

# HEXNINJA AUDITS



Security Assessment

**Flame Token**

May 27, 2022

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# Audit Summary

This report has been prepared for Flame Token on the Binance Smart Chain network. CFGNINJA provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.



# Project Overview

## Token Summary

| Parameter     | Result  |
|---------------|---|
| Address       | 0x20D5BA6D5aa2A3dF3A632B493621D760E4c7965E  |
| Name          | Flame   |
| Token Tracker | Flame (FLM)   |
| Decimals      | 18  |
| Supply        | 100,000   |
| Platform      | Binance Smart Chain   |
| compiler      | v0.8.13+commit.abaa5c0e   |
| Contract Name | FlameToken  |
| Optimization  | Yes with 200 runs   |
| LicenseType   | MIT   |
| Language      | Solidity  |
| Codebase      | <a href="https://bscscan.com/token/0xe55bd75d7ce7bfde26a347a748d080d3acda7ffe">https://bscscan.com/token/0xe55bd75d7ce7bfde26a347a748d080d3acda7ffe</a> |
| Payment Tx    | 0xd9b4ae240866d84b664bc5786bb0708e45fd41e08f164be58787f954bcf11f36  |



# Project Overview

## Risk Analysis Summary

| Parameter        | Result |
|------------------|--------|
| Buy Tax          | 0%     |
| Sale Tax         | 0%     |
| Is honeypot?     | Clean  |
| Can edit tax?    | Yes    |
| Is anti whale?   | No     |
| Is blacklisted?  | No     |
| Is whitelisted?  | No     |
| Holders          | Clean  |
| Security Score   | 96/100 |
| Auditor Score    | 98/100 |
| Confidence Level | High   |

The following quick summary has been added to the project overview, however there are more details about the audit and their results please read every details.



## Main Contract Assessed

### Contract Name

| Name  | Contract                                   | Live |
|-------|--|------|
| Flame | 0x20D5BA6D5aa2A3dF3A632B493621D760E4c7965E | Yes  |

## TestNet Contract Assessed

### Contract Name

| Name  | Contract                                   | Live |
|-------|--|------|
| Flame | 0xB7EDbDB82c8b77acA773D4a5FB984C1c65fb6cFc | Yes  |

## Solidity Code Provided

| SolID      | File Sha-1                               | FileName               |
|------------|--|------------------------|
| FlameToken | 32f17f31ee157610aadf36a9fade7395be52855f | FlameToken.sol         |
| FlameToken | fc782584021a4700f9f7086ba8e78c8d36a59c52 | IPancakeSwapRouter.sol |
| FlameToken | 5f49a5f88207fafa7dbc5d97e5cb025bda7864a9 | ITokenLocker.sol       |





# Smart Contract Vulnerability Checks

| Vulnerability   | Automatic Scan | Manual Scan | Result        |
|---|----------------|-------------|---------------|
| Unencrypted Private Data On-Chain                       | Complete       | Complete    | Low / No Risk |
| Code With No Effects                                    | Complete       | Complete    | Low / No Risk |
| Message call with hardcoded gas amount                  | Complete       | Complete    | Low / No Risk |
| Hash Collisions With Multiple Variable Length Arguments | Complete       | Complete    | Low / No Risk |
| Unexpected Ether balance                                | Complete       | Complete    | Low / No Risk |
| Presence of unused variables                            | Complete       | Complete    | Low / No Risk |
| Right-To-Left-Override control character (U+202E)       | Complete       | Complete    | Low / No Risk |
| Typographical Error                                     | Complete       | Complete    | Low / No Risk |
| DoS With Block Gas Limit                                | Complete       | Complete    | Low / No Risk |
| Arbitrary Jump with Function Type Variable              | Complete       | Complete    | Low / No Risk |
| Insufficient Gas Griefing                               | Complete       | Complete    | Low / No Risk |
| Incorrect Inheritance Order                             | Complete       | Complete    | Low / No Risk |
| Write to Arbitrary Storage Location                     | Complete       | Complete    | Low / No Risk |
| Requirement Violation                                   | Complete       | Complete    | Low / No Risk |
| Missing Protection against Signature Replay Attacks     | Complete       | Complete    | Low / No Risk |



# Mint Check

The Project Owners of Flame does not have a mint function in the contract, owner cannot mint tokens after initial deploy

..

The Project has a Total Supply of 100,000 and cannot mint any more than the Max Supply.

.

