | 5 | | |

| Version | External | Internal | ternal Private Pure Vi | | View |
|---------|----------|----------|------------------------|---|------|
| 1.0 | 81 | 68 | 3 | 5 | 35 |

State Variables

Capabilities

| Version | Solidity Versions observed | Experim ental Features | Can Receive Funds | Uses Assembl Y | Has Destroya ble Contract s |
|---------|----------------------------------|------------------------------|-------------------------|----------------------|---|
| 1.0 | >=0.6. 0 <0.9.0 | | yes | | |

| Version | Transfer s ETH | Low- Level Calls | Deleg ateCa II | Uses Hash Function s | EC Rec ove r | New/ Create/ Create2 |
|---------|-------------------|------------------------|----------------------|-------------------------------|-----------------------|----------------------------|
| 1.0 | yes | | | | | |

Inheritance Graph v1.0



CallGraph v1.0



Scope of Work/Verify Claims

The above token Team provided us with the files that needs to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the main contract (usual the same name as team appended with .sol).

We will verify the following claims:

- 1. Correct implementation of Token standard
- 2. Deployer cannot mint any new tokens
- 3. Deployer cannot burn or lock user funds
- 4. Deployer cannot pause the contract
- 5. Overall checkup (Smart Contract Security)

Correct implementation of Token standard

| Function | Description | Exist | Tested | Verified |
|--------------|---|--------------|--------------|--------------|
| TotalSupply | provides information about the total token supply | \checkmark | \checkmark | \checkmark |
| BalanceOf | provides account balance of the owner's account | \checkmark | \checkmark | \checkmark |
| Transfer | executes transfers of a specified number of tokens to a specified address | \checkmark | \checkmark | \checkmark |
| TransferFrom | executes transfers of a specified number of tokens from a specified address | \checkmark | \checkmark | \checkmark |
| Approve | allow a spender to withdraw a set number of tokens from a specified account | \checkmark | \checkmark | \checkmark |
| Allowance | returns a set number of tokens from a spender to the owner | \checkmark | \checkmark | \checkmark |

Write functions of contract v1.0

| 1. approve | 25. setReflectorSettings |
|-------------------------------|--------------------------|
| 2. approveContractContingency | |
| 3. enableTrading | 26. setSwapSettings |
| 4. excludePresaleAddresses | |
| 5. giveMeWelfarePlease | 27. setTaxes |
| 6. manualDeposit | 28. setWallets |
| 7. multiSendPercents | |
| 8. multiSendTokens | 29. transfer |
| 9. removeBlacklisted | |
| 10. removeSniper | 30. transferFrom |
| 11. renounceOwnership | 31. transferOwner |
| 12. setContractSwapSettings | |
| 13. setDividendExcluded | |
| 14. setExcludedFromFees | |
| 15. setExcludedFromLimits | |
| 16. setGasPriceLimit | |
| 17. setInitializers | |
| 18. setLpPair | |
| 19. setMaxTxPercent | |
| 20. setMaxWalletSize | |
| 21. setNewRouter | |
| 22. setProtectionSettings | |
| 23. setRatios | |
| 24. setReflectionCriteria | |

Deployer cannot mint any new tokens

| Name | Exist | Tested | Status |
|----------------------|--------------|--------------|--------------|
| Deployer cannot mint | \checkmark | \checkmark | \checkmark |
| Max / Total Supply | 10_000_ | 000_000 | 000_ |



Deployer cannot burn or lock user funds

| Name | Exist | Tested | Status |
|----------------------|--------------|--------------|--------------|
| Deployer cannot lock | \checkmark | \checkmark | × |
| Deployer cannot burn | \checkmark | \checkmark | \checkmark |

Comments:

v1.0

- It is possible that anti snipe checker function can lock user funds. Anti snipe address wasn't provided to solidproof please do your own research here
- Reflector (Cashier interface) was not provided to solidproof please do your own research here

Alleviation from team

- Transaction will no be reverted because the deployer set the antisniper/ reflector(cashier) address in following TX
 - <u>https://bscscan.com/tx/</u>
 - 0xb741462ec86f280697caaac063dd81fdd31ec1f749a74896a6edb3 b526316aa8
 - Following address is set for
 - Antisnipe
 - <u>https://bscscan.com/address/</u>
 - 0x69dcCAfD61e17320c6D891A69311E3a641E8a146
 - Checked Fri 4. Feb 04:33pm
 - Reflector (Cashier)
 - https://bscscan.com/address/
 - 0x88264fEd46E831ABFcefeeD387E3ea8D46A41caf
 - Checked Fri 4. Feb 04:33pm
- We recommend you to check the antisnipe address to make sure that nothing has been changed as long as _hasLiqBeenAdded is false. If its true and the addresses are the same there is no revert problem while transferring. If the antisnipe address didn't match above address and the interface of AntiSnipe interface L165-L174 the Tx's will be reverted

Deployer cannot pause the contract

| Name | Exist | Tested | Status |
|-----------------------|-------|--------|--------|
| Deployer cannot pause | - | - | - |



