CRACKEN

Smart Contract Security Audit

Project: Dog Pet

Jun 22, 2024

Contract Address

0x21dfe97101717ed7f562da5D1Ccbceef8fef33c3

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Disclaimer

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The review does not address the compiler layer, any other areas beyond the programming language, or other programming aspects that could present security risks. If the audited source files are smart contract files, risks or issues introduced by using data feeds from off-chain sources are not extended by this review either.

Audit Review

The source code of the Dog Pet Coin was audited in order to acquire a clear impression of how the project was implemented. The Cracken Tech audit team conducted in-depth research, analysis, and scrutiny, resulting in a series of observations. A detailed list of each issue found, and vulnerabilities in the source code will be included in the audit report. The problems and potential solutions are given in this report, we will identify common sources for such problems and comments for improvement.

The auditing process will follow a routine as special considerations by Cracken:

- Review of the specifications, sources, and instructions provided to Cracken to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Cracken describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code is exercised when we run the test cases.
- Symbolic execution is analyzing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.

Project Review

Token Summary

Parameter	Result
Token Name	DOGPET
Token Symbol	DOGPET
Token Decimal	18
Total Supply	21,000,000,000
Platform	BSC
Buy Tax Fee	6%
Sell Tax Fee	6%
Contract Creation Date	Jun 20, 2024
Liquidity Status	Unavailable when audit
Liquidity Lockup Time	Unknown Lock
Compiler Version	v0.8.19+commit.7dd6d404
Optimization	Yes with 200 runs
Contract Address	0x21dfe97101717ed7f562da5D1Ccbceef8fef33c3
Deployer Address	0x8983526daeb30f9c98A0F192f11d8ae83824A2aB
Owner Address	0x8983526daeb30f9c98A0F192f11d8ae83824A2aB

Source Code

CRACKEN was commissioned by Dog Pet Coin to perform an audit based on the following smart contract:

https://bscscan.com/token/0x21dfe97101717ed7f562da5d1ccbceef8fef33c3#code

Smart Contract Vulnerability Checks

Vulnerability	Auto-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 Grieving	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
Weak Sources of Randomness from Chain Attributes	Complete	Complete	Low / No Risk
Authorization through tx. origin	Complete	Complete	Low / No Risk
Delegate call to Untrusted Callee	Complete	Complete	Low / No Risk

Vulnerability	Auto-Scan	Manual-Scan	Result
Use of Deprecated Solidity Functions	Complete	Complete	Low / No Risk
Assert Violation	Complete	Complete	Low / No Risk
Reentrancy	Complete	Complete	Low / No Risk
Unprotected SELF-DESTRUCT Instruction	Complete	Complete	Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	Low / No Risk
Outdated Compiler Version	Complete	Complete	Low / No Risk
Integer Overflow and Underflow	Complete	Complete	Low / No Risk
Function Default Visibility	Complete	Complete	Low / No Risk

Manual Code Review

Classification of Issues

Severity	Description
High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
Informational	A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
High-Risk	0
Medium-Risk	0
Low-Risk	0
Informational	1
Total	1

Informational: Implementation of certain corrective actions or accepting the risk.

Set swap and transfer fees

Description:

The owner can reduce the amount argument by 0.1%. [ACKNOLEDGE]

```
function _swapAndTransferFees(address from, uint256 amount, bool isSell) private
nonReentrant {
        uint256 fee = amount * _FEE / 100;
        lastFoundationAmount += fee;
        lastMarketAmount += fee;

        super._transfer(from, address(this), fee * 2);
        super._transfer(from, dividendAddress, fee);

        if (isSell) {
            _sellSwapToWeight(lastFoundationAmount, foundationAddress);
            _sellSwapToWeight(lastMarketAmount, marketAddress);
            lastFoundationAmount = 0;
            lastMarketAmount = 0;
        }
    }
```

Recommendation:

We recommend to remove the or clarify the amount.

Privileged Functions

onlyOwner

Function Name	Parameters	Visibility
approve	address spender, uint256 amount	Public
transferFrom	address from, address to, uint256 amount	Public
allowance	address owner, address spender	Public
increaseAllowance	address spender, uint256 addedValue	Public
decreaseAllowance	address spender, uint256 subtractedValue	Public
mint	address account, uint256 amount	Internal
spendAllowance	address owner, address spender, uint256 amount	Internal
handleSell	address from, address to, uint256 amount	Private
handleBuy	address from, address to, uint256 amount	Private
swapAndTransferFees	address from, uint256 amount, bool isSell	Private
sellSwapToWeight	uint256 amount, address to	External
destroyTokens	None	Private
transfer	address to, uint256 amount	Public
setAddLiquidityAddress	address liquidityAddress, bool status	External
renounceOwnership	None	Public
transferOwnership	address newOwner	Public

Contract Ownership

The contract ownership of Dog Pet Coin is not currently being 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 0x8983526daeb30f9c98A0F192f11d8ae83824A2aB which can be viewed: HERE

The owner wallet has the power to call the functions displayed on the privileged functions list above, if the owner wallet is compromised these privileges could be exploited.