Mint Notes:

Auditor Notes:

Project Owner Notes:



Owner can't mint new coins





# Fees Check

The Project Owners of Flame does not have the ability to set fees higher than 25% .

Team May have fees defined, however they dont have the ability to set those fees higher than 25%.

**Tax Fee Notes:**

**Auditor Notes:** Contract don't have a tax by default so is set at 0 tax currently, however there is function to update the tax and this one cannot be higher than 20%

**Project Owner Notes:** .



**Fees can be changed up to a maximum of 25%**



# MaxTx Check

The Project Onwers of Flame does not has the ability to set max tx amount

The Team allow any investors to swap, transfer or sale their total amount if needed.

**Project Has No MaxTX**



# Pause Trade Check

The Project Owners of Flame Owner can pause trading but he can't move tokens (Owner can't pause trading)

The Team has done a great job to avoid stop trading, and investors has the ability to trade at any given time without any problems

Pause Trade Notes:

Auditor Notes:

Project Owner Notes:



**Owner can't pause trading**



# Contract Ownership

The contract ownership of Flame is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address `0x3cc6a3fa5bECF00B585E4575537F03d24891bD70` which can be viewed from:  
[HERE](#)

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner wallet is compromised this privileges could be exploited.

We recommend the team to renounce ownership at the right timing if possible, or gradually migrate to a timelock with governing functionalities in respect of transparency and safety considerations.

We recommend the team to use a Multisignature Wallet if contract is not going to be renounced, this will give the ability to the team to have more control over the contract.

# Liquidity Ownership

The token does not have liquidity at the moment of the audit, block `17670820`



# KYC Information

The Project Onwers of Flame has provided KYC Documentation.

KYC Certificated can be found on the Following:  
[KYC Data](#)

## KYC Information Notes:

**Auditor Notes:** Asked project owner about KYC.

**Project Owner Notes:** Customer is KYC with PinkSale



# Mythx Security Summary Checks

| ID      | Severity | Name   | File           | location  |
|---------|----------|--|----------------|-----------|
| SWC-100 | Pass     | Function Default Visibility                          | FlameToken.sol | L: 0 C: 0 |
| SWC-101 | Pass     | Integer Overflow and Underflow.                      | FlameToken.sol | L: 0 C: 0 |
| SWC-102 | Pass     | Outdated Compiler Version file.                      | FlameToken.sol | L: 0 C: 0 |
| SWC-103 | Pass     | A floating pragma is set.                            | FlameToken.sol | L: 5 C: 0 |
| SWC-104 | Pass     | Unchecked Call Return Value.                         | FlameToken.sol | L: 0 C: 0 |
| SWC-105 | Pass     | Unprotected Ether Withdrawal.                        | FlameToken.sol | L: 0 C: 0 |
| SWC-106 | Pass     | Unprotected SELFDESTRUCT Instruction                 | FlameToken.sol | L: 0 C: 0 |
| SWC-107 | Pass     | Read of persistent state following external call.    | FlameToken.sol | L: 0 C: 0 |
| SWC-108 | Low      | State variable visibility is not set..               | FlameToken.sol | L: 0 C: 0 |
| SWC-109 | Pass     | Uninitialized Storage Pointer.                       | FlameToken.sol | L: 0 C: 0 |
| SWC-110 | Pass     | Assert Violation.                                    | FlameToken.sol | L: 0 C: 0 |
| SWC-111 | Pass     | Use of Deprecated Solidity Functions.                | FlameToken.sol | L: 0 C: 0 |
| SWC-112 | Pass     | Delegate Call to Untrusted Callee.                   | FlameToken.sol | L: 0 C: 0 |
| SWC-113 | Pass     | Multiple calls are executed in the same transaction. | FlameToken.sol | L: 0 C: 0 |