Overall checkup (Smart Contract Security)



Legend

| Attribute | Symbol |
|--------------------------|--------------|
| Verfified / Checked | \checkmark |
| Partly Verified | • |
| Unverified / Not checked | × |
| Not available | - |



Modifiers and public functions



- 🗸 🔶 excludePresaleAddresses
 - onlyOwner
- r 🔶 manualDeposit
 - onlyOwner
 - 🔶 multiSendTokens
 - 🔶 multiSendPercents

Comments

- Deployer can set following state variables without any limitations
 - _ratios.rewards
 - _ratios.liquidity
 - _ratios.marketing
 - _ratios.buyback
 - _ratios.total
 - swapThreshold
 - swapAmount
 - contractSwapTimer
 - _minReflection
- Deployer can enable/disable following state variables
 - contractSwapEnabled
 - processReflect
 - _isExcludedFromLimits
 - _isExcludedFromDividends
 - _isExcludedFromFees
- Deployer can set new addresses
 - reflector (cashier interface)
 - antiSnipe

Following functions cannot be audited because antisnipe/cashier addresses were not provided to solidproof:

- antiSnipe.removeSniper(account) L432
- antiSnipe.removeBlacklisted(account) L436
- antiSnipe.setProtections(_antiSnipe, _antiGas, _antiBlock, _antiSpecial) L440
- antiSnipe.setGasPriceLimit(gas) L445
- reflector.setReflectionCriteria(_minPeriod, _minReflection) L495
- reflector.giveMeWelfarePlease(msg.sender) L504
- antiSnipe.setLpPair(pair, false) L539 L546
- reflector.load{value: address(this).balance}() L822

Please check if an OnlyOwner or similar restrictive modifier has been forgotten.

Source Units in Scope v1.0

| Туре | File | Logic Contracts | Interfaces | Lines | nLines | nSLOC | Comment Lines | Complex. Score | Capabilities |
|--------|---------------------|-----------------|------------|-------|--------|-------|---------------|----------------|-----------------|
|) D | contracts/doge1.sol | 1 | 7 | 848 | 690 | 560 | 80 | 546 | . <u>š.÷.</u> ; |
| ⊘Q | Totals | 1 | 7 | 848 | 690 | 560 | 80 | 546 | . <u>Š</u> . |

Legend

| Attribute | Description |
|------------------|---|
| Lines | total lines of the source unit |
| nLines | normalized lines of the source unit (e.g. normalizes functions spanning multiple lines) |
| nSLOC | normalized source lines of code (only source-code lines; no comments, no blank lines) |
| Comment Lines | lines containing single or block comments |
| Complexity Score | a custom complexity score derived from code statements that are known to introduce code complexity (branches, loops, calls, external interfaces,) |



Audit Results

AUDIT PASSED

| Critical issues |
|----------------------|
| No critical issues |
| No critical issues |
| |
| High issues |
| nightissues |
| No high issues |
| |
| |
| Medium issues |
| No medium issues |
| |
| |
| Low issues |
| No low issues |
| |
| |
| Informational issues |
| |

No informational issues

Alleviation

We have talked with the team of Doge-1 about the existing issues, whereupon we have received the following statements on the pointed out errors. According to the team, the imports are meaningless, because you can read the ERC stuff in the contract. The floating pragma was chosen because the developer writes a lot of contracts and is too lazy to change them every time because you can't compile under 0.8.0. Setting the visibility of the state variables is not necessary. Since the developer of the team works more on the Ethereum chain and emitting events cost a lot of gas, they were not implemented.

Audit Comments

04. February 2022:

Read carefully whole report for more information



SWC Attacks

| ID | Title | Relationships | Status |
|--------------------------------------|--|---|--------|
| <u>SW</u> <u>C-1</u> <u>36</u> | Unencrypted Private Data On-Chain | <u>CWE-767: Access to Critical</u> <u>Private Variable via Public</u> <u>Method</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>35</u> | Code With No Effects | <u>CWE-1164: Irrelevant Code</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>34</u> | Message call with hardcoded gas amount | <u>CWE-655: Improper</u> <u>Initialization</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>33</u> | Hash Collisions With Multiple Variable Length Arguments | <u>CWE-294: Authentication</u> <u>Bypass by Capture-replay</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>32</u> | Unexpected Ether balance | <u>CWE-667: Improper Locking</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>31</u> | Presence of unused variables | <u>CWE-1164: Irrelevant Code</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>30</u> | Right-To-Left- Override control character (U+202E) | <u>CWE-451: User Interface (UI)</u> <u>Misrepresentation of Critical</u> <u>Information</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>29</u> | Typographical Error | <u>CWE-480: Use of Incorrect</u> <u>Operator</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>28</u> | DoS With Block Gas Limit | <u>CWE-400: Uncontrolled</u> <u>Resource Consumption</u> | PASSED |

