SPYWOLF

Security Audit Report

Audit prepared for

GameSingCat

Completed on

June 4, 2024

KEY RESULTS

Cannot mint new tokens	**Passed**
Cannot pause trading (honeypot)	**Not Passed**
Cannot blacklist an address	**Passed**
Cannot raise taxes over 25%?	**Not Passed**
No proxy contract detected	**Passed**
Not required to enable trading	**Passed**
No hidden ownership	**Passed**
Cannot change the router	**Passed**
No cooldown feature found	**Passed**
Bot protection delay is lower than 5 blocks	**Passed**
Cannot set max tx amount below 0.05% of total supply	**Passed**
The contract cannot be self-destructed by owner	**Passed**

For a more detailed and thorough examination of the heightened risks, refer to the subsequent parts of the report.

N/A = Not applicable for this type of contract

*Only new deposits/reinvestments can be paused

OVERVIEW

This goal of this report is to review the main aspects of the project to help investors make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✔ Contract's source code
- ✔ Owners' wallets
- ✔ Tokenomics
- ✔ Team transparency and goals
- ✔ Website's age, code, security and UX
- ✔ Whitepaper and roadmap
- ✔ Social media & online presence

> *The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal*
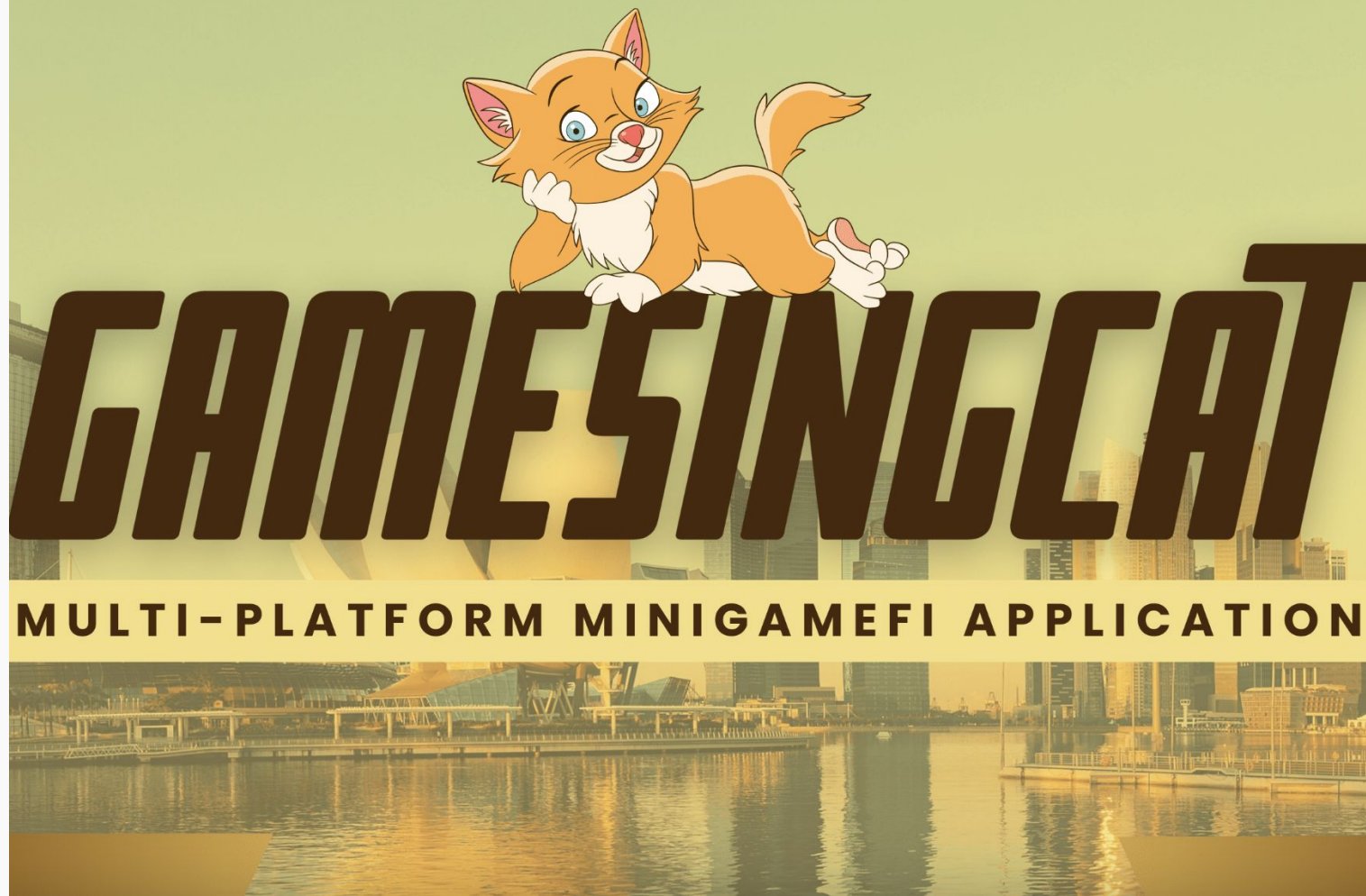>
> – SPYWOLF Team –

