

**Blockchain Security | Smart Contract Audits** 

MADE IN GERMANY

# Audit Passed

Security Assessment 07. July, 2021



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# **Overview**

#### Network

Binance Smart Chain (BEP20)

#### Website

https://www.pofy.net/

### **Telegram**

https://t.me/PofyCoin

#### **Twitter**

https://twitter.com/PofyCoin

### **Description**

POFY is an auto-staking coin on the Binance Smart Chain that redistributes 3% of each transaction amongst all POFY hodlers proportionally. Watch your balance rise by the minute without even lifting your finger. 5% of each transaction is also automatically injected into the liquidity pool, giving POFY protocol the fuel for continuous bullish momentum and raising the price floor.

### **Project Engagement**

During the 25th of June, **POFY 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. **POFY Team** provided Solidproof.io with access to their code repository and whitepaper.





# **Contract Link**

https://bscscan.com/address/ 0x01eb0a6a3bcb1876ea751f6439fb55ee80d2ac09#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:

- OpenZeppelin
  - Address
  - Ownable
  - SafeMatch
- Uniswap
  - UniswapV2Factory
  - UniswapV2Pair
  - UniswapV2Router01
  - UniswapV2Router02

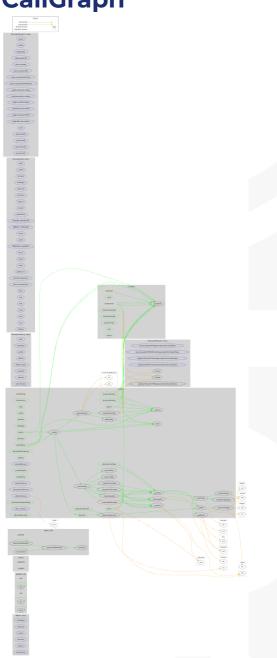
# Metrics Source Lines



# **Capabilities**

Solidity Versions observed	Experiment al Features	Can Receive Funds	Uses Assembly	Has Destroyable Contracts
^0.6.12		yes	yes (2 asm blocks)	

# **CallGraph**



# **Source Units in Scope**

Туре	File	Logic Contracts	Interfaces	Lines	nLines	nSLOC	Comment Lines	Complex. Score	Capabilities
<b>                   </b>	contracts/pofy.sol	5	5	1165	885	509	334	527	<b>■Š</b> *
<b> ≥ ≥ ≥ ≥ ≥ ≥ ≥ ≥ ≥ </b>	Totals	5	5	1165	885	509	334	527	<b>■</b> Šÿ

# **Audit Results**

# **AUDIT PASSED**

#### **Critical issues**

- no critical issues found -

# **High issues**

- no high issues found -

#### **Medium issues**

- no medium issues found -

#### Low issues

- no low issues found -

# Informational issues

Issue	File	Type	Line	Description
#1	Main	A floating pragma is set	26	The current pragma Solidity directive is ""^0.6.12""
#2	Main	Multiple calls are executed in the same transaction	763	This call is executed following another call within the same transaction. It is possible that the call never gets executed if a prior call fails permanently.

# **SWC Attacks**

ID	Title	Relationships	Status
<u>SW</u> <u>C-13</u> 1	Presence of unused variables	CWE-1164: Irrelevant Code	PASSED
<u>SW</u> <u>C-13</u> <u>O</u>	Right-To-Left- Override control character (U+202E)	CWE-451: User Interface (UI) Misrepresentation of Critical Information	PASSED
<u>SW</u> <u>C-12</u> <u>9</u>	Typographical Error	CWE-480: Use of Incorrect Operator	PASSED
<u>SW</u> <u>C-12</u> <u>8</u>	DoS With Block Gas Limit	CWE-400: Uncontrolled Resource Consumption	PASSED
<u>SW</u> <u>C-12</u> <u>7</u>	Arbitrary Jump with Function Type Variable	CWE-695: Use of Low-Level Functionality	PASSED
<u>SW</u> <u>C-12</u> <u>5</u>	Incorrect Inheritance Order	CWE-696: Incorrect Behavior Order	PASSED
<u>SW</u> <u>C-12</u> <u>4</u>	Write to Arbitrary Storage Location	CWE-123: Write-what-where Condition	PASSED
<u>SW</u> <u>C-12</u> <u>3</u>	Requirement Violation	CWE-573: Improper Following of Specification by Caller	PASSED
<u>SW</u> <u>C-12</u> <u>2</u>	Lack of Proper Signature Verification	CWE-345: Insufficient Verification of Data Authenticity	PASSED