| <u>SW</u> <u>C-1</u> <u>27</u> | Arbitrary Jump with Function Type Variable | <u>CWE-695: Use of Low-Level</u> <u>Functionality</u> | PASSED |
|--------------------------------------|---|--|--------|
| <u>SW</u> <u>C-1</u> <u>25</u> | Incorrect Inheritance Order | <u>CWE-696: Incorrect Behavior</u> <u>Order</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>24</u> | Write to Arbitrary Storage Location | <u>CWE-123: Write-what-where</u> <u>Condition</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>23</u> | Requirement Violation | <u>CWE-573: Improper Following</u> of Specification by Caller | PASSED |
| <u>SW</u> <u>C-1</u> <u>22</u> | Lack of Proper Signature Verification | <u>CWE-345: Insufficient</u> <u>Verification of Data</u> <u>Authenticity</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>21</u> | Missing Protection against Signature Replay Attacks | <u>CWE-347: Improper</u> <u>Verification of Cryptographic</u> <u>Signature</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>20</u> | Weak Sources of Randomness from Chain Attributes | <u>CWE-330: Use of Insufficiently</u> <u>Random Values</u> | PASSED |
| <u>SW</u> <u>C-11</u> <u>9</u> | Shadowing State Variables | <u>CWE-710: Improper Adherence</u> <u>to Coding Standards</u> | PASSED |
| <u>SW</u> <u>C-11</u> <u>8</u> | Incorrect Constructor Name | <u>CWE-665: Improper</u> Initialization | PASSED |
| <u>SW</u> <u>C-11</u> <u>7</u> | Signature Malleability | <u>CWE-347: Improper</u> <u>Verification of Cryptographic</u> <u>Signature</u> | PASSED |

| <u>SW</u> <u>C-11</u> <u>6</u> | Timestamp Dependence | <u>CWE-829: Inclusion of</u> <u>Functionality from Untrusted</u> <u>Control Sphere</u> | PASSED |
|--------------------------------------|---|---|--------|
| <u>SW</u> <u>C-11</u> <u>5</u> | Authorization through tx.origin | <u>CWE-477: Use of Obsolete</u> <u>Function</u> | PASSED |
| <u>SW</u> <u>C-11</u> 4 | Transaction Order Dependence | <u>CWE-362: Concurrent</u> <u>Execution using Shared</u> <u>Resource with Improper</u> <u>Synchronization ('Race</u> <u>Condition')</u> | PASSED |
| <u>SW</u> <u>C-11</u> <u>3</u> | DoS with Failed Call | <u>CWE-703: Improper Check or</u> <u>Handling of Exceptional</u> <u>Conditions</u> | PASSED |
| <u>SW</u> <u>C-11</u> <u>2</u> | Delegatecall to Untrusted Callee | <u>CWE-829: Inclusion of</u> <u>Functionality from Untrusted</u> <u>Control Sphere</u> | PASSED |
| <u>SW</u> <u>C-11</u> <u>1</u> | Use of Deprecated Solidity Functions | <u>CWE-477: Use of Obsolete</u> <u>Function</u> | PASSED |
| <u>SW</u> <u>C-11</u> <u>0</u> | Assert Violation | <u>CWE-670: Always-Incorrect</u> <u>Control Flow Implementation</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>09</u> | Uninitialized Storage Pointer | <u>CWE-824: Access of</u> <u>Uninitialized Pointer</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>08</u> | State Variable Default Visibility | <u>CWE-710: Improper Adherence</u> to Coding Standards | PASSED |
| <u>SW</u> <u>C-1</u> <u>07</u> | Reentrancy | <u>CWE-841: Improper</u> <u>Enforcement of Behavioral</u> <u>Workflow</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>06</u> | Unprotected SELFDESTRUC T Instruction | <u>CWE-284: Improper Access</u> <u>Control</u> | PASSED |

| <u>SW</u> <u>C-1</u> <u>05</u> | Unprotected Ether Withdrawal | <u>CWE-284: Improper Access</u> <u>Control</u> | PASSED |
|--------------------------------------|--------------------------------------|---|---------------|
| <u>SW</u> <u>C-1</u> <u>04</u> | Unchecked Call Return Value | <u>CWE-252: Unchecked Return</u> <u>Value</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>03</u> | Floating Pragma | <u>CWE-664: Improper Control of</u> <u>a Resource Through its</u> <u>Lifetime</u> | NOT PASSED |
| <u>SW</u> <u>C-1</u> <u>02</u> | Outdated Compiler Version | <u>CWE-937: Using Components</u> with Known Vulnerabilities | PASSED |
| <u>SW</u> <u>C-1</u> <u>01</u> | Integer Overflow and Underflow | <u>CWE-682: Incorrect</u> <u>Calculation</u> | PASSED |
| <u>SW</u> <u>C-1</u> <u>00</u> | Function Default Visibility | <u>CWE-710: Improper Adherence</u> <u>to Coding Standards</u> | PASSED |
| | | | |



Blockchain Security | Smart Contract Audits | KYC

MADE IN GERMANY