



SOLIDProof
Bring trust into your projects

Blockchain Security | Smart Contract Audits | KYC

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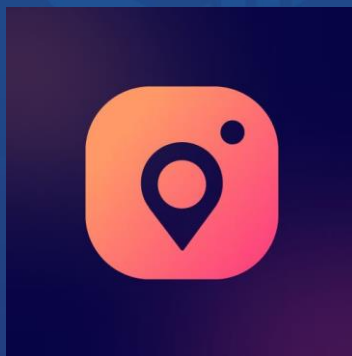
Global Guide

Audit

Security Assessment

1.August,2022

For



[SolidProof.io](https://solidproof.io)



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Disclaimer

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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 | 29.July,2022 | <ul style="list-style-type: none">• Layout project• Automated- /Manual-Security Testing• Summary |
| 1.0 | 31.July,2022 | <ul style="list-style-type: none">• Reaudit |

Network

Binance (BSC)

Website

<https://globalguide.app>

Twitter

<https://twitter.com/globalguideapp>

Telegram

<https://t.me/globalguideofficial>

Discord

<https://discord.gg/6ZZdUaHw7U>

Instagram

<https://www.instagram.com/globalguideapp/>

Description

Global-Guide is the first web 3.0 Dapp that implements the Socialize-To-Earn concept in crypto.

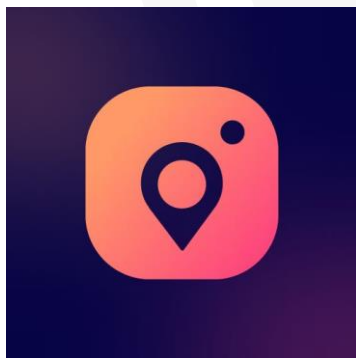
Global Guide is aimed to become a global community of explorers who write reviews, share photos, share their locations, add or edit places on our Web 3.0 platform. We refer these activities as socializing.

The concept behind Global-Guide is one that is highly scalable and promising and also incredibly approachable to everyone. Users of Global-Guide can socialize to earn \$GGT tokens which can either be used in-game, or cashed out for profit. Meanwhile millions of people such as tourists can rely on their contributions to decide where to go and what to do. In order to socialize, users must own a camera NFT which is specifically designed to use for different scenes such as humans, foods, natures, events, architectures or seasons.

Project Engagement

During the 29th of July 2022, **Global Guide** team engaged Solidproof.io to audit the smart contracts that they created. The engagement was technical in nature and focused on identifying the security flaws in the design and implementation of the contracts. They provided Solidproof.io with access to their code repository and whitepaper.

Logo



Contract Links

v1.0

<https://bscscan.com/address/0x1a40409C457Aa9D11286fbf8FbD02F5F40520557#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 as possible. |
| 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.

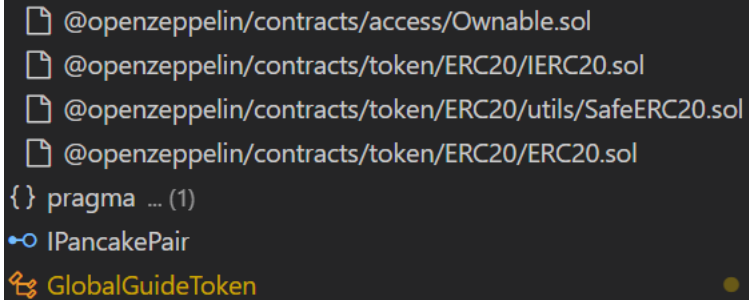
Methodology

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-by-line 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 analyzing 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:

A screenshot of a code editor's import section. It lists several Solidity imports from the OpenZeppelin contracts library, including Ownable.sol, IERC20.sol, SafeERC20.sol, and ERC20.sol. Below these, there are pragma statements and two interface imports: IPancakePair and GlobalGuideToken. The GlobalGuideToken import is highlighted in yellow. The background of the editor shows a large, faint 'SP' watermark.

```
@openzeppelin/contracts/access/Ownable.sol
@openzeppelin/contracts/token/ERC20/IERC20.sol
@openzeppelin/contracts/token/ERC20/utils/SafeERC20.sol
@openzeppelin/contracts/token/ERC20/ERC20.sol
{ } pragma ... (1)
IPancakePair
GlobalGuideToken
```