| ID      | Severity | Name   | File           | location     |
|---------|----------|--|----------------|--------------|
| SWC-114 | Pass     | Transaction Order Dependence.  | FlameToken.sol | L: 0 C: 0    |
| SWC-115 | Pass     | Authorization through tx.origin.   | FlameToken.sol | L: 474 C: 15 |
| SWC-116 | Pass     | A control flow decision is made based on The block.timestamp environment variable. | FlameToken.sol | L: 0 C: 0    |
| SWC-117 | Pass     | Signature Malleability.  | FlameToken.sol | L: 0 C: 0    |
| SWC-118 | Pass     | Incorrect Constructor Name.  | FlameToken.sol | L: 0 C: 0    |
| SWC-119 | Pass     | Shadowing State Variables.   | FlameToken.sol | L: 0 C: 0    |
| SWC-120 | Pass     | Potential use of block.number as source of randomness.                             | FlameToken.sol | L: 0 C: 0    |
| SWC-121 | Pass     | Missing Protection against Signature Replay Attacks.                               | FlameToken.sol | L: 0 C: 0    |
| SWC-122 | Pass     | Lack of Proper Signature Verification.   | FlameToken.sol | L: 0 C: 0    |
| SWC-123 | Low      | Requirement Violation.   | FlameToken.sol | L: 0 C: 0    |
| SWC-124 | Pass     | Write to Arbitrary Storage Location.   | FlameToken.sol | L: 0 C: 0    |
| SWC-125 | Pass     | Incorrect Inheritance Order.   | FlameToken.sol | L: 0 C: 0    |
| SWC-126 | Pass     | Insufficient Gas Griefing.   | FlameToken.sol | L: 0 C: 0    |
| SWC-127 | Pass     | Arbitrary Jump with Function Type Variable.  | FlameToken.sol | L: 0 C: 0    |
| SWC-128 | Pass     | DoS With Block Gas Limit.  | FlameToken.sol | L: 0 C: 0    |





| ID      | Severity | Name   | File           | location  |
|---------|----------|--|----------------|-----------|
| SWC-129 | Pass     | Typographical Error.                                     | FlameToken.sol | L: 0 C: 0 |
| SWC-130 | Pass     | Right-To-Left-Override control character (U+202E).       | FlameToken.sol | L: 0 C: 0 |
| SWC-131 | Pass     | Presence of unused variables.                            | FlameToken.sol | L: 0 C: 0 |
| SWC-132 | Pass     | Unexpected Ether balance.                                | FlameToken.sol | L: 0 C: 0 |
| SWC-133 | Pass     | Hash Collisions with Multiple Variable Length Arguments. | FlameToken.sol | L: 0 C: 0 |
| SWC-134 | Pass     | Message call with hardcoded gas amount.                  | FlameToken.sol | L: 0 C: 0 |
| SWC-135 | Pass     | Code With No Effects (Irrelevant/Dead Code).             | FlameToken.sol | L: 0 C: 0 |
| SWC-136 | Pass     | Unencrypted Private Data On-Chain.                       | FlameToken.sol | L: 0 C: 0 |

We scan the contract for additional security issues using MYTHX and industry standard security scanning tool



# Security Check Details Page

## SWC-108 – State Variable Default Visibility

CWE-710: Improper Adherence to Coding Standards

Description:

Labeling the visibility explicitly makes it easier to catch incorrect assumptions about who can access the variable.

Remediation:

Variables can be specified as being public, internal or private. Explicitly define visibility for all state variables.

References:

Ethereum Smart Contract Best Practices – Explicitly mark visibility in functions and state variables

## SWC-123 – Requirement Violation

CWE-573: Improper Following of Specification by Caller

Description:

The Solidity `require()` construct is meant to validate external inputs of a function. In most cases, such external inputs are provided by callers, but they may also be returned by callees. In the former case, we refer to them as precondition violations. Violations of a requirement can indicate one of two possible issues:

- A bug exists in the contract that provided the external input.
- The condition used to express the requirement is too strong.

Remediation:

If the required logical condition is too strong, it should be weakened to allow all valid external inputs. Otherwise, the bug must be in the contract that provided the external input and one should consider fixing its code by making sure no invalid inputs are provided.

References:



The use of `revert()`, `assert()`, and `require()` in Solidity, and the new REVERT opcode in the EVM