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GAMESINGCAT

MULTI-PLATFORM MINIGAMEFI APPLICATION

PROJECT DESCRIPTION

According to their website:

Gamesingcat is the most progressive combination of the words game and finance. It refers to blockchain games played for money, providing economic incentives to players.

Gamesingcat uses cryptocurrencies, non-fungible tokens (NFTs) and blockchain technology to create a simple and effective gaming environment. Highly beneficial and not time consuming.

Release Date: Launched June 4th, 2024
Category: Play To Earn (P2E)

01

CONTRACT INFO

Token Name
GameSingCat

Symbol
SGC

Contract Address
0x881c83BcEa5c8e3cf43c6d9A3A0FA3C6eBcac3FA

Network
Binance Smart Chain

Language
Solidity

Deployment Date
Jun 03, 2024

Contract Type
Token with taxes

Total Supply
1,000,000,000

Status
Launched

TAXES

Buy Tax
5%

Sell Tax
10%

*Taxes can be changed in future

Our Contract Review Process

The contract review process pays special attention to the following:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities
- ✓ Assessing the codebase to ensure compliance with current best practices and industry standards.
- ✓ Ensuring contract logic meets the specifications and intentions of the client.
- ✓ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat

TOKEN TRANSFERS STATS

Transfer Count	57
Uniq Senders	10
Uniq Receivers	12
Total Amount	2000022209.2563822 SGC
Median Transfer Amount	21.975386484152306 SGC
Average Transfer Amount	35088108.93432249 SGC
First transfer date	2024-06-03
Last transfer date	2024-06-04
Days token transferred	2

SMART CONTRACT STATS

Calls Count	126
External calls	6
Internal calls	120
Transactions count	26
Uniq Callers	13
Days contract called	2
Last transaction time	2024-06-04 11:08:35 UTC
Created	2024-06-03 11:22:21 UTC
Create TX	0x0bc88984c5311fc696cf94534682461d4ab20d1d93d62af3dafbfb812bf7f4c0
Creator	0x96bf5e15ad0abd0d9e0c30062f60fbe72ddf08f9

03

FEATURED WALLETS

Owner address	0x96bF5e15AD0aBd0D9E0c30062f60FbE72Ddf08f9
Marketing fee receiver	0x11E2Ee98Bc2194AE72d0C1792008D3c0B8bc6E2d
LP address	**Pancakeswap:** 0xD18D4B28bf6Def9f4164be03f1Ab2Af6378BF607 **100% unlocked**

TOP 3 UNLOCKED WALLETS

99.99%	0x477461DaE2e0D8eD233E67A43084B27e2358E28D
0.002%	0xD18D4B28bf6Def9f4164be03f1Ab2Af6378BF607 Liquidity pair