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

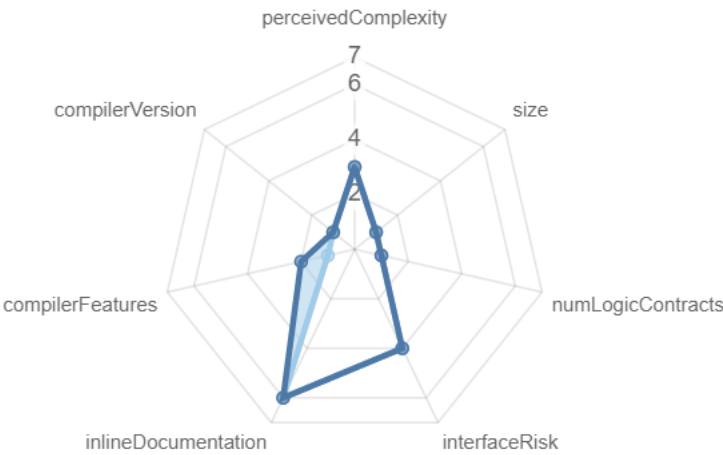
| File Name | SHA-1 Hash |
|--------------------------------|--|
| contracts/GlobalGuideToken.sol | a79e7c63caa273d37022851d69bf9710eafc7835 |

Metrics

Source Lines v1.0



Risk Level v1.0



Capabilities

Components

| Version | Contracts | Libraries | Interfaces | Abstract |
|---------|-----------|-----------|------------|----------|
| 1.0 | 1 | 0 | 1 | 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 | 34 | 0 |

| Version | External | Internal | Private | Pure | View |
|---------|----------|----------|---------|------|------|
| 1.0 | 32 | 21 | 0 | 5 | 13 |

State Variables

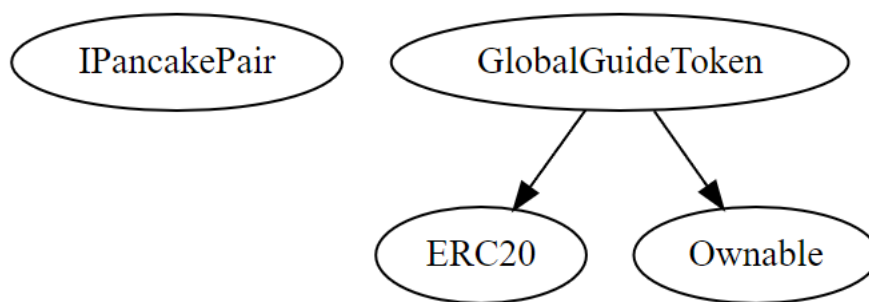
| Version | Total | Public |
|---------|-------|--------|
| 1.0 | 8 | 4 |

Capabilities

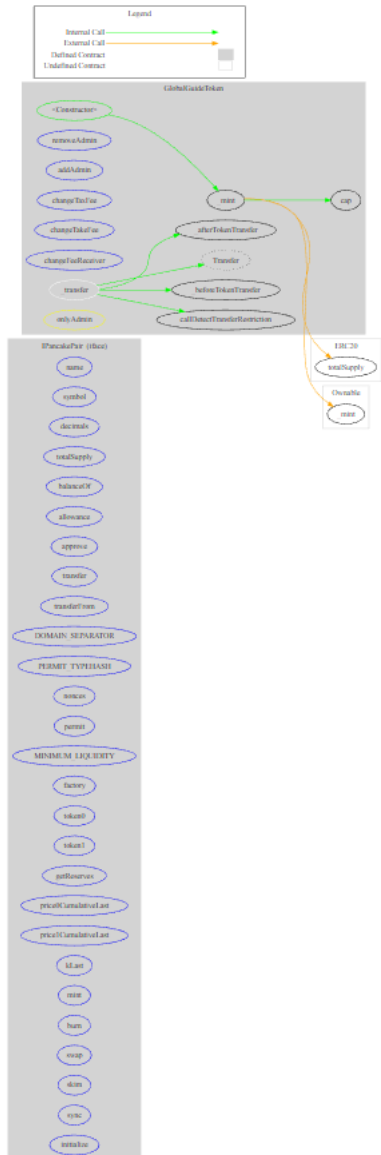
| Version | Solidity Versions observed | Experimental Features | Can Receive Funds | Uses Assembly | Has Destroyable Contracts |
|---------|----------------------------|-----------------------|-------------------|---------------|---------------------------|
| 1.0 | <code>^0.8.0</code> | | | Yes | |

| Version | Transfers ETH | Low-Level Calls | DelegateCall | Uses Hash Functions | EC Recover | New/Create/Create2 |
|---------|---------------|-----------------|--------------|---------------------|------------|--------------------|
| 1.0 | | | | Yes | | |