**SWC Information Notes:**

**Auditor Notes:**

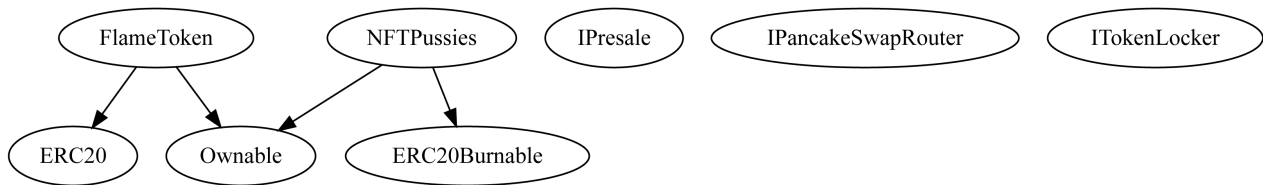
**Project Owner Notes:**



# Call Graph and Inheritance

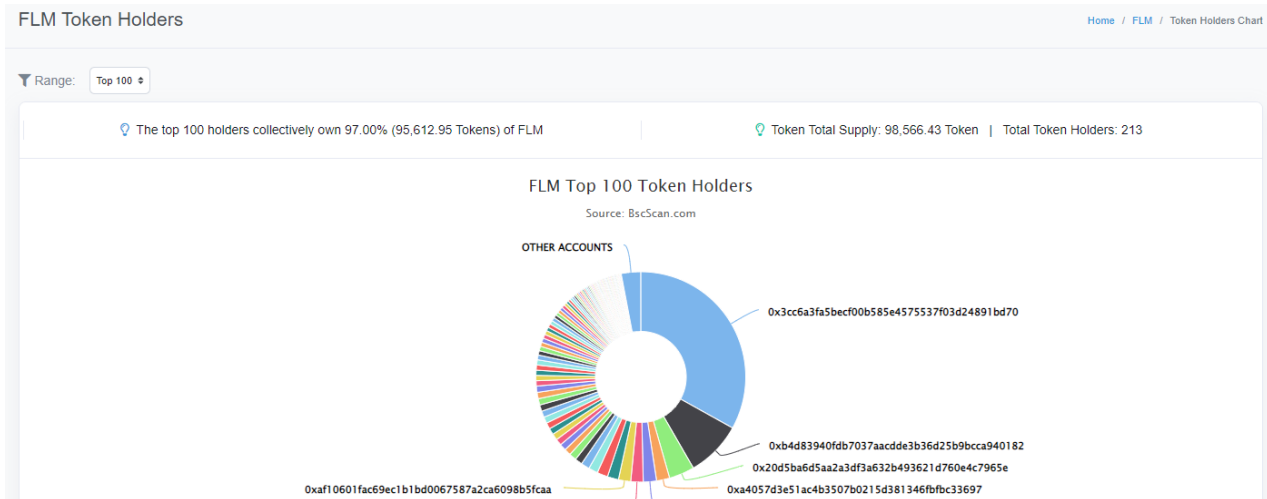
The contract for Flame has the following call graph structure

The Project has a Total Supply of 100,000 and has the following inheritance



# Top Token Holders

The contract for Flame has the following top token holders



## Privileged Functions (onlyOwner)

| Function Name     | Parameters   | Visibility |
|-------------------|--|------------|
| renounceOwnership | none   | public     |
| transferOwnership | address newOwner                                     | public     |
| setBuyTax         | _enable bool   | external   |
| setSellTax        | _pool(address)                                       | external   |
| setAllTaxes       | _transferTax uint256, _sell<br>uint256, _buy uint256 | external   |
| setMainRouter     | _contract address, _tax uint256                      | external   |



## Important Notes To The Users:

- NFT Pussies team is very responsive, we have asked the team to do several revisions of their contract and they have made those improvements.
- The team currently have a KYC with PinkSale.
- Owner can't charge fees up to 25%.
- Owner can't set max tx amount.
- Owner can pause trading.
- No high-risk Exploits/Vulnerabilities Were Found in the Source Code.

## Audit Passed





# Social Media Checks

| Social Media | URL   | Result |
|--------------|---|--------|
| Twitter      | <a href="https://twitter.com/Stake_Protocol">https://twitter.com/Stake_Protocol</a>   | Pass   |
| Reddit       | <a href="https://stake-protocol.medium.com/introducing-a-game-changer-15f403c53804">https://stake-protocol.medium.com/introducing-a-game-changer-15f403c53804</a> | Pass   |
| Website      | <a href="https://stakeprotocol.app/">https://stakeprotocol.app/</a>   | Pass   |
| Telegram     | <a href="http://T.me/stakeprotocolportal">http://T.me/stakeprotocolportal</a>   | Pass   |

We recommend to have 3 or more social media sources including a completed working websites.

**Social Media Information Notes:**

**Auditor Notes:** undefined

**Project Owner Notes:**



# Disclaimer

CFGNINJA has conducted an independent audit to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the codes that were provided for the scope of this audit. This audit report does not constitute agreement, acceptance or advocacy for the Project that was audited, and users relying on this audit report should not consider this as having any merit for financial advice in any shape, form or nature. The contracts audited do not account for any economic developments that may be pursued by the Project in question, and that the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are completely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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