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VULNERABILITY ANALYSIS

ID	Title	
SWC-100	Function Default Visibility	Passed
SWC-101	Integer Overflow and Underflow	Passed
SWC-102	Outdated Compiler Version	Low Risk
SWC-103	Floating Pragma	Passed
SWC-104	Unchecked Call Return Value	Passed
SWC-105	Unprotected Ether Withdrawal	Passed
SWC-106	Unprotected SELFDESTRUCT Instruction	Passed
SWC-107	Reentrancy	Passed
SWC-108	State Variable Default Visibility	Passed
SWC-109	Uninitialized Storage Pointer	Passed
SWC-110	Assert Violation	Passed
SWC-111	Use of Deprecated Solidity Functions	Passed
SWC-112	Delegatecall to Untrusted Callee	Passed
SWC-113	DoS with Failed Call	Passed
SWC-114	Transaction Order Dependence	Passed
SWC-115	Authorization through tx.origin	Passed
SWC-116	Block values as a proxy for time	Passed
SWC-117	Signature Malleability	Passed
SWC-118	Incorrect Constructor Name	Passed

05-A

VULNERABILITY ANALYSIS

ID	Title	
SWC-119	Shadowing State Variables	Passed
SWC-120	Weak Sources of Randomness from Chain Attributes	Passed
SWC-121	Missing Protection against Signature Replay Attacks	Passed
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Requirement Violation	Passed
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	Arbitrary Jump with Function Type Variable	Passed
SWC-128	DoS With Block Gas Limit	Passed
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control character (U+202E)	Passed
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Passed
SWC-134	Message call with hardcoded gas amount	Passed
SWC-135	Code With No Effects	Passed
SWC-136	Unencrypted Private Data On-Chain	Passed

05-B

VULNERABILITY ANALYSIS
ERRORS FOUND

SWC-102: Outdated Compiler Version

Using an outdated compiler version can be problematic especially if there are publicly disclosed bugs and issues that affect the current compiler version.

🟨 Low Risk

```
// SPDX-License-Identifier: MIT

pragma solidity >=0.6.0 <0.8.0;
```

MANUAL
CODE REVIEW

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time.

We categorize these vulnerabilities by 4 different threat levels.

THREAT LEVELS

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance, functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.

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FOUND THREATS

⚠️ High Risk

Owner can set marketing wallet to any address.
If marketing wallet is set to inappropriate address (contract) that
cannot receive BNB, contract will halt when it tries to send the
marketing share to marketing address.

```solidity
function setMarketingWallet(address _marketingAddress) external onlyOwner {
    marketingAddress = _marketingAddress;
    isExcludedFromFees[_marketingAddress] = true;
}

function _transfer(address sender, address recipient, uint256 amount) internal override {
    uint256 contractBalance = balanceOf(address(this));
    if (contractBalance > MIN_SWAP && !inSwap && sender != pair) {
      _swapTokensForETH(contractBalance);
      payable(marketingAddress).transfer(address(this).balance);
      ..............................
}
```

- Recommendation:
    - Ensure that marketing address is always EOA (externally owned account) and cannot be set to contract address.

08-A

FOUND THREATS

⚠️ High Risk

Owner can set buy/sell fees without any limitations.

```
function setBuyFeePercent(uint256 _buyFeePercent) external onlyOwner {
    buyFeePercent = _buyFeePercent;
}

function setSellFeePercent(uint256 _sellFeePercent) external onlyOwner {
    sellFeePercent = _sellFeePercent;
}
```

- Recommendation:
  - Considered as good practice is that buy and sell fees combined not to exceed 25%.

08-B

FOUND THREATS

ⓘ Informational

Owner can exclude address from fees.
When address is excluded from fees, the user will receive the whole amount of the bought, sold and/or transferred tokens.

```
function setExcludedFromFees(address account, bool excluded) external onlyOwner {
    isExcludedFromFees[account] = excluded;
}
```

The following tokenomics are based on
BSCScan:

- 99.998% - Owner
- 0.002% - Liquidity pair

TOKENOMICS

Website URL
https://gamesingcat.app/

Domain Registry
https://www.namecheap.com/

Domain Expiration
2024-05-06

Technical SEO Test
Passed

Security Test
Passed. SSL certificate present

Design
Single page design with appropriate color scheme and graphics.