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

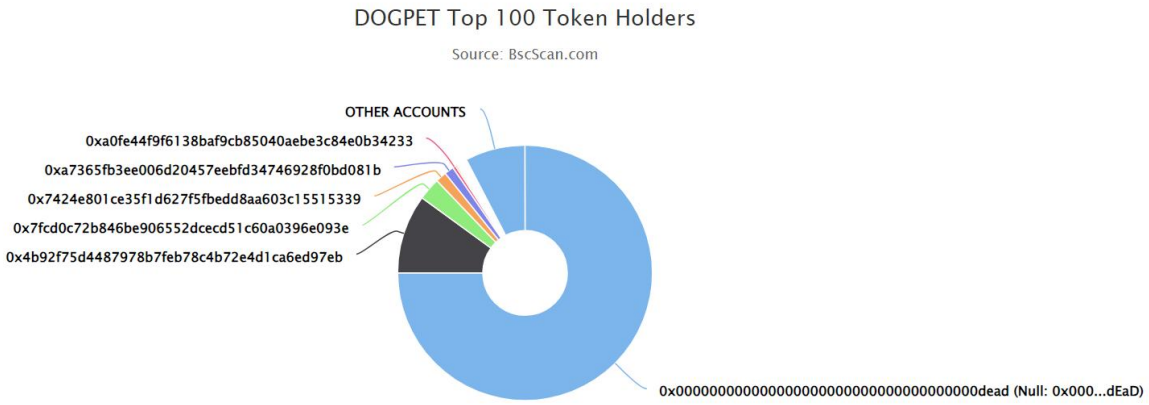
Liquidity Overview

Liquidity Information

Parameter	Result
Pair Address	0x1cdefd394a8144381ea1626bd51bb81818686a77
Dog Pet Reserves	263.09M Dog Pet
USDT Reserves	106.02K USDT
Liquidity Value	$212.08 USD
Liquidity Ownership	Unlock

Tokenomics

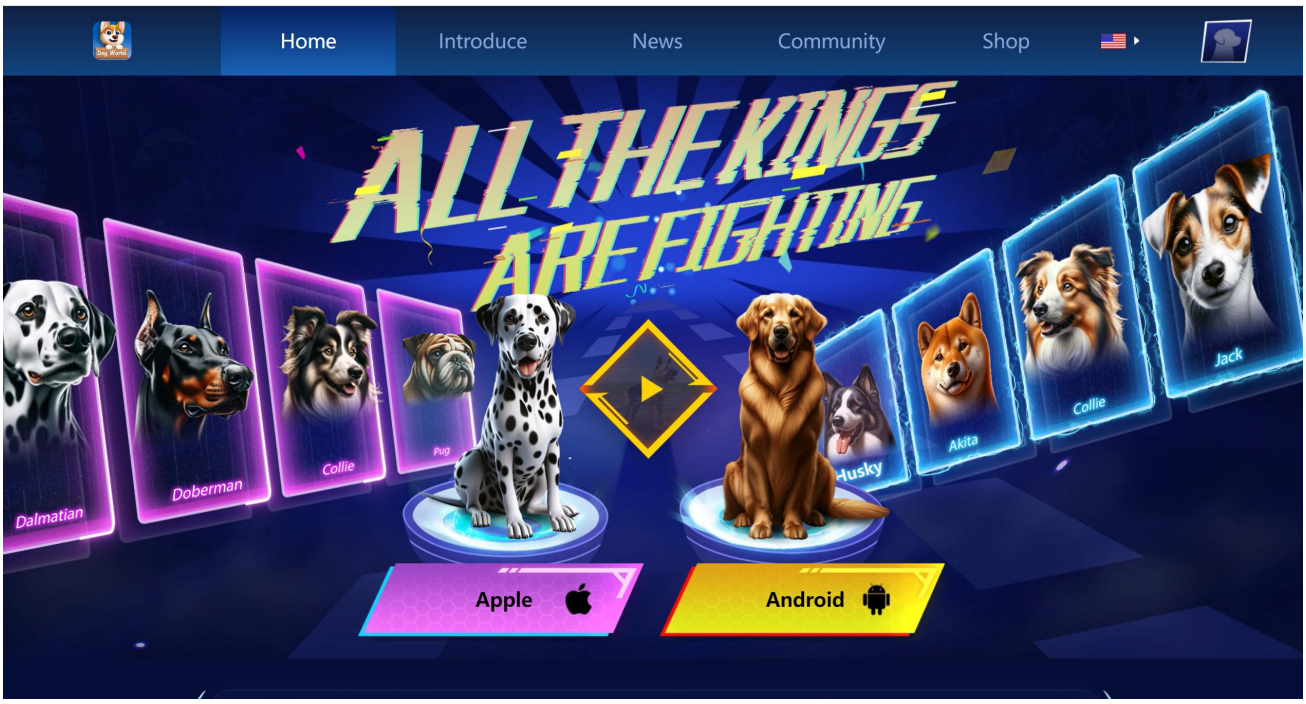
Rank	Address	Quantity (Token)	Percentage
1	0x000000000000000000000000000000000000dEaD	15,750,000,000	75.0000%
2	0x4B92F75d4487978b7fEB78C4b72E4d1Ca6ED97EB	2,100,000,000	10.0000%
3	0x7fCD0c72B846bE906552DceCD51C60a0396E093e	600,000,750	2.8571%
4	0x7424E801Ce35F1D627F5fBEDd8aa603c15515339	288,421,2550	1.3734%
5	0xa7365Fb3eE006d20457EeBfd34746928F0BD081b	250,200,000	1.1914%