Inheritance Graph v1.0



Call Graph

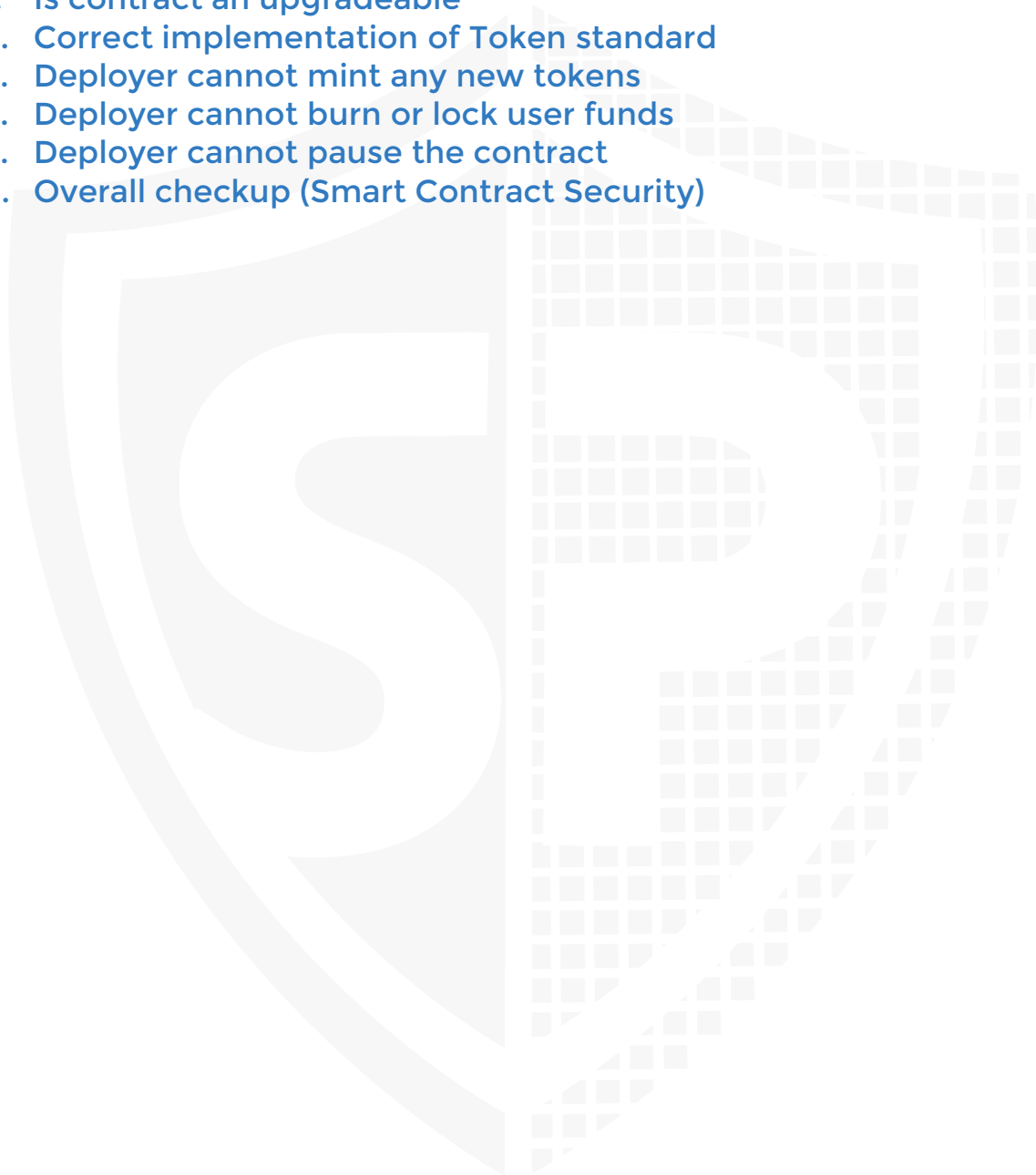


Scope of Work/Verify Claims

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



Is contract an upgradeable

| Name | |
|-----------------------------|----|
| Is contract an upgradeable? | No |



Correct implementation of Token standard

| ERC20 | | | | |
|--------------|---|-------|--------|----------|
| Function | Description | Exist | Tested | Verified |
| totalSupply | Provides information about the total token supply | | | |
| balanceOf | Provides account balance of the owner's account | | | |
| transfer | Executes transfers of a specified number of tokens to a specified address | | | |
| transferFrom | Executes transfers of a specified number of tokens from a specified address | | | |
| approve | Allow a spender to withdraw a set number of tokens from a specified account | | | |
| allowance | Returns a set number of tokens from a spender to the owner | | | |