<u>SW</u> <u>C-12</u> <u>1</u>	Missing Protection against Signature Replay Attacks	CWE-347: Improper Verification of Cryptographic Signature	PASSED
<u>SW</u> <u>C-12</u> <u>0</u>	Weak Sources of Randomness from Chain Attributes	CWE-330: Use of Insufficiently Random Values	PASSED
<u>SW</u> <u>C-11</u> <u>9</u>	Shadowing State Variables	CWE-710: Improper Adherence to Coding Standards	PASSED
<u>SW</u> <u>C-11</u> <u>8</u>	Incorrect Constructor Name	CWE-665: Improper Initialization	PASSED
<u>SW</u> <u>C-11</u> <u>7</u>	Signature Malleability	CWE-347: Improper Verification of Cryptographic Signature	PASSED
<u>SW</u> <u>C-11</u> <u>6</u>	Timestamp Dependence	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
<u>SW</u> <u>C-11</u> <u>5</u>	Authorization through tx.origin	CWE-477: Use of Obsolete Function	PASSED
<u>SW</u> <u>C-11</u> <u>4</u>	Transaction Order Dependence	CWE-362: Concurrent  Execution using Shared  Resource with Improper  Synchronization ('Race  Condition')	PASSED
<u>SW</u> <u>C-11</u> <u>3</u>	DoS with Failed Call	CWE-703: Improper Check or Handling of Exceptional Conditions	NOT PASSED
<u>SW</u> <u>C-11</u> <u>2</u>	Delegatecall to Untrusted Callee	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED

<u>SW</u> <u>C-111</u>	Use of Deprecated Solidity Functions	CWE-477: Use of Obsolete Function	PASSED
<u>SW</u> <u>C-11</u> <u>0</u>	Assert Violation	CWE-670: Always-Incorrect Control Flow Implementation	PASSED
<u>SW</u> <u>C-10</u> <u>9</u>	Uninitialized Storage Pointer	CWE-824: Access of Uninitialized Pointer	PASSED
<u>SW</u> <u>C-10</u> <u>8</u>	State Variable Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED
SW C-10 7	Reentrancy	CWE-841: Improper Enforcement of Behavioral Workflow	PASSED
<u>SW</u> <u>C-10</u> <u>6</u>	Unprotected SELFDESTRUC T Instruction	CWE-284: Improper Access Control	PASSED
<u>SW</u> <u>C-10</u> <u>5</u>	Unprotected Ether Withdrawal	CWE-284: Improper Access Control	PASSED
<u>SW</u> <u>C-10</u> <u>4</u>	Unchecked Call Return Value	CWE-252: Unchecked Return Value	PASSED
<u>SW</u> <u>C-10</u> <u>3</u>	Floating Pragma	CWE-664: Improper Control of a Resource Through its Lifetime	NOT PASSED
<u>SW</u> <u>C-10</u> <u>2</u>	Outdated Compiler Version	CWE-937: Using Components with Known Vulnerabilities	PASSED
<u>SW</u> <u>C-10</u> 1	Integer Overflow and Underflow	CWE-682: Incorrect Calculation	PASSED

<u>SW</u> <u>C-10</u> <u>0</u>	Function Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED
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