Content
The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper
No

Roadmap
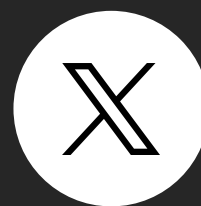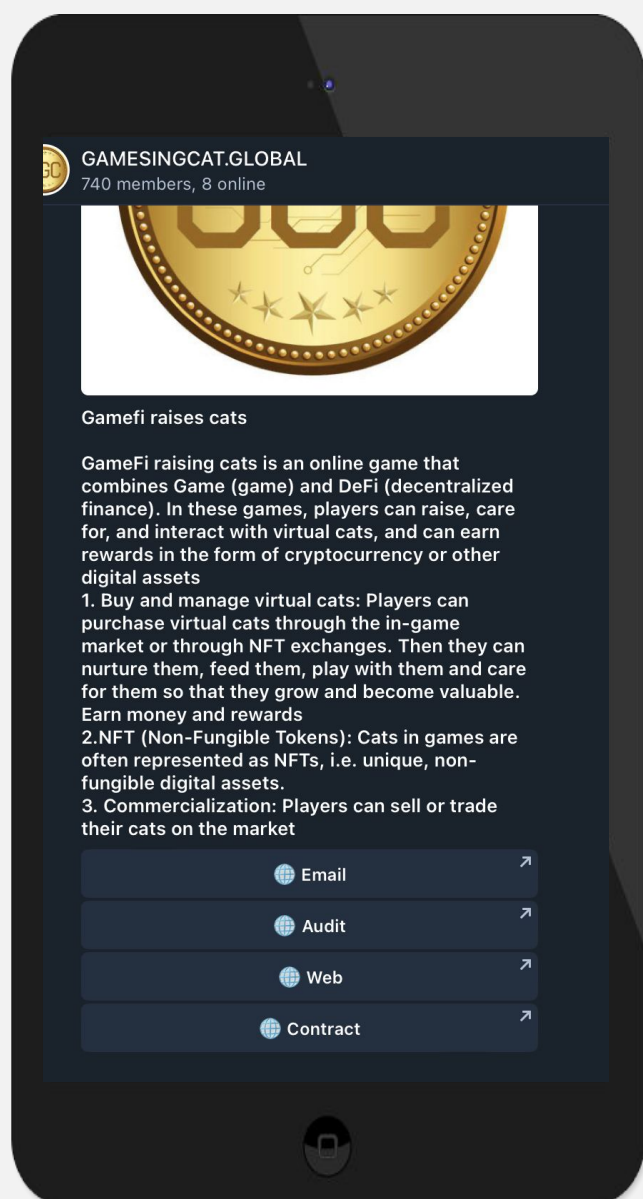Yes, goals set with time frames.

Mobile-friendly?

Yes

GO TO APP

NEWS BLOCKCHAIN
MINIGAMEFI
GAMESINGCAT

GAMESINGCAT

gamesingcat.app

SOCIAL MEDIA
& ONLINE PRESENCE

GAMESINGCAT.GLOBAL
740 members, 8 online

Gamefi raises cats

GameFi raising cats is an online game that combines Game (game) and DeFi (decentralized finance). In these games, players can raise, care for, and interact with virtual cats, and can earn rewards in the form of cryptocurrency or other digital assets
1. Buy and manage virtual cats: Players can purchase virtual cats through the in-game market or through NFT exchanges. Then they can nurture them, feed them, play with them and care for them so that they grow and become valuable. Earn money and rewards
2.NFT (Non-Fungible Tokens): Cats in games are often represented as NFTs, i.e. unique, non-fungible digital assets.
3. Commercialization: Players can sell or trade their cats on the market

🌐 Email
🌐 Audit
🌐 Web
🌐 Contract

Twitter's X

- Not available

Discord

- Not available

Telegram

@choitaichinh

- 740 members
- No active members
- No active mods

Medium

- Not available

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SPYWOLF

CRYPTO SECURITY

Audits | KYCs | dApps
Contract Development

ABOUT US

We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

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- ✔ **MILLIONS SAVED IN POTENTIAL FRAUD**

- ✔ **PARTNERSHIPS WITH TOP LAUNCHPADS, INFLUENCERS AND CRYPTO PROJECTS**

- ✔ **CONSTANTLY BUILDING TOOLS TO HELP INVESTORS DO BETTER RESEARCH**

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency 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 disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.