Write functions of contracts

v1.0

1. addAdmin

2. approve

3. callDetectTransferRestriction

4. changeFeeReceiver

5. changeTakeFee

6. changeTaxFee

7. decreaseAllowance

8. increaseAllowance

9. removeAdmin

10. renounceOwnership

11. transfer

12. transferFrom

13. transferOwnership

Deployer cannot mint any new tokens

| Name | Exist | Tested | Status |
|----------------------|-------|--------|--------|
| Deployer cannot mint | | | |
| Max / Total Supply | N/A | | |

Comments:

- The tokens will be only once while deployment of the contract but the total supply will also be set by the deployer at the time of deployment

Deployer cannot burn or lock user funds

| Name | Exist | Tested | Status |
|----------------------|-------|--------|--------|
| Deployer cannot lock | | | |
| Deployer cannot burn | | | |

Comments:

- Please keep in mind that all the individuals can burn tokens from their own account or from another account if they have an allowance.

Deployer cannot pause the contract

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



Overall checkup (Smart Contract Security)

| Tested | Verified |
|--------|----------|
| | |

Legend

| Attribute | Symbol |
|--------------------------|--------|
| Verified / Checked | |
| Partly Verified | |
| Unverified / Not checked | |
| Not available | |

Modifiers and public functions

v1.0





| | |
|---|-------------------------------|
| ◆ | <Constructor> |
| ◆ | callDetectTransferRestriction |
| ◆ | removeAdmin |
| Ⓜ | onlyOwner |
| ◆ | addAdmin |
| Ⓜ | onlyOwner |
| ◆ | changeTaxFee |
| Ⓜ | onlyAdmin |
| ◆ | changeTakeFee |
| Ⓜ | onlyAdmin |
| ◆ | changeFeeReceiver |
| Ⓜ | onlyAdmin |

Comments:

- Some of the functions has a modifier "onlyAdmin" which allows multiple authorities to do certain actions in the contract and we have also noticed that the fee of the transaction is being transferred to the "feeReceiver".
- Moreover, there can be multiple wallets who can act as Admin in the contract.
- The authorities in control of the "onlyAdmin" other than the ones who controls the "owner" account can also modify the fees charge by the contract whenever they please.
- In conclusion, there can be multiple admins on this contract and all of those admins will have the permissions to change the following:
 - The fee status of the contract
 - The fee receiver address of the contract
 - The amount of fees charged by the contract

Source Units in Scope

v1.0

| Type | File | Logic Contracts | Interfaces | Lines | nLines | nSLOC | Comment Lines | Complex. Score | Capabilities |
|---|--------------------------------|-----------------|------------|-------|--------|-------|---------------|----------------|---|
|  | contracts/GlobalGuideToken.sol | 1 | 1 | 265 | 157 | 121 | 16 | 146 |  |
|  | Totals | 1 | 1 | 265 | 157 | 121 | 16 | 146 |  |

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

High issues

No high issues

Medium issues

No medium issues

Low issues

| Issue | File | Type | Line | Description |
|-------|------|---------------------------|---------|---|
| #1 | Main | A floating pragma is set | 3 | The current pragma Solidity directive is „^0.8.0“. |
| #2 | Main | Local variables shadowing | 134,135 | Rename the local variables that shadow another component. In this case, "name" and "symbol" is shadowing the variable with the ERC20 contract's variables |

Informational issues

| Issue | File | Type | Line | Description |
|-------|------|-------------------------------|------|---|
| #1 | Main | Uninitialized local variables | 228 | Make sure to initialize all the variables |
| #2 | Main | NatSpec documentation missing | — | If you started to comment your code, also comment all other functions, variables etc. |

Audit Comments

We recommend you to use the special form of comments (NatSpec Format, Follow link for more information <https://docs.soliditylang.org/en/v0.5.10/natspec-format.html>) for your contracts to provide rich documentation for functions, return variables and more. This helps investors to make clear what that variables, functions etc. do.

01. August, 2022:

- There is still an owner (Owner still has not renounced ownership)
- There are multiple authorities in the contract apart from owner that can modify certain aspects of the contract even after the ownership is renounced.
- Read the whole report and modifiers section for more information.