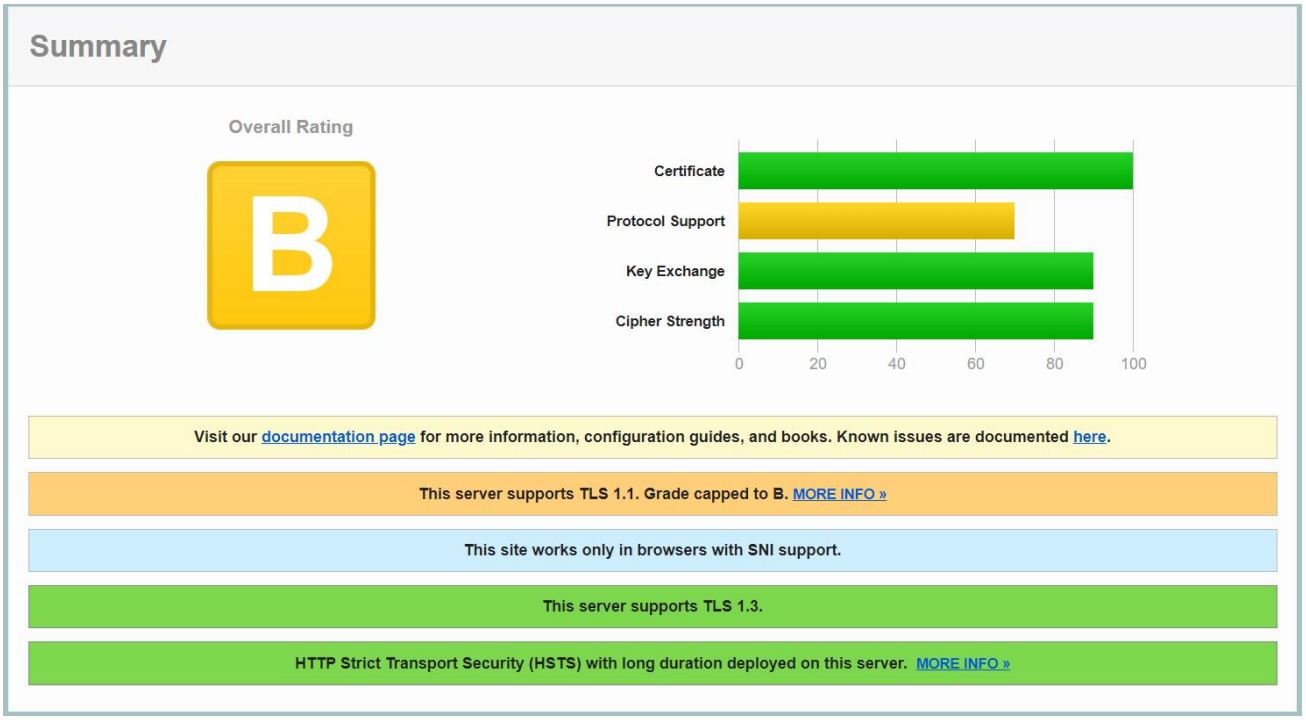


Social Media Check

Social Media Type	Link	Result
Website	https://dogpet.world/	Checked
Twitter	https://x.com/PetWorld8/	Checked
Telegram	https://t.me/PetWorld8/	Checked

Website Review





- Mobile Friendly
- Contains no code errors
- SSL is secured
- No spelling errors

Audit Conclusion

- The owner cannot pause trading
- The owner cannot mint new tokens
- The owner cannot set the max transaction amount
- The owner cannot change the buy/sell fee
- The owner cannot set wallet max limit
- The owner cannot blacklist wallets

  (All functions cannot be used if the ownership is renounced)

AUDIT IS PASSED