SWC Attacks

| ID | Title | Relationships | Status |
|--------------------------|---|--|--------|
| SWC-1136 | Unencrypted Private Data On-Chain | CWE-767: Access to Critical Private Variable via Public Method | PASSED |
| SWC-1135 | Code With No Effects | CWE-1164: Irrelevant Code | PASSED |
| SWC-1134 | Message call with hardcoded gas amount | CWE-655: Improper Initialization | PASSED |
| SWC-1133 | Hash Collisions With Multiple Variable Length Arguments | CWE-294: Authentication Bypass by Capture-replay | PASSED |
| SWC-1132 | Unexpected Ether balance | CWE-667: Improper Locking | PASSED |
| SWC-1131 | Presence of unused variables | CWE-1164: Irrelevant Code | PASSED |

| | | | |
|---------------------------------|--|--|--------|
| 1 3 1 | | | |
| S W C : 1 3 0 | Right-To-Left- Override control character (U+202E) | CWE-451: User Interface (UI) Misrepresentation of Critical Information | PASSED |
| S W C : 1 2 9 | Typographical Error | CWE-480: Use of Incorrect Operator | PASSED |
| S W C : 1 2 8 | DoS With Block Gas Limit | CWE-400: Uncontrolled Resource Consumption | PASSED |
| S W C : 1 2 7 | Arbitrary Jump with Function Type Variable | CWE-695: Use of Low-Level Functionality | PASSED |
| S W C : 1 2 5 | Incorrect Inheritance Order | CWE-696: Incorrect Behavior Order | PASSED |
| S W C : : | Write to Arbitrary | CWE-123: Write-what-where Condition | PASSED |

| | | | |
|---|---|---|------------|
| <u>1</u> <u>2</u> <u>4</u> | Storage Location | | |
| <u>S</u> <u>W</u> <u>C</u> : <u>1</u> <u>2</u> <u>3</u> | Requirement Violation | CWE-573: Improper Following of Specification by Caller | PASSED |
| <u>S</u> <u>W</u> <u>C</u> : <u>1</u> <u>2</u> <u>2</u> | Lack of Proper Signature Verification | CWE-345: Insufficient Verification of Data Authenticity | PASSED |
| <u>S</u> <u>W</u> <u>C</u> : <u>1</u> <u>2</u> <u>1</u> | Missing Protection against Signature Replay Attacks | CWE-347: Improper Verification of Cryptographic Signature | PASSED |
| <u>S</u> <u>W</u> <u>C</u> : <u>1</u> <u>2</u> <u>0</u> | Weak Sources of Randomness from Chain Attributes | CWE-330: Use of Insufficiently Random Values | PASSED |
| <u>S</u> <u>W</u> <u>C</u> : <u>1</u> <u>1</u> <u>1</u> <u>9</u> | Shadowing State Variables | CWE-710: Improper Adherence to Coding Standards | NOT PASSED |

| | | | |
|---|---------------------------------------|--|--------|
| S W C : 1 1 8 | Incorrect Constructor Name | CWE-665: Improper Initialization | PASSED |
| S W C : 1 1 7 | Signature Malleability | CWE-347: Improper Verification of Cryptographic Signature | PASSED |
| S W C : 1 1 6 | Timestamp Dependence | CWE-829: Inclusion of Functionality from Untrusted Control Sphere | PASSED |
| S W C : 1 1 5 | Authorization through tx.origin | CWE-477: Use of Obsolete Function | PASSED |
| S W C : 1 1 4 | Transaction Order Dependence | CWE-362: Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition') | PASSED |
| S W C : 1 1 3 | DoS with Failed Call | CWE-703: Improper Check or Handling of Exceptional Conditions | PASSED |

| | | | |
|---|--------------------------------------|---|--------|
| S W C : 1 1 2 | Delegatecall to Untrusted Callee | CWE-829: Inclusion of Functionality from Untrusted Control Sphere | PASSED |
| S W C : 1 1 1 | Use of Deprecated Solidity Functions | CWE-477: Use of Obsolete Function | PASSED |
| S W C : 1 1 0 | Assert Violation | CWE-670: Always-Incorrect Control Flow Implementation | PASSED |
| S W C : 1 0 9 | Uninitialized Storage Pointer | CWE-824: Access of Uninitialized Pointer | PASSED |
| S W C : 1 0 8 | State Variable Default Visibility | CWE-710: Improper Adherence to Coding Standards | PASSED |
| S W C : 1 0 7 | Reentrancy | CWE-841: Improper Enforcement of Behavioral Workflow | PASSED |

| | | | |
|-----------|-----------------------------------|---|--------|
| SWC-10101 | Function Default Visibility | CWE-710: Improper Adherence to Coding Standards | PASSED |
|-----------|-----------------------------------|---|--